European Colorectal Congress

28 November – 1 December 2022, St.Gallen, Switzerland

Monday, 28 November 2022

09.50
Opening and welcome
Jochen Lange, St.Gallen, CH

10.00
It is leaking! Approaches to salvaging an anastomosis
Willem Bemelman, Amsterdam, NL

10.30
Predictive and diagnostic markers of anastomotic leak
Andre D'Hoore, Leuven, BE

11.00
SATELLITE SYMPOSIUM
ETHICON

11.45
Of microbes and men – the unspoken story of anastomotic leakage
James Kinross, London, UK

12.15
LUNCH

13.45
Operative techniques to reduce anastomotic recurrence in Crohn's disease
Laura Hancock, Manchester, UK

14.15
Innovative approaches in the treatment of complex Crohn Diseases perianal fistula
Christianne Buskens, Amsterdam, NL

14.45
To divert or not to divert in Crohn surgery – technical aspects and patient factors
Pär Myrelid, Linköping, SE

15.15
COFFEE BREAK

15.45
Appendiceal neoplasia – when to opt for a minimal approach, when and how to go for a maximal treatment
Tom Cecil, Basingstoke, Hampshire, UK

16.15
SATELLITE SYMPOSIUM
Medtronic
Further.Together

17.00
Outcomes of modern induction therapies and Wait and Watch strategies, Hope or Hype
Antonino Spinelli, Milano, IT

17.30
EAES Presidential Lecture - Use of ICG in colorectal surgery: beyond bowel perfusion
Salvador Morales-Conde, Sevilla, ES

18.00
Get-Together with your colleagues
Industrial Exhibition

Tuesday, 29 November 2022

9.00
CONSULTANT'S CORNER
Michel Adamina, Winterthur, CH

10.30
COFFEE BREAK

11.00
SATELLITE SYMPOSIUM
INTUITIVE

11.45
Trends in colorectal oncology and clinical insights for the near future
Rob Glynne-Jones, London, UK

12.15
LUNCH

13.45
VIDEO SESSION

14.15
SATELLITE SYMPOSIUM
BD

15.00
COFFEE BREAK

15.30
The unsolved issue of TME: open, robotic, transanal, or laparoscopic – shining light on evidence and practice
Des Winter, Dublin, IE
Jim Khan, London, UK
Brendan Moran, Basingstoke, UK

16.30
SATELLITE SYMPOSIUM
Takeda

17.15
Lars Pahlman lecture
Søren Laurberg, Aarhus, DK

Thursday, 1 December 2022
Masterclass in Colorectal Surgery
Proctology Day

Wednesday, 30 November 2022

9.00
Advanced risk stratification in colorectal cancer – choosing wisely surgery and adjuvant therapy
Philip Quirke, Leeds, UK

09.30
Predictors for Postoperative Complications and Mortality
Ronan O'Connell, Dublin, IE

10.00
Segmental colectomy versus extended colectomy for complex cancer
Quentin Denost, Bordeaux, FR

10.30
COFFEE BREAK

11.00
Incidental cancer in polyp - completion surgery or endoscopy treatment alone?
Laura Beyer-Berjot, Marseille, FR

11.30
SATELLITE SYMPOSIUM

12.00
Less is more – pushing the boundaries of full-thickness rectal resection
Xavier Serra-Aracil, Barcelona, ES

12.30
LUNCH

14.00
Management of intestinal neuroendocrine neoplasia
Frédéric Ris, Geneva, CH

14.30
Poster Presentation & Best Poster Award
Michel Adamina, Winterthur, CH

15.00
SATELLITE SYMPOSIUM
OLYMPUS

15.45
COFFEE BREAK

16.15
Reoperative pelvic floor surgery – dealing with perineal hernia, reoperations, and complex reconstructions
Guillaume Meurette, Nantes, FR

16.45
Salvage strategies for rectal neoplasia
Roel Hompes, Amsterdam, NL

17.15
Beyond TME – technique and results of pelvic exenteration and sacrectomy
Paris Tekkis, London, UK

19.30
FESTIVE EVENING

Information & Registration **www.colorectalsurgery.eu**

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ABSTRACT

Posters

P001 | Early outcomes from a real-world implementation of an enhanced recovery protocol after elective colorectal surgery in a community hospital

N. Abbes Orabi*; F. Famiglietti; L. Mart; L. Romero Stoca; D. Thiry; A. Foaleng

Visceral Surgery, Groupe Jolimont, Mons, Belgium

Aim: Enhanced recovery after surgery (ERAS) protocols are recognized to improve postoperative course and patient's autonomy. However, in Belgium, only data from academic hospitals are available for colorectal surgery. The aim of this study was to evaluate whether the advantages of ERAS program would be confirmed in a community hospital setting.

Method: From January 2019 to December 2021, patients who underwent elective colorectal surgery following the GRACE (Groupe francophone de Réhabilitation Améliorée après ChirurgiE) protocol were included in the electronic database Grace-Audit for retrospective study. Clinical care pathway satisfaction was evaluated by patients with the VAS scale from 1 to 10.

Results: There were 101 patients, 37 male and 64 female. The median age was 63 years [range: 17–91 years], median ASA score was 2, median BMI was 26.2 kg/m^2 [range: 15.4–41.6] and 27.7% of patients had BMI > 30. Indications for surgery were: cancer (41), diverticulitis (20), rectocele (16), Hartmann reversal (4), redo surgery after stenotic primary colorectal anastomosis (3), Crohn's disease (2), rectal endometriosis (1) and retrorectal tumor (1). Eighty-nine patients were operated by laparoscopy, 11 by local surgical approach (7 stoma reversal and 4 total rectal prolapse) and one by laparotomy because of multiple surgeries history. No conversions to open surgery occurred. At 30-days follow-up, there was no mortality, morbidity rate was 6.9% (Dindo-Clavien grade 1–2: 5%, grade 3–4: 1.9%). Anastomotic leakage rate was 2.4%. Median length of stay was 4 days [range: 1–15]. Readmission was observed in 3 patients (2 wound infections and 1 anastomotic leakage). The median patient satisfaction score was 8.7 [range: 7–10].

Conclusion: Colorectal ERAS protocol implementation is feasible and safe in a community hospital setting. Our short-term results are encouraging and compare favorably with those from the literature in terms of morbidity, readmission rate and hospital stay, with high patient satisfaction scores.

Disclosure of Interest: None declared.

P002 | Patterns and clinical implications of early tined lead migration in sacral nerve modulation

S. Abdollah[1,*]; D. Doll[2]; E. Allemeyer[1]

[1]*Proktologie, Kontinenz- und Beckenbodenchirurgie, Franziskus Hospital Harderberg, Georgsmarienhütte;* [2]*Department of Procto-Surgery and Pilonidal Sinus, St. Marienhospital Vechta, Vechta, Germany*

Aim: Tined lead migration is a relevant technical problem in sacral nerve modulation[a]. Patterns, extent and clinical implications of migration during test stimulation are still unclear. We performed a prospective clinical study measuring migration and consequences during test stimulation.

Method: In a consecutive series of 72 patients we prospectively documented tined lead position radiographically during operation and on postoperative day one, two, respectively. Possible migration was measured metrically based on radiographs and correlated with amounts of electrical current necessary to reach sensoric threshold, feasability and results of test modulation, respectively.

Results: 6 tined leads showed no measurable migration at all, in 58 patients we measured ventral (18 patients 0.1 ≤ 3 mm, 7 patients 3.1 ≤ 5 mm migration, 17 patients 5.1 ≤ 10 mm. 14 patients > 10 mm) and in 8 patients dorsal migration (6 patients 0.1 ≤ 3 mm, 2 patients 3.1 ≤ 5 mm migration, 0 patients 5.1 ≤ 10 mm, 0 patients > 10 mm). In 23 patients (out of 58 patients with sufficient data), the pattern of electrical pole stimulation was altered on postoperative day one to equalize loss of stimulation due to probe migration but without changes in amplitude. Clinical implications were very rare and minor: prolonged test (4 instead of 3 weeks) in 12 patients. 1 lead required re-operation during test episode.

Conclusion: Lead migration occured in a high proportion of patients, by far predominantly ventrally, but clinical implications were very rare and minor. Further studies with large numbers of patients are mandatory to exactly measure the clinical relevance of this technical problem. Technical modifications of existing leads have been suggested and certificated[b] but were not adopted by the industry. This should be reconsidered as soon as statistical analysis of large samples exist.

Reference: a. Ezra E, Siilin H, Gulobovic M, Graf WR. Patterns of tined lead migration in sacral nerve modulation International Journal of Colorectal Disease (2020) 35: 1163–1166.

b. Deutsches Patent- und Markenamt, DE 10 2009 040 963 A1 2011.03.17.

Disclosure of Interest: None declared.

P004 | Long-term outcomes of endoscopic vacuum therapy and transanal drainage as a treatment for anastomotic leakage after anterior resection for rectal cancer

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Aim: Anastomotic leakage (AL) after anterior resection for rectal cancer occurs in up to 26% of patients. Endoscopic vacuum therapy (EVT) has gained interest as a treatment option for AL in the last decade. This study aimed to compare the clinical success rate of EVT vs. Transanal Drainage (TD) in AL treatment and investigate whether the frequency of bowel continuity differed.

Method: Patients treated for rectal cancer at Skåne University Hospital, Sweden, between 2009–2018 were identified through the Swedish Colorectal Cancer Registry (SCRCR). Patients' characteristics, operative, and AL data were retrieved by SCRCR and chart review.

Results: Out of 1095 patients subjected to rectal cancer surgery, 361 patients had undergone anterior resection. AL occurred in 39 patients; 14 patients were treated with EVT and 17 with TD. Bowel continuity was achieved in 50% of patients treated with EVT and 65% of patients treated with TD ($p = 0.28$). The patients were under treatment for a median period of 24.5 days (IQR 11–36) when treated with EVT and 37 days (IQR 17–51) with TD.

Conclusion: No superiority of EVT treatment could be shown in clinical success rate in healing AL or restoring bowel continuity. This questions the role of EVT in AL treatment after anterior resection.

Disclosure of Interest: None declared.

P005 | Evaluation of the learning-curve for robotic lateral pelvic lymph node dissection (LPLND) for the treatment of rectal cancer in a Western institution

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The University of Texas MD Anderson Cancer Center, Houston, United States

Aim: Lateral pelvic lymph-node dissection (LPLND) is a technique of interest in a selected population of patients with rectal cancer with persistent suspect lateral compartment nodal disease after neoadjuvant therapy. Introducing this technique in the Western setting is challenging given its relative technical and conceptual novelty, and to date there have been no reports on the learning curve for LPLND in the US or Europe. The purpose of this study was to review the learning process associated with robotic LPLND (RLPLND) technique.

Method: We included all patients undergoing RLPLND at a single dedicated cancer from 2012 to 2022. The primary endpoint of the study was assessment of the learning curve for maximum number of nodes retrieved and urinary retention. The learning curve effect was evaluated with simple cumulative-sum (CUSUM) and two-sided Bernoulli CUSUM charts.

Results: Fifty-four procedures were included in the analysis. We present a single-surgeon and an Institutional learning curve. In the single-surgeon learning curve, a turning point was detected at the 12th procedure for the number of retrieved nodes and at the 20th procedure for urinary retention. In the institutional learning curve analysis, two turning points were identified at the 13th and 26th procedure for the number of retrieved nodes and at the 27th procedure for urinary retention. No alarm signals were detected at any time point.

Conclusion: In an environment characterized by expertise in beyond-TME resections as well as robotic colorectal surgery the learning curve for robotic LPLND is relatively short, with an increase in node retrieval after 13 and 26 procedures and minimization of urinary retention after 27 procedures. Our results promote the acquisition of this technique in a controlled setting, where proctoring is available and learning curve duration could be optimized.

Disclosure of Interest: None declared.

P006 | Results of restorative proctectomy after prior emergency colectomy for acute severe colitis as an onset of ulcerative colitis

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[1]*General and Digestive Surgery Department - Colorectal Surgery Unit;* [2]*Clinical Epidemiology Department, Donostia University Hospital - IHO Donostialdea., San Sebastian - Donostia;* [3]*General and Digestive Surgery Department - Colorectal Surgery Unit, Vall d'Hebron University Hospital, Barcelona;* [4]*General and Digestive Surgery Department - Colorectal Surgery Unit, Ramon y Cajal University Hospital, Madrid;* [5]*General and Digestive Surgery Department - Colorectal Surgery Unit, Bellvitge University Hospital, Barcelona, Spain*

Aim: To assess short and long-term results of ileoanal pouch anastomosis (IPAA) in patients undergoing emergent or urgent colectomy for acute severe colitis (ASC) as onset of Ulcerative Colitis (UC).

Method: Retrospective multicentre single-cohort study including patients who underwent IPAA surgery after emergent or urgent colectomy due to ASC as onset of UC. Demographic, histological, clinical, and chronological data were analysed. Emergent or urgent surgery, as well as IPAA surgery outcomes were studied. IPAA failure

was defined as reoperation for defunctioning ileostomy or IPAA excision. Risk factors for failed IPAA were assessed by logistic regression. IPAA survival was estimated according to competitive-risk analysis, considering potential confounding factors.

Results: A total of 71 (39 female) patients from 4 main tertiary referral centres were included, with 66 IPAA reconstructive procedures. Mean follow-up for the entire cohort was 11,54 (SD 5.08–18) years. IPAA dysfunction rate was 46.7%, with 43.1% patients of the entire cohort requiring chronic maintenance active medical treatment. IPAA failure rate was 17.74%, with an overall IPAA survival of 10.06 (SD 4.17–15.95) years. No significant influence of potential confounding factors (i.e., chronic active medical therapy) was observed ($p = 0.086$). Univariate and multivariate analysis confirmed that presence of late onset IPAA related complications was significantly associated with lower IPAA survival ($p = 0.026$).

Conclusion: Patients undergoing IPAA surgery after emergent or urgent colectomy for ASC as UC onset, experience poorer outcomes when compared with reported data of those after elective surgery for well-defined chronic UC. Presence of late onset complications could anticipate risk for IPAA failure. Moreover, almost half of these patients will experience IPAA dysfunction, either functional or mechanical, with the subsequent care burden and negative impact on their quality of life.

Disclosure of Interest: None declared.

P008 | Indocyanine green guided sentinel lymph node biopsy in colon cancer: A prospective single center study

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Aim: Indocyanine green (ICG) dye guided Near Infrared fluorescence imaging is a promising tool for sentinel lymph node identification in colon cancer. The aim of this study was to evaluate the role of intraoperative Near infrared (NIR) ICG guided SLN biopsy in colon cancer.

Method: Thirty two consecutive patients of clinically staged T1-T3 node negative colon cancer underwent laparoscopic/open resection. Patients received colonoscopic peritumoral submucosal ICG injections for laparoscopic/open resections followed by detection of SLN using NIR camera. SLNs underwent conventional hematoxylin and eosin staging with additional serial sectioning and immunohistochemistry (ultra-staging). Detection rate and upstaging rate were the primary end points.

Results: Thirty two patients with mean age of 60.2 years(range 34–80), mean BMI of 23.96 kg/m^2 (range 18.1–35.9) were recruited. An average of 2.2 SLN were identified in 30 patients at mean time of 7.03 min (range 2–17) with detection rate of 93.75 %. Eleven patients had node positive disease and SLN was false negative in 4 of these patients resulting in a sensitivity of 63.63%. The negative predictive value and accuracy of the procedure was 82.60 % and 86.66 % respectively. No aberrant lymph node drainage was identified in our study. Two out of 19 patients who were node negative on conventional histopathology was upstaged (10.52 %) due to presence of micrometastasis on ultra-staging.

Conclusion: ICG guided SLN mapping can help in identifying metastatic lymph nodes in colon cancer patients which can be missed on conventional hematoxylin and eosin staging.

Reference: Ankersmit M, Bonjer HJ, Hannink G, Schoonmade LJ, van der Pas M, Meijerink W. Near-infrared fluorescence imaging for sentinel lymph node identification in colon cancer: a prospective single-center study and systematic review with meta-analysis. Tech Coloproctol. 2019;23(12):1113-26.

Disclosure of Interest: None declared.

P009 | Outcome of the filac procedure – Who are most suitable?

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Aim: Perianal fistula is one of the difficult conditions from the historical times. FiLaC treatment is one of the innovative techniques, which is a sphincter saving procedure and has variable success rates in the literature.

The aim of this study is to review the long-term outcomes of the procedure and to determine the suitable candidates who have successful healing rate of the perianal fistula tract.

Method: All patient who underwent FilaC^{TM} procedure from May 2018 till March 2021 were included in the study. The characteristics of the demographic and the characteristics of the perianal fistula was reviewed using a prospectively maintained database. The primary outcome was successful healing rate in the form of resolution of the open fistula tract. Subgroup analysis was performed to establish possible optimum patient selection criteria.

Results: A total of 39 (26 males) patients included in the study with mean age of 40.9 (20–71). 12 patients had intersphincteric and 26 patients had transphincteric fistula. The mean energy used with 8 or 12 watt was 236 ± 549 J/cm. Mean length of the perianal fistula tract was 3.4 cm (1.5–6.5). The overall healing rate was 46%. The healing rate of intersphincteric fistula was 75% whereas this was 33% for trans-sphincteric fistula. Healing rate was marginally better using 12W energy. Healing rate was significantly higher for male patients.

Conclusion: The overall fistula healing rate in our study was comparable with the available literature. However, contrary to other literature the resolution of the inter-sphincteric fistula tract was higher in our study.

Reference: 1. Stijns J, van Loon YT, Clermonts SHEM, Göttgens KW, Wasowicz DK, Zimmerman DDE. Implementation of laser ablation of fistula tract (LAFT) for perianal fistulas: do the results warrant continued application of this technique? Tech Coloproctol. 2019;23(12):1127–32.

2. Lauretta A, Falco N, Stocco E, Bellomo R, Infantino A. Anal Fistula Laser Closure: the length of fistula is the Achilles' heel. Tech

Coloproctol [Internet]. 2018;22(12):933–9. Available from: http://dx.doi.org/10.1007/s10151-018-1885-z
3. Ozturk E, Gulcu B. Laser ablation of fistula tract: A sphincter-preserving method for treating fistula-in-ano. Dis Colon Rectum. 2014;57(3):360–4.
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5. Giamundo P. Laser treatment for anal fistulas: what are the pitfalls? Tech Coloproctol [Internet]. 2020;24(7):663–5. Available from: https://doi.org/10.1007/s10151-020-02225-6
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7. Giamundo P, Esercizio L, Geraci M, Tibaldi L, Valente M. Fistula-tract Laser Closure (FiLaC™): long-term results and new operative strategies. Tech Coloproctol [Internet]. 2015;19(8):449–53. Available from: http://dx.doi.org/10.1007/s10151-015-1282-9
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9. Terzi MC, Agalar C, Habip S, Canda AE, Arslan NC, Obuz F. Closing perianal fistulas using a laser: Long-term results in 103 patients. Dis Colon Rectum. 2018;61(5):599–603.

Disclosure of Interest: None declared.

P010 | Circulating tumor DNA for monitoring colorectal cancer—A prospective observational study to assess the presence of circulating tumor DNA (methylated CT DNA in SEPT 9 and VIM genes) and its role as a biomarker in colorectal cancer management

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Aim: Methylation status of Septin9 (SEPT9) and Vimentin (VIM) genes in circulating tumor DNA of colorectal cancer(CRC) patients is a promising bio-marker for early detection of CRC. The aim of the present study was to identify the methylation status in promoter regions of the SEPT9 and VIM genes in a cohort of Indian patients with biopsy proven colorectal cancer.

Method: 45 consecutive patients of colorectal cancer were recruited. 10 ml venous samples was collected from each patient and processed for isolation of cell-free DNA, bisulfite conversion of cell-free DNA, polymerase chain reaction (PCR) amplification and detection of SEPT9 and VIM genes.

Results: 45 % patients presented with only partial methylation in vimentin and 55 % showed no methylation and none of the tumors had complete methylation. Only three (6.66 %) patients showed complete methylation patterns in SEPT9 and rest all 43 tumors showed partial methylation. Considering the two genes together, only 3 (6.66%) out of 45 showed complete methylation. The association of methylation patterns in the both genes (complete, partial, and no methylation) with sex, age, T stage, N stage, M stage, CEA, histology were explored and none of these parameters were statistically significant. Previous studies showed only hyper and hypomethylation were related to CRC.

Conclusion: In our study only 6.66% CRC patients showed hypermethylation and there was no association of methylation patterns in the both genes (complete, partial, and no methylation) with any of the parameters like age , sex, TNM stage, CEA and histology.

Reference: 1. Nadal C, Winder T, Gerger A, Tougeron D. Future perspectives of circulating tumor DNA in colorectal cancer. Tumour Biol. 2017;39(5).
2. Rhee YY, Kim KJ, Kang GH. CpG Island methylator phenotype-high colorectal cancers and their prognostic implications and relationships with the serrated Neoplasia pathway. Gut Liver. 2017;11(1):38–46.

Disclosure of Interest: None declared.

P011 | Intersphincteric resection versus Hartmann's procedure in patients with rectal cancer: Report from the Swedish Colorectal Cancer Registry (SCRCR)

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Aim: Hartmann's procedure (HP) or intersphincteric abdominoperineal excision (iAPE) may be performed in patients with rectal cancer when a coloanal anastomosis is not appropriate. The aim of this study was to compare postoperative surgical complications within 30 days after HP compared to iAPE.

Method: All patients with rectal cancer having elective surgery with HP or iAPE between 2017 and 2020 were identified from the Swedish Colorectal Cancer Registry (SCRCR) (n = 1231). Patients with tumor level ≥5 cm from the anal verge and ≥18 years of age constituted the study cohort (696 patients with HP and 314 with iAPE).

Results: Patients in the HP group were older (mean age 74.5 vs 70.9 years) and had more co-morbidities (ASA≥3 49.1% vs 36.3%) than the iAPE group. The TNM-stages were comparable between the groups. The mean operating time was less for HP (290 vs 377 minutes)

The 30-day postoperative death rate was 1.3% for HP and 0.7% for iAPE group (p = 0.356). The need for treatment in an intensive care unit was 5.1% after HP compared to 2.3% after iAPE (p = 0.040) and 9.1% of patients operated with HP compared to 5.4% after iAPE had a re-operation (p = 0.048). There was no difference in the overall postoperative complication rate (39.1% vs 39.4%). The rate of surgical complications was 20.3% after HP and 15.9% after iAPE (p = 0.103).

After adjustment for confounders in a multiple logistic regression analysis, the odds ratio for surgical complications after HP vs iAPE was calculated at 1.68 (95% confidence interval 1.12–2.51, $p = 0.012$).

Conclusion: This retrospective study shows increased risk of postoperative surgical complications in rectal cancer patients operated with Hartmann's compared to patients operated with intersphincteric abdomino-perineal excision.

Awaiting results from the randomized HAPIrect-trial, this could speak in favor of iAPE over HP in mid and high rectal cancers when an anastomosis is undesirable.

Disclosure of Interest: None declared.

P012 | Faecal microbiota transplantation (FMT) in the treatment of chronic refractory pouchitis: Systematic review

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[1]*Institute of Cancer and Genomic Sciences, University of Birmingham, Birmingham;* [2]*General Surgery, Sandwell and West Birmingham NHS Trust, West Bromwich, United Kingdom;* [3]*Division of Colon and Rectal Surgery, Humanitas University, Milan, Italy;* [4]*Colorectal and General Surgery, The Dudley Group Hospitals, Dudley, United Kingdom*

Aim: The exact aetiology of chronic pouchitis remains unclear and treatment can be challenging. Increasing interest in correcting bacterial dysbiosis has resulted in faecal microbiota transplantation (FMT) being used to achieve clinical response and maintain remission in patients with this condition. We performed a systematic review of the literature to assess the efficacy and safety of FMT in the treatment of chronic pouchitis.

Method: A systematic online search in accordance with the PRISMA guidelines was conducted using electronic databases and clinical trial registers. The primary outcome was clinical response/remission in patients treated with FMT. Secondary outcomes included safety profile, quality of life parameters and alterations in the gut microbiome.

Results: A total of 333 studies were identified after the initial search. Further review identified 11 relevant studies (observational and RCTs) with a total of 105 patients and a mean time since restorative procto-colectomy of 10.9 ± 3.4 years. The route, preparation, and quantity of FMT administered varied amongst the included studies. A combined clinical response rate of 39.3% with a remission rate of 26.3% was estimated.

Minor, self-limiting adverse events were reported, and the treatment was generally well tolerated with a good short- and long-term safety profile.

Successful FMT engraftment in recipients varied and on average microbial richness and diversity was lower in patients with pouchitis. In some instances, a shift with specific changes towards abundance of species suggestive of a 'healthier' pouch microbiota were observed following treatment with FMT.

Conclusion: FMT appears to be a promising therapeutic option in treating patients with chronic pouchitis. Current evidence from mainly low-quality studies suggests a variable clinical response and remission rate but the treatment seems to be well tolerated with a good safety profile. More robust and well-designed RCTs are needed to answer many of the unresolved issues.

Disclosure of Interest: None declared.

P013 | Effects of low-pressure pneumoperitoneum on cardio-respiratory physiology during elective laparoscopic colorectal surgery (ELCS) in improving ERAS outcomes

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[1]*General Surgery,* [2]*Anaesthettic, The Dudley Group NHS Foundation Trust, Russells Hall Hospital, Birmingham, United Kingdom*

Aim: We aim to compare the clinical outcomes of patients operated at standard [SIAP] intraabdominal pressure with low pressure pneumoperitoneum [LPP] using the Airseal system.

Method: We conducted a prospective cohort study of patients undergoing ELCS into two groups: SIAP (>15 mmHg) and LPP(<8 mmHg). The groups were matched for age, BMI, operation types, and Trendelenburg positioning (degree of head down). The following parameters were analysed; core temperature, lung compliance (LC), peak-inspiratory pressure (PIP), ASA grade, operating-time, co-morbidities, post-operative time to drinking and eating, time to bowel opening, time to mobility, post-operative pain, length of stay, post-operative complications, histopathological features and COVID19 status.

Results: 73 patients (29 females) were recruited with 44 in SIAP and 29 in LPP group. The median age was 69 years and median BMI 27. Operations performed included right-sided colectomy [28], left-sided colectomy [5,], anterior resection [22], abdominoperineal resection [6], subtotal colectomy/ pan-proctocolectomy [6] and Crohn's small bowel resection [6]. There was significant difference between the SIAP and LPP group for LC and PPI. On multivariate logistic regression model for day 0 based on time to drinking, mobility and pain when adjusted for intraabdominal pressure, age, gender, BMI and Trendelenburg positioning, there was no significant difference observed in both groups. However, patients were drinking earlier on Day 0 in the LPP compared to SIAP group. Furthermore, there was no difference between patients in LPP and SIAP on multivariate analysis for other clinical parameters.

Conclusion: We have demonstrated the feasibility of performing major ELCRS at low pneumoperitoneum pressure and low pneumoperitoneum pressure patients drank earlier at day 0, although this difference was not statistically significant. We believe that properly conducted, randomised and powered studies will be able to show the benefit of LPP in improving ERAS outcomes.

Reference: Nil.

Disclosure of Interest: None declared.

P014 | Video assisted anal fistula treatment (VAAFT): A 5 year review

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Aim: VAAFT is claimed to be the only technique that allows the surgeon to see inside the anal fistula tract and locate the internal opening using an endoscope light. It is designed to only affect the fistula tract and there preserve sphincter function and faecal continence. Our aim was to have a 5 year review of the follow up patients who we treated with VAAFT.

Method: A review of outcomes for 5 years following VAAFT procedure was conducted. The patients where treated with VAAFt from November 2014 to February 2017. Wexner score for obstructed defecation syndrome was used to gain outcomes for patients who had faecal incontinence. An analysis was done of pre and post VAAFT procedure on the outcome of the patients quality of life and a visual analogue on subjective characteristics or attitudes post VAAFT was enquired of the patients on there follow up interview on the procedure.

Results: 50 patients where included in this follow up period, 42% and 58% where female and male respectively. The median age was 52 years and this ranged from 24 to 76 years. 30% of patients had an ASA grade of 1, 58% had an ASA grade of 2 and 6 patients had an ASA grade of 6. 84% of patients have been cured after the VAAFT procedure, with 74% being cured after only 1 VAAFT procedure. Only 5 patients are still symptomatic with anal fistulas, but there symptoms are reduced enough for them not to want any further procedures at this point. 3 patients are awaiting further VAAFT procedure that has been delayed due to COVID.

Conclusion: This novel sphincter preserving technique has promising early results after 5 years. This raises a few further questions such as should we adapt to hybrid procedures with VAAFT? what is the role of setons in the treatment with VAAFT, is their use in the acute setting with sepsis? A large study with long term follow up is awaited. The need to maintain a prospective regional/national registry to see the true benefit of VAAFT procedure.

Disclosure of Interest: None declared.

P015 | Involvement of head and neck in synchronous and metachronous metastatic colorectal cancer: A complete systematic review

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Aim: Colorectal cancer and subsequent metastasis represents a significant burden on cancer survival rates, and a significant body of research exists to define biological mechanisms and outcomes of this disease. However, there is little focus in the literature on rare colorectal metastases, especially those of the head and neck. With this systematic review we aim to incorporate published case reports to determine the clinical characteristics on those develop colorectal metastasis within the head and neck.

Method: An electronic search was undertaken of PubMed, Embase, Medline and Cochrane Library databases. All papers were case reports. Absolute and relative data was obtained by descriptive analysis.

Results: 151 individual cases were identified as a colorectal primary with a head and neck metastasis, including glandular tissue, bone and cartilage, epithelium and the central nervous system. The most common site of primary lesion was the rectum (28.6% to 72.2%), and the most frequent staging was T3N0M0. Adenocarcinoma was the most frequently documented subtype in both primary and secondary lesions, with surgery being the most frequently used approach for metastatic treatment (21.4%–76.1%). Recurrence of metastasis ranged 7.7%–20.0%, and mortality from 15.2%–83.3%.

Conclusion: We have provided an in depth review of case reports, reviewing the characteristics and outcomes of colorectal metastasis to the head and neck. We have considered the important parameters in how these secondaries affect the clinical presentation and outcomes and our findings should be considered carefully in light of study limitations.

Disclosure of Interest: None declared.

P016 | KRAS and BRAF genes as a predictive marker in the treatment of patients with locally advanced rectal cancer

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Aim: To investigate the correlation between mutation in KRAS and BRAF genes and radioresistanse in patients with local advanced rectal cancer undergoing neoadjuvant radiochemotherapy.

Method: We examined the frequency of mutation in the KRAS and BRAF genes in 65 patients with rectal cancer (31 women, 34men, mean age 54). All patients underwent long course of neoadjuvant radiochemotherapy. According to response all patients were divided in three groups: 1-st group weak response-16 (24.6%), 2-group-moderate response 34 (52.3%), 3 group-complete clinical response 15 (23.1%).

DNA was isolated from formalin-fixed, paraffin-embedded tissues using a Qiagen QIAamp DNA FFPE-kit. Analysis of mutation was carried out using the KRAS/BRAF Mutation Analysis Kit for real time PCR (ENDOGEN) with the CFX96 real time PCR apparatus (BIORAD USA). Statistical analysis was performed using IBM SSPS Statistica 20 programme. Student's *t*-test was used for testing hypothesis.

Results: KRAS mutation was detected in 17 (26.2%). Among clinical groups the distribution of patients with KRAS mutation was: 1 group - 6 (37.5%) patients, 2 group- 8 (23.5%) patients, 3 group -3 (20%) patients ($p < 0.5$). BRAF mutation was revealed by 9 (13.9%)

patients. (1 group – 7 (43.8%), 2 group – no BRAF mutation, 3 group – 2 (13.3%) patients ($p < 0.05$). Double mutations were found by 5 patients (1 group – 4 patients, 3 group – 1 patient).

Conclusion: Our study showed that the mutations in KRAS and especially in BRAF genes is associated with relevant radioresistanse in patients with rectal cancer.

Disclosure of Interest: None declared.

P017 | Fissura-in-ano can be treated successfully without operation in most cases

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Aim: The aim of this study was to evaluate the efficacy of conservative therapy of fissura-in-ano.

Method: 883 patients treated for fissura-in-ano in our institution were evaluated retrospectively analyzing prospectively collected data. All patients were followed up in our instirution and examined by an experienced proctologist. Patients with secondary fissura were excluded. Patients fit for conservative therapy were instructed to apply dilitiazem ointment directly with the finger into the wound b.i.d. There was no time limit for conservative therapy. If a progress of wound healing could be confirmed conservative therapy was continued. In cases where formation of a pouch or cavity made wound healing impossible an operation was recommended.

Results: Mean age was 42 years, 467 (52.9%) of the patients were female. 64.3% of fissuras were located at 6 o'clock (lithotomy position). 761 (86.2%) of patients were treated primarily conservative. In 689 patients (90.4%) conservative therapy was successful after a median time of 79 days.

Conclusion: Conservative therapy is the first-line therapy in fissura-in-ano. Recommendations when to switch to surgery vary. We recommend to continue conservative therapy without time limit as long as a healing process can be observed. Safe criteria for surgery are formation of a pouch, cavity or fistula.

Disclosure of Interest: None declared.

P018 | Perianal eczema in most cases is not caused by a proctological disease

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Aim: The aim of our study was to validate the underlying causes of perianal eczema.

Method: 100 consecutive patients presenting with the main symptom of perianal pruritus were included in our study. Patients with diseases affecting the skin, e.g. fistulae or condyloma, were excluded.

After examination and diagnosis, patients were informed about the causes of their symptoms and instructed to keep their skin clean and dry, i.e. use water instead of paper for cleaning after passing stool and keep the skin dry all day. The use of a cottonwool wad was left to the descretion of the patient.

Results: In 52 patients a typical red skin irritation could be detected. 3 patients had sclerosing lichen. In 49 partients no obvious skin irritation could be detected. 42 patients had a funnel shaped anus, and 21 patients had extensive perianal hair. In 76 patients no or only very light prolapse of the hemorrhoids could be seen (Goligher 0–1), 24 patients had HD stage 2 or 3. 52 patient had used one or several different ointments.

No interventions as e.g. sclerosing of hemorrhoids was performed. In 64 patients we did not prescribe any medical therapy. In 36 cases – mostly patients with painful or agonizing pruritus we prescribed a cortisone ointment for use for a limited time.

53 patients were free from symptoms upon re-examination. In all other patients a reason for failure of therapy could be found out; mostly, patients had not implemented the therapy consequently and were re-instructed. In one patient who had been treated with triamcinolone we switched to Calcipotriole, with healing of the eczema after 4 weeks.

Conclusion: Perianal pruritus in the vast majority of patients is irritative-toxic and caused by a continuous anal leakage, often provoked by a funnel shaped anus. Hemorrhoidal disease ist not the underlying cause in most cases and should not be treated with invasive procedures. A cortisone ointment may be used in severe cases for a short time, but any oinments should be avoided in long time therapy.

Disclosure of Interest: None declared.

P019 | Selective radiotherapy based on optimal mri staging maximises outcomes in patients with rectal cancer

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Aim: Neoadjuvant chemo-radiotherapy (nCRT) is recommended in rectal cancer patients with MRI-predicted threatened or involved circumferential resection margin (mrCRM). It is unclear if nCRT benefits other patients staged as mrCRM negative, though many advocate nCRT for MRI-predicted T3 (mrT3), extramural vascular invasion-tumour deposit (mrEMVITD), and mesorectal lymph-nodes involvement (mrN). We analysed the outcomes in a cohort of patients undergoing total mesorectal excision (TME).

Method: Retrospective analysis of a single-centre cohort of 271 consecutive patients with rectal cancer undergoing surgery between 2011–2020. Unit policy was nCRT for MRI predicted threatened, or involved CRM, or radiologically involved pelvic sidewall nodes.

Results: Median age was 67 (M/F: 169/102). A total of 60/271 (22%) had nCRT. Overall, 232 (86%) underwent low anterior resection

and 39 (14%) abdominoperineal excision. Local recurrence was detected in 13/271 (4.8%) and distant metastasis in 53/271 (19.6%). On multivariate Cox-regression analysis mrEMVITD was the only MRI predicted variable associated with disease-free survival (DFS) (hazard ratio 3.5; $p < 0.001$) and overall survival (OS) (hazard ratio 2.0; $p = 0.017$), and on logistic regression analysis to distant metastases (odds ratio 4.1, $p < 0.001$). In patients with mrCRM clear and mrEMVITD negative, the 5-year DFS was 86%, in patients with mrCRM clear and mrEMVITD positive was 58%, while in patients with mrCRM involvement receiving nCRT was 54% ($p < 0.001$).

Conclusion: Rectal cancer with mrCRM clear and mrEMVITD negative have excellent long-term outcomes with surgery alone. mrT3 per se and mrN involvement had no prognostic value. mrEMVITD is a strong prognostic factor and may be an indication for neoadjuvant treatments warranting investigation in future clinic trials.

Disclosure of Interest: None declared.

P020 | Survival and prognostic factors of isolated pulmonary metastases originating from colorectal cancer: An 8-year single-center experience

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Aim: Isolated pulmonary metastasis (IPM) is a rare entity that accounts for 10% of pulmonary metastases seen in colorectal cancer (CRC). This study aims to evaluate the overall 5-year survival of IPM originating from CRC and identify potential prognostic factors affecting the overall survival (OS).

Method: A retrospective cohort study conducted in a tertiary care center. The study included all patients diagnosed with CRC aged 18–75 years who underwent primary tumor resection with curative intent between 2008 and 2015, and developed IPM. Patients with no follow-up and those with extra-pulmonary metastases were excluded.

Results: The prevalence of IPM in the overall CRC cases was 4.18% (20/478 patients). The mean age of patients with IPM was 52.7 ± 12.9 years. Ten patients had synchronous IPM (50%), thirteen had unilateral (65%), and eleven underwent metastasectomy (55%). The 5-year OS was 40%, and the mean OS was 3.12 ± 1.85 years. Several factors were found to be associated with a favorable outcome, which include unilateral IPM (3.69 vs. 2.07 years; $p = 0.024$), metachronous (4.25 vs. 2.14 years; $p = 0.017$), metastasectomy (4.81 vs. 1.83 years; $p = 0.005$). In addition, mortality was likely to be decreased by more than 90% after metastasectomy (unadjusted odds ratio = 0.071; 95% confidence interval [CI] = 0.01–0.8; $p = 0.032$).

Conclusion: Forty percent of the included patients survived the 5-year follow-up. Better survival was associated with the metastases being unilateral, metachronous, and metastasectomy. Mortality was lower in patients with pulmonary recurrence after metastasectomy.

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P021 | The role of texture analysis of MRI in prediction of local recurrence and distant metastasis in locally advanced rectal cancer

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Aim: Locally advanced rectal cancer (LARC) is treated by neoadjuvant chemoradiotherapy (NCRT) followed by surgery after restaging with magnetic resonance imaging (MRI). Texture analysis (TA) is an imaging biomarker that could assess MRIs heterogeneity by measuring grey-level intensities distribution. This study hypothesizes that TA can predict local recurrence and distant metastasis.
Method: This is a retrospective analysis of LARC patients after NCRT. From the posttreatment MRI scans, the tumor's Region of interest (ROI) was determined on T2 MRI images. Six texture parameters were systematically extracted and were examined to predict local recurrence and distant metastases through Kaplan-Meier survival curves and log-rank tests.
Results: From 113 patients with LARC , two texture parameters significantly predicted local recurrence: Entropy (p = 0.033) and mean of positive pixels (MPP) (p = 0.045). Meanwhile, five parameters predicted distant metastases: SD (p = 0.015), entropy(p = 0.017), MPP(p = 0.005), skewness (p = 0.046), and Kurtosis (p = 0.019). Kaplan-Meier Log rank test showed that entropy and skewness independently predicted distant metastases.
Conclusion: MRI textural features are potentially significant imaging biomarkers in predicting local recurrence and distant metastases in LARC treated with NCRT.
Disclosure of Interest: None declared.

P022 | Impact of preoperative total parenteral nutrition on the surgical complications of crohn's disease: A retrospective cohort study

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Aim: Malnutrition has major burden on the patient health and quality of life. Crohn's disease associated malnutrition estimated in 65–75% of patients with significant impact on the disease outcomes. Malnutrition is an independent factor for surgical morbidity and mortality. The current literature on preoperative nutritional

optimization is heterogenous and lacks evident conclusions. We report the impact of total parenteral nutrition (TPN) on the surgical outcomes of Crohn's disease (CD).

Method: This is a retrospective cohort study involved all CD patients who underwent abdominal surgery. We compared the patients who received preoperative TPN to non TPN patients. We compared the postoperative infectious and non-infectious complications.

Results: A total of 169 CD patients underwent surgical interventions between January 2010 until October 2018. Forty patients received TPN compared to 129 patients in non-TPN group. Albumin level less than 30 g/L was in 36 patients (90%) of TPN group, while 63 (48.8%) in non- TPN patients. Most patients had ileocecal involvement 125 (73.9%), and most of them were done laparoscopically 130 (76.9%). Infectious complications developed in 8.9% of patients (7.5% in TPN group vs 9.3% in non TPN group). Non-infectious complications were documented in 16% of patients (17.5% in TPN group vs 11.8% in non TPN group). Blood stream infections related to TPN was in 4 patients only (10%). There was no association between the use of TPN and surgical complications. In multivariant analysis, wound infection was the only significant predictor of non-infectious complications. Moreover, Anastomotic leak was found to be a significant predictor in univariant analysis for infectious complications.

Conclusion: TPN use did not significantly influence the post-operative complications. Anastomotic leak and wound infection found to be a predictor for infectious and non-infectious complications, respectively.

Disclosure of Interest: None declared.

P023 | Does stapler colorectal anastomosis doughnut morphology affect the anastomotic leakage in colorectal cancer?: Result of a prospective single-center study on 75 colorectal patients

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Aim: The aim of this study was to investigate the influence of anastomosis doughnuts morphology on the risk of anastomotic leakage (AL).

Method: This is a single-center prospective study. All the patients with colorectal cancer that underwent AR or LAR using double stapled colorectal anastomose between December 2017 and November 2019 entered this study. The surgeon measured the maximum and minimum height and width of colonic and rectal doughnuts in the operation room. We assess the influence of doughnut morphology on AL and morbidity after surgery with the determination of the anastomosis leakage rate.

Results: Seventy-five patients entered the study. Thirty-three cases (44%) had rectal cancer. Half of the patients were in stage 3 (53%) of colorectal cancer. The mean operating time was 2.2 hr. The median distance of the tumor from the anal verge was 9.5 cm (range 1–17 cm). anastomose below 5 cm from the anal verge (ultra-low anterior resection) was performed in 16 (21%). all of the doughnut extract from the stapler has been completed and positive air leak tests have not been detected. AL detected in 3 (4%). The minimal width of the colonic doughnut (CD) is significantly associated with a higher risk of anastomose leakage (p=0.011). The small height of CD is associated with a higher risk of surgical morbidity (p=0.011). Although all AL occurred in patients who had a CD height of 4 or less, there was no statistically significant difference (p=0.073). None of the morphological characteristics of rectal doughnuts were associated with leakage or post-surgical morbidity.

Conclusion: The colonic doughnut's minimal width was associated with a higher risk of AL and CD. Minimal height is associated with higher post-operation surgical morbidity. It can be measured during operation simply and routinely, along with other risk factors, which could help to decide which patients could benefit from a diverting stoma or the creation of a new anastomosis.

Disclosure of Interest: None declared.

P024 | Using Xi da Vinci robot multiquadrant surgery in inflammatory bowel disease (IBD): Single tertiary centre experience

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Aim: To determine the feasibility of using the da Vinci Xi robot in multiquadrant colorectal surgery and asses the short-term outcomes.

Method: Retrospective data collection of all patients who underwent robotic STC and panproctocolectomy for inflammatory bowel disease with the da Vinci Xi robot in a single tertiary colorectal centre between April 2021 – April 2022. Short term outcomes such as operative time, conversion rate, readmission and mortality within 30 days and post operative complication were analysed.

Results: A review of our institution's benign robotic IBD surgery performed by a single surgeon, 10 cases were found and analysed. 5 were robotic STC and 5 were panproctocolectomy. The median age for patients was 39. There was a reduction in total operative time after the 3rd case from 279 to 193 min for STC and 410 to 285 min for panproctocolectomy. The average BMI for the involved patients was 30.5, one conversion to open due to extensive adhesions, one readmission within 30 days of discharge with pelvic collection, no returns to theatre, no mortality within 30 days, the average length of stay was 8 days and there was one post op ileus and one wound infection post operatively.

Conclusion: Multiquadrant robotic colorectal surgery can be challenging, this cohort provides information about the short-term outcomes associated with benign IBD robotic resections using the da Vinci Xi. There was no associated 30-day mortality. In our institution's technique, the STC or panproctocolectomy can be performed without the need of moving the robot cart.

Disclosure of Interest: None declared.

P026 | Readmission within 30 days of discharge following robotic colorectal procedures in a single tertiary colorectal centre

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Aim: To determine the effect of robotic surgical approach on the readmission within 30 days of discharge and its association with pre-operative risk factors and complexity of the procedure.
Method: Retrospective data collection of all patients who underwent benign and cancer robotic colorectal surgery within the colorectal services in a single tertiary center (2019–2022).
Results: Over the study period, 93 patients underwent robotic colorectal procedures, including 47 females (51%), and 46 males (49%). Benign colorectal resections performed in 18 (19.3%) patients including right hemicolectomy, AR, subtotal colectomy, panproctocolectomy and completion proctectomy. Cancer colorectal resections conducted in 75 (80.7%) patients subdivided into APER, right hemicolectomy, HAR, LAR, Hartmann's resection, proctectomy and panproctocolectomy.
Overall, 6 (6.4%) patients were readmitted within 30 days of discharge. 5 of the readmitted patients underwent complex surgery (Low anterior resection or panproctocolectomy) and were readmitted due to collection formation. All of these patients were treated conservatively. 1 patient was readmitted following right hemicolectomy with suspected anastomotic leak and was likewise treated conservatively.
Conclusion: Although the readmission rate was low (6.4%), the majority of readmissions occurred in patients with significant pre-existing risk factors. Additionally, this was found to be substantially related with a complex procedure. Additional work is needed to identify those at high risk of readmission and to implement a more intensive follow-up plan to prevent these episodes.
Disclosure of Interest: None declared.

P026 | The use of Oakland Score in triaging patients with lower gi bleeding in a district general hospital

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Aim: Acute lower gastrointestinal (LGI) bleeding is a common presentation to acute surgical units. A turn towards ambulatory or outpatient management for patients deemed stable is being emphasised by recent guidelines published by the BSG (British Society of Gastroenterology)[1]. This study aimed to look at the prevalence and employment of SI (shock index) and OS (Oakland Score) in triaging patients in a district general teaching hospital.
Method: A retrospective analysis of patients with a diagnosis of per rectal or LGI bleeding was performed over a one-year period. Patient records were searched to assess for evidence of documentation and use of OS and SI on admission. OS and SI were then calculated by the authors to determine their concordance with the guidelines for their use in admission or discharge. Additionally, further demographics including age, use of anticoagulation, investigations and management were recorded.
Results: The total number of patients was 186 after exclusion criteria were applied. The majority were female (51.1%). The median age was 74. No patients had documentation of SI and/or OS. 31.1% of patients had a comment on stability of bleeding, without evidence of derivation. The majority of patients (84.9%) were classed as major bleeds on calculated OS (>8) by the authors. The mean OS was 14. The majority of patients were admitted (76.9%). 26.9% of patients were on anticoagulation. The commonest inpatient investigation was non-arterial, contrast-enhanced CT scanning (33.6% of patients). 14.0% of patients required red cell transfusion. Only 3 patients required surgical management (2.1%). Of the discharged patients, only 2 were re-admitted within 28 days (4.6%).
Conclusion: The national guidelines of management of patients with LGI bleeding base triaging of patients on both SI and OS. This study demonstrated poor uptake and knowledge of both of these scoring systems. Education and re-audit will be performed in the coming year.
Reference: [1]Oakland K, et al. Diagnosis and management of acute lower gastrointestinal bleeding: guidelines from the British Society of Gastroenterology. Gut 2019;0:1–14.
Disclosure of Interest: None declared.

P027 | KRAS mutation status is associated with disctinct clinical and molecular features in Malaysian stage IV colorectal patients

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Aim: The purpose of this study was to estimate the prevalence of KRAS mutations in stage IV colorectal cancer in Malaysians and to investigate the associations of KRAS mutations with clinicopathological characteristics
Method: All patients with stage IV colorectal cancer who underwent resection of the primary tumour between January 2017 and December 2021 were included in the single-center retrospective study. KRAS mutation status was determined. A multiple logistic regression model was used to analyse patient characteristics and tumour location
Results: 41 patients (51% of whom were men) with an average age of 63 ± 13 years. The most common tumours were left-sided colon

cancers (50%). The most common histological subtype was adenocarcinoma (95%). Thirty-two patients (78%) had LN metastasis. Twenty-nine patients (71%) had single-organ metastasis. The lung was the most common metastatic site (66%). KRAS mutation was found in 19 (46%) of patients (63% in codon 12, 15% in codon 13, 15% in codon 61, and 7% in codon 117). KRAS mutation was found to be associated with rectal cancer in multivariable logistic regression analyses (odds ratio [OR] 6.8; confidence interval [CI] 1.41 to 33.2; $p = 0.017$).

Conclusion: In this study, KRAS mutations were found in 46% of patients with stage IV colorectal cancer. However, according to literature, the right-sided colon has a higher prevalence of mutated KRAS. In our study, the rectum was associated with a high KRAS mutation.

Disclosure of Interest: None declared.

P028 | Long-term results of treatment of chronic hemorrhoids using LAV technique

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Aim: Investigate the long-term results of treatment of chronic hemorrhoids using LAV techniques.

Method: The study included 546 patients who underwent surgery from 2015 to 2020.

The main group included 359 patients who underwent LAV technique with subcutaneous removal of the external component of hemorrhoids. In the postoperative period – reduction of spasm of the anal sphincter (bougienage anal canal). The control group included 187 patients who underwent classic hemorrhoidectomy according to Milligan Morgan. In the postoperative period, prescribed basic therapy with sit baths and topical drugs.

Results: Patients were observed once a year, or in case of complaints. In patients of the main group: in 2 (0.56%) patients - there was a stricture of the anal canal, in 5 (1.4%) patients – a chronic anal fissure was formed, with conservative correction. Patients did not follow the postoperative recommendations properly. Patients in the control group: 11 (5.9%) patients developed anal strictures, 3 (1.6%) of which required surgical treatment, 6 (3.2%) patients – chronic anal fissure, 3 patients pararectal fistula was formed, 23 (17.1%) patients had thrombosis of external hemorrhoids.

Conclusion: Adherence to postoperative recommendations - reduction of anal canal spasm - avoids postoperative strictures, chronic anal fissures and pararectal fistulas in the treatment of chronic hemorrhoids using LAV technique.

Treatment of chronic hemorrhoids using LAV method has stable long-term results (recurrence-free course)

Disclosure of Interest: None declared.

P029 | Pilot study. Platelet rich plasma (PRPS) a valid alternative in the treatment of anal fissure

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Aim: Introduction. Anal fissure is one of the most frequent causes of proctalgia mostly, because of hyperpressure of the internal anal sphincter. Its treatment is graduated. It starts with hygienic-dietary measures and topical adjuvants such as vasodilators or muscle relaxants. The surgical option, lateral internal sphincterotomy, is the gold standard. However, it may be associated with risks such as irreversible incontinence. All therapeutic measures try to avoid surgery. Aim. A therapeutic alternative is the administration of platelet-rich plasma to the anal fissure bed. It stimulates healing and is an inflammation mediator favoring the anus fissure healing.

Material and Method: Forty-four patients diagnosed with anal fissure were enrolled. PRPs preparation was obtained by centrifuging plasma before the session. The demographic variables of age, sex, location, duration of symptomatology, existence of sentinel hemorrhoid or previous treatment were collected. Clinical variables of pain, bleeding and pruritus were quantified with a visual analog scale, or in mild, moderate and high intensity, before and after treatment. Kendall's Tau was used as statistical analysis.

Results: The sample included 45% men and 55% women, with a mean age of 44 years [26, 58]. Eighty-one percent of the patients had posterior fissure. Most of them reported severe pain, pruritus and bleeding at the first visit. Ten days after treatment, no patient reported severe pain ($p = 0.32$). At one month after treatment, this reduction was statistically significant ($p < 0.011$). Before treatment 90% had itching to some degree; at ten days, it was absent in 45% of the sample, and in the rest it was mild ($p < 0.027$). Regarding bleeding, all patients had some degree of rectorrhagia; at 10 days it was absent in 72% ($p = 0.3$) and at one month 90.9% had no bleeding ($p < 0.042$). No complications developed.

Conclusion: PRPs infiltration seems to be a valid and safe alternative for the treatment of chronic anal fissure.

Disclosure of Interest: None declared.

P030 | The impact of prophylactic parastomal biological mesh placement during end colostomy formation on development and grade of parastomal hernia: A retrospective comparative study

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Aim: Parastomal hernia (PSH) is common following colostomy formation. While the role of prophylactic mesh placement during stoma formation is debated, this study aimed to assess whether insertion

of mesh has an impact on the incidence or size of any hernia that may develop.

Method: A single-centre retrospective cohort study was conducted reviewing patients undergoing elective permanent end-colostomy formation with a sub-lay prophylactic biological mesh between 2013 and 2019 with subsequent follow-up imaging. A contemporaneous non-mesh control group was used to compare outcomes, matched by baseline characteristics including comorbidities and patient demographics. The primary outcomes were clinical and radiological presence of PSH, according to the Moreno-Mathias classification, and rate of parastomal hernia repair. CT scans were reviewed by a gastrointestinal radiologist, blinded to cohort and clinical outcomes. Secondary outcomes included 30-day mortality and morbidity, six-month mortality, and stoma related complications.

Results: The outcomes of 55 mesh patients were compared with that of 71 non-mesh patients, with a median follow up of 40 months (Interquartile Range 22–59). There was no significant difference in age or BMI between cohorts. Whilst there was not a significant difference in incidence of radiological evidence of PSH between mesh and non-mesh cohorts (64% vs 69%, p = .5706), there was a significantly lower incidence of high grade (grade III) PSH in the mesh cohort (3.6% vs 23.9%, p = .0015). There was no significant difference in hernia repair rates between cohorts (1.7% vs 2.9%, p = 1). There was no significant difference in secondary outcomes between cohorts.

Conclusion: Parastomal biological mesh placement at the time of elective end colostomy formation may reduce the risk of developing a grade III hernia. Future studies on prophylactic mesh placement should focus on prevention of larger hernias.

Disclosure of Interest: None declared.

P031 | The association between anastomotic leakage and health-related quality of life after colorectal cancer surgery

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Aim: Colorectal anastomotic leakage (AL) is a serious complication. Studies on the impact of AL on health-related quality of life (HRQoL) are scarce. We aimed to investigate the association between AL and HRQoL in colorectal cancer (CRC) patients up to two years after diagnosis, and to evaluate whether AL is associated with a clinically relevant decrease in HRQoL over time.

Method: Patients diagnosed with stage I-III CRC undergoing elective surgical resection with primary anastomosis between 2010–2017 were included. HRQoL was evaluated using the EORTC-QLQ-C30 questionnaire, represented by the summary score, and analysed at diagnosis, six months and two years post-diagnosis. Multivariable linear regression was performed to assess the association between AL and HRQoL, while multivariable logistic regression was used to investigate the association between AL and a clinically relevant HRQoL decrease (≥10 points) during follow-up compared to time of diagnosis.

Results: In total, 1197 patients were included of whom 63 (5%) developed AL. AL was not associated with HRQoL at six months post-diagnosis nor at two years post-diagnosis. However, having AL was associated with an increased risk for a clinically relevant decrease in HRQoL at six months post-diagnosis (OR 3.89, 95%CI 1.73–8.76), but not at two years after diagnosis (OR 1.76, 95%CI 0.57–5.40).

Conclusion: Although AL was not associated with HRQoL at six months or two years post-diagnosis, AL was a determinant of a clinically relevant decrease in HRQoL six months after diagnosis. Future work should identify feasible and effective strategies to prevent declines in QoL in this patient population.

Disclosure of Interest: None declared.

P032 | Reducing ileus after colorectal surgery: A network meta-analysis of therapeutic interventions

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Aim: To explore the relative effectiveness of different therapeutic interventions on postoperative ileus outcome measures.

Method: A systematic literature review was performed to identify randomized controlled trials (RCTs) comparing treatments for post-operative ileus following colorectal surgery. A Bayesian network meta-analysis was performed using the Markov chain Monte Carlo method.

Results: A total of 48 randomised controlled trials were included in this network meta-analysis reporting on 3614 participants. Early feeding was found to be the best treatment for time to solid diet tolerance and length of hospital stay with a probability of p = 0.96 and p = 0.47, respectively. Early feeding resulted in significantly shorter time to solid diet tolerance (Mean Difference (MD) 58.85 h; 95% Credible Interval (CrI) -73.41, -43.15) and shorter length of hospital stay (MD 2.33 days; CrI -3.51, -1.18) compared to no treatment. Epidural analgesia was ranked best treatment for time to flatus (p = 0.29) and time to stool (p = 0.268). Epidural analgesia resulted in significantly shorter time to flatus (MD -18.88 h; CrI -33.67, -3.44) and shorter time to stool (MD -26.05 h; 95% CrI -66.42, 15.65) compared to no intervention. Gastrograffin was ranked best treatment to avoid the requirement for post-operative nasogastric tube insertion (p = 0.61) however demonstrated limited efficacy (OR 0.50; CrI 0.143, 1.621) compared to no intervention. Nasogastric and nasointestinal tube insertion, probiotics, and acupuncture were found to be least efficacious as interventions to reduce ileus.

Conclusion: Early feeding was identified as the most efficacious therapeutic intervention to reduce post-operative ileus, and emphasis should be placed on early feeding as soon as can be appropriately

initiated in patients undergoing colorectal surgery. Other therapies were highlighted by this network meta-analysis that require further investigation by high quality studies.

Disclosure of Interest: None declared.

P033 | Urinary and sexual dysfunction after low anterior resection for rectal cancer: One-year follow-up

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Aim: Performing a total mesorectal excision (TME) for rectal cancer (RC), can result not only in a wide range of bowel symptoms, but also urinary and/or sexual symptoms.[1 2] The aim of the present study was to assess the impact of TME on urinary/sexual function in RC survivors, as well as to assess the impact of age and neoadjuvant radiotherapy.

Method: Patients who had a TME were asked to fill out a numeric rating scale (NRS) regarding bother from urinary complaints and the ICIQ-M/FLUTS regarding urinary symptoms. Concerning sexual symptoms, male and female patients were asked to fill out the IIEF and FSFI, respectively. All measurements were completed concerning the preoperative period and at 1, 4, 6 and 12 months after TME.

Results: In total, 104 patients participated in this study. No significant evolution over time was found for symptoms assessed with the NRS or the ICIQ-MLUTS/FLUTS in all patients. Regarding male sexual symptoms, all IIEF-subscales showed significant decreases over time ($p < 0.001$). In female patients, FSFI-subscales for desire ($p=0.017$), arousal ($p=0.039$) and pain ($p=0.029$) decreased significantly over time. Neoadjuvant radiotherapy had a negative influence on NRS-scores as well as voiding/incontinence symptoms in male patients and older age had a negative influence on nocturia and all IIEF-scores (except overall satisfaction). In female patients, radiotherapy did not influence urinary nor sexual symptoms. Older age did significantly influence NRS-scores and filling symptoms as well as all FSFI-scores (except satisfaction).

Conclusion: Functional outcomes such as urinary and sexual symptoms should be questioned during patient follow-up after rectal cancer treatment, certainly in older patients. Furthermore, following the results of this study, sexual symptoms are most definitely present in men as well as women after RC. Therefore, sexual symptoms should not be underestimated, should be questioned adequately in every patient and treated as needed.

Reference: 1. Ziv Y, Zbar A, Bar-Shavit Y, et al. Low anterior resection syndrome (LARS): cause and effect and reconstructive considerations. *Tech Coloproctol* 2013;17(2):151-62. doi: 10.1007/s10151-012-0909-3 [published Online First: 2012/10/19]

2. Bregendahl S, Emmertsen KJ, Lindegaard JC, et al. Urinary and sexual dysfunction in women after resection with and without preoperative radiotherapy for rectal cancer: a population-based cross-sectional study. *Colorectal Disease* 2015;17(1):26-37. doi: 10.1111/codi.12758

Disclosure of Interest: None declared.

P034 | Exploring the pathophysiology of LARS after low anterior resection for rectal cancer with high-resolution colon manometry

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Aim: A total mesorectal excision for rectal cancer - although nerve- and sphincter sparing - can give rise to significant bowel symptoms, commonly referred to as Low Anterior Resection Syndrome (LARS). The exact pathophysiology of this syndrome still remains largely unknown and the impact of radical surgery on colonic motility has only been scarcely investigated.

Method: High-resolution colon manometry was performed in patients, 12–24 months after restoration of transit. Patients were divided into two groups: patients with major LARS and no/minor LARS, according to the LARS-score. Colonic motor patterns were compared and the relationship of these patterns with the LARS-scores was investigated.

Results: Data were analyzed in 18 patients (9 no/minor LARS, 9 major LARS). Cyclic short antegrade motor patterns did occur more in patients with major LARS (total: $p = 0.022$; post-bisacodyl: $p = 0.004$) and were strongly correlated to LARS-scores after administering bisacodyl ($p < 0.001$). High amplitude propagating contractions (HAPC's) that started in the proximal colon and ended in the mid-section of the colon occurred significantly less in patients with major LARS compared to patients with no/minor LARS ($p = 0.015$).

Conclusion: The occurrence of more cyclic short antegrade motor patterns and less HAPC's (from the proximal to the mid-colon) is more prevalent in patients with major LARS. These findings help to understand the differences in pathophysiology in patients developing major versus no/minor bowel complaints after TME for rectal cancer.

Disclosure of Interest: None declared.

P035 | Early (luminal) surgery is associated to reduced postoperative morbidity as compared with resections for complicated ileocaecal Crohn's disease: Results from SURGICROHN - LATAM Study in Latin America

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Aim: The purpose of this study is to perform a retrospective comparative analysis of outcomes between patients operated for primary ileocecal Crohn's disease in Latin America, comparing those intervened for early disease (luminal affection only) or for complications of the disease.

Method: A retrospective analysis of patients operated for ileocecal Crohn's disease during an 8-year period in eleven IBD centers from Latin America was performed. Patients were divided in 2 groups: those operated for early (luminal) disease (ETCD) and those operated for complications of the disease (CTCD), and 30-day operative morbidity and mortality of the procedure were compared.

Results: 337 patients were included, 60 (17.80%) in the early surgery group. There were no differences between groups regarding preoperative variables including Charlson score, BMI, previous abdominal surgery, and ASA score, but CTCD presented more tabaquism (22.38 vs. 8.33%, *p*: 0.013) and exposure to biologic drugs within 12 weeks from surgery (68.97% vs. 42.86%, *p*: 0.006). No differences were found related to presence of anemia, level of albumin and requirements of nutritional optimization before surgery. CTCD patients had worse operative outcomes including increased requirement of urgent surgery (26.71 vs. 15%, *p*: 0.056), extended operative time (164.25 vs. 90.53 minutes, *p*: <0.01), less rates of primary anastomosis (90.23 vs. 100%, *p*: 0.012), increased rate of overall postoperative complications (33.21 vs. 16.67%, *p*: 0.013) and more reoperations (13.36 vs. 3.33%, *p*: 0.026). CTCD had significantly more major anastomotic fistulas and hospitalization days. On multivariable analysis, tabaquism, operating time and associated surgery were independently related to present postoperative complications.

Conclusion: Early (luminal) ileocaecal resections were associated to lower rates of overall postoperative complications and reoperations. Proper timing for surgery, avoiding delays in surgical indication can impact postoperative outcomes.

Reference:

Disclosure of Interest: None declared.

P036 | Low bone mineral density may predict post-operative complications in Crohn's patients undergoing ileo-colic resection

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Aim: The objective of this study is to evaluate the prognostic value of bone mineral density (BMD) on post-operative outcomes in Crohn's disease patients undergoing Ileo-colic resection.

Method: In a single center retrospective analysis we have measured average BMD of the 11th thoracic and 1st lumbar vertebrae within the region of interest, using Computed tomography images acquired within 90 days of before operation.

Results: Seventy- three patients were enrolled. Forty one of them were male (56.16%). Median age was 33 years (14–80). Median BMD was 202.5 (105.5–294.5) Housefield Units (HU) Patients with lower BMD had significantly more post operative complications ($t(71) = -2.398$, $p = 0.0095$). In a multivariate logistic regression analysis average BMD was a significant predictor of overall post-operative complications (odds ratio [OR] 0.983; 95% confidence interval [CI] 0.96–0.99; $p = 0.037$). There was negative correlation between bone density and Length of Stay (LOS) . For T11, Pearson coefficient = −0.27, $p = 0.012$. For L1, Pearson coefficient = −0.236, $p = 0.027$.

Conclusion: Low bone mineral density may be associated with higher rate of post-operative complications in Crohn's patients undergoing. Further studies are warranted to assess osteopenia as an operative risk factor within inflammatory bowel disease patients.

Disclosure of Interest: None declared.

P037 | Intracorporeal anastomosis can reduce the incidence of postoperative ileus after minimally invasive right colectomy for right-sided colon cancer

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Aim: The laparoscopic right colectomy with extracorporeal anastomosis remains the most widely adopted technique, despite growing evidence suggesting that fashioning the anastomosis with the

intracorporeal technique offers several benefits, such as a faster return to normal bowel function, shorter hospital stay and decreased need for analgesic drugs. This study aimed to compare the postoperative outcomes of intracorporeal and extracorporeal anastomosis and to analyze the impact of intracorporeal anastomosis on postoperative ileus after minimally invasive right colectomy.

Method: The retrospective study included 45 patients who underwent intracorporeal anastomosis and 63 patients who underwent extracorporeal anastomosis in right colectomy for right-sided colon cancer between January 2015 and December 2019.

Results: The matched groups had generally similar demographic characteristics. There were no apparent differences in total operation time, blood loss, total length of incisions, tolerance of diet, postoperative pain score on postoperative day one and two, length of hospital stay, the rate of postoperative complications, and the mean number of harvested lymph node, but the IA group had a significantly time to first flatus passage (3.0±0.9 days vs. 3.8±1.9days, p = 0.013). Overall morbidity within 30 days after surgery and Clavien-Dindo classification of morbidity does not show statistical difference, however the rate of post-operative ileus was significantly higher in EA group (2.2% vs. 14.3%, p = 0.033). Multivariate analysis showed that EA technique (OR = 10.247, 95%CI: 1.132–92.743) and previous abdominal operation (OR = 5.269, 95%CI: 1.193–23.262) were independent risk factors for postoperative ileus.

Conclusion: Intracorporeal anastomosis can reduce the incidence of postoperative ileus after minimally invasive right colectomy for right-sided colon cancer.

Disclosure of Interest: None declared.

P038 | Effect of advanced surgical energy devices on colorectal cancer surgery: Comparison of clinical and oncologic outcomes with a propensity score-matched analysis

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Aim: The safety, efficiency and versatility of novel surgical energy devices have been proved by recent studies. The aim of this study is to investigate the impact of surgical energy device on operative and oncologic outcomes of minimally invasive colorectal cancer surgery.

Method: The study group included 80 patients who underwent a minimally invasive colorectal cancer surgery with conventional monopolar device and 217 patients with advanced surgical energy devices between August 2015 and December 2017. The propensity scoring matching with Hosmer–Lemeshow test (p = 0.382) for tumor's lesion, pre-operative level of CEA and operation technique produced 63 matched pairs.

Results: In patient characteristics, there was no significant difference between two groups after the propensity scoring matching. The amount of blood loss (72 vs. 54, p = 0.123) and conversion cases to another surgery (11.1% vs. 4.8%, p = 0.187) tended to be higher in monopolar group, while operation time and intraoperative complications were not significantly different. The short-term clinical outcomes including time to soft diet, the length of hospital stays and the morbidity within 30 days after surgery and pathologic outcomes were comparable between two groups. During the median follow-up periods of 47.1 months and 44.3 months in the monopolar and energy device groups, the 5-year overall survival rates of the monopolar and energy device groups were 86.4% and 93.0% (p = 0.409), and the 5-year disease-free survival rates were 78.8% and 85.8% (p = 0.447), respectively.

Conclusion: The use of surgical energy device based on surgeons' preference did not show the significant impact on operative and long-term outcomes compared with conventional monopolar device in minimally invasive colorectal cancer surgery.

Disclosure of Interest: None declared.

P039 | Keeping fit: a comparison of variable fit thresholds with a single cut off for patients with symptoms of colorectal cancer (CRC) in nottingham primary care

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Aim: FIT has been available to local GPs in Nottingham since November 2017 for all symptomatic patients other than those with rectal bleeding or palpable rectal mass. Local protocols combine FIT results with FBC results for anaemia and thrombocytosis, alongside abnormally high or low Ferritin results, to determine who should be referred urgently. The current threshold for urgent referral in patients with abnormal bloods is 4 µg Hb/g faeces and with normal bloods is currently 20 µg Hb/g faeces. We compare "sub-threshold" CRC's detected by investigation or at follow-up over 4 years of FIT usage.

Method: This is a retrospective electronic patient record review of all CRC's registered in our local area in patients who had a primary care FIT investigation requested between November 2017 and December 2021. Clinical outcomes were censored on 31st December 2021.

Results: 40817 first requests for FIT were received for 38920 eligible patients; 35289 patients (90.7%) returned their FIT request. 599 CRC were detected in the study population, an overall cohort risk of 1.5%. 351 CRC's were detected in 1960 patients with results FIT≥100 µg Hb/g faeces (17.9% detection rate). The CRC detection rate for results 20–99.9 µg Hb/g faeces was 3.7% and 0.8% for results 4–19.9 µg Hb/g faeces. 26 CRC's have been detected at follow up in 22734 patients with a FIT result <4 µg Hb/g faeces (0.1% detection rate).

In this cohort, a single cut-off of 10 µg Hb/g faeces would have missed 64 CRC's, representing 10.7% of all CRC diagnoses in patients

who had been FIT tested at least once. A variable threshold based on local protocols including blood test results missed 48 CRCs (8.0% of CRC diagnoses).

Conclusion: Combining blood tests with FIT testing has helped to reduce the number of "sub threshold" CRCs missed by FIT 25%.

Disclosure of Interest: None declared.

P040 | Outcomes of curatively intended combined treatment of limited peritoneal metastases and liver metastases from colorectal cancer

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Aim: In metastasized colorectal cancer (CRC), peritoneal metastases (PM) and liver metastases (LM) are diagnosed simultaneously in up to 8% of patients. Treatment with curative intent for such patients have included cytoreductive surgery and hyperthermic intraperitoneal chemotherapy (CRS+HIPEC) for the PM combined with surgical resection of the LM. A less invasive treatment modality for LM is radiofrequency ablation (RFA). Outcomes of the combined treatment of PM and LM using RFA for LM have not been reported yet. We aimed to estimate overall survival (OS), disease-free survival (DFS) and postoperative data for CRC patients treated with curative intent for simultaneously diagnosed PM and LM in a setting with RFA as the primary treatment option for LM.

Method: A retrospective national cohort study was performed with data on patients prospectively registered in a local database. All patients were treated at Aarhus University Hospital; the only CRS+HIPEC center in Denmark. We included CRC patients curatively managed with a combined treatment for simultaneously diagnosed PM, PCI < 12 and ≤ 3 LM, in the period January 2016-December 2021. LM was treated with RFA as first choice, if technical possible. Survival was calculated by the Kaplan-Meier method.

Results: In total, 25 patients underwent CRS+HIPEC for PM combined with treatment for LM. Mean age was 60.3 years and 60% of the patients were females. Mean PCI was 6.9 and mean number of LM was 1.6. RFA was performed as the only treatment for LM, in 72% of patients. Median OS was 26.8 months (95% CI 15.8;35.6). One-year OS was 83.6% (95% CI 62.1;93.5) and 5-year OS was 22.2% (95% CI 4.6;47.8). Median DFS was 6.1 months (95% CI 4.0;10.3). Median LOS was 10 days (9–14). Both 30-day and 90-day mortality were 0%.

Conclusion: We found that the selected treatment modality for CRC patients is safe and comparable to other studies regarding OS. Further, RFA of LM might result in a shorter LOS making timely initiation of postoperative chemotherapy possible.

Disclosure of Interest: None declared.

P042 | Morphological assessment of anal canal wound healing after using modern technologies for the treatment of combined anorectal diseases

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Aim: To conduct a comparative morphological assessment of postoperative wound healing in patients with combined pathology of the anal canal and rectum after combined operations using modern high-frequency electrosurgical and radiosurgical technologies.

Method: 689 patients with combined diseases of the anal canal and rectum were operated on using the radio-wave surgery device "Surgitron" and the high-frequency electrosurgery devices "ERBE ICC 200","EFA" and "KLS Martin". After surgery 30 patients from each study group underwent morphological examination of anal canal and rectal tissues to study wound healing on 3, 5, 7, 14, 21 days of the postoperative period.

Results: Using of "Surgitron" and "KLS Martin" devices had the lowest inflammatory neutrophil reaction in postoperative wounds on day 3, which rapidly disappeared by day 5, on days 7–14 had active reparative processes with the appearance of fibroblasts and connective tissue fibers, and on 21 day squamous epithelial cells, which indicated the processes of active epithelialization of wounds. Patients after using of the devices "EFA" and "ERBE ICC 200" had a more pronounced inflammatory neutrophilic reaction in postoperative wounds on the 3rd day, which did not disappear until the 5th day and in half of the cases the presence of a significant number of segmental neutrophils and bacterial accumulations persisted. On days 7–14 they had weak reparative processes with the appearance of single fibroblasts and a small number of connective tissue fibers and on the 21st day single squamous epithelial cells, which indicated slow processes of wound epithelization.

Conclusion: Using of radio-wave surgery and high-frequency electrosurgery devices promotes active epithelialization of tissues preventing scar strictures of the anal canal and improves the rehabilitation of patients in the postoperative period.

Reference:

Disclosure of Interest: None declared.

P043 | BAKRI balloon – A safe option to prevent empty pelvis syndrome

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Aim: To evaluate the use of Bakri balloon to prevent the resultant pelvic void after the pelvic exenteration (PE) or abdominoperineal resection (APR) procedure which is responsible for complications collectively termed as empty pelvis syndrome (EPS).
Method: This is a case series of 30 successive patients undergoing open or laparoscopic, PE or APR or extended resections with wide pelvis for locally advanced rectal adenocarcinoma. The Bakri balloon was deployed in 30 patients and retained for variable time intervals postoperatively. Features of EPS were documented.
Results: A total of 30 cases were done in whom a Bakri balloon was inserted in the pelvis and inflated with normal saline. 25 patients were male and 5 were females. 22 patients underwent PE, 7 underwent APR and 1 patient had Hartmann's procedure. 14 cases were performed laparoscopically, 2 robotic, 2 laparoscopic converted to open and 12 were open cases. Bakri balloon was inserted at the time of first surgery in 28 patients, for one patient it was inserted as a part of staged procedure and for one patient at the time of exploration for acute intestinal obstruction in an operated case of APR. 7 patients had perineal wound infections out of which 6 were managed conservatively , 1 patient required secondary suturing and one patient developed local recurrence. Mean follow up was 10 months and median follow up was 13 months with a range of 1 month to 24 months. None of the patients had chronic perineal wound infections. Follow up computerized tomographic (CT) scans done after 3 months or more were available for 8 patients which showed a persistent cavity in the pelvis with a variable distance from a line joining the pubic symphysis and sacral promontory with the mean value of 5.3cm and the range being 1.7cm to 8.7cm.
Conclusion: Bakri balloon is a simple, safe and cost-effective method to reduce the complications of empty pelvis syndrome without a significant increase in the perineal wound morbidity.
Disclosure of Interest: None declared.

P044 | Assessment of the safety and effectiveness of colorectal robotic-assisted surgery; a single-centre experience of the first 50 consecutive cases

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Aim: Colorectal robotic-assisted-surgery (RAS) is a novel technology with scarce real-world evidence. The aim of this retrospective review was to ascertain the safety and effectiveness of colorectal RAS.
Method: The Xi DaVinci robot was used to perform the first 50 colorectal resections in our centre. Outcomes on safety and efficacy were analysed and learning curves (LC) plotted using RStudio.
Results: The median age and BMI were 65 years (IQR, 50.25–76.5) and 28.3 kg/m^2 (IQR, 25.2–30.7), respectively, with 27 patients being female. Malignancy (66%) followed by rectal prolapse (18%) were the most frequent diagnosis, with all malignant tumours completely resected. High anterior resection was the most performed operation (36%). The median operative time was 256.5 minutes (IQR, 202.2–332.8). 27 patients had anastomosis (54%), 7 a stoma formed (14%) and 7 anastomosis with defunctioning loop ileostomy (14%). 2 unexpected intra-operative events occurred, with none requiring open conversion. 38 complications occurred in 21 patients, with the majority being minor; CD 1 (17, 44.7%) or 2 (11, 28.9%). Moreover, 5 patients developed an anastomotic leak (14.7%), 5 infections (10%), 2 required transfusions (4%) and 3 re-operation (6%). There was no 30-day mortality and the readmission rate was 8%. The median length of stay in hospital was 6 days (IQR, 4–8). All resections, except low anterior resections, resulted in a significantly lengthier stay compared to rectopexies. Finally, projections from LCs indicated that outcome optimization can be achieved at 33–39 cases.
Conclusion: Colorectal RAS in our centre produced no 30-day mortality, no need for conversion to open, an 8% readmission and 20% complication (>CD 2) rate.
Disclosure of Interest: None declared.

P045 | Preoperative progressive pneumoperitoneum (PPP) and botulinum toxin type a (BT) use in colostomy closure with large parastomal hernia repair

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Aim: Share our first experience in colostomy closure associated with large parastomal hernia repair using PPP and BT.
Method: Case report. Database from the patient's medical history and images of the procedures.
Results: A 61-year-old male patient with a history of sigmoid loop colostomy due to abdominal trauma with a firearm. He subsequently developed a giant parastomal hernia with loss of domain. He was hospitalized and a pneumoperitoneum catheter was installed under interventional radiology. PPP was performed with 50 to 300 cc of air per day. In parallel, 50 IU of BT were injected bilaterally between the aponeuroses of the internal oblique and transverse abdominis muscles. At three weeks the control scan showed induced pneumoperitoneum and a partial dissection of the hernia sac. Surgery was performed at one time, closing the loop sigmoid colostomy and an incisional hernioplasty was performed with polypropylene onlay mesh. Medical discharge after 5 days without complications. To date there is no evidence of recurrence or complications.

Conclusion: In this first local experience, we see that by applying preoperative pneumoperitoneum and botulinum toxin, the closure of a loop colostomy associated with a parastomal hernioplasty with loss of domain is feasible and safe to perform at the same time. The doses of daily and cumulative pneumoperitoneum are a matter of discussion, as well as the amount of botulinum toxin and insertion sites. The same applies to colostomy closure and hernia repair at the same time or separately. We propose to prospectively standardize management in the future to obtain conclusive results.

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Disclosure of Interest: None declared.

P046 | Management of recurrent giant desmoid mesenteric tumor

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Aim: Share our experience and the complete management of this type of tumors based on a case report.

Method: Case report. Database from the patient's medical history and images of the procedures and pathological anatomy specimen

Results: A 50-year-old female patient with a history of segmental jejunal resection due to intestinal obstruction. The biopsy reported a spindle cell tumor with negative CD117, negative CD34, negative DOG1, negative S100, negative B-Catenin, and Ki-67 5%, compatible with desmoid tumor. Two years later, a control CT scan showed an intra-abdominal solid-cystic mass of 21 x 13 cm of intestinal origin. Radiotherapy was ruled out due to the size of the tumor. She completed 6 cycles of Doxorubicin Hydrochloride. A control CT scan showed an image of 25 x 22 x 9.4 cm, with an estimated growth of 7%. The patient persists with abdominal pain and weight loss. She was hospitalized for parenteral nutritional optimization. Three weeks later, surgery was performed, where 20 cm of jejunum adherent to the described tumor were resected. Terminal-terminal jejunal anastomosis was performed at 5 cm from the angle of Treitz. A nasoenteral probe (NES) was installed with an end 30 cm distal to the anastomosis. The patient evolved well, with postoperative ileus managed medically until full oral intake was recovered. Contrast endoluminal imaging study shows a permeable anastomosis. The patient was discharged 21 days after surgery. The definitive biopsy reported a desmoid tumor of 24 × 18 × 8 cm, negative section borders and Ki-67 <1%. To date, 24 months later, she is being followed up with no evidence of tumor recurrence.

Conclusion: Desmoid tumors are rare, benign and have a high recurrence rate. Most intra-abdominal tumors are in the mesentery of the small intestine and are usually small and do not cause obstruction. Multimodal, consecutive, and coordinated management is very important. Surgery with negative margins is essential to obtain good long-term results.

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Disclosure of Interest: None declared.

P047 | Colonic schwannoma: Case report

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Aim: We present a clinical case of right colonic schwannoma, successfully treated by laparoscopic colectomy.

Method: Case report. Database from the patient's medical history and images of the procedures and pathological anatomy specimen.

Results: 58 year old, male, with history of weight loss of 6 kg in 10 months and hematochezia. Consult for acute coronary syndrome, associated with anemia (hemoglobin 6 gr/dl). The coronary angiogram was normal, and a CT scan shows an ascending colon mass of 5.8 cm in major diameter. The colonoscopy shows an elevated lesion in the proximal ascending colon without mucosal abnormalities. The endoscopic diagnosis was a right colon submucosal lesion, and the biopsies showed colonic mucosa with mild inflammation. The patient underwent a laparoscopic right colectomy with nodal dissection, without intra-operative incidents. The transit was restored with a mechanical, side to side, antiperistaltic anastomosis and the evolution was satisfactory, without complications. The discharge was 4 days after surgery. The pathology demonstrates a nodular lesion of 6 x 5 x 4 cm, with an ulcerated central area, that protrude from the submucosal layer. Histology showed that 14 lymph nodes were dissected without neoplasia. The lesion was located in the muscular layer and the immunohistochemistry was intense positive in nucleus and cytoplasm for S-100, and negative for CD34, CD117, actin and desmin. The histological diagnosis was benign Schwannoma. During follow-up, the patient has had no recurrences or complications.

Conclusion: Schwannoma is a benign tumor, growing from the neural sheath. They are usually slow growing lesions and if is not resected malign degeneration can be possible. The colonic involvement without a systemic neurofibromatosis is very rear. Complete local excision with oncological criterion is considered the best treatment, and the minimally invasive surgery is the first choice.

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Disclosure of Interest: None declared.

P048 | Efficacy of interdisciplinary operation of multicompartmental pelvic organ prolapse

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Aim: The multicompartmental pelvic organ prolapse (MCPOP) is a disorder causing a combination of faecal or urinary incontinence, dyspareunia and evacuation disorders. In our Institution, we perform an interdisciplinary operation. The aim of this study is to investigate the efficacy of this interdisciplinary approach in the long-term.
Method: The study is a retrospective cohort study. All Patients undergoing interdisciplinary combined anterior mesh rectopexy and sacrocolpopexy using a second mesh supporting the bladder between 2013 and 2021 were enrolled. Follow-up was done with clinical investigations and questionnaires at 6 weeks, 6 and 12, 24, 60 and 120 months. Morbidity (Clavien-Dindo classification), quality of life, and patients' satisfaction were assessed at each evaluation. We analysed the recurrence rates, complications, functional outcome and patient satisfaction.
Results: 39 patients were included. Laparoscopic surgery was performed in 95% of cases. We experienced intraoperatively one vaginal, 2 bladder and 1 small-bowel lesions which healed without consequences. The 30-day Morbidity (Clavien-Dindo ≥3) was 0%. We had no 90-day mortality. We reached a long follow-up on average of 35 months. 3 patients out of 39 (7.7%) showed a recurrence, which had to be reoperated. An average of 54 months passed from the primary surgery to the diagnosis of recurrence. The Patients level of satisfaction reached 7.4/10 points.

Age (Years–Range)
65 (36–84)
ASA (Score, %)
ASA I: 7 (18%)
ASA II: 26 (66.6%)
ASA III: 6 (15.3%)
ASA IV: none
BMI (kg/m^2–Range)
25.15 kg/m^2 (19.2–38.8)
Hospitalisation (Days–Range)
7 (5–13)
Satisfaction Post-OP (Max. 10 Pt.)
7.4
Follow-up (Months, Range)
34.5 (2–109)

Table 1.

Conclusion: Interdisciplinary combined procedure represents an effective treatment for MCPOP with a low morbidity, no mortality and a low rate of recurrence. As the patients stay satisfied after a long follow-up of 35 months it can be recommended to them as a good therapy for that condition.
Disclosure of Interest: None declared.

P049 | Preoperative hemoglobin levels and risk of complications in colon cancer surgery

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Aim: Preoperative anemia is common in colon cancer patients. However, it is uncertain at what hemoglobin level the risk of postoperative complications begins to increase. The purpose of this study was to examine preoperative hemoglobin levels and the risk of complications.
Method: This was a retrospective study of adult patients that underwent elective colonic resection for colon cancer at Helsingborg Hospital, Sweden. Patients were divided in four groups based on quartiles of hemoglobin levels. A multivariate stepwise logistic regression was conducted to assess the association between hemoglobin level and short-term (<30 days) complications (Clavien-Dindo grade II-V).
Results: A total of 877 patients was included and 284 (32.4%) had postoperative complications. There was no difference in complications between hemoglobin quartile three (121–134g/L) and four (>134g/L), p=0.852. However, the risk of complications was increased in quartile one (<108g/L), and two (108–120g/L) in both univariate and multivariate analysis. In multivariate analysis the risk of complications in quartile two was OR 1.80 (CI 1.19–2.74, p=0.006) and in quartile one OR 1.96 (CI 1.27–3.03, p=0.003) compared with quartile four. All the patients that died within 30 days and 75% of patients with Clavien-Dindo grade IV had a hemoglobin ≤121g/L. The increase in complications was highest

for cardiac complications, RR 4.82 (CI 2.02–11.5, $p < 0.001$), although the risk was increased also for surgical ($p=0.044$) and infectious ($p=0.008$) complications.

Conclusion: This study shows that a hemoglobin level ≤121g/L is independently associated with a higher odds of 30-day complications and more severe complications. Optimizing hemoglobin levels preoperatively may reduce complications.

Disclosure of Interest: None declared.

P050 | Comparing ETDA and citrate bloods tubes and anti CD45 and anti EPCAM antibodies for best capture of circulating tumour cells in colorectal cancer (CRC)

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Aim: Circulating tumour cells (CTCs) are fragments of the primary tumour which are blood-borne. These can be single cells or clusters which are held together by intercellular junctions. Both can develop into metastasis however clusters have more potential to. Reported literature has shown CRC patients with more than three CTCs in 7.5ml of blood have a poorer outcome of both progression free survival (PFS) and overall survival (OS), and patients with liver metastasis had an increased CTC yield in their study. EDTA is known to keep the cells in blood apart and there were concerns that clusters of CTCs would be broken up into single cells. The aim is to determine which blood bottle to use to capture CTCs and which antibodies yield the highest number of tumourspheres.

Method: 7.5ml blood samples were collected in either a EDTA or citrate blood tube and were spiked with cancer cells and clusters obtained from a TrypLE digest of a CRC tumoursphere line. Each sample was passed through the Parsortix® cassette which retained cancer cells and large immune cells. Captured cells were labelled with Anti EpCam/Anti CD45 coated magnetic beads then layered onto Matrigel to enrich the cancer cells and placed on a magnet plate which separated the remaining cells. Tumourspheres were cultured and counted on the Cytation 5 microscope.

Results: Overall, the control group 63 tumourspheres were counted, followed by 40 in the EDTA EpCam group, 33 in the citrate EpCam group, 29 in the citrate CD45 group and 28 in the ETDA CD45 group.

Conclusion: Initial experiments have shown that using an ETDA tube with EpCam antibodies yielded the highest number of tumourspheres after being placed through the Parsortix® machine. This information can be used when taking this concept further when capturing CTCs directly from patients.

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Disclosure of Interest: None declared.

P051 | The elderly patient. The pending task of the ERAS protocols

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Aim: The enhanced recovery protocols in abdominal surgery (ERAS) are a combination of pre, intra and postoperative measures that allow an early recovery of patients. Elderly patients are the ones who can obtain the greatest benefit from these protocols, but their application in this population is especially difficult. The aim of this study is to analyze the differences in postoperative results in elderly patients operated on for colorectal cancer after the application of the ERAS protocol.

Method: A retrospective study was designed that included patients operated on for colorectal cancer in 2021 to whom the RICA protocol of our center was applied. The sample was divided into two groups. Group 1 included patients under 75 years of age and group 2 those over 75 years of age.

Results: 130 patients operated on between January 2021 and December 2021 were included. 64 patients in group 1 and 66 patients in group 2. The rate of complications in group 1 was 18.8% and in group 2 the 4.9% ($p = 0.002$). The most frequent complication was postoperative ileus (4.7% in group 1 vs 15.2% in group 2). There were no differences in the conversion rate, primary anastomosis, stoma, intraoperative complications, dehiscence, need for transfusion, mortality at 30 and 90 days, readmissions or reinterventions. The median stay in group 1 was 4 days and in group 2, 5 days ($p = 0.001$).

Conclusion: Despite the application of the ERAS protocol, elderly patients have a higher rate of complications, which translates into a longer postoperative stay. These results justify a specific intervention on patients older than 75 years, with frailty screening tools and individualized prehabilitation.

Disclosure of Interest: None declared.

P052 | Low anal fistulas treated by fistulotomy and sphincterorraphy. A safe procedure?

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Aim: To analyze the results of sphincterorrhaphy after fistulotomy in low anal fistula

Method: Patients and method: Retrospective study from January 2004 to December 2021, 58 patients with low transsphincteric fistulas were operated on according to the Parks classification. Six patients were prepared with Phospho-soda, the rest were not prepared and were treated on an outpatient basis. The Wexner fecal incontinence scale was performed after 3, 6 months and annually. Endoanal ultrasound was performed preoperatively in all cases and 6 months after surgery in 38 cases. Preoperative MRI was performed in 8 patients. The operation was performed in lithotomy or jackknife position and endoanal exploration with a Sims valve. The fistula tract was explored using H2O2 or a fistula probe (n = 58). After fistulotomy, a sphincterorraphy was performed with absorbable 2/0 sutures followed by vertical closure of the mucosa up to the anal verge.

Results: 58 patients (21M/37V) with a mean age of 53.9 years (R: 31–73), being 24 anterior/34 posterior fistulas were operated on. Two high anterior/3 high posterior and 51 low and 2 intersphincteric fistulas. 40 patients underwent previous surgery due to a perianal abscess and in 18 cases there was a series of procedures before sphincterorraphy (12 loose setons, 4 LIFT, 2 fistulectomies). Two fistulas were of obstetric origin. Three sphincter dehiscences were observed by digital and endoanal ultrasound. in 8 cases there was persistence/recurrence of the fistula (13.8%). The Wexner score showed fecal incontinence for gas in 11 cases (18.96%), soiling in 3 cases (5.17%) and 1 case with solid incontinence (1.72%). This case had not previously been operated on the fistula.

Conclusion: Sphincterorrhaphy after fistulotomy is a simple and safe procedure for low anal fistulas, but with an overall incontinence rate of 25.85%, although most are due to gas. History of fistula surgery still goes on.

Disclosure of Interest: None declared.

P053 | Bowel recovery after intra vs extracorporeal anastomosis for oncologic laparoscopic right hemicolectomy within an eras protocol: A retrospective study

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Aim: Restoring bowel continuity after laparoscopic right hemicolectomy with an intra-corporeal (IC) rather than an extracorporeal (EC) ileocolic anastomosis, may offer advantages in post-operative recovery. We compared bowel function recovery between IC/EC, in a context of complete mesocolic excision within an enhanced recovery after surgery (ERAS) protocol.

Method: All consecutive patients underwent oncologic laparoscopic right hemicolectomy from January 2012 until February 2021 in our institution were included. Data were gathered from the prospectively maintained official ERAS (EIAS) database. The primary endpoint was Prolonged Postoperative Ileus (PPOI). Propensity score matching was used to mitigate the risk of bias.

Results: 108 patients met the inclusion criteria, 36 (30%) had IC and 72 (70%) EC anastomosis. In the unmatched population, baseline characteristics were similar except for more frequent use of epidural analgesia in EC group (62 (72.9%) vs. 17 (47.2), p = 0.007). Operative time was longer in IC group (197 min (176–223) vs. 160 (140–189), p < 0.001). Rate of PPOI was similar (2 (5.6%) patients in the IC group vs. 10 (11.6%) in the EC group (p = 0.306), but time to frist passage of flatus and stool was shorter in IC group. There was no difference in morbidity but patients after IC anastomosis had lower pain VAS scores at 24h (p = 0.004) and a trend for a shorter LoS (6 (5–8) days vs 7 (5–10) in the EC group, p = 0.054). After PSM, there were 36 patients in each group. PPOI, time to first flatus and stool, morbidity and LoS were not significantly different although there was a trend for better recovery outcomes in the IC group. Patients in the IC group had significantly longer operative times but less pain at 24 hours.

Conclusion: Although IC anastomosis was not significantly associated to lower rates of PPOI, it showed trends of faster recovery and significantly less post-operative pain at the expense of longer operating times.

Disclosure of Interest: None declared.

P054 | Association between plane of mesocolic dissection and recurrence after complete mesocolic excision for right-sided colon cancer: A cohort study

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Aim: Dissection in the mesocolic plane is considered as crucial in complete mesocolic excision. We aimed to assess the association between intramesocolic plane dissection assessed on fresh specimens by the pathologist and recurrence after complete mesocolic excision for right-sided colon cancer when compared with mesocolic plane dissection.

Method: Single-centre study based on prospectively registered data on patients undergoing resection for UICC stage I–III right-sided

colon adenocarcinoma during the period 2010–17. The patients were stratified into either an intramesocolic plane group or a mesocolic plane group. Primary outcome was risk of recurrence after 4.2 years using inverse probability treatment weighting and competing risk analyses.

Results: Of a total of 384 patients, four (1%) were excluded as the specimen was assessed as muscularis propria plane, 348 (91.6%) of the included specimens were deemed as mesocolic and 32 (8.4%) as intramesocolic. The 4.2-year cumulative incidence of recurrence after inverse probability treatment weighting was 9.3% (6.3–12.4%) in the mesocolic group compared with 14.1% (3.3–24.5) in the intramesocolic group with an absolute risk difference of 4.7% (−6.0 to 15.4; $p = 0.38$) in favour of the intramesocolic group. No difference in risk of local recurrence, death before recurrence, and in overall survival after 4.2 years was observed between the two groups.

Conclusion: High-quality surgery can be achieved with of more than 90% assessed as mesocolic plane dissection. We failed to show any association between dissection plane and risk of recurrence and the role of the classification seems more to be a guide for the surgeon where to improve the surgical technique than as a risk predictor.

Disclosure of Interest: None declared.

P055 | Mesorectal failure after radiochemotherapy for squamous cell carcinoma of the anus: Is Sphincter-saving surgery reasonable?

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Aim: In squamous cell carcinoma (SCC) of the anus, abdominoperineal resection (APR) is today the standard treatment to improve survival in case of mesorectal failure without anal canal recurrence after chemoradiotherapy (CRT). In these patients, 5-year overall survival ranges from 23 to 64%. The aim of this study was to assess if a sphincter-saving surgery could represent a safe alternative to classical salvage APR in these patients.

Method: All patients undergoing total mesorectal excision (TME) with sphincter-saving surgery either by coloanal or low colorectal anastomosis, for mesorectal failure with persistent complete response in the anal canal after CRT for SCC, between 2012 and 2020, were included in our study. Data were extracted from a prospective maintained database and analyzed retrospectively.

Results: A total of 10 patients was included. On TME specimens, R0 resections were noted in 5 patients (50%), R1 resection in 4 (40%) and R2 resection in 1 (10%). After a mean follow-up of 42 months (4–74), 5 patients were alive (2 without recurrence and 3 with recurrence); 4 patients died from recurrence and one was lost to follow-up. Loco-regional failure after TME was noted in 2 patients (20%), distant relapse in 3 patients (30%) and both locoregional and distant failure in 2 patients (20%). Long term local control was achieved in 2 of the 5 patients (40%) who underwent R0 resection versus only 1/4 patients (25%) with R1 resection.

Conclusion: Our preliminary study suggested that sphincter-saving surgery could be proposed in selected patients with SCC presenting mesorectal failure without anal canal recurrence after CRT, providing a feasible R0 resection. A 5-year overall survival of 40% was noted in the present study.

Disclosure of Interest: None declared.

P056 | Surgical heuristics with 'opting out' from an enhanced recovery pathway in octogenarian colorectal cancer patients: A retrospective cohort study

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Aim: The benefits of enhanced recovery after surgery (ERAS) in the octogenarian colorectal cancer population is not well established. Many colorectal centres use an 'opt out' policy for those patients who have a high risk of 'failing' an ERAS pathway. The aim of this paper explores the heuristics involving key baseline, functional and operative factors that affect a surgeon's decision-making when 'opting out' of an ERAS pathway.

Method: This is a single-centre retrospective cohort study using prospectively collected data. Octogenarian patients, with colorectal resections from 2013–2020 were included. An ERAS pathway was the standard of care. The surgeon decided to 'opt out' patients unlikely to recover by an ERAS pathway at the time of the operation. An exploratory analysis was performed using multivariable logistic regression to identify factors associated with the surgical decision to 'opt out' of an ERAS pathway.

Results: 214 patients were included in total. 154 and 60 were in the ERAS and non-ERAS pathways respectively. After multivariate analysis, admission acuity (OR 8.56 [95%CI 2.27–32.2], $p < 0.001$), frailty (OR 2.84 [95%CI 1.11–7.25], $p = 0.029$), significant adhesions (OR 6.35 [95%CI 2.74–14.7], $p < 0.001$), an open procedure (OR 5.77 [95%CI 2.44–13.6], $p < 0.001$) and bleeding requiring haemostatic agents (OR 7.40 [95%CI 1.50–36.5], $p = 0.014$) were found to be significantly associated with the decision making process in opting out of an ERAS pathway.

Conclusion: The presence of an emergency resection, a frail patient, significant adhesiolysis, open operations and intraoperative bleeding are factors that may influence the decision making to "opt out" of an ERAS pathway for the octogenarian CRC patient.

Disclosure of Interest: None declared.

P057 | A comparative study of trans-anal haemorrhoidectomy (THD) versus open haemorrhoidectomy. Our experience

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Aim: Haemorrhoid is a common surgical problem that can affect the quality of life apart from the discomfort. With advancement newer, surgical techniques have been proposed for dealing with hemorrhoids. Trans-anal haemorrhoidal dearterialization (THD) has been put forward as the treatment with superior results. We aim to analyze our results of THD when compared to conventional haemorrhoidectomy with 1 year follow-up time period.
Method: A prospective comparative data was collected with 90 cases in total operated by the same surgical team with hemorrhoids (divided into 2 groups THD n = 45, Open Haemorrhoidectomy n = 45). All patients with grade 3,4 hemorrhoids were taken into this study. Patients operated previously and patients with thrombosed piles were excluded.
Results: A total of 90 patients underwent surgery for hemorrhoids within this time period. Both the groups comprised 45 patients each. 87 patients were followed up, and 3 patients were lost in follow-up17 male patients (37.8%), and 28 female patients (62.2%) were in the THD group.13 male (28.9%) and 32 female (71.1%) patients were in the OH group. The mean age was 42 years in THD, and 47.6 years in the OH group. 18 patients (40%) had complained of moderate-intensity pain in the THD group, whereas 23 patients (57.6%) had complained of moderate to severe pain in the OH group. 7 patients (15%) in the OH group developed a post-operative infection.
Conclusion: Doppler-guided THD surgical procedure is a well-recognized innovative surgical technique, in our study; it has proven to have a more favorable outcome in terms of postoperative pain, infection, and recurrence rates. It helps in early return to normal physical & professional activities. The learning curve for the operator for THD is debatable.
Disclosure of Interest: None declared.

P058 | Single incision versus multi-port laparoscopy for ileocaecal resection in patients with Crohn's disease: Systematic review and meta-analysis

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Aim: Crohn's disease, a chronic non-infective inflammatory bowel disorder, commonly affects the terminal ileum and caecum. We performed a systematic review and meta-analysis to compare outcomes of single incision laparoscopic surgery (SILS) versus multi-port laparoscopy for ileocaecal resection in patients with Crohn's disease.
Method: A systematic search of multiple electronic databases was conducted. Peri- and post-operative outcomes were evaluated between Crohn's patients undergoing SILS versus multi-port laparoscopy for ileocaecal resection. Primary outcomes included total operative time, conversion rate, anastomotic leak rate, post-operative wound infections and length of hospital stay. Analysed secondary outcomes were ileus occurrence, intra-abdominal abscess/sepsis post-operatively, return to theatre and re-admissions. Revman 5.3 was used to perform statistical analysis.
Results: A total of 5 observational studies with 511 patients were included in the data synthesis. This included 211 in the SILS group and 310 undergoing multi-port surgery. Patients undergoing SILS had a reduced total operative time compared to multi-port laparoscopy [MD: −16.14; 95% CI [−27.23 to 5.05], p = 0.004]. Post-operative hospital stay was also found to be significantly less in the SILS group [MD: −0.57; 95% CI [−0.73 to −0.42], p < 00001].
No significant difference was seen in anastomotic leak rate [MD: −16.14; 95% CI [−27.23 to 5.05], p=0.004] or post-operative wound infections [OR: 0.78; 95% CI [0.24-2.47], p = 0.67] between the two groups. Moreover, all the measured secondary outcomes were comparable.
Conclusion: SILS seems to be a feasible alternative to multi-port laparoscopic surgery for ileocaecal resection in patients with Crohn's disease. Improved outcomes in terms of total operative time and length of hospital stay were observed in patients undergoing SILS surgery. Adopting this procedure into routine clinical practice constitutes the next step in the development of minimally invasive surgery.
Disclosure of Interest: None declared.

P059 | Comparison of the colonic J-pouch versus side-to-end anastomosis following low anterior resection: Systematic review and meta-analysis

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Aim: We evaluated comparative clinical, functional, and anorectal physiology outcomes of the side-to-end (STE) versus colonic J-pouch (CJP) anastomosis following anterior resection for rectal cancer.
Method: A systematic search of multiple electronic data sources was conducted. Studies comparing STE versus CJP coloanal anastomosis were included. Peri- and post-operative complications, mortality rate, functional and anorectal outcomes were evaluated. Risk of bias was assessed using the Newcastle-Ottawa scale for observational studies and the Cochrane risk of bias tool for randomised controlled trails (RCTs). Random effects modelling was used for all outcome analysis.
Results: 12 articles comprising 8 RCTs and 2 observational studies were included. A total of 1,186 patients divided into STE (n = 557) or

CJP (n = 568) were analysed. Of all the functional bowel outcome parameters (stool frequency, stool urgency and faecal incontinence), only the sensation of incomplete bowel evacuation was significantly higher in the CJP group at 6 months [OR: 2.07; 95% CI [1.06–4.02], p = 0.03]. Intra-operative clinical parameters such as total operative time and blood loss were comparable for both groups. Importantly, post-operative complications such as anastomotic leak, recto-vaginal fistula formation, return to theatre, anastomotic stricture formation and mortality rates were also comparable.

Most of the analysed anorectal physiology parameters (anorectal volume, anal squeeze pressure, maximum anal volume) were not significantly different between the two groups. However, anal resting pressure (mmHg), 2 years post-operatively was noted to be significantly higher in the STE group compared with the CJP configuration [MD: -8.76; 95% CI [−15.91 to 1.61], p = 0.02].

Conclusion: Clinical and functional bowel outcomes from CJP surgery and STE coloanal anastomosis are comparable. Neither technique appears to proffer solution to LARS in the short term but future well-designed, high-quality RCTs with long term follow up are required.

Disclosure of Interest: None declared.

P060 | Risk factors for anastomotic leak in elderly patients undergoing colorectal cancer surgery: Systematic review and meta-analysis

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Aim: Elderly population represents a large part of daily clinical practice, and interventions for colorectal cancer are frequent. The aim of this study is to assess current evidence on the influence of age and other risk factors related to anastomotic leak (AL) in older patients undergoing intestinal resection for colorectal cancer.

Method: A systematic review was carried out in accordance with the PRISMA guidelines, with a systematic search in PubMed, Scopus, Web of Science and Cochrane Library until July 2021. Those articles that evaluated the risk of dehiscence according to age or in relation to a specific risk factor in the population over 70 years, were included. The main outcome measured was AL. For each study, data related to the characteristics of the study, sample size, procedure performed, and population included were extracted.

Results: A total of 57 studies were included in the review. For the analysis of patients over 75 years, age was related to an increased risk of AL (OR 1.19, 95% CI 1.12–1.27). However, in the analysis of studies with a cut-off of 80 and 85 years, no significant results were found (OR 0.96; CI 95% 0.78–1.18) and (OR 1.25; 95% CI 0.85–1.83) respectively. In the analysis of the approach in older patients, no influence of the laparoscopic vs. open approach was found in the risk of AL (OR 1.32; CI 95% 0.82–2.14). An increased risk of major Clavien Dindo complications was seen (OR 1.12; 95% CI 1.01–1.25) as well as a significant increased risk of dehiscence-related mortality (OR 3.53; 95% CI 2.85–4.36). Among the factors related to AL that have been described in the current literature, we found frailty, sarcopenia, emergency surgery and low adherence to the ERAS guidelines.

Conclusion: Identifying specific factors related to AL in the elderly population can help develop specific prehabilitation strategies. The greater impact in this population group of AL with a significant increase in mortality must be taken into consideration.

Disclosure of Interest: None declared.

P061 | Quadruple assessment using transrectal ultrasound scan is effective at accurately facilitating choice of excision plane by tems in the complex SPECC lesion

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Aim: There is currently no consensus as to the optimal imaging modality for Significant Polyps and Early Colorectal Cancer (SPECC). This study describes the use of transrectal ultrasound (TRUSS) as part of a quadruple assessment process to evaluate the depth of invasion of SPECC lesions and guide local excision.

Method: Pre-operative imaging and histology were reviewed for all patients undergoing transanal endoscopy microsurgery (TEMS) at Cheltenham General Hospital between 2013 and 2019. Treatment options included mucosectomy, partial thickness excision and full thickness excision.

The dataset was studied specifically to evaluate the risk that malignancy will be present at the deep margin. 'Failure' of assessment was thus defined as the failure to detect and achieve complete local excision of malignancy.

Results: 400 patients were included: 319 primary lesions and 81 secondary lesions. Amongst the primary lesions 93.7% (n = 299) had successful R0 excisions. Of the primary lesions with incomplete excisions 50% (N = 10) had undergone mucosectomy, 40% (n = 8) full thickness excision and 10% (n = 2) partial thickness excision.

Amongst the secondary lesions 92.6% (n = 75) had R0 excisions. Of those with R1 excisions 33.3% (n = 2) were full thickness excisions and 66.6% (n = 4) were partial thickness excisions.

Conclusion: Using TRUS as part of a quadruple assessment process has enabled us to accurately predict the appropriate plane of excision for primary and secondary SPECC lesions. This allows delivery of local treatment and offers the opportunity to individualise treatment for a particular lesion. Full thickness excisions can be reserved for those with deeper predicted depth of invasion.

Disclosure of Interest: None declared.

P062 | Quality of live after laserhemorrhoidoplasty

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Aim: Ziel: Ziel dieser Studie ist es, die Veränderungen der gesundheitsbezogenen Lebensqualität anhand des standardisierten Fragebogens Short Form 8 Health Survey (SF8) nach der Lasertherapie bei Hämorrhoidalerkrankungen zu bewerten und mit den präoperativen Daten zu vergleichen.
Method: Methode: Die Laserhämorrhoidoplastik ist eine minimalinvasive Therapie mit vielversprechenden kurz- und mittelfristigen Ergebnissen. Das Verfahren ist standardisiert und auch die postoperative Versorgung unterliegt einem festen Schema. Die Erhebung von Patientendaten mittels des SF-8-Fragebogens ist eine anerkannte Methode zur Messung der physischen und psychischen Komponenten gesundheitsbezogener Lebensqualität. In dieser Studie wurden die Daten erhoben und durch den standardisierten Fragebogen prä- und 6 Wochen postoperativ verglichen. Zu diesem Zweck wurden die Daten von 50 Patienten erhoben.
Results: Ergebnis: Alle Patienten waren zum Zeitpunkt der Nachuntersuchung erfolgreich operiert worden. Die aus dem SF-8-Fragebogen zur Lebensqualität gesammelten Daten zeigten eine Verbesserung in allen Unterkategorien bei allen Patienten. Die postoperativen Schmerzen verbesserten sich im Durchschnitt von 3,29 auf 1,44. Die deutlichste Verbesserung war das psychische Wohlbefinden (3,22 bis 1,56 in der Ansprechskala). Dies korreliert mit der Rolle der sozialen Funktion (2,38 bis 1,62). Alle anderen Unterkategorien zeigten ebenfalls eine Verbesserung im postoperativen Stadium (körperliche Rollenfunktion 2,15 bis 1,74; körperliche Funktion 2,38 bis 1,59; Vitalität 3,23 bis 2,29; emotionale Rollenfunktion 2,84 bis 1,94).
Conclusion: Schlussfolgerung: Die Laserhämorrhoidoplastik führt 6 Wochen postoperativ zu einer Verbesserung der gesundheitsbezogenen Lebensqualität.
Disclosure of Interest: None declared.

P063 | Laser haemorrhoidoplasty for thrombosed haemorrhoids grade III – Long term results

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Aim: Ziel: Ziel der vorliegenden Studie ist es, eine neue Operationstechnik für thrombosierte Hämorrhoiden dritten Grades vorzustellen. Es ist bekannt, dass die Laserhämorrhoidoplastik (LHP) ein minimal-invasives, schmerzarmes chirurgisches Verfahren für Hämorrhoiden zweiten und dritten Grades mit vielversprechenden kurz- und mittelfristigen Ergebnissen ist.
Method: Methode: 73 Patienten mit thrombosierten Hämorrhoiden 3. Grades wurden einer chirurgischen Therapie mittels Laserchirurgie mit einem 1470 nm, 8 Watt Diodenlaser unterzogen. Alle Patienten hatten zuvor eine konservative Therapie erhalten. Peritual wurden klinische und technische Daten bis zu 6 Wochen und Folgedaten bis mindestens 19 und 58-62 Monate prospektiv ausgewertet.
Results: Befund: Die durchschnittliche Dauer der Operation betrug 6,63 Minuten. Durchschnittlich wurden 3,84 Hämorrhoidalknoten behandelt. Der mittlere postoperative Schmerz betrug 2,3/10 (VAS) am ersten Tag und 1,58/10 (VAS) am zweiten Tag. Die langfristige Symptomrelevanz betrug 100% und die Patientenzufriedenheit 93,4%. Bei keinem Patienten traten Komplikationen auf. Innerhalb der ersten 6 Monate konnte kein Wiederauftreten festgestellt werden. 58 (79,5%) Patienten wurden zwischen 58 und 62 Monaten nach der Operation einer Untersuchung unterzogen. 4 (6.9%) dieser Patienten hatten nach 5 Jahren ein Rezidiv.
Conclusion: Schlussfolgerung: Die Behandlung von Hämorrhoidalerkrankungen mit dem Diodenlaser stellt auch bei komplizierten Hämorrhoiden einen kreisförmigen chirurgischen Eingriff dar. Die Laser-Hämorrhoidoplastik ist ein sicherer, schmerzarmer und minimal-invasiver chirurgischer Eingriff mit langfristig guter Patientenakzeptanz und -zufriedenheit bei Hämorrhoiden Grad II-III. Es zeigt sich hier auch ein schmerzarmer chirurgischer Eingriff bei thrombosierten Hämorrhoiden Grad 3 mit geringer Komplikationsrate und hoher Patientenzufriedenheit.
Disclosure of Interest: None declared.

P064 | The efficacy of laser hemorroidoplasty (LHP) in the treatment of symptomatic hemorrhoidal disease

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Aim: Laser Hemorroidoplasty (LHP), an emerging non-excisional surgical procedure in which the arteriovenous flow of the hemorrhoidal plexus is interrupted through laser coagulation, has made its rise over the last 10 years in the treatment of hemorrhoids. The aim of this retrospective case series is to assess efficacy of LHP in treating symptomatic hemorrhoidal disease.
Method: Patients who underwent treatment for symptomatic hemorrhoids (degrees 1–4) through an LHP procedure between 2015 and 2021 have been included in the study. All consecutive patients were eligible for inclusion. A total of 200 patients (71% male, average age 51 years) were analysed. A 1470nm-diode laser was used. Our primary outcome was based on patient satisfaction. Secondary outcomes consisted of postoperative blood loss, pain and complications which were evaluated 6 to 7 weeks post-operatively. Recurrence of hemorrhoids following LHP treatment within one year were evaluated.
Results: Patient satisfaction was reached in 155 (77.5%) patients. Post-operative blood loss was reported by 44 (22.0%) patients during time of evaluation. 29 (14.5%) patients reported postoperative pain after 4 weeks. Post-operative complications occurred in 7 patients (3 anal fissures, 2 perianal abscess, 1 perianal fistula, 1

postoperative anemia). OR time was 21 minutes with an average surgical time of 7 minutes. Recurrence of hemorrhoids within one year occurred in 50 (25.0%) patients.

Conclusion: LHP is a promising and effective non-excisional surgical procedure in the treatment of symptomatic hemorrhoidal disease showing high patient satisfaction, minimal postoperative symptoms, short operative times and acceptable recurrence rates.

Disclosure of Interest: None declared.

P065 | Tailored stoma policy after tme for rectal cancer: The tasty approach

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Aim: The aim of the TASTY project is to design and pilot a standardised, tailored approach to diverting stoma in low rectal cancer.

Method: Phase I externally validated the Anastomotic Failure Observed Risk Score (AFORS). We compared the observed rate of AL in our cohort to the theoretical, predicted risk of the AFORS score. To identify the subset of patients who would benefit from early closure of the diverting stoma using C-reactive protein (CRP) we calculated the Youden index.

Phase II designed the TASTY approach based on the results of Phase I. This was evaluated within a second prospective cohort study in patients undergoing TME for rectal between April 2018 and April 2020.

Results: Eighty patients undergoing TME surgery for rectal cancer between 2016–2018 participated in the external validation of the AFORS score. The overall observed AL rate in this cohort of patients was 17.5% (n = 14). There was a positive correlation between the predicted and observed rates of AL using the AFORS score.

Using ROC curves we calculated a CRP cut-off value of 115 mg/L on POD2 for AL with a sensitivity of 86% and a negative predictive value of 96%.

The Tasty approach design allocates patients with a low risk AFORS score to primary anastomosis with no diverting stoma and high risk AFORS score patients to a diverting stoma, with early closure at 8–14 days, if CRP values and post-op CT are satisfactory.

The TASTY approach was piloted in 122 patients, 48 (39%) were identified as low risk (AFORS score 0–1) and 74 (61%) were considered to high risk (AFORS score 2–6).

The AL rate was 10% in the low-risk cohort of patient compared to 23% in the high-risk cohort of patients, p = 0.078. The grade of Clavien-Dindo mortality was equivalent.The incidence of major LARS was lowest in the no stoma cohort at 6 months (p = 0.014).

Conclusion: This study demonstrates the feasibility and safety of employing a selective approach to diverting stoma in patients with a low anastomosis following TME surgery for rectal cancer.

Disclosure of Interest: None declared.

P066 | Incisional hernia rate following laparoscopic anterior resection. Does extraction site matter?

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Aim: Incisional hernia are an established complication following abdominal surgery. There is limited data available on the relationship between formation of an incisional hernia and choice of extraction site for patients undergoing a laparoscopic anterior resection. This study aimed to determine the prevalence of incisional hernia following this operation and any potential link at our centre with choice of extraction site.

Method: All patients who underwent laparoscopic anterior resections over a 3-year period between 2015 and 2017 were identified from a local hospital database at a single centre. Patients were divided into 3 groups based on specimen extraction site (left iliac fossa, midline and pfannenstiel). All patients included in the study had a minimum of 4 years follow up. Patients who developed incisional hernia were identified through reviewing clinical notes and follow up imaging. Data regarding demographics, presentation and outcome were collected from these patients.

Results: A total of 95 patients underwent laparoscopic anterior resections. The total incidence of incision hernia across all groups was 10.5% (n = 10). The total incidence of incisional hernia at the site of specimen extraction was 7.4% (n = 7). The median time between operation and hernia diagnosis was 11.5 months (range 1–39 months). A higher rate of incisional hernia was noted in those with a left iliac fossa extraction site (n = 5, 14.7%), when compared to those with a midline extraction site (n = 2, 6.9%). No extraction site hernia were identified in patients with a pfannenstiel incision.

Conclusion: Incisional hernia were more common at specimen extraction sites compared to other incisional sites following laparoscopic anterior resection. No statistical significance was found between incisional hernia rates and extraction sites within our sample. Future studies with larger sample sizes are needed to investigate the potential correlation between incisional hernia and choice of specimen extraction site.

Disclosure of Interest: None declared.

P067 | Feasibility study of a response surveillance program in locally advanced mid and low rectal cancer to increase organ preservation

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Aim: Assessment of tumor response in rectal cancer after neoadjuvant treatment by MRI (Tumour Regression Grade, TRG 1–5) is well

standardized. The overall timing and method of defining complete response (cCR) remain controversial.

The aim of this work was to evaluate the feasibility of a defined Response Surveillance Program to increase organ preservation for locally advanced rectal cancer after neoadjuvant treatment.

Method: A standardized program of clinical (CR), radiological (RR) and metabolic (MR) assessment of tumor response is defined over a 6 months period from completion of NACRT with formal assessment performed every 2 months (M). Patients with TRG1-3 at M2 and TRG1-2 at M4 continue in the program up to M6 assessment. Patients managed with this protocol from 2016 to 2020 were analyzed.

The primary endpoint was rectal preservation rate. Secondary endpoints included disease-free survival and overall survival at 3 years.

Results: 314 potentially suitable patients were enrolled in the RSP and 50 patients completed the six weeks program. Fourteen (28%) were T2 tumor stage, 27 (54%) T3 and 9 (18%) were T4.

During watch and wait, patients with locoregional recurrence (n = 11) were treated with local excision (n = 3), endocavitary radiotherapy (n = 1), TME (n = 5) and APR (n = 2). With a median follow-up of 32 months, the rectal preservation rate was 88%, with a 3-year disease-free survival of 67% and an overall survival of 98%.

Conclusion: This study validates the feasibility of the practical implementation of a Response Surveillance Program to increase organ preservation rates without compromising oncological outcomes in rectal cancer.

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P068 | Tumor response rates based on TNM stage and tumour size following neoadjuvant therapy in locally advanced rectal cancer

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Aim: It is accepted that tumour stage and size can influence response to neoadjuvant therapy in locally advanced rectal cancer (LARC). Studies on organ preservation to date have included a wide variety of size and TNM stage tumours. The aim of this study was to report tumour response based on each relevant TNM stage and tumour size.

Method: Patients treated with LARC from 2014 to 2021 were assessed for inclusion. Inclusion criteria was as follows: patients with cT2-3 tumours who received neoadjuvant chemoradiotherapy with or without induction or consolidation chemotherapy. Tumours were staged and tumour size calculated on pelvic MRI at the time of diagnosis (cTNM). Tumour size was based on the largest dimension taken on the longest access of each tumour. Clinical response was defined on post treatment pelvic MRI and pathological response following surgery, when performed. Statistical analysis was performed using IBM SPSS Statistics™, version 20.

Results: Data from 433 patients were analysed as follows: cT2N0 (n = 51), cT2N+ (n = 39), cT3N0 (n = 82), cT3N+ (n = 261). The rate of complete or near-complete response varied from 77% in cT2N0 ≤3 cm to 29% in cT3N+ >4 cm. An organ preservation strategy was proposed in 86% of patients with cT2N0, 54% in cT2N+, 48% in cT3N0 and 13% in cT3N+. Patients with TNT had a significant higher rate of tumor response.

Conclusion: Significant variation in tumour response exists based on tumour stage and size. Tumour response appears inversely proportional to increasing TNM stage and tumour size. This data can support refinement of selective patient recruitment to organ preservation programmes.

Disclosure of Interest: None declared.

P069 | Incidence of colorectal cancer following detection of advanced adenoma

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Aim: The majority of colorectal cancers (CRC) develop from precursor polyps. Advanced adenomas (AA) are more likely to develop into CRC. Older age, male sex and obesity are risk factors for polyp formation, whilst some drugs such as aspirin and metformin are protective. We aimed to assess patient factors associated with polyps ≥20 mm, CRC occurrence within those polyps and long-term predictors of developing CRC.

Method: Endoscopy reports from 2012–2014 were interrogated for polyps ≥20 mm. Patient demographics, pathology and CRC registries were reviewed up to 2021 to ensure 5-year follow-up. The largest polyp was recorded for each patient (ideally histology size, endoscopy-reported size if not available)

Results: 508 patients had a polyp ≥20 mm, comprising 4.4% of all polypectomies in the 3 years. Median age was 68 (IQR: 60–75), 312 (61.4%) were male and median size was 25 mm (IQR: 20–30 mm). 125 (24.6%) were right-sided, 237 (46.7%) left-sided and 146 (38.7%) were rectal. 49 (9.7%) patients had CRC at index endoscopy. Polyp size was larger in those with concurrent cancer than without (p=0.003), with no difference in BMI, age, sex, aspirin or metformin use. 9 (18.4%) had high-grade dysplasia that was proven to be adenocarcinoma on resection pathology. Of the 459 without initial CRC, 15 (3.3%) developed it during follow-up (median 52.9 months). 80% occurred in the same colonic side as the previous polyp. There was no difference in original polyp size of those who developed CRC compared to those who did not.

BMI, age, aspirin & metformin use were not associated with future CRC.

Conclusion: This study confirmed previous findings that larger polyps are more likely to be in the left colorectum with increased malignancy risk as polyp size increases. Of polyps ≥20 mm 10% will have CRC. The sample size was too small to demonstrate patient factors predicting future CRC. However, the majority occur in the same location in the colon at a median time of around four and a half years highlighting the importance of surveillance

Disclosure of Interest: None declared.

P070 | Evaluation of helminth extracellular vesicles as a novel therapeutic for inflammatory bowel disease in a murine model of colitis; implications in coloproctology

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Aim: With the increasing complexity of inflammatory bowel disease (IBD) new therapies are clearly required. Recent evidence is coming to light demonstrating beneficial effects of helminth proteins. We aim to assess the prophylactic and therapeutic effects of extracellular vesicles (EVs) from the nematode N. brasiliensis, which serves as a model organism for human hookworm infections, in an acute model of colitis.

Method: Prophylactic and therapeutic effects of EVs were assessed in an acute model of colitis by the administration of 20 µg intraperitoneally (i.p) of Nb EVs or grape EVs. Mice were sacrificed after 5 days. Outcomes assessed included weight loss, clinical disease, as well as macroscopic and histologic disease scores. Groups were statistically compared for significant differences.

Results: The prophylactic administration of Nb EVs significantly reduced weight loss, clinical disease, and histologic pathology compared to grape EV-treated negative controls. Therapeutic administration of Nb EVs significantly reduced weight loss and histologic pathology in the colon.

Conclusion: The current study provides important evidence that the anti-inflammatory effects of helminth EVs can be harnessed to prevent and reverse inflammation in an acute mouse model of colitis. With further characterization of helminth EVs, these compounds have the potential to generate much needed new anti-inflammatory therapies for IBD.

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P071 | The effects of ondansetron on prolonged postoperative ileus in colorectal surgery patients

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Aim: The use of 5-HT3 receptor antagonists such as ondansetron in the postoperative colorectal patient is ever increasing. Limited data exists on the effects of ondansetron use on prolonged postoperative ileus (PPI), and to the best of the authors' knowledge no studies have investigated its effects in colorectal bowel resection with primary anastomosis. The authors' aim to evaluate whether ondansetron delays return to bowel function in this patient population.

Method: Retrospective chart reviews were carried out on all patients who underwent colorectal resection with primary anastomosis between 1 January 2017 and 30 April 2018. Markers for return to bowel function included time to passage of flatus, and bowels opening. Variables included ondansetron use, total dose, and use in conjunction with metoclopramide.

Results: In the 103 patients assessed, mean days to BO for ondansetron use and no ondansetron use was 4 and 4, respectively. Mean days to PF was 3 and 2, respectively. No significant difference existed in return to bowel function in patients who used ondansetron. Total dose of ondansetron had no significant effect on return of bowel function.

Conclusion: In the moderate sample size studied, and in keeping with other antiemetics previously studied in the literature, ondansetron did not show any significant effect on the return to bowel function after colorectal resection surgery with primary anastomosis. Limitations included the retrospective nature of the study, and a standardised postoperative medication and recovery regimen may be of use in future prospective studies to eliminate further confounding factors.

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P072 | Factors impacting 30-day mortality in emergency laparotomy

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Aim: With recent publication of the fourth annual National Emergency Laparotomy Audit (NELA), a certain level of international emergency laparotomy (EL) benchmarking has been set. This makes it more important than ever to critically review contemporary Australian EL outcomes, and identify factors contributing to 30-day mortality in our Australian population.

Method: A retrospective review of EL performed by the General Surgery service at the Gold Coast University Hospital between March 2015 and July 2017 was performed. Data was collected on patient demographics, American Society of Anaesthesiologists Score (ASA), time to diagnosis, indication for surgery, timing of surgery in or out of normal working hours, consultant presence, ICU admission, and hospital length of stay (HLOS).

Results: Mean age of patients undergoing EL was 63+/-17 years, with a comparable gender distribution. The consultant surgeon was the primary operator in 74% of all EL. Among 30-day mortality patients, 76.9% had an ASA of IV/V, ischaemic bowel was the most common cause of death (38.5%), and 84.6% were admitted to ICU. Univariate analysis identified age (p = 0.01), ASA IV/V (p = 0.001), ICU admission (p = 0.042), and ED-CT time (p = 0.089) as potential predictors of 30-day mortality. When analysed as part of a multivariate analysis, only ASA IV/V (p = 0.036; OR 9.44) and ED-CT time (p = 0.044; OR 1.005) were found to be independent predictors of 30-day mortality.

Conclusion: Overall 30-day mortality in EL patients was 12.4%. Limitations included the moderate sample size and retrospective nature of the study. There was no formalised EL protocol in the authors' institution, however this may convey a more accurate picture of day-to-day EL outcomes in an Australian tertiary hospital. Future prospective blinded audits into these variables would be crucial in assessing progress and working towards improving 30-day mortality in EL.

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Disclosure of Interest: None declared.

P073 | Comparison of open, laparoscopic, and robotic IPAA; outcomes for 411 patients from a single institution over 5 years

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Aim: Our aim is to describe operative characteristics, surgical and functional outcomes for open, laparoscopic, and robotic IPAA.
Method: A retrospect chart review was performed on all patients that underwent open, laparoscopic, and robotic proctocolectomy or proctectomy with IPAA between January 2015 and March 2020 at Mayo Clinic Arizona, Florida, and Rochester. Data collection included patient demographics, operative details, 30-day operative outcomes, and short-term functional outcomes.
Results: In total, 411 patients were reviewed. Of those, 155 were performed open, 108 in laparoscopically, and 148 robotically. The median age of the sample was 37 years. Ulcerative colitis was the primary diagnosis, 374 patients (91%).
An open, laparoscopic, or robotic two-stage IPAA was performed in 36 (23%), 31 (29%), and 57 (39%) cases, respectively. The median operative time of each technique was 395, 275, and 417 minutes, respectively.
Immediate surgical outcomes of open, laparoscopic, and robotic surgery demonstrated the following: median length of stay in days [4; 3; 4], postoperative Ileus/SBO [24 (17%); 31 (29%); 29 (20%)],surgical site infection [5 (3%); 2 (2%); 2 (1%)], pelvic abscess [7 (5%); 7 (6%); 10 (7%)], venous thromboembolism [1 (1%); 4 (4%); 11 (7%)], 30-day readmission [10 (6%); 30 (28%); 23 (16%)], 30-day reoperation [1 (1%); 7 (6%); 6 (4%)]. Short term surgical outcomes of open, laparoscopic, and robotic surgery demonstrated: pouch failure [9 (6%); 9 (8%); 5 (3%)], incontinence [(14 (10%); 7(17%); 2 (4%)]. Median follow-up in months for open, laparoscopic, and robotic approaches were 12.2 (0.1, 59.1), 16.8 (2.5, 66.9), 8.1 (0.3, 35.1) respectively.
Conclusion: Open, laparoscopic, and robotic IPAA remain safe and effective approaches to IPAA creation. More research is required to identify additional factors that should be considered when counseling patients and selecting surgical approach.
Disclosure of Interest: None declared.

P074 | From subtotal colectomy to ileo-anal pouch: an overview of our current pathway and a passport for the future

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Aim: To evaluate care for patients following subtotal colectomy (STC) for ulcerative colitis, with the overall aim to develop a standardised pathway for these patients and the investigations and procedures that follow, from surveillance to ileo-anal pouch surgery. The current pathway for STC patients is ad hoc and indistinct. Patients are seen in clinic some 10–12 months after surgery, often by a generic colorectal consultant who will then refer to one of two IBD specialists. Patient information is provided using with online resource signposting, rather than tailored literature.
Method: The Inflammatory Bowel Disease multidisciplinary team (IBD MDT) includes 2 surgeons, 4 gastroenterologists and 2 nurses. All members were sent online questionnaires aiming to define the current pathway, identifying its strengths and weaknesses. Online questionnaires were sent to 10 patients who have followed the current pathway following STC through to ileo-anal pouch surgery to obtain an honest view on their care.
Results: Of the 8 MDT members, 5 responded (62.5%): 50% (n = 4) felt patient were not given enough information about the next steps and 50% felt surgical follow up is inadequate. 6 (60%) patients responded. Over 80% (n = 5) of patients felt they received the right amount of information at the point of discharge after STC. Prior to outpatient review only 66% patients (n = 4) reported understanding all further investigation and management options.
Conclusion: A significant minority of patients felt they lacked sufficient understanding of the post-operative investigation and options for ongoing management. This corresponds with the view of 50% MDT members that current patient information is insufficient. To improve this, we have developed a passport of care which includes tailored literature on these subjects as well as information regarding red flag symptoms that should prompt patients contact the IBD team in case of complications. The impact of this passport is currently being evaluated.

Disclosure of Interest: None declared.

P075 | Sild procedure – 5 years experience in treatment of sinus pilonidalis

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Aim: There isn't still gold standard for surgical procedure in treatment of sinus pilonidalis (SP). Aim of study was to estimate results after SILD procedure: recovery, recurrency and patient's satisfactionabout result.
Method: There was analysed patients after SILD procedure under spinal regional anaesthesia done in Clinic. Postoperatively patients do wound care at home by self and used painkillers if needed. Patients had postoperative visits in clinic 1 week, 2 weeks, 1 month, 2 month and 6 months after procedure. Complete healing was confirmed with ultrasound investigation without signs of fistula track under skin and no pits on skin in natal cleft. In case of recurrency pit picking procedure was performed. After complete healing use of painkillers, complete healing time, return to work and satisfaction of patients about result was estimated.
Results: Totally were 178 SILD procedures done. Median complete healing time was 42 days (29–63 days). Only 5 patients (2.8%) takes painkillers for some days (Tab. Ibuprofenum 400 mg once a day). All patients (100 %) return to work and daily activities in next day after procedure. In 26 patients (14.6 %) there was signs of recurrency. Pit picking procedures was repeated till complete healing. Complete healing was achieved in 21 patients (11.7%) after 1 pit picking procedure, in 3 patients (1.6 %) after 2 procedures, in 1 (0.5 %) after 3 and in 1 (0.5 %) after 4 procedures. All patients were completely treated andsatisfied with result. Despite recurrent recurrency patients doesn't want have flap operations and want to have pit picking procedure again. No patient after SILD procedure gone to repeated SILD, flap operation or another procedure in op-room.
Conclusion: SILD is patients' friendly procedure in treatment of SP with very early return to work and daily activities, low pain level after procedure and easy solving of recurrency.
Disclosure of Interest: None declared.

P076 | The use of single-stapling techniques reduces anastomotic complications in minimal-invasive rectal surgery

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Aim: Leakage of rectal anastomoses is one of the most important and feared complications in colorectal surgery. Apart from patient-specific risk factors, technical aspects may influence the occurrence of anastomotic complications. This study investigated whether using single-stapling techniques (SST) instead of the double-stapling technique (DST) for minimal-invasive rectal anastomosis is associated with a lower rate of anastomotic complications.
Method: A retrospective review of 272 patients who received a minimally invasive stapled rectal anastomosis (3–16 cm from the anal verge) at our institution from 2015 to 2020 was performed. In 131 patients, rectal anastomosis was created by SST (SST group), while 141 patients received a rectal anastomosis with crossing stapler lines (DST group). The impact of the anastomotic technique on patient outcomes was determined by uni- and multivariate analyses.
Results: Overall anastomotic leakage rate was 6%. Patients with SST anastomoses had a lower leakage rate than patients with DST anastomoses (3% vs. 9% in the DST group, $p = 0.045$). The rate of anastomotic stenosis was lower in the SST group than in the DST group (1% vs. 6%, $p = 0.037$). Overall morbidity and mortality did not differ between the two groups. Multivariate analysis showed that single-stapling techniques significantly reduce the risk of anastomotic leakage (OR 3.5 [1.0–11.5], $p = 0.043$).
Conclusion: The use of SST for rectal anastomosis may help to reduce anastomotic complications. This finding should be confirmed by a randomized controlled trial.
Disclosure of Interest: None declared.

P077 | A case series of diaphragmatic reconstruction with surgimend bovine mesh in advanced splenic flexure adenocarcinoma

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Aim: Diaphragmatic repair after cancer resection has been performed with primary closure, flaps, synthetic, or allograft mesh. Primary closure is unsuitable in large defects, flaps add time and donor site morbidity, synthetic mesh can cause adhesions, and allograft mesh is not widely available. SurgiMend is a xenograft acellular collagen matrix derived from bovine dermis. The two cases described here demonstrate favourable outcomes when SurgiMend is used for diaphragmatic reconstruction in the oncological setting.
Method: Reported are two cases of locally advanced splenic flexure tumour, both with no distant disease, in a 56-year-old male (patient A) and 49-year-old female (patient B). Pre-operatively both patients had de-functioning stomas and neoadjuvant chemotherapy. Each case required subtotal colectomy, distal pancreatectomy, splenectomy and diaphragmatic resection. Diaphragmatic defects were bridged with SurgiMend mesh - in patient A an omental flap was placed over the repair, in patient B the omentum was excised.

Results: R0 resections were achieved for both patients. Due to the advanced nature of the tumours, both received adjuvant chemotherapy post-operatively. Both developed atelectasis and collections on both sides of the diaphragmatic reconstruction. All complications were treated conservatively. Surveillance imaging showed resolution of collections and no diaphragmatic herniae at 6-months post-surgery for both. At 24 months post-operatively, both patients remain recurrence free.

Conclusion: Bovine acellular dermal matrix used in reconstruction of large diaphragmatic defects from oncological resections appears to be safe and demonstrates good short- and long-term outcomes. This provides complex cancer surgeons with an additional option for diaphragmatic reconstruction.

Disclosure of Interest: None declared.

P078 | A review of current practices in tattooing of colonic lesion at endoscopy

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Aim: The NHS Bowel Screening Programme[1] recommends the use of endoscopic tattooing for suspected malignant lesions that later require surgical or endoscopic localisation, using local protocols as guidance. This is in accordance with guidance from The BSG (The British Society of Gastroenterologists). We used the *St Marks Hospital* protocol[2] as a standard to audit current tattooing practice in a large district general hospital with no current local guideline.

Method: A retrospective quantitative analysis of 50 patients who underwent segmental colonic resection for cancer over a 6 month period in 2021. We reviewed historic electronic endoscopy reports recording relevant data on tattoo indication and placement. Secondly, we carried out an anonymous survey of 16 independent lower GI endoscopists on self-reported details of their practice.

Results: In our study, 28 patients (56%) had a tattoo placed at the time of their colonoscopy. Of these, only 53% (*n*=15) had the tattoo distal to the lesion, with the measured distance of the tattoo from the lesion only being documented in 8 reports. Only 7 patients (25%) had a circumferential (4 quadrant) placement of the tattoo. 13 patients had lesions either in caecum or rectum, locations deemed unnecessary as per BSG guidelines. Of the survey responses collected, there were 4 different protocols being used to guide practice. Only 50% of respondents placed tattoos at the correct distance from the lesion but 83% placed the correct number of tattoos.

Conclusion: There is a lack of standardisation of practices in colonic tattooing demonstrated in our study with incomplete compliance to our standard. The inadequate documentation of tattoo location can contribute to confusion and inaccuracy in intraoperative localisation of lesions. This has the potential to increase operation duration and morbidity. There is a need to standardise both technique and documentation in colonic tattooing practice.

Reference: 1. *Quality Assurance Guidelines for colonoscopy. NHS BCSP Publication No 6 February 2011*. http://www.cancerscreening.nhs.uk/bowel/publications/nhsbcsp06.pdf

2. https://www.stmarksacademicinstitute.org.uk/content/uploads/2020/12/Tattoo-protocol-v15.pdf

Disclosure of Interest: None declared.

P079 | Surgery for posterior pelvic compartment disorders – Slovenian subspecialist center experience

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Aim: Obstructed defecation is one of the leading symptoms of pelvic floor disorders (PFD). The aim of the study was to evaluate surgical outcomes of a single Slovenian subspecialist center, diagnosing and treating at least 900 patients (pts) with PFD yearly.

Method: A single center retrospective analysis of pts operated due to PFD from Oct 2017 to Feb 2022 was performed. Indication for surgery was made by internal multidisciplinary team. Appropriate treatment was chosen for different posterior compartment pathology. Procedures without resection; rectocele repair, Laparoscopic ventral mesh rectopexy (LVMRP) and Delorme procedure, were performed as one-day surgery. Patients with comorbidities undergoing LVMRP, reoperations and resection surgeries were treated as inpatients. The object of this study were 111 pts (107 female, 4 male); median age 61, range 29–94 years. Chart review and evaluation of surgical complications were performed.

Results: A total of 114 procedures in 111 pts for different PFD were performed. The indication for operation was: open rectal prolapse (10 cases (c)), internal rectal prolapse (97 c) or isolated symptomatic rectocele (7 c). The following procedures were performed: LVMRP (80 c), Altemeier resection (6 c), rectocele repair (7 c) and Delorme's (21 c). The recorded rate of postoperative complications requiring surgical reintervention was 5% (6/114). No mesh related complication, long term fecal incontinence and postoperative mortality were noted. In 46 pts procedure was done as one-day surgery. In case of inpatient surgery (65 pts), mean hospitalization was 3,8 days.

Conclusion: The treatment of PFD is complex, ranging from conservative to operative. When surgery is indicated, non resective procedures can be safely performed as one-day surgery. Overall, in surgical management of posterior pelvic compartment disorders, the rate of expected postoperative complications is low. Therefore, surgical intervention can be safely proposed for the treatment of selected pts with PFD.

Disclosure of Interest: None declared.

P080 | Permanent stoma rate and long-term stoma complications in rectal cancer patients: A retrospective cohort study

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Aim: The surgical resection of rectal carcinoma is associated with a high risk of permanent stoma rate. The influence of minimally invasive approaches on permanent stoma rate is unknown. Our aim was to compare the permanent stoma rate of patients undergoing laparoscopic, robot-assisted and transanal total mesorectal excision.
Method: Patients undergoing total mesorectal excision for MRI-defined rectal cancer between 2015 and 2017 in 11 centers highly experienced in laparoscopic, robot-assisted and transanal total mesorectal excision were included in this study. Permanent stoma rate, stoma-related complications, readmissions and reoperations were registered. A multivariable regression analysis was performed for permanent stoma rate, stoma-related complications and stoma-related reoperations.
Results: In total, 1248 patients were included. Permanent stoma rate in patients who underwent a total mesorectal excision was 66.2% in laparoscopic centers, 47.0% in robot-assisted centers and 48.1% in transanal total mesorectal excision centers. In patients who underwent a low anterior resection, permanent stoma rate was 46.2%, 23.5% and 24.1%, respectively. Robot-assisted total mesorectal excision and transanal total mesorectal excision were independently associated with a reduction in permanent stoma rate in all patients (OR 0.52 [0.37, 0.74] and OR 0.18 [0.12, 0.27]), and in patients who underwent a low anterior resection (OR 0.52 [0.33, 0.81] and OR 0.36 [0.22, 0.58]). 49.7% of the patients experienced stoma-related complications, 4.0% of the patients were at least once readmitted and 8.8% of the patients underwent at least one re-operation.
Conclusion: The robot-assisted and transanal total mesorectal excision techniques are associated with a reduction in permanent stoma rate. The effect on quality of life and cost-efficiency is unknown and necessitates further investigation.
Disclosure of Interest: None declared.

P082 | Our experience with 1427 anal fistulas in 5 years

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Aim: To identify the defnitive surgery for fistula in ano.
Method: Study was conducted in Smiles Hospital Bangalore.
It was observational retrospective analysis of operated cases of fistula in ano from January 2017 to February 2022.
Results: All types of fistulas were operated with conventional technique like fistulotomy and fistulectomy and also spichnter spairing procedures of like lift, proximal fistulotomy, laser ablation of fistula tract.
The best result was achieved through the fistulotomy procedure for simple fistula with less than 2% recurrence.
For complex fistula in ano appropriate sphincter spairing procedures were done depending on the type of fistula with 4% recurrence rate.
Incontinence for stool was not seen any of the operated cases however incontince for liquid was seen in 13 patients and incontinence for gas was seen in 17 patients.
Conclusion: we conclude that, there is no standard technique for fistula in ano, however elimination of sepsis,destroying the source of infection(internal opening), curretage and washing of all the fistula tract should be the main principles of treating a fistula in ano.
Disclosure of Interest: None declared.

P083 | The impact of the Covid-19 pandemic on staging of colorectal cancer at a UK district general hospital

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Aim: The covid-19 pandemic greatly impacted surgical and cancer services across the world. 1. Pressure on services and concerns surrounding transmission of covid-19 led to delays in the diagnosis and treatment of colorectal cancer. 2. We set out to assess the impact of covid-19 on the staging of colorectal cancer at our centre, a district general hospital (DGH) in the United Kingdom.
Method: Patients diagnosed with colorectal cancer who underwent either elective or emergency operative management in the 4 month period between April 1st and July 31st in 2019 (pre-COVID-19), 2020 and 2021 (during the COVID-19 pandemic) were included in our analysis. Each patient's TNM classification was assessed.
Results: 76 patients were treated for colorectal cancer in the 4 months examined in 2019, 35 in 2020 and 45 in 2021. Analysis of post operative TNM staging found a greater proportion of T4 cancers during the COVID-19 pandemic, vs pre-pandemic levels - 15.8% in 2019, 31.4% in 2020, 22.2% in 2021. There was an increase in nodal positivity, with 49% of patients with N1/N2 disease in 2020/2021, compared to 40% in 2019. Metastatic disease (M1 classification) increased in during the COVID-19 pandemic. 88% of patients in 2019 had M0 classification, 85% in 2020 and 84% in 2021.
Conclusion: The data from our centre demonstrates an increase in the TNM staging of colorectal cancers diagnosed during the 2020 and 2021 COVID-19 pandemic vs the same period in 2019. We have also seen a reduction in patients undergoing operative management for colorectal cancer since the start of the pandemic. This may indicate late presentation, or delays in diagnosis – of note is that half (5/10) of the patients with T4 cancers in the 2021 cohort presented as emergencies. Ongoing monitoring and analysis will be necessary to establish whether long term outcomes will have been affected by the delays in diagnosis and management caused by the COVID-19 pandemic.

Reference: 1 -O'Rielly C, Ng-Kamstra J, et al.. Surgery and COVID-19: a rapid scoping review of the impact of the first wave of COVID-19 on surgical services. BMJ Open. 2021 Jun 15;11(6):e043966. doi: 10.1136/bmjopen-2020-043966. PMID: 34130956.
2 - Morris EJA, Goldacre R, et al. Impact of the COVID-19 pandemic on the detection and management of colorectal cancer in England: a population-based study. Lancet Gastroenterol Hepatol. 2021 Mar;6(3):199-208. doi: 10.1016/S2468-1253(21)00005-4. Epub 2021 Jan 15. PMID: 33453763.
Disclosure of Interest: None declared.

P084 | Recurrent rectal prolapse in a patient with maffucci syndrome: A diagnostic and therapeutic challenge

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Aim: First described in 1881, Maffucci syndrome is an extremely rare condition, characterized by the development of multiple enchondroma and hemangiomas due to congenital mesodermal dysplasia. We describe the case of a 64-year old woman with Maffucci syndrome with recurrent pelvic organ prolapse, highlighting the challenges in management of her condition.
Method: This lady had initially presented in 2007 with urinary and faecal incontinence and seen jointly by colorectal and urogynaecology teams. She was diagnosed with a rectocoele and cystocoele. Her management was initially conservative, utilising a multidisciplinary team approach.
Results: When a conservative approach was not having the desired outcome, and her symptoms worsened, she underwent a transvaginal tape procedure (TVT) and anterior colporrhaphy in 2009.
In 2010, the patient presented to the colorectal surgeons with a reducible rectal prolapse. Initially she was managed conservatively. However, given that her condition worsened, and following extensive investigations, she underwent a laparoscopic abdominal ventral rectopexy using Permacol mesh two years later. The rectal prolapse recurred within a year. Given that the quality of her life was adversely affected with the recurrence, and following further unsuccessful conservative management, she then underwent an perineal resection with levatorplasty in 2017.
In 2019, the patient presented with episodes of faecal urgency and incontinence, and was diagnosed with another recurrent prolapse. Following multidisciplinary discussions, and further investigations, she underwent a sigmoid colectomy with end colostomy. Her quality of life improved significantly after this procedure.
Conclusion: The management of this lady's rectal prolapse was indeed a challenge due to her complex condition. A multidisciplinary approach was crucial in order to ensure a satisfactory outcome with improved quality of life.
Disclosure of Interest: None declared.

P085 | Is imaging staging for low risk colorectal malignant polyps a tickbox exercise?

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Aim: The prevalence of malignant colorectal polyps is increasing with screening. Imaging is sometimes done as a routine part of workup for staging for these lesions. There is an argument to be made that low risk malignant colorectal polyps are resected in its early stages so there is minimal lymphatic or distal spread. Thus, theoretically, staging imaging would have a very low yield. We investigated this in our study with the hypothesis that the yield of a staging image is low in this population and that performing a staging CT would not change management.
Method: We retrospectively evaluated all staging CT/MRI done for low risk malignant polyps in a single centre over 10 years from 2010 to 2020. The data was obtained through electronic records of these patients who have been put through the Multidisciplinary process after having had pT1 colorectal malignant polyps endoscopically resected. The primary outcome was to determine the yield of CT scan in upgrading the TNM staging thereby influencing management. Our Secondary outcomes include looking at polyp histopathological characteristics, the number of incidental findings, or findings that require further imaging to determine, or would change management.
Results: We identified 56 patients who had endoscopically resected malignant polyps, 44 of which were colonic polyp and 12 rectal polyps. 30 (66.7%) and 7 (58.1%) staging CTs were done respectively. The primary overall yield from CT was 2.7%. The primary yeild was 0% for colonic and 8.3% (1) for rectal polyps. Incidental findings on CT that required further interval investigations were 6 (20%) and 3 (42.9%) respectively. 8 staging MRI were done for rectal polyps of which primary yield was 25%.
Conclusion: The yield for staging CT for ≤pT1a malignant colorectal polyps is very low. There were a few incidental findings on staging CT that required further interval scans but they did not alter management. Routine staging CT is not necessary for a low risk colorectal polyp.
Disclosure of Interest: None declared.

P086 | Negative pressure wound therapy after stoma reversal in colorectal surgery: A randomized controlled trial

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Aim: Stoma-reversal surgery associates with high postoperative morbidity, including wound complications and surgical site infections

(SSIs) [1,2]. This randomized controlled trial aims to assess whether the application of negative pressure wound therapy (NPWT) may reduce SSI and improve wound healing compared with conventional wound dressing.

Method: This is a single-center, parallel, randomized controlled trial. Patients undergoing stoma reversal were randomized to receive either NPWT or conventional wound dressing. The primary endpoint was the rate of wound complications and SSIs within 30 days after stoma closure. The secondary endpoints were postoperative wound pain, rate of wound healing after 30 days from stoma closure, and wound aesthetic satisfaction.

Results: Between June 2019 and January 2021, 100 patients were included in the study: 48 patients received NPWT, and 50 received NPWT. After excluding four patients, 94 patients were analyzed- 49 in the NPWT group and 45 in the control group. No significant difference was found in wound-complication rate (10% versus 16%; p = 0.542) and SSI rate (8% versus 7%; p = 1.000). NPWT patients showed a higher proportion of 30-days wound healing (92% versus 78%; p = 0.081) compared with the control group and NPWT application was an independent protective factor of 30-days wound healing at multivariable analysis (OR = 0.14; 95%CI: 0.02–0.86; p = 0.03). The 30-days Vancouver Scar Scale evaluation showed improved outcomes in NPWT patients compared with controls at both seven and 30 days after surgery (p < 0.0001; p=0.03). NPWT patients reported less pain and higher aesthetic satisfaction (p < 0.0001).

Conclusion: NPWT does not reduce the incidence of SSI after stoma-reversal surgery compared with conventional wound dressing, but improves the healing of uninfected wounds, reduces wound pain, and leads to better aesthetic outcomes.

Reference: 1. Chow A, Tilney HS, Paraskeva P, Jeyarajah S, Zacharakis E, Purkayastha S. The morbidity surrounding reversal of defunctioning ileostomies: a systematic review of 48 studies including 6,107 cases. Int J Colorectal Dis. 2009 Jun;24(6):711-23. doi: 10.1007/s00384-009-0660-z. Epub 2009 Feb 17. PMID: 19221766. 2. D'Haeninck A, Wolthuis AM, Penninckx F, D'Hondt M, D'Hoore A. Morbidity after closure of a defunctioning loop ileostomy. Acta Chir Belg. 2011 May-Jun;111(3):136-41. doi: 10.1080/00015458.2011.11680724. PMID: 21780519.

Disclosure of Interest: None declared.

P087 | Surgical treatment of haemorrhoidal disease: A single centre experience

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Aim: Hemorrhoidal disease is the most common benign anorectal pathology in the adult. There are a large variety of surgical options and their choice should always take into account the surgeon's experience and the patient's expectations. The aim of this study was to investigate the surgical procedures applied in the treatment of haemorrhoids in our center and evaluate their results,morbidity and recurrence.

Method: Retrospective study including all patients who underwent surgical treatment of haemorrhoids between January 2016 and December 2020. We analysed the haemorrhoids' grade, symptomatology, 90-days morbidity and recurrence rate.

Results: 498 patients were submitted to a haemorrhoidal surgery with a total of 527 surgeries performed during this period.The patients' mean age was 51 years and 56% patients were men. Most patients undergoing surgery had internal haemorrhoids grade III (240) and grade IV (156) and the most frequent symptoms were bleeding (43.8%) and prolapse (30.3%).The most common surgical procedure was stapled haemorrhoidectomy (PPH) (47.8%), followed by Milligan-Morgan haemorrhoidectomy (23.3%).

The overall morbidity was 5.8%, 17 corresponding to Clavien-Dindo grade I complications. In PPH, the morbidity was 5.6%, 5% in MM haemorrhoidectomy and 7.1% in Ferguson haemorrhoidectomy. Patients who underwent combination procedures,the morbidity was higher (17.6%). There was no morbidity in haemorrhoidectomy with Ligasure. 29 patients had recurrence and the technique most associated with recurrence was PPH (7.9%), however most of the patients presented skin tags or external single haemorrhoids.

Conclusion: The PPH haemorrhoidectomy was the most performed technique with lower morbidity,less than reported in literature.Our centre's experience may explain why it is performed with high technical efficiency and good functional results.It is important to adapt the technique to the type of haemorrhoid (circular or just one haemorrhoid pedicle) and these should be carried out by an experienced coloproctology team.

Disclosure of Interest: None declared.

P088 | Postoperative complications are associated with early and increased rate of disease recurrence after surgery for Crohn's disease

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Aim: Several potential risk factors for Crohn's disease (CD) recurrence after surgery have been identified, including age at diagnosis, disease phenotype, and smoking. Despite the clinical relevance, few studies investigated the role of postoperative complications as a possible risk factor for disease recurrence. This study aims to investigate the association between postoperative complications and recurrence in CD patients after primary ileocolic resection.

Method: This multicentric retrospective case-control study included patients undergoing primary ileocolic resection for CD between January 2008 and December 2018. Patients were defined as recurrent according to the endoscopic findings (Rutgeert's score higher than or equal to i2). Thirty-day postoperative complications were classified according to the Clavien-Dindo scale. Binary logistic regression and Cox-regression models were performed to ascertain the effect of postoperative complications on endoscopic disease recurrence.

Results: The study included 262 patients. The patients were allocated into *recurrent* (145) and *non-recurrent* (117) groups according to endoscopic findings. At multivariable analysis, smoking (p = 0.04), penetrating phenotype (p=0.01), perianal disease (p = 0.001), and postoperative complications (p = 0.01) were independent risk factors for endoscopic recurrence. Postoperative complications (p = 0.03) and penetrating disease (p = 0.001) significantly reduced the time to endoscopic recurrence; postoperative complications (p = 0.04) and penetrating disease (p < 0.0001) significantly shortened the time to clinical recurrence.

Conclusion: Postoperative complications are independent risk factors for endoscopic recurrence after primary surgery for CD, affecting the rate and timing of endoscopic and clinical disease recurrence.

Disclosure of Interest: None declared.

P089 | Development and validation of a preoperative risk score to predict laparotomic conversion in minimally invasive surgery for ileocecal crohn's disease

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Aim: Intraoperative laparotomic conversion is associated with increased postoperative complications and length of hospital stay in ileocecal resection for Crohn's disease (CD). This retrospective study aims to develop and validate a preoperative risk score for laparotomic conversion in CD patient undergoing laparoscopic ileocecal resection.

Method: The development cohort included 309 laparoscopic CD resections performed between January 2010 and December 2019 at a single Institution. The external validation cohort was selected according to the same eligibility criteria and included 53 laparoscopic interventions performed at another center. A multivariable back-forward stepwise binary logistic regression model was used to develop the risk score using preoperative clinical variables.

Results: Laparotomic conversion occurred in 21% (65) of the cases. The risk score included the patient gender, BMI, preoperative evidence of multiple disease localization, preoperative evidence of abdominal collection or abscesses, and previous surgery for CD. The risk of conversion was calculated for each patient in the development cohort. The score in the converted group was significantly higher compared with non-converted group (p < 0.0001). On the ROC analysis, the score achieved an AUC of 0.80 (p < 0.0001). The Younden's index (Y_i) identified a cut-off of 15% (Y_i = 0.47) with a sensitivity of 83% and a specificity of 64%. In the validation cohort, the AUC was 0.95 (p < 0.0001) and the sensitivity and specificity at the pre-established cut-off of 15% were respectively 88% and 65% (Y_i = 0.53).

Conclusion: The results of our study suggest the reliability of the conversion risk score for patients with CD undergoing surgery for complicated disease. This score may be useful in clinical practice to counsel the patients preoperatively and to establish the proper intraoperative analgesia strategy but should be validated through an external validation analysis.

Disclosure of Interest: None declared.

P090 | Is the Japanese staging system of colorectal carcinoma applicable to the Western population?

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Aim: In colon cancer lymph nodes (LNs) are a significant prognostic factor in predicting disease-free survival (DFS) and overall survival (OS) in patients without metastatic disease. Recent studies have shown that the topographic distribution of positive LNs may have a prognostic role. The JSCCR (Japanese Society for Cancer of the Colon and Rectum) staging system considers the number and distribution of excised lymph nodes (LNs), whereas the TNM-AJCC system only reports the number of retrieved LNs. We aimed to determine the applicability of the JSCCR classification to our population. The outcome is described as the percentage of cases in which this classification proves to be completely applicable (by definition fo the TNM system is 100%). We determined the degree of agreement between disease stages applying both staging systems.

Method: We enrolled 91 patients (56 men and 35 women; median age of 72.82 years). Four patients were excluded from the study due to intraoperative findings of metastatic disease. Inclusion criteria: patients older than 18 years old with diagnosis of colon cancer. Exclusion criteria: diagnosis of rectal cancer, recurrent/metastatic disease, synchronous solid tumors or oncohematological diseases, and patients who underwent neoadjuvant therapies.

Results: The applicability of JSCCR was described as the percentage of cases in which this system proved to be completely applicable. We found that the JSCCR system was applicable in 100% of cases. The level of agreement between both staging systems was analyzed using Cohen's kappa (100%, 95% CI: 94.7–100).

Conclusion: The JSCCR classification can be applied to our population without any variability concerning the vastly used TNM-AJCC classification. The fact that both systems presented a strong level of agreement while determining the disease stage could be due to the small sample size. To better assess if the differences between both systems could carry an upgrade or downgrade in stage a bigger sample size is needed.

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Disclosure of Interest: None declared.

P091 | Development and validation of a symptom based scoring system for bowel dysfunction after ileoanal pouch reconstruction: The ileoanal pouch syndrome severity score

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Aim: The Patient Reported Outcomes after Pouch Surgery (PROPS) Delphi consensus study identified a list of bowel symptoms/consequences most important to pouch patients. The aim of the present study was to utilize these items in a validated tool for quantifying pouch function and impact on quality of life.

Method: Patients who had a proctocolectomy with ileoanal pouch for ≥ 12 months of restored intestinal continuity were recruited at high volume IBD centers and through online advertisements through the Crohn's and Colitis Foundation social media pages. Questionnaires regarding bowel function were administered. Associations between items and QoL were computed in a score generation cohortof 298 patients by binomial regression analyses to determine adjusted risk ratios. Individual score values were designated items to form the "Ileoanal Pouch Syndrome Severity Score". Validity was tested in a subsequent cohort of 386 patients using receiver operating characteristic area under the curve.

Results: Weighted scores of symptom severity were computed based on the questionnaire results from the score generation cohort. The range of possible scores was 0 to 145. Score ranges were then determined as cutoff values for "Ileoanal Pouch Syndrome". The validation cohort showed the score had an AUC of 0.83. Importantly, worsening severity of Ileoanal Pouch Syndrome score significantly correlated with higher rates of poor quality of life. Lastly, the questionnaire was rigorously validated to show test-retest validity, convergent validity compared to other bowel function scores, and clinical validity.

Conclusion: This study developed a patient-centered, clinically useful scoring system that can quantify the range and severity of symptoms experienced by ileoanal pouch patients and their correlation with quality of life. This tool will help identify patients with severe "Ileoanal Pouch Syndrome" and will be able to help assess efficacy of medical and surgical interventions to improve quality of life.

Disclosure of Interest: None declared.

P092 | Avoiding the anastomotic leakage in right hemicolectomy: Should the stapler be linear or circular?

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Aim: The possibility of anastomotic leakage and other postoperative morbidities after circular and linear stapler techniques is challenging. In this study, we investigated the effect of anastomosis performed with two different stapler techniques in our department on anastomotic leakage and examined the short-term morbidity and mortality results.

Method: This study was planned as a retrospective study of patients who underwent right hemicolectomy and ileocolic anastomosis for right colon and/or hepatic flexure tumors. Patients over 18 years of age and elective surgeries performed by two surgeons specializing in colorectal surgery were included in the study, whereas emergent surgeries were excluded. The ileocolic anastomosis technique was recorded with a circular or linear stapler. Anastomotic leakage (AL) and mortality rates at 1 and 6 months were compared in these two groups.

Results: The total number of patients who underwent right hemicolectomy between 2018 and 2021 due to right colon adenocarcinoma was 120 while number of performed anastomosis with circular and linear stapler were 31 (25.8%) and 89 (74.2%), respectively. There was no statistical difference between the groups in terms of postoperative complications and pathological results. The number of patients developed anastomotic leakage was 2 (6.4%) , and 6 (6.7%) in circular and linear anastomosis groups, respectively, but this difference was not statistically significant ($p >= 0.05$). The only risk factor found for anastomotic leakage was intraoperative blood

transfusion (p = 0.007). Days of discharge was shorter in end-to-side anastomosis group with circular stapler. There was no statistically significant difference between the groups in postoperative 1-month and 6-month mortality rates (p >= 0.05).

Conclusion: Both techniques can be used safely in ileocolic anastomosis. End-to-side anastomoses can be preferred for enhanced recovery because of rapid discharge.

Reference:

Disclosure of Interest: None declared.

P093 | Surgeons' nightmare: Migration and enterocutaneous fistula formation after composite mesh repair in incisional hernias: report of two cases

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Aim: Here we describe two cases of enterocutaneous fistula due to late migration of a composite dual mesh, 7 years and 4 years after incisional hernia repair, respectively.

Method: The first patient was a 57-year-old male who underwent open hernia repair for a large subcostal incision right after the open cholecystectomy operation which occurred seven years ago.He presented at our emergency department after7 years because of abdominal pain.

Intraoperatively, the mesh was seen as migrated to terminal ileum and ascending colon through subcutaneous tissue and there was an extensive subcutaneous inflammation with necrosis at the right lower quadrant of the patient. We resected 60 cm of the terminal ileum, made right hemicolectomy and debrided the necrotic subcutaneous tissue.

Results: The second patient was a mentally retarded, diabetic, 35-year-old male with a history of hernia repair for umbilical hernia with the composite mesh in 2010. In November 2014, he administered to our emergency department with complaints of abdominal pain.Intraoperatively, the mesh is observed to be migrated to the ileum across the fascia and therewithal was an extensive subcutaneous inflammation with necrosis (image 2) 100 cm of the ileum with the inclusion of necrotic skin material was resected with the removal of subcutaneous tissue.

Conclusion: Many complications are reported associated with the mesh, but still the development of enterocutaneous fistula by migration to gastrointestinal tract is rare. Inadequate repair or fixation, and inappropriately high volume of free implantation space are common reasons for mesh migrationfollowed by fistula formation and mechanical bowel obstruction.

Disclosure of Interest: None declared.

P096 | Implementation of proctological surgery programmes in International Cooperation Campaigns

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Aim: In low- and middle-income countries, proctological pathology is a diagnostic challenge due to cultural connotations and difficulties in access to health care. Its diagnosis and treatment represents an opportunity to improve the quality of life of these patients.

The implementation of proctological surgery programmes in international cooperation is necessary for this problem.

Method: Retrospective descriptive observational study of the proctological pathology intervened in 15 international cooperation campaigns carried out by the NGO "Cirugía Solidaria" (Murcia, Spain) in Sub-Saharan African countries between 2005 and 2019.

Results: In 15 campaigns, 190 patients were operated, 44.8% (n = 85) in Senegal, 40% (n = 76) in Kenya, 11.1% (n = 21) in Cameroon and 4.2% (n = 8) in Mali. 56.3% (n = 107) were women. The mean age of patients was 43.3 ± 15.1 [4–82], 5 of them children.

Among the surgical procedures performed, the following stand out: 114 interventions (60%) for haemorrhoidal pathology, haemorrhoidectomy (Milligan-Morgan); 27 patients (14.1%) with anal fistula (15 (7.9%) fistulectomies + lax seton, 12 (6.3%) fistulotomy); 22 patients (11.6%) with anal fissure treated by lateral internal sphincterotomy; 4 (2.1%) anal condylomas, 2 (1.1%) anal polyps; 2 rectal prolapses (1.1%) by Delorme technique; 1 anal cancer; 1 rectovaginal cloaca sphincteroplasty.

Anaesthesia was intrathecal in 92 cases (48.4%). The mean operative time was 28.8 minutes. The mean length of stay was 23.1 hours. 3 patients (1.6%) had post-puncture headache and 2 (1.1%) had vomiting.

Conclusion: International cooperation surgical campaigns in proctology represent an opportunity to improve the health conditions of the population with a significant improvement in the quality of life being high-resolution procedures with a low rate of complications.

Disclosure of Interest: None declared.

P097 | Results of multidisciplinary management in deep endometriosis with intestinal involvement

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Aim: The aim is to know the clinical characteristics and perioperative results of patients with intestinal endometriosis after the creation of a multidisciplinary unit between Gynecology and General Surgery.

Method: A retrospective descriptive observational study was designed on patients with endometriosis with intestinal involvement who underwent surgery between 2018 and 2021. Sociodemographic, clinical and care variables were analyzed. Also, the surgical approach and technique performed, the role by the general surgeon, the postoperative complications and the evolution at the first year were analyzed.

Results: Of 160 patients operated in the selected period, 17 (10.6%) of them with intestinal involvement required intervention by a colorectal surgeon. The average age was 40 years with a mean body mass index of 25.8 kg/m^2.

The most frequent symptom was abdominal pain in 14 (82.3%), associated dyschetia in 3 patients (17.6%). In 14 (82.3%) of the patients, the previous vaginal ultrasound showed deep involvement.

During the surgical procedure, the colorectal surgeon intervened in 100% of the cases, performing: intestinal resection in 10 patients (58.8%); resection and shaving in 3 cases (17.6%); only shaving in 2 cases (11.7%); one resection of the greater omentum (5.88%) and one rectal release due to adhesions (5.88%). Low anterior resection was the most performed resection.

Complications occurred in 23.5% (n = 4) of the patients, all being grade I and II according to the Clavien-Dindo classification. The mean disease-free survival (DFS) of the total sample was 20.6 months, with 3 patients (17.6%) presenting a recurrence with a mean DFS of 8.3 months.

Conclusion: The creation of multidisciplinary units has led to an improvement in the approach to patients with intestinal endometriosis, being able to offer patients more complex treatments without having presented major complications.

Disclosure of Interest: None declared.

P098 | Outcomes of robotic versus laparoscopic ventral mesh rectopexy for rectal prolapse

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Aim: We aimed to investigate the long- term functional and clinical outcomes after robotic ventral mesh rectopexy (RVR) and compare them with our laparoscopic series (LVR). We also aimed to report the learning curve of RVR based on operative time. As the financial aspect for the use of a robotic platform remains an important obstacle to allow generalized adoption, cost-effectiveness was also evaluated in order to find an affordable way of performing RVR.

Method: A prospectively maintained data set of 149 consecutive patients who underwent a minimally invasive ventral rectopexy between December 2015 and April 2021 by a single surgeon was retrospectively reviewed. The long-term results after a median follow-up of 32 months were analyzed. Also, a thorough assessment of the learning curve, as well as the economic aspect related to the robotic procedure was performed.

Results: On a total of 149 consecutive patients 72 underwent a LVR and 77 underwent a RVR. Mean age was significantly higher in the robotic group (67.8 years old v 61.4 years old; $p < 0.001$). Median operative time was comparable for both groups (98 min (RVR) v 89 min (LVR); $p = 0.16$). Learning curve showed that an experienced colorectal surgeon required 22 cases in stabilizing the operative time for RVR. No full thickness recurrences were observed in the robotic group. Overall functional results were similar in both groups. There were no conversions or mortality. There was, however, a significant difference ($p < 0.01$) in hospital stay in favor of the robotic group (1 day v 2 days). The overall cost of RVR was higher than LVR. However, with modification of the robotic operative technique and adjustments in armamentarium, a significant cost reduction was achieved.

Conclusion: This retrospective study shows that RVR is a safe and feasible alternative for LVR. Learning curve appears to be short in experienced laparoscopic hands. With specific adjustments in surgical technique and robotic materials we developed a cost-effective way of performing RVR.

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Disclosure of Interest: None declared.

P099 | Non-invasive, self-administered vagus nerve stimulation to reduce ileus after colorectal surgery: Feasibility randomised controlled trial with nested interviews

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Aim: Ileus is a debilitating complication after surgery. Stimulation of the vagus nerve may reduce it via known anti-inflammatory mechanisms in the gut, but this requires an invasive procedure. The feasibility of a definitive randomised trial of non-invasive, self-administered vagus nerve stimulation was explored.

Method: A randomised, blinded, sham-controlled feasibility trial (IDEAL 2b) was performed at two hospitals. Patients undergoing minimally-invasive colorectal surgery were eligible. The intervention was a hand-held, electrical stimulator device, self-administered over the cervical vagus nerve pre- (at home) and post-operatively (in hopsital). The comparator was an identical sham. Participants were randomised to four groups (A: $Active_{pre}/Active_{post}$; B: $Active_{pre}/Sham_{post}$; C: $Sham_{pre}/Active_{post}$; D: $Sham_{pre}/Sham_{post}$). Feasibility outcomes included: acceptability of recruitment, device compliance, safety, and completeness of endpoint data (GI-2). A sample of patients and clinicians were interviewed to explore their experiences of the device and its potential for implementation.

Results: A total of 127 patients were approached and 97 (76.4%) were randomised (A: $n = 24$; B: $n = 24$; C: $n = 24$; D: $n = 25$). A small majority were Male (52%) with median age 66 (IQR: 61–72). The median compliance to self-administration was 100% (100–100%) before and 100% (80–100%) after surgery. There were no differences in major (13%, 0%, 4%, 8%) or minor (43%, 50%, 50%, 48%) complications. Data for the GI-2 endpoint were available for 96 (99%). The median time to GI-2 was 4 (3–5), 3 (2–4), 3 (2–4), and 3 (3–4) days. Sixteen patients and 12 clinicians were interviewed. A graphical model of themes was produced to depict barriers and facilitators of participant engagement and clinical implementation.

Conclusion: A definitive randomised trial of non-invasive, self-administered vagus nerve stimulation is feasible. The technology may present an approach to curtail ileus whilst empowering patients to take an active role in recovery.

Disclosure of Interest: None declared.

P100 | The outcome of multidisciplinary treatment in colorectal cancer with multiple liver metastasis

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Aim: To demonstrate the benefit of multidisciplinary treatment (MDT) in colorectal cancer with liver metastasis, we compared the prognosis of patients underwent primary resection and metasectomy before and after MDT.

Method: This study retrospectively included colorectal cancer patients with liver metastasis who underwent curative resection. Patients underwent curative resection and metasectomy between 2008 and 2013 without MDT and another group was underwent between 2014 and 2019 with MDT. Patients did not have previous or synchronous distant metastasis. We compared patients' overall survival and recurrent free survival from diagnosis of liver metastasis.

Results: Before MDT, 68 patients were included and underwent curative resection and metasectomy. 95 patients were assigned to MDT group and underwent curative resection and metasectomy. There were no significant differences in clinicopathologic characteristics between the groups. Serum carcinoembryonic antigen levels were not different between the groups. Although the number of liver metastasis was larger (2.4±4.3 vs. 5.8±6.2; $p < 0.001$) and the ratio of bilobar with liver metastasis (25.0% vs. 55.8%; $p < 0.001$) was bigger significantly, patients underwent repeat resection in the group after MDT (13.2% vs. 31.6%; $p = 0.012$). The ratio of upfront operation was higher in the group (89.7% vs. 49.5%) before MDT and the ratio of neoadjuvant chemotherapy was different in the group after MDT (10.3% vs. 50.5%; $p < 0.001$). There was no significant difference in 3-year overall survival (82.3% vs. 75%; $p = 0.12$) and in 2-year recurrent free survival (52.7% vs. 44.6%; $p = 0.3$) before and after MDT.

Conclusion: MDT provided neoadjuvant chemotherapy or interventional treatment for colorectal cancer patients with multiple liver metastasis in bilobar. MDT in colorectal cancer could reduce high tumor burden and make downstaging. Thus, it could extend the resectibility in patients with multiple liver metastasis and similar prognosis in both group before and after MDT.

Disclosure of Interest: None declared.

P101 | The relationship between computed tomography derived body composition, body mass index, diabetes, and surgical site infection in patients undergoing curative colon cancer resection

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Aim: Obesity and diabetes are associated with an increased risk of surgical site infections that contribute to poorer colorectal cancer outcomes. Computerised tomography (CT) derived analysis is considered the gold standard for measurements of body composition. The aim of the present study was to determine the efficacy of CT derived body composition in predicting surgical site infections in comparison to body mass index (BMI) and diabetes.

Method: Patients ($n = 1409$) who underwent elective curative colon cancer resection between January 2011 and December 2014 in the West of Scotland were examined. Preoperative CT derived body composition was analysed, and patients were assessed for surgical site infections postoperatively. Multivariate binary logistic regression model was used to determine the relationship between CT derived body composition, BMI, diabetes, and surgical site infections in this retrospective study.

Results: CT derived body composition including greater subcutaneous fat index (SFI) and visceral fat area (VFA) were consistently associated with elevated BMI and diabetes. Both SFI (OR 1.8, 95% CI 1.22–2.66 , $p = 0.003$) and VFA (OR 2.01, 95% CI 1.37–2.94, $p < 0.001$) were associated with an increased risk of developing surgical site infection. However, high BMI (OR 1.46, 95%CI 1.27–1.67, $p < 0.001$) and diabetes (OR 1.51, 95% 1.07–2.13, $p < 0.05$) remained independently associated with the development of surgical site of infection whereas CT derived body composition measures did not.

Conclusion: The presence of BMI and diabetes are more closely associated with the risk of surgical site infection risk compared with CT derived body composition measures.

Disclosure of Interest: None declared.

P102 | Management of acute colonic diverticulitis in the Covid-19 era: A comparative cohort study

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Aim: The World Health Organisation declared the novel coronavirus (COVID-19) a worldwide pandemic in March 2020. At the height of the pandemic, the number of emergency hospital admissions was significantly reduced for many acute conditions. However anecdotally, surgical patients appeared to be presenting later with more advanced pathology, and were managed conservatively more frequently. This study aimed to compare the management and clinical

outcomes of patients admitted with acute colonic diverticulitis during the COVID-19 pandemic with a cohort prior to the pandemic.

Method: The Scottish Morbidity Record (SMR01) was used to identify all patients admitted to our district general hospital with acute diverticulitis using ICD-10-CM codes. All patients with acute colonic diverticulitis confirmed on CT imaging were included in the analysis. Electronic records were interrogated and patients dichotomised into two groups, with those admitted between 1 April 2018 and 31 March 2019 compared to the same cohort admitted between 1 April 2020 and 31 March 2021.

Results: 211 patients were included in the analysis (Pre-pandemic group n = 80, 56% female, median age 61; Pandemic group n = 131, 58% female, median age 59). There was no difference in admission WCC (p = 0.373), CRP (p = 0.667) or modified Hinchey classification (1a: p = 0.116; 1b: p = 0.472; II: p = 0.663; III: p = 0.280). Surgical intervention (p = 0.818) and radiological drainage (p = 0.712) was not found to be significantly different between the groups. No difference was observed in median length of stay (p = 0.889), ICU admission (p = 1.000), inpatient mortality (p = 0.055) and readmission within 90 days (p = 0.331). In the pandemic group, patients were significantly more likely to be discharged within 24 hours after admission (14.5% vs. 5.0%; p = 0.040).

Conclusion: During the COVID-19 pandemic, patients were significantly more likely to be discharged within 24 hours of admission with acute colonic diverticulitis, with no negative impact on clinical outcomes or readmission rate.

Disclosure of Interest: None declared.

P103 | Role of surgery in Crohn's disease: A case-control study of potential risk factors of anastomotic recurrence after ileocolic resection

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Aim: Anastomotic recurrence after ileocolic resection for Crohn's disease is a frequently encountered problem in IBD surgery. The aim of our case-control study was to evaluate specifically surgical-related risk factors of severe endoscopic recurrence.

Method: From 2010 to 2015, in our IBD tertiary care hospital, we performed 113 consecutive ileocolic resections for Crohn's disease in naïve patients. 32 patients developed a severe endoscopic recurrence (Rutgeerts score i4), during 8 years median follow-up. Our retrospective analysis compared recurrent patients with no recurrent patients in terms of patient's characteristics, preoperative, surgical-related and postoperative data. Univariate and multivariate logistic regressions were performed in order to find any predictor of anastomotic recurrence.

Results: Between the 32 patients (28.3%) that developed severe anastomotic recurrence, 15 of them required a reoperation (46.8%). Preoperative steroid and biologics use were statistically significant risk factor of severe endoscopic recurrence (respectively p < 0.02 and p < 0.03). Univariate and multivariate analysis demonstrated also that the intraoperative need of other intestinal resections, besides the ileocolic, is associated with higher risk of Crohn's disease recurrence (p < 0.01). Severe endoscopic recurrence occurs in 68.8% of handsewn anastomoses versus 31.2% of stapled anastomoses (p = 0.20). Positive resection margins were found in 57.1% of the recurrence group and in 35.5% of the free disease group (p = 0.21.

Conclusion: Preoperative use of steroids or anti-TNF agents and the intraoperative need of other intestinal resection besides the ileocolic, are independent risk factors of severe endoscopic recurrence. Anastomotic configuration and positive surgical resection margins may influence postoperative Crohn's disease recurrence but further studies are needed to better clarified these surgical aspects.

Reference: • Kelil T, Chaouch M, Guedich A et al. Surgical features to reduce anastomotic recurrence of Crohn's disease that requires reoperation: a systematic review. Surgery Today (2022) 52:542–549. https://doi.org/10.1007/s00595-021-02364-9

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Disclosure of Interest: None declared.

P104 | Risk factors of poor survival after conventional right hemicolectomy for colon cancer

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Aim: The objective of this study is to further assess the impact of different risk factors on right sided colon cancer survival in a single centre study.

Method: This is a single-centre retrospective study. All patients operated by conventional right hemicolectomy for right sided colon cancer from 2015 to 2019 where included. Those with metastases or carcinomatosis at diagnosis were excluded. Data for stage, grade, histology, pathologic features, comorbidities, surgical complications, etc. were collected. Survival rates were assessed using the Kaplan-Meier and log rank test.

Results: In total, 110 patients were analysed, 44% were women and 15% were operated by emergency surgery. 16% of patients had cancer relapse, 2.7% were local relapse, 10% distant metastases, 5.5% carcinomatosis and 3.6% retroperitoneal lymph nodes. 5-year disease free survival (DFS) was 58%. 5-year overall survival (OS) was 70%. DFS was worse in patients whose tumours had budding (18±5.4 vs.56±4.3 months, p < 0.05), perineural invasion (24±5.9

vs 52±4.6 months, $p < 0.05$), lymphatic invasion (26±5.2 vs 56±4.8 months, $p < 0.05$), lymph node metastasis (pN+) (54±5.2 vs 76±2.8 $p < 0.05$), and for pT3-4 vs pT1-2 (50% vs 100% 5-year DFS, $p < 0.05$). Patients with lymphatic invasion (53±5.2 vs 76±2.7, $p < 0.05$), pN+ (57±3.2 vs 78±4.8 months, $p < 0.005$), affected circumferential margin (30±5.1 vs 71±2.9, $p < 0.05$) and pT4 tumours (32±5.0 vs 70±3.4 in pT3 $p < 0.05$) had a worse OS. Number of lymph nodes resected (LNR) was not associated with OS but DFS was paradoxically better for patients with less than 14 LNR. For patient's comorbidity, diabetes mellitus was associated with worse DFS and OS.

Conclusion: Risk factors associated with a poor DFS are presence of diabetes mellitus, budding, perineural invasion, lymphatic invasion and pN+. Lymphatic invasion, affected circumferential margin, pT4 and pN+ tumours and diabetes mellitus were associated with worse OS. High number of LNR was not associated with better survival.

Disclosure of Interest: None declared.

P105 | Watch and wait for rectal cancer: A 9 year experience

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Aim: Changes in colorectal cancer treatment over the past decade have improved outcomes. However, rectal cancer remains a common cause of cancer death worldwide.

Neoadjuvant long course chemoradiotherapy has become the standard treatment for locally advanced rectal cancer. It can downstage disease, reduce the risk of local recurrence, improve the chance of a clear resection margin and occassionally, results in a complete clinical and radiological response.

In some circumstances, a Watch and Wait (W&W) policy has been adopted in patients who experience a complete response to chemoradiotherapy. However, there remains a paucity of guideance in relation to the utility and safety of such W&W policies.

This study aimed to evaluate all patients undergoing neoadjuvant chemoradiotherapy for rectal cancer entering a W&W programme over a 9 year period.

Method: Data were analysed from a prospective database for all patients diagnosed with rectal cancer over a 9 year period (2011–2019 inclusive).

Results: Over 9 years, 532 patients were treated for rectal cancer, with 180 patients receiving long course chemoradiotherapy. Sixty-one patients entered a W&W programme as they had a complete response following chemoradiotherapy.

Of these, 40 patients (65%) remain disease free over the follow-up period (mean 38 months); 11 (18.3%) patients had regrowth and proceeded to surgery which achieved a negative resection margin in all cases; and 10 (16.7%) were palliated as they were unfit for surgery or had distant metastatic disease.

Median survival was 76 months in the W&W group and 53 months in patients undergoing long course chemoradiotherapy followed by surgery ($p = 0.006$). Overall (all cause) mortality was 18% at 38 months median follow-up in the W&W group.

Conclusion: Over a third of patients receving long course chemoradiotherapy in this cohort entered a watch and wait programme avoiding the need for major rectal surgery. Where tumour regrowth occurs, salvage surgery was possible in a significant proportion of patients.

Disclosure of Interest: None declared.

P106 | Hybrid technique with endoscopic full thickness resection for the management of complex colorectal lesions

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Aim: The endoscopic full thickness resection (eFTR) device combines an over the scope clip with a snare that creates a full thickness plication of the bowel while subsequently cutting the full thickness specimen. This can excise early colorectal cancers and complex lesions previously deemed endoscopically unresectable. A new hybrid technique of advanced endoscopic mucosal resection followed by eFTR has been proposed.

We present our experience of hybrid eFTR in a single centre and outline the utility of the technique in modern colorectal practice.

Method: We analysed a prospective database of patients undergoing advanced endoscopic therapies. All procedures were performed by one of three consultant endoscopists.

All cases were discussed at a significant polyp multidisciplinary team meeting.

We recorded; patient demographics, lesion location and size, previous histology, technical feasibility and success, completeness of resection, the need for resectional surgery, morbidity and mortality.

Results: Between 2018 and 2022 we attempted 40 eFTRs. Technical feasibility was achieved in all cases. A full thickness specimen was achieved in 85%. The average age was 65 years and 26 patients were male.

Following eFTR histopathology identified adenocarcinoma in 23 cases. Of these, a negative resection margin was achieved in 82.6%. An incidental cancer was diagnosed in a total of 9/27 patients. In patients who had a known cancer prior to eFTR a negative resection margin was achieved in 12/14.

No patient experienced post procedural morbidity or mortality within 30 days. On follow up, one patient has developed a recurrent neoplasm.

Seven patients proceeded to surgical resection. Of these, 5 had no evidence of a residual neoplasm. The remaining two had node positive colorectal cancers that were completely excised.

Conclusion: eFTR represents a pragmatic solution for the treatment of advanced adenomas and early colorectal cancers in carefully selected patients in whom the risk of resectional surgery may be prohibitive.

Disclosure of Interest: None declared.

P107 | Treatment for acute non-complicated diverticulitis without antibiotherapy: Systematic review and meta-analysis of randomised clinical trials

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Aim: The aim of this study is to evaluate the safety and efficacy of the treatment without antibiotics in selected patients with acute uncomplicated diverticulitis compared with traditional regimens of treatment.

Method: A systematic review according PRISMA guidelines was performed by searching Medline, EMBASE, Web of Science and the Cochrane Library for reports published before July 2021. Outcomes assessed were rates of readmission, change in strategy, emergency surgery, worsening and persistent diverticulitis. Eligible studies included those randomized clinical trials with patients diagnosed of acute uncomplicated diverticulitis treated with antibiotics compared with those with a treatment free of antibiotics.

Results: Search yielded 1120 studies. Four studies including 1809 patients were included in the review. Of these patients, 50.1% were treated conservatively without antibiotics. The meta-analysis showed no significant differences between non-antibiotic and antibiotic treatment groups regarding rates of readmission (OR = 1.39, p = 0.11), change in strategy (OR = 1.03, p = 0.94), emergency surgery (OR = 0.43, p = 0.19), worsening (OR = 0.91, p = 0.78) and persistent diverticulitis (OR = 1.54, p = 0.69).

Conclusion: Treatment without antibiotic therapy for acute uncomplicated diverticulitis seems safe and feasible in selected patients.

Disclosure of Interest: None declared.

P108 | Disease-free survival and overall cancer survival in patients operated on for stage T4 colon cancer: Results of a long-term follow-up multicenter retrospective observational study

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Aim: To determine the risk factors that influence disease-free survival (DFS) and overall cancer survival (OCS) in patients with stage pT4 colon cancer.

Method: A retrospective, multicenter observational study was conducted that included patients operated on for stage pT4 colon cancer between 2015 and 2017, with curative intent and without metastatic disease. Risk factors influencing DFS and OCS were analyzed using Cox regression analysis.

Results: A total of 1663 patients from 50 Spanish hospitals were included in the study. 57% of these patients were male and the mean age was 70.6 years. Urgent surgery was performed in 386 patients (23.2%). The percentage of patients with major complications was 12.3% (200 patients). After a mean follow-up of 45.1 months, the recurrence rate was 36.4% (597 patients). Of these, 423 (28.8% of the total) developed systemic recurrence, 220 (14.7%) carcinomatosis, and 168 (10.1%) local recurrence. 382 (23.8%) patients died from the tumor. In the multivariate analysis, the variables associated with lower DFS were lymph node involvement (HR = 2.0), lymphovascular perineural infiltration (HR = 1.7), dedifferentiated tumors (HR = 1.7), perforation (HR = 1.5), incomplete chemotherapy treatment (HR = 1.4), infectious complication (HR = 1.4) and symptomatic tumor (HR = 1.4). The variables related to a lower QOS were lymph node involvement (HR = 2.6), incomplete chemotherapy treatment (HR = 1.7), dedifferentiated tumors (HR = 1.8), age (HR = 1.02), lymphovascular-perineural infiltration (HR = 1.9), perforation (HR = 1.6), right colon (HR = 1.4) and symptomatic tumor (HR = 1.5)

Conclusion: The long-term recurrence rate in patients with stage T4 colon cancer is high (36.4%) with a significant cancer mortality rate (23.8%). The main risk factors for poor oncological evolution are lymph node involvement, lymphovascular perineural infiltration, undifferentiated tumors, perforation, incomplete chemotherapy treatment and symptomatic tumor.

Disclosure of Interest: None declared.

P109 | Medium- and long-term oncological results in patients with complete pathological response in rectal cancer treated with preoperative radio-chemotherapy. Retrospective multicenter study on the Viking project

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Aim: Determine the medium and long-term oncologic outome of locally advanced rectal cancer patients (LARC) treated with

neoadjuvant chemo-radiotherapy (nCRT) and pathologic complete response (pCR) as well as the factors associated with the appearance of distant metastases during follow-up.

Method: Nationwide retrospective multicenter observational study. We consulted the database on rectal cancer of the Vikingo project and exclusively selected patients who had presented a pCR. From them, we selected those centers with more than 10 cases, considering them as centers familiar with LARC. All the centers were contacted to update the follow-up data of these patients, as well as to complete any variable that was not available, such as pre-nCRT and pre-surgical treatment CEA. Univariate and multivariate analysis were performed, as well as Kaplan-Meier curves.

Results: A total of 830 patients were analyzed.

The median follow-up of these patients is 72.9 months. There have been 6.5% distant recurrences and 1.8% local recurrences, with a median overall survival of 73.3 months and disease-free survival of 71.8 months.

Overall survival at 3, 5, and 10 years is 93.2%, 87.8%, and 74.6%. Disease-free survival at 3, 5 and 10 years is 93.9%, 93.3% and 91.8%. After the univariate and multivariate study, the variables that have shown an association with the appearance of distant metastases are the performance of an abdominoperineal amputation, the presence of a tumor adhered to neighboring structures in the intervention, and female sex.

Conclusion: This study confirms that locally advanced rectal cancer tumors that show a complete pathological response after neoadjuvant therapy have excellent long-term oncological outcomes, with high rates of overall survival and medium- and long-term disease-free survival.

Disclosure of Interest: None declared.

P110 | Preliminary results after developing of a protocol of treatment of acute non complicated diverticulits without antibiotherapy

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Aim: To confirm safety of treatment of acute uncomplicated diverticulitis (AUD) without antibiotics, developing a standarized protocol for selected patients.

Method: Prospective observational multicentre study carried out between january 1st 2021 and april 15th 2022.

Inclusion criteria: Age between 18 and 80, AUD diagnosed by computarized tomography (CT), adequate family support and cognitive capacity, good symptom control, adequate oral intake, signed informed consent.

Exclusion criteria: diabetes mellitus, cardiologic event in the last 3 months, chronic liver disease, advanced chronic renal failure, active neoplasic pathology, HIV active infection, corticoidsteroid or immunosuppresant therapy, transplant, splenectomy, inflamatory bowel disease, previous episode of diverticulitis during last 3 months and antibiotic treatment during last 2 weeks.

Maximum 1 of the following: T >38°C-<36°C, L >12,000/ml–<4000/ml, heart rate>90 bpm, CPR >15 mg/dL.

Patients were proposed to take part of the study and those who accepted were treated as outpatient with ibuprofen 600 mg/8 h, paracetamol 1 g/8 h and omeprazol 40 mg/24h during 7 days.

Follow-up was carried out by telephone during first 24 h, and attending the emergency department at 48 h and at 7 days.

Results: 157 patients were diagnosed of acute diverticulits, 132 were Hinchey Ia, with 37 (28.1%) patients that fullfilled criteria for the study.

67.6% of patients were male, with median age of 57.6±9.7 years.

Among 37 patients included in the study, 36 were contacted by telephone 24 h. after first visit to emergency department. Only one of them had fever 48 h after diagnosis all patients were clinically reevaluated and only two of them needed a change of strategy, one because of fever, so we started antibiotic therapy and the other because COVID-19 infection.

None of the patients needed urgent surgical intervention nor hospitalisation during the study and follow up.

Conclusion: Our results confirm that treatment of AUD without antibiotics in selected patients is safe.

Disclosure of Interest: None declared.

P111 | Peritoneal recurrence between PT4 colon tumours: Epidemiology, oncologic results and risk stratification model. multicenter observational study longterm results

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Aim: To determine the incidence of metachronous peritoneal carcinomatosis (MPC) in patiens with pT4 colic tumours, to analyze associated factors and to créate a risk stratification model.

Method: Multicenter observational retrospective study of patients operated with surgical resection of colic pT4 tumours between 2015 and 2017. Registered variables were demographic, clinical, surgical, pathological and oncologic follow-up data.

Univariate analysis and Cox regression was made. With these results, a risk stratification model was made. Kaplan-Meier curves were performed for carcinomatosis-free survival (CFS).

Results: 50 hospitals took part, with 1356 patients. MPC was 13.7 % at 50 months of median of follow-up. 1055 patients (77.9%) were pT4a and 301 (22.1%) were pT4b; 574 (42.6%) patients were registered as stage II and 773 patients at stage III (57.4%).

Tumoral perforation was diagnosed in 253 cases (18.6%). Independent risk factors for MPC were stage pN [HR: 3.72 (95%-IC 2.56–5.41; $p < 0.01$) for stage III], tumour perforation [HR: 1.91 (95%-IC 1.26–2.87; $p < 0.01$)], mucinous histology [HR: 1.68 (95%-IC 1.1–2.58; $p = 0.02$)], poorly differentiated [HR: 1.54 (95%-IC 1.1–2.2; $p = 0.02$)] and urgent surgery [HR: 1.42 (95%-IC 1.01–2.01; $p = 0.049$)]. pT4a vs. pT4b, did not show asotiation with MPC (13.8 % vs. 13%). MPC in pT4 tumours without additional risk factors was low (2% and 4% at 1st and 5th year of follow-up).

Conclusion: Presence of pT4 turned into a very low risk of MPC at first year of follow-up (2%).

Disclosure of Interest: None declared.

P112 | Diagnostic accuracy of the abdominal ct in the context of locally advanced colon tumors. can we really trust certain decisions to the reliability of the TAC?

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Aim: To analyze the diagnostic reliability of staging CT for the diagnosis of cT4 colon tumors and lymph node classification, as examples of locally advanced tumors.

Method: Retrospective multicenter observational study, subanalysis of a study conducted in selected patients with pT4 colon cancer. Records of patients with pT4 colon cancer from 2015–2017 who underwent surgery with curative intent were reviewed. Demographic, clinical and pathological variables were included. A study of the predictive capacity of a diagnostic test was carried out, considering the anatomo-pathological study of the operative piece as the gold-standard of the TNM tumor classification.

Results: 50 hospitals participated, with 1356 patients. The preoperative clinical staging for the T variable had the following distribution: cT0-1 51 patients (4.3%), cT2 74 patients (6.3%), cT3 405 patients (34.3%) and cT4 651 patients (55.1%). The preoperative clinical staging for variable N was as follows: cN0 in 599 patients (49.5%), cN1 in 441 patients (36.5%), and cN2 in 170 patients (14%). The analysis of the piece showed the presence of 603 pN0 patients (44.5%), 474 pN1 (35%) and 279 pN2 (20.5%). The S for the diagnosis of cT4 by CT is 55.1%. Regarding cN staging, S is 61.5%, E is 63.1%, PPV 67.3%, NPV 57.1%, PLR 1.66, NLR 0.61 and global reliability of 62.2%.

Conclusion: Based on the interpretation of our results, among others the values of PLR <2 and NLR>0.5, staging CT has been shown to have poor reliability, both in the diagnosis of cT4 tumors and in the correct lymph node classification, which should be taken into account when making treatment decisions based exclusively on this tool.

Disclosure of Interest: None declared.

P113 | The impact of the Covid-19 on resectional colorectal surgery – A systematic review and meta-analysis

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Aim: To quantify the impact of the pandemic on colectomy rates and compare post-operative outcomes to pre-pandemic levels.

Method: A systematic review was conducted as per the PRISMA statement. We interrogated, MEDLINE, EMBASE, the Cochrane library and Web of Science for studies focusing on colorectal resections in adults and/or their outcomes during the Covid-19 pandemic. Studies not reporting a pre-pandemic comparison were excluded. Meta analyses were performed on STATA using a random effects model. Heterogeneity was assessed using the I^2 statistic.

Results: 1976 articles were identified and after removing duplicates and screening full text articles, 19 met the inclusion criteria from 11 countries with one multi-national cohort. A total of 30354 patients were included in this study, 18856 pre-pandemic and 11498 in the pandemic.

In total 18 studies reported pre and post-pandemic resection numbers. There was a mean reduction of 22.3% in colorectal resections overall comparing pre and pandemic periods. 10 studies reported on elective colorectal cancer resections, with a mean reduction of 27.9% during the pandemic period. Only 3 studies reported cases of elective benign colectomies, with a mean reduction of 49.1% during the pandemic period. On meta-analysis the overall 30 day mortality risk comparing the pre and pandemic period was not significantly different (RR1.29 95% c.i. 0.88 – 1.87, $p = 0.124$). We found no statistically significant differences in readmission within 30 days, use of laparoscopic surgery or stoma formation between the pre and pandemic periods.

Conclusion: There was a reduction in the number of colectomies performed world-wide. Despite pressures on resources and national guidelines deviating from best practice, post-operative outcomes appear not to be significantly affected. This analysis may be limited by inadequate powering or misrepresentative sampling. Further work may interrogate national databases to accurately describe resectional colorectal surgery during the pandemic.

Disclosure of Interest: None declared.

P114 | Patients who fail to return faecal immunochemical tests (FIT) still harbour significant colorectal cancer

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Aim: As the practice of using faecal immunochemical testing (FIT) as a gatekeeper for symptomatic referrals suspicious of colorectal cancer (CRC) it poses a problem of what to do with those who do not complete the test. We aimed to describe differences in demographics and outcomes of those who failed to complete FIT.

Method: A prospective study sent FITs to patients referred to secondary care with symptoms suspicious of colorectal cancer between January 2019 and June 2021. Patients were investigated regardless of FIT being returned or result.

Results: In total 7062 patients were sent a FIT, the return rate was 86.9%. Those who did not return their FIT were younger (median age 57 v 65, $p < 0.001$), from a lower socioeconomic background (Index of deprivation mean 5.8 v 6.6, $p < 0.0001$) and were more likely to have rectal bleeding (52.0% v 37.7%, $p < 0.0001$). There was no difference in sex ($p = 0.063$).

Non-returners were more likely to cancel or not attend future appointments (21.8% vs 6.3%, $p < 0.0001$). The prevalence of CRC in the non-returners was greater than those who returned their FIT (6.1% v 3.4%, $p = 0.0005$). After adjustments for mitigating circumstances of emergency hospitalisation, investigation within a week of referral, and significant comorbidity, there remained the same level of CRC between those who did return a FIT and those who did not (3.4% vs 4.0%, $p = 0.471$).

There was no difference in the location ($p = 0.916$) or tumour stage ($p = 0.830$) of the CRC between the groups.

Conclusion: Equivalent prevalence of CRC is present in those referred to secondary care with high-risk symptoms who do not return FIT as those who do. As FIT directed triage becomes a more common place across the UK, a service pathway is required for those not returning a FIT as they cannot be simply discharged for risk of missing and delaying CRC diagnosis.

Disclosure of Interest: None declared.

P115 | Sigmoid-perianal non-healing fistula due to perforated diverticulitis

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Aim: The aim of our case-report is to present a very rare condition with less than 10 cases in the literature reported untill now. Also a review of the literature will be adressed and the decision changes in the treatment of such disease.

Method: We present a rare case of a perforated sigmoid diverticulitis which started as a non-healing right perianal fistula from dignostic to the complete healing.

Results: The disease had an evolution which span over a year since the debut of the symptoms till cure. Five months after the debut symptoms the patient had a perianal abscess spontaneous drained. It took four months until the real cause of the abscess was found and cured due to COVID19 pandemic environment and repetead drainage of the perianal abscess. Surgery addressing the perforated sigmoid diverticulitis with pre-sacrum abscess, right ischiorectal abscess and right perianal fistula was performed in two stages. We performed a Hartmann procedure with fistulectomy, and three months later a laparoscopic stoma reversal.

Conclusion: Surgeons should have in mind that a retroperitoneal perforation of a colonic diverticulitis produce challenging disease to diagnose and treat – a non-healing right perianal fistula could be a scenario.

Disclosure of Interest: None declared.

P116 | Pneumorrhachis as a complication of a perforated rectal cancer with pre-sacrum abscess

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Aim: Our aim is to present a strange evolution of a patient with rectal cancer which had a pre-sacrum abscess and consecutive pneumorrhachis, tetraplegia and dead.

Method: We present a case report of a female patinet with a retrorectal abscess complicated with pneumorrhachis.

Results: A female patient with advanced local rectal cancer presented to the emergency unit of SCJU Timisoara with anemia and bleeding from a perianal tumor. CT scan was performed, and a rectal thickening was diagnosed with an abscess in the pre-sacral space. During first few hours of admission the patient deteriorate and was not able to move her legs. Surgery for draining the abscess was performed in order to stabilize the patient and perform an abdomino-perineal resection. The general state of the patient continued to deteriorate after the procedure despite blood transfusion and antibiotics therapy. At 24 hours after surgery she was not able to move her legs and her hands and a CTscan of the head discovered pneumorrhachis. The patient was scheduled for emergency abdomino-perineal resection to close the possible communication between the bowel and the spine. After surgery the patient bled, and reoperation was necessary. Antibiotics were employed after neurosurgical consult. The patient recovered some arms strength and movement but died after cardiovascular complications 17 days later.

Conclusion: The evolution of this case was strange and fulminant despite our best efforts. This presentation could be a warning for other surgeons encountering this disease.

Disclosure of Interest: None declared.

P117 | Robot-assisted versus laparoscopic short- and long-term outcomes in complete mesocolic excision for right-sided colonic cancer: A systematic review and meta-analysis

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Aim: This study aims to compare robot-assisted to laparoscopic complete mesocolic excision for right-sided colonic cancer.

Method: A systematic literature search was performed in accordance with PRISMA (Preferred Reporting items for Systematic Reviews and Meta-Analyses) guidelines. Medline, Embase and Cochrane Database of Systematic reviews were searched until date for both comparative and non-comparative RCTs and cohort studies. Pooled proportions of outcomes of interest were calculated using the inverse variance method, and a random-effect meta-analysis was conducted. Possible causes of heterogeneity were explored by applying I-square statistics, sensitivity- and meta-regression analyses. Risk of bias was assessed by RoB2 and MINORS.

Results: The literature search included 55 articles with a total of 5357 patients. Postoperative 90 days morbidity rates were higher in the robot-assisted (17%, 95% CI (14–20), I^2 = 76.5%) compared to the laparoscopic group (13%, 95%CI (12–13), I^2 = 90.7%). Robot-assisted surgery versus laparoscopy resulted in; a shortened hospital stay (6.3 days, 95% CI [4.7–8.0], I^2 = 100%) versus (8.0 days, 95%CI [7.4–8.6], I^2=100%), reduced intraoperative blood loss (23.9 mL, 95%CI [23.6–24.2], I^2 = 100%) versus (60.1 mL, 95%CI [59.9–60.3], I^2 = 100%) and a higher amount of harvested lymph nodes (35.7, 95%CI [32.8–38.6], I^2 = 99%) versus (26.3, 95%CI [24.7–27.8], I^2 = 100%). R0 resection rates were equal between the two surgical methods eventhough three year overall- and disease free survival favorized robot-assisted surgery. Risk of bias assesment indicated a high risk across studies included.

Conclusion: Robot-assisted surgery may be introduced for the complete mesocolic excision of right-sided colonic cancer without impairing surgical safety. The method was associated with improved short-term and three years survival outcomes when compared to conventional laparoscopy considering the inclusion of primarily non-randomized studies with a serious risk of bias.

Disclosure of Interest: None declared.

P118 | Midterm analysis of sphinkeeper implantation – A single center observational study

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Aim: Fecal incontinence (FI) is a limiting disease that leads to social isolation, anxiety disorders and depression. (1) The Sphinkeeper implantation for faecal incontinence (FI) is a novel surgical procedure with limited data on its clinical efficacy. Therefore, we aimed to assess the midterm outcome following Sphinkeeper surgery in patients with refractory FI.

Method: Between 2018 and 2021, 32 patients (28 women) with FI who met the inclusion criteria were recruited in a single-centre observational study for surgery. Baseline demographics, intraoperative and postoperative complications, St Mark's Incontinence Score, Short form 12 (SF-12), anorectal manometry and 3D-endoanal ultrasound, were assessed preoperatively, 3, 6 and 12 months after implantation. In addition, a detailed analysis was performed on ten of these patients with a focus on migration and dislocation of the prostheses using ultrasound and activity determination in terms of the IPAQ (International Physical Activity Questionnaire).

Results: The median age was 74 years (range 40–89 years) with a median BMI of 25.2 (range 19.5–41.5). The median number of implanted prostheses per intervention was nine (range 8–10) with a median operation time of 38 minutes (range 20–84). We found no intraoperative or early postoperative complications. After two months, two prostheses in one patient had to be removed due to pain at the perianal skin site. After six months, the median St. Mark's incontinence score decreased significantly from 22 to 12.5 points (p = 0.045). The SF-12 as wells as the squeezing pressure showed a significant improvement (SF-12: p = 0.009; squeezing pressure: p=0.037) after six months. Dislocation of prosthesis occurred independently to a high IPAQ score.

Conclusion: In this study a significant improvement of FI symptoms was reached six months after Sphinkeeper implantation. The complication rate is low, and midterm functional improvement can be achieved even in severe forms of FI.

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Disclosure of Interest: None declared.

P119 | Simultaneous diagnosis of rectal and prostate cancer. Systematic review of the literature and a proposed therapeutic algorithm

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Aim: The use of MRI in the staging of rectal cancer (RC) and prostate cancer (PC) has made the simultaneous diagnosis of both tumours more frequent. This dual diagnosis poses a therapeutic challenge. The aim of this study was to carry out a systematic review of the literature and to propose a therapeutic algorithm based on this review.

Method: Following the PRISMA guidelines, a literature search was carried out in the databases of PubMed, Medline, Embase, Cochrane and Google Scholar, using the terms "rectal cancer/tumour/neoplasia" and "prostate cancer/tumour/neoplasia". All retrieved references were managed in EndNote X3 (Thomson Reuters). All articles published from January 2010 to December 2021 were selected, without language restriction.

Results: A total of 215 articles were identified, of which 20 were finally included, all observational and retrospective and fulfilling selection criteria (preoperative staging, detailed treatment and outcomes); of these 10 were single case reports; the other 10 were case series, 3 of them multicentre. We stratified CRs into early (cT1-2) and advanced (≥T3) and PCs, according to PSA and Gleason, into low, intermediate and high risk.

Conclusion: The published literature does not allow us to obtain recommendations with a high level of evidence. With the stratification carried out, we obtained 6 possible combinations with which we constructed a therapeutic algorithm. Therapeutic management should be individualised, taking into account the treatment of choice for each tumour in isolation.

Disclosure of Interest: None declared.

P120 | Infectious colitis by CMV or colon cancer?

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Aim: Cytomegalovirus (CMV) infection is common in immunosuppressed patients, providing a basis for the diagnosis of human immunodeficiency virus (HIV). There are no specific symptoms or endoscopic findings to guide the diagnosis of CMV infection. So, reaching diagnosis can be complicated if there's not suspicion.

Method: A 43-year-old male was investigated due to abdominal pain, weight loss, and diarrhea. Physical examination revealed a palpable mass in the right iliac fossa. Colonoscopy found a cecal and neoplastic appearance ulcer. Histology of the lesion was inconclusive. Tumor markers were normal. CT scan reported a neoplastic process in the cecum with regional adenopathies.

Given the high clinical and radiological suspicion of neoplasia of the right colon, it was performed a right hemicolectomy with oncologic character. The definitive histology was CMV infectious colitis with positive immunohistochemical staining. Finally patient was diagnosed HIV infection.

Results: CMV colitis presents endoscopically as diffuse ulcers in the colon or findings similar to those of inflammatory bowel disease. The manifestation as a pseudotumor in the colon with weight loss, pain, and a palpable mass has been described and this manifestation is more frequent in immunocompromised patients. These pseudotumors have been described at the level of the ileum and right colon.

In our case, a single ulcer was found at the cecal level with indemnity of the rest of the colonic mucosa. This supported the suspicion of a neoformative process despite lack of pathological confirmation. However, these findings could be characteristic of CMV infection but the patient did not present risk factors or immunosuppression that would lead us to suspect.

Conclusion: Colon pseudotumor secondary to CMV infection as a debut of HIV infection is uncommon. The absence of risk factors means that it can be confused with a primary neoformative process. High clinical suspicion is required, especially in immunocompromised patients.

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Disclosure of Interest: None declared.

P121 | Differential diagnosis of gastrointestinal mesenchymal tumors. Case report

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Aim: Schwannomas are tumors of peripheral nervous system. They uncommonly develop in gastrointestinal tract (6%): stomach (83%) or small and large intestines (12%).

Method: 87-year-old female described epigastric pain and dyspepsia. A CT scan reported an intraluminal neoplastic process in sigmoid colon and locoregional adenopathies. It's identified an ulcerative lesion at 27 cm from the anal margin in colonoscopy. Biopsy study described a colonic mucosa with a fusiform cells, nuclear atypia over a fibrillar stroma of neural type, suspected as schwannoma.

Programed surgical intervention was performed: oncologic laparoscopic sigmoidectomy. After procedure, patient presented a favorable evolution and after five days of follow-up she was discharged. Final histological study described an old schwannoma in sigma. Mitosis (Ki67 < 2%) was not described and immunohistochemistry was positive for S-100 and negative for C-KIT, actine, desmin and CK.

Results: Gastrointestinal schwannomas represent 5 % of the mesenchymal tissue tumors. Normally they are asymptomatic; therefore, diagnosis is often accidental after an endoscopy. They are usually found in smooth muscle, and by CT, they are exophytic tumors with

cystic changes, necrosis or calcifications. Diagnostic challenge is that it is a submucosa lesion, therefore, endoscopy biopsy is performed in mucosa. Thus, differential diagnosis is challenging and it is difficult to differentiate from other mesenchymal tumors: gastrointestinal stromal tumor (GIST) or leiomyoma. Immunohistochemistry can aid diagnosis if positive for S-100 and negative for CKIT, CD-34 or DOG-1 (suggestive of GIST tumors), and actin and desmin (leiomyoma diagnostics).

Conclusion: Even though they are often benign tumors, recurrence and metastasis has been described. >5 mitosis per field count, Ki-67 index >10% and >5 cm size, are associated with malignancy. Treatment is surgical resection. Due to the low malignancy risk, extended resections, chemotherapy or radiotherapy are not indicated.

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Disclosure of Interest: None declared.

P122 | Non-surgical hemorrhoids techniques: Rubber band ligation and hemorrhoidal Sclerosis

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Aim: Internal hemorrhoids grade I, II and III, which have failed conservative treatment, can be treated with non-surgical techniques: rubber band ligation (LB) or hemorrhoidal sclerosis (HS).

Method: Observational and retrospective study of 190 patients. They are evaluated and submitted to LB or EH by surgeons, from January 2017 to October 2021. The results are described in demographic variables, indications, and results of procedures.

Results: 190 patients were studied. Mean age 54 years, 59.5% male. Personal history: 18.4% obesity, 12.1% previous anal surgery and 12% antiagregants-anticoagulants treatment. Main symptoms were bleeding (74.7%) and prolapse (13.7%). Physical examination: 45.8% grade II, and 33.7% grade III. 35.3%% had a single bundle affected, 29.9% and 14.2% two or more. 10.52% had an external component. Colonoscopy was performed in 78.9% patients.

It was performed LB on 132 and HS on 20. In operating room 38 cases were dismissed: 52.67% had an indication for hemorrhoidectomy, 23.68% were fissures, and 26.31% did not have hemorrhoids. There were not short-term complications after surgery.

34% of BL performed were recurrence. Most frequent reason was bleeding (69.8%). Of these recurring patients, 54.8% underwent a new LB, 42.9% hemorrhoidectomy and 2.3% sclerosis.

Patient who had HE, 75% had anticoagulant-antiplatelet treatment. It was a 30% recurrence, all bleeding symptoms. 33.3% of these underwent hemorrhoidectomy and 66.7% new sclerosis.

In neither of the two groups were statistically significant differences in relation to recurrence with obesity, anticoagulants, previous anal surgery, hemorrhoidal grade or number of bundles treated.

Conclusion: LB and HS are the two most common non-surgical techniques for the treatment of symptomatic hemorrhoids, grade II and III. They can be performed on an outpatient basis, complications being rare and with around 30% recurrence.

Disclosure of Interest: None declared.

P123 | Management of acute uncomplicated diverticulitis: Guidelines vs clinical practice. A survey of surgeons' real life practice

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Aim: Current international guidelines for the management of diverticular disease suggest that patient with acute uncomplicated diverticulitis (AUD§) can safely be managed as outpatients and antibiotic treatment should be reserved for immunocompromised and septic patients only.The purpose of this survey is to verify the adherence of daily clinical practice to current guidelines in a academic tertiary referral hospital in northern Italy, especially in regards to hospital admission and prescription of antibiotics.

Method: We performed an anonymous online survey focusing on surgeons' practice and preferences in regards to the management of AUC. In particular, we enquired about knowledge of the guidelines, adherence in their actual clinical practice and the different reasons behind their clinical choices.

Results: A total of 48 surgeons completed the survey. The 66.7% survey participants said that they were aware that the most recent guidelines recommend against the routine use of antibiotics for patients with AUC, and the 62.5% knew that outpatient management is feasible and recommended in these cases.

Then, we proposed a simple clinical case to investigate their clinical practice about the routine use of antibiotics in patients with AUC: only 20.8% declared to follow the guidelines in terms of management

without antibiotics. Concerns about patient safety and fear of legal issues were the main reasons for disregarding guidelines' recommendations.vWhen the same clinical case -focusing on outpatients management- was proposed 62.5 % agreed with the choice of an outpapient management, the main motivation to justify the patient's hospitalization was the fear of legal problems in the event of a negative outcome.

Conclusion: we observed an important gap between theoretical knowledge and daily clinical practice, in particular routinary use of the antibiotics in the management of AUC is still deeply rooted in the actual clinical practice of many surgeons.

Disclosure of Interest: None declared.

P124 | Does minimally invasive laser treatment of pilonidal sinus disease live up to its expectations: A multicentre study with 226 patients

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Aim: The minimally invasive character, the possibility to perform under local anaesthesia and the ease to repeat has led to increasing popularity of laser assisted treatment of pilonidal sinus disease. Hereby potentially avoiding prolonged need for medical home care, a long return to work time and high expenses for patients and society. This retrospective observational multicentre study aims to evaluate the feasibility of laser tract ablation for the treatment of pilonidal sinus disease.

Method: The patient population is comprised of all patients undergoing laser assisted treatment of pilonidal sinus disease at three Belgian hospitals. All patients receiving treatment between the 1st of January 2017 and the 31st of December 2021 were included. The required information was collected from the patient's medical file and data was analysed using descriptive statistics in SPSS.

Results: A total of 226 patients were included with a mean follow-up time of 129 days [7–1120]. There were no statistically significant differences in patient demographics between hospitals. The initial success rate after one laser procedure, defined as complete healing, after 30 and 90 days, was 60.9% and 84% respectively. Wound complications were the main postoperative issue (8.0%) of which 5 patients required drainage (2.2%). We observed an overall recurrence rate of 21.2% after one laser procedure. Some of these patients were healed by a second or third laser procedure adding up to an overall success rate of 85.4% after one or more laser procedures. For 29 patients (12.8%) laser assisted treatment was insufficient, leading to a "rescue" operation (drainage, excision, flap). At the end of the follow-up, we observed a healing rate of 93.4%.

Conclusion: This study shows that laser assisted treatment is feasible for pilonidal sinus disease. The minimally invasive character of this technique makes up for a higher non healing rate compared to other techniques like flap repair.

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Disclosure of Interest: None declared.

P125 | Diuretics and RAAS inhibitors increase the risk of dehydration and renal failure in patients with a temporary ileostomy

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Aim: Temporary ileostomy is frequently used to protect colorectal anastomoses, but may lead to increasedloss of water and electrolytes with consecutive renal failure. This risk might be increased by drugsmodifying kidney function. The aim of this study was to assess the risk of readmission due todehydration or renal failure in patients treated with diuretics or RAAS inhibitors after formation of anileostomy.

Method: In a nationwide cohort study, 4269 Swedish patients with elective anterior resection and temporaryileostomy for colorectal cancer between 2007–2016 were included. Exposure was dispense of diureticsor RAAS inhibitors, and outcome was readmission due to dehydration or renal failure within 90 daysafter surgery. Data were extracted from CRCBaSe, a mega linkage of several Swedish nationalregisters. Estimates were obtained using Cox regression with final model adjusted for age, gender andASA score.

Results: Readmission for any cause was 43.7% for exposed versus 34.1% for unexposed. Dehydration or renalfailure was the cause of readmission in 209 of 1541 exposed (13.6%) versus 142 of 2728 unexposed(5.2%). Exposed patients experienced an increased incidence rate ratio of readmission due todehydration/renal failure (2.9 (95% CI: 2.3–3.6, p-value < 0.001), as well as an increased hazard ratio(2.4 (95% CI: 1.87–3.03, p-value < 0.001) compared with unexposed patients.

Conclusion: Concomitant medication with RAAS inhibitors or diuretics defines a vulnerable population with increasedrisk of readmission due to dehydration or renal failure after formation of ileostomy, which should beaccounted for in the decision to perform an ileostomy and for postoperative rehabilitation.

Disclosure of Interest: None declared.

P126 | Impact of age on multimodality treatment and survival in locally advanced rectal cancer patients

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Aim: Optimal treatment in locally advanced rectal cancer is neoadjuvant (chemo)radiation followed by radical surgery. This is challenging in the ageing population because of frequently concomitant comorbidity. We analyzed whether age below and above 70 years is associated with differences in treatment strategy and outcome in this population-based study.

Method: Data between 2008 and 2016 were extracted from the Netherlands Cancer Registry with follow-up until 2021. Differences in therapy, referral and outcome were analyzed using χ2 tests, multivariable logistic regression and relative survival analysis.

Results: In total 6524 locally advanced rectal cancer patients were included. A greater proportion of patients <70 years underwent resection compared to older patients (89% vs 71%). Patients ≥70 years were more likely treated with neoadjuvant radiotherapy (OR 3.4, 95% CI 2.61–4.52), than with chemoradiation (OR 0.3, 95% CI 0.23–0.37) and less often referred to higher volume hospitals for resection (OR 0.7, 95% CI 0.51–0.87). Five-year relative survival after resection following neoadjuvant therapy was comparable and higher for both patients <70 years and ≥70 years (82% and 77%) than after resection only. Resection only was associated with worse survival in elderly compared to younger patients (56% vs 75%).

Conclusion: Elderly patients with locally advanced rectal cancer received less intensive treatment and were less often referred to higher volume hospitals for surgery. Relative survival was good and comparable after optimal treatment in both age-groups. Effort is necessary to improve guideline adherence and multimodal strategies should be tailored to age, comorbidity and performance status.

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P127 | Is the simultaneous use of phenol with drainage effective in complicated pilonidal sinuses?

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Aim: To evaluate the advantages of phenol application and simultaneous drainage and phenol application together with antibiotherapy treatment after drainage followed by antibiotic therapy in patients presenting with abscess and complicated PS.
Method: All patients aged >18 years who applied to the General Surgery Clinic due to abscessed PS between July 2021 and October 2021 were prospectively included in the study.
Group 1 patients were treated with liquid phenol under local anesthesia at their second admission after 7days of antibiotic therapy after drainage. Group 2 patients were given debridement and phenol application under local anesthesia at the time of admission, followed by 7days of antibiotherapy treatment. The patients were re-evaluated in the general surgery outpatient clinic at the postoperative first week and first month controls. Recurrence, VAS scores, return to work and postoperative quality of life questionnaires were recorded.
Results: Thirty-six patients, 28 (77.8%) male and 8 (22.2%) female, were included in the study prospectively.The mean age of the patients in Group 1 (n = 18) and Group 2 (n = 18) was 24.5.The age, BMI, first week and first month VAS scores were evaluated in both groups.There was no statistically significant difference between the groups (p >0.05). No recurrence or complication was observed in both groups in the early follow-up. In terms of postoperative quality of life questionnaire and time to return to work, it was observed that Group 2 patients returned to work earlier than Group 1 patients (p < 0.05).
Conclusion: Phenol application with simultaneous drainage is a feasible method in the treatment of complicated PS. It is advantageous in terms of shorter patients' return to work, recurrent hospitalizations, reduced rate of interventional procedures and low hospital cost rates.
Disclosure of Interest: None declared.

P128 | Urinary volatile organic compound testing in fast-track patients with suspected colorectal cancer

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Aim: Colorectal symptoms are common but only infrequently represent serious pathology, including colorectal cancer (CRC). A large number of invasive tests are presently performed for reassurance. We investigated the feasibility of urinary volatile organic compound (VOC) testing as a potential triage tool in patients fast-tracked for assessment for possible CRC.
Method: A prospective, multi-centre, observational feasibility study was performed across three sites. Patients referred on NHS fast-track pathways for potential CRC provided a urine sample which underwent Gas Chromatography Mass Spectrometry (GC-MS), Field Asymmetric Ion Mobility Spectrometry (FAIMS) and Selected Ion Flow Tube Mass Spectrometry (SIFT-MS) analysis. Patients underwent colonoscopy and/or CT colonography and were grouped as either CRC, adenomatous polyp(s), or controls to explore the diagnostic accuracy of VOC output data supported by an artificial neural network (ANN) model.
Results: 558 patients participated with 23 (4.1%) CRC diagnosed. 59% of colonoscopies and 86% of CT colonographies showed no abnormalities. Urinary VOC testing was feasible, acceptable to patients and applicable within the clinical fast track pathway. GC-MS showed the highest clinical utility for CRC and polyp detection vs. controls (sensitivity = 0.878, specificity = 0.882, AUROC = 0.884).
Conclusion: Urinary VOC testing and analysis is feasible within NHS fast track CRC pathways. Clinically meaningful differences between patients with cancer, polyps or no pathology were identified therefore suggesting VOC analysis may have future utility as a triage tool.
Disclosure of Interest: None declared.

P129 | Giant filiform polyposis in a patient with ulcerative colitis mimicking colorectal cancer

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Aim: We report an unusual case of giant filiform polyposis in a patient with ulcerative colitis causing a large stricture in the colon. He was known to have UC for a 30 years. A CT scan showed a 9 cm stricture in the transverse colon suspicious of malignancy. A colonoscopy and biopsies confirmed features of ulcerative colitis. A Laparoscopic assisted Transverse colectomy (Left hemicolectomy) was performed, and the histology revealed giant filiform polyposis. This should be considered in a UC patient presenting with signs of obstruction mimicking a carcinoma.
Method: A 62-year-old man was referred with a positive FIT.He was investigated with a Computed Tomography (CT) Colonoscopy which demonstrated a 9 cm lesion in the mid-distal transverse colon with frond like polypoid thickening and minimal adjacent fat stranding. Colonoscopy failed to get through the stricture and the biopsies revealed active chronic ulcerative colitis. A laparoscopic assisted left hemicolectomy was performed.Microscopic examination revealed background changes in keeping with ulcerative colitis. The conclusion was features of giant inflammatory polyposis/filiform polyposis on a background of ulcerative colitis.
Results: GFP may be the consequence of a combination of both the duration of the disease (UC over 30 years) and frequency of severe inflammation. .GFP can be mistaken for malignancy and at times colectomy is needed when it is a complex case, where the patient had a 9cm stricture and malignancy could not be excluded[16]. It is

suggested that given the increased risk of colon cancer in UC, GFP in association with active IBD should undergo pre-emptive surgical resection[17-19].

Conclusion: GFP can mimic colorectal carcinoma and it should be considered in a patient with a background of IBD. In summary we present a case of GFP in a UC patient that had a localised stricture in the transverse colon. The duration of his UC and the added repeated inflammatory process may have caused the formation of GFP.

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Disclosure of Interest: None declared.

P130 | Feasibility of a personalized strategy for non-metastatic CT4 rectal cancer: From organ preservation to pelvic exenteration

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Aim: During the last decade, the improvement of neoadjuvant therapy for locally advanced T4 cancer changed the strategy of surgical approach. According to tumor response, a variety of surgical approaches can be proposed. The aim of this study was to pool the result of consecutive patients with cT4 rectal cancer undergoing a spectrum of treatment strategies from organ preservation (OP) to pelvic exenteration (PE).

Method: All patients who underwent elective surgery for cT4 rectal cancer between 2016 and 2021 were included. All patients were operated on with curative intent. According to tumor response, OP, transanal excision, TME or APR/PE was proposed.

Results: In all, 152 patients were included. Surgical procedure included TME in 71 patients (47%), APR in 25 patients (16%), pelvic exenteration in 43 patients (28%) and organ preservation in 13 patients (9%). The 3-year OS rate decreased according to invasive surgical procedure level (92% respectively in the OP group, 79% respectively in the TME group, 57% in the APR group and 84% for PE group, $p = 0.018$. The 3-year DFS rate did not differ between the three groups (55% respectively in the OP group, 76% respectively in the TME group, 37% in the APR group and 84% in the PE group ($p = 0.069$).

Conclusion: cT4 tumours may be suitable to the full spectrum of rectal cancer management from organ preservation to pelvic exenteration depending on tumour response to neoadjuvant therapy with favourable cancer outcomes.

Disclosure of Interest: None declared.

P131 | Venous thromboembolism following colectomy for diverticular disease

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Aim: This study reports venous thromboembolism (VTE) rates following colectomy for diverticular disease to explore the magnitude of postoperative VTE risk in this population and identify high risk subgroups of interest.

Method: English national cohort study of colectomy patients between 2000–2019 using linked primary (Clinical Practice Research Datalink) and secondary (Hospital Episode Statistics) care data. Stratified by admission type, absolute incidence rates (IR) per 1,000 person-years and adjusted incidence rate ratios (aIRR) were calculated for 30- and 90-days post-colectomy VTE.

Results: Of 24,394 patients who underwent colectomy for diverticular disease, over half (57.39%) were performed as emergency procedures with the highest VTE rate seen in patients 70 or more years-old (IR 142.27 per 1,000 person-years, 95%CI 118.32–171.08) at 30-days post colectomy. Emergency resections (IR 135.18 per 1,000 person-years, 95%CI 115.72–157.91) had almost double the risk (aIRR 1.90, 95%CI 1.32–2.74) of developing a VTE at 30 days following colectomy compared to elective resections (IR 51.14 per 1,000 person-years, 95%CI 38.30–68.27). Minimally invasive surgery (MIS) was shown to be protective with a 64% reduction in VTE risk (aIRR 0.36 95%CI 0.20–0.66) compared to open colectomies at 30-days post-op. At 90 days following emergency resections, VTE risks remained raised compared to elective colectomies.

Conclusion: Following emergency colectomy for diverticular disease, the VTE risk is approximately 2-fold greater compared to elective resections at both 30- and 90-days while MIS was found to reduce the risk of VTE. This suggests advancements in postoperative VTE prevention in diverticular disease patients, such as extended VTE prophylaxis, should focus on those undergoing emergency colectomies, particularly in elderly patients, as well as increasing the uptake of minimally invasive techniques.

Disclosure of Interest: None declared.

P132 | According to a 5-year study, is radiofrequency thermocoagulation a valid long-term technique for the treatment of haemorrhoidal disease and what can patients expect from it as effectiveness on their symptoms and quality of life and as recurrence?

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Aim: A single-centre retrospective study was conducted to assess long-term efficacy of hemorrhoidal radiofrequency thermocoagulation (RFT) on bleeding, prolapse, quality of life (QoL) and recurrence.

Method: After ethics committee approval, all consecutive patients with isolated internal hemorrhoidal disease who had RFT with modified Rafaelo® procedure via hemorrhoid exteriorisation were studied. A phone interview by a resident unfamiliar with the patients assessed the evolution of hemorrhoidal prolapse rated by Goligher scale; bleeding intensity and discomfort (0–10), sense of improvement and satisfaction (-5 to +5/5) by analogue scales[1]; impact of hemorrhoidal disease on QoL by validated HEMO-FISS-QoL (HFQ) score[2]. All results are assessed by the average.

Results: From April 2016 to January 2021, 124 patients had RFT, mostly as outpatients. In September 2021, 107 patients (75 men, age 54 years) could be included. Follow-up is 30 months (8–62). 4334 Joules were applied per patient. Time off work was 3 days, zero in 71% of cases. Bleeding resolved in 53 of 102 patients or dropped from 7 to 3/10 ($p < 0.001$). Hemorrhoidal prolapse reduced from grade 3 to 2 ($p < 0.001$), vanishing in 30% of cases and discomfort from 7 to 2/10 ($p < 0.001$). HFQ-score improved from 22 to 7/100 ($p < 0.001$). Feeling of improvement and overall satisfaction rate are +4/5. Recurrence occurred in 21% of patients at 22 months, of whom 6 required reoperation. The study using Kaplan Meier curves shows no difference between the results of the first and last treated patients, including recurrence, suggesting the absence of a learning curve. No long-term complication was reported. Of all patients, 92% would choose the same process again and 96% recommend it.

Conclusion: These results at 5 years confirm those of a previous study conducted over 2 years and show their maintenance over time. It suggests that RFT, although imperfect, leads to a significant improvement in hemorrhoidal symptoms and a lasting increase in QoL of operated patients.

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Disclosure of Interest: None declared.

P133 | One-step totally robotic hartmann reversal and complex abdominal wall reconstruction with bilateral posterior component separation

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Aim: This presentation describes a fully robotic approach to combined digestive continuity restoration and complex abdominal wall reconstruction after Hartmann procedure complicated by large midline and parastomal hernias.

Method: After robotic adhesiolysis and restoration of the digestive continuity, a robotic retromuscular abdominal wall reconstruction of all ventral defects with bilateral component separation is performed using the double-docking (roboTAR) approach. Case presentation is followed by description of the surgical steps, anatomical landmarks, and technical caveats relevant for successful completion of the procedure.

Results: Complete restoration of the anatomy was achieved with an operative time of 6.5h. Mobilization was obtained at day1 and bowels opened at day 3. Surgical discharge was possible at day 5. No intra-operative surgical complication occurred and follow-up at 4 months showed no recurrence or mid-term complication.

Conclusion: Combined minimally-invasive reconstruction of the digestive and parietal anatomy was feasible using the robotic system. Potential advantages in terms of post-operative rehabilitation and surgical site complications are suggested. Prospective evaluation of the technique is ongoing.

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P134 | A prospective evaluation of the effect of transanal minimally invasive surgery (TAMIS) on low anterior resection syndrome

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Aim: Transanal minimally invasive surgery (TAMIS) is a surgical alternative to transanal endoscopic microsurgery (TEM) or proctectomy in the management of benign rectal polyps and early rectal cancers. Low Anterior Resection Syndrome (LARS) describes the constellation of symptoms which results from, and are common after distal colorectal resection or TEM (1,2). Symptoms include incontinence, frequency, urgency, evacuatory dysfunction, and difficulty with discrimination. The aim of the current study is to prospectively evaluate pre- and post-operative LARS in patients who undergo TAMIS.

Method: We conducted a prospective analysis of a consecutive series of patients who underwent TAMIS at our institution between January 2021 and February 2022. A LARS questionnaire was undertaken pre-operatively, at 1 month and at 6 months post-operatively. Data are presented as mean ± SEM and compared using Mann-Whitney U test.

Results: 20 patients were recruited to this pilot study. The mean age was 63 years, 11 of the patients (55%) were male, mean pre-operative BMI was 32.7±2.7 Kg/M^2. Mean distance from the anal verge was 7.0±1.1cm and mean lesion diameter was 39.5±5.1mm. There was no statistically significant difference in the pre-operative (20.3±2.9) and 1 month post-operative LARS scores (18.6±3.3, p = 0.824). Similarly no significant difference was noted between the preoperative and 6 month postoperative LARS scores (15.4±3.3, p = 0.377). There was no significant association observed between LARS and gender, BMI, lesion height, or lesion diameter.

Conclusion: This study reaffirms the safety and efficacy of TAMIS for the treatment of early rectal neoplasia. No significant effect of TAMIS on the LARS score was observed

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Disclosure of Interest: None declared.

P135 | Long-term outcomes of robotic restorative proctectomy for rectal cancer – A propensity score matched analysis of data from an expert UK Rectal Cancer Center

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Aim: We sought to analyze a large dataset of laparoscopic and robotic rectal cancer patients treated at an expert colorectal center in the UK between 2013 and 2021.

Method: We included patients undergoing laparoscopic and robotic restorative rectal cancer surgery between 2013 and 2021 in our expert colorectal center. Outcomes for rectal cancer surgery were compared between the laparoscopic and robotic cohorts after propensity score matching. The primary outcome was 5-year Overall Survival (OS). Secondary outcomes were other long term outcomes (Local

Recurrence (LR), Distant Recurrence (DR), Disease Free Survival (DFS)) and short-term surgical and patient-related outcomes.

Results: Our dataset included 565 patients in total. After propensity score matching, 396 patients remained in an equal split between the two cohorts. The robotic group had significantly more patients with low rectal tumours (29.7% vs 14.8%, p = 0.004). There was a significant difference in 5-year survival (82.7% in robotic cohort vs 72.8% in laparoscopic, p = 0.015). There was no difference in 5-year LR (p = 0.83), DR (p = 0.83), or DFS (0.27). The robot group had significantly shorter Length of Stay (5.0 [4.0–8.0] vs 7.0 [6.0–13.0], p<0.001), shorter operative time (240 [217.5–297.5] vs 270 [240.0–300.0] mins, p = 0.004) and less blood loss (0 [0.0–11.3] vs 75.0 [75.0–75.0], p < 0.001) than the laparoscopic group. There was also a significant difference in the incidence of complications (no complications 48.5% vs 33.7%, minor complications 39.4% vs 57.4%, p < 0.001) and a trend towards less conversion (0.5% vs 3.0%, p = 0.131).

Conclusion: Robotic rectal cancer surgery in our center shows improved survival and non-inferior oncological long-term outcomes to the laparoscopic approach. It also shows statistically significant better short-term outcomes in length of stay, operative time, blood loss and postoperative complications. Robotic rectal cancer surgery is a safe and favourable alternative to the traditional approaches.

Disclosure of Interest: None declared.

P136 | Evaluation and management of anal pruritus – A narrative review

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Aim: Anal pruritus is defined as a dermatological condition characterized by itching around the perianal region. It affects around 1–5% of the general adult population, and it is four times commoner in men than women. Mainly it is categorized as either primary (idiopathic) or secondary that has an associated causal pathology. In this narrative review we overview the classification, diagnostics and possible treatment options of anal pruritus.

Method: The systematic review was performed according to the PRISMA statement. The search was restricted to English language only without a time limitation. Most recent search was performed on 3rd May 2022.

Results: One of the crucial diagnostics goals is to differentiate between primary and secondary pruritus. As the distinction is made by exclusion a thorough history and performing a physical examination is important. Most of the focus during examination is drawn on the perianal region. A digital rectal examination and an anoscopy are necessary. It is necessary to avoid moisture and the use of soaps in the perianal region. Furthermore, the patient should avoid certain foods and increase the intake of fiber. If the symptoms don't resolve topical steroids, capsaicin (0.006%) and tacrolimus (0.1%) ointments may be used. For intractable cases intradermal methylene blue injection might give long lasting symptom relief.

Conclusion: Anal pruritus is a long-term deteriorating quality of life problem. Most of the time it is a symptom with a difficult diagnosis. Thorough history and examination should be performed for the best possible treatment.

Disclosure of Interest: None declared.

P137 | Prognostic factors for pathologic complete response in locally advanced rectal cancer: Single centre randomized controlled trial

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Aim: Our aim was to determine whether lengthening the time interval between chemoradiation (CRT) and surgery has a positive effect on treatment outcomes in patients with advanced rectal cancer.

Method: We included stage II and III rectal cancer patients treated at National Cancer Institute, Lithuania between January 2018 and September 2021. Patients were divided into two study groups (SG) according to treatment interval between surgery and CRT: SG1 and SG2 received chemoradiation 8 and 12 weeks before surgery respectively. Patients' demographics, level of carcinoembryonic antigen (CEA), magnetic resonance imaging (MRI) results, and histological parameters were recorded. Postoperative complications were assessed using the Clavien-Dindo grading system.

Results: One hundred patients were included (46, SG1; 54, SG2). The Dworak tumor regression II and III grades were higher in the SG2 than in the SG1 but the same with IV grade among SGs (II – III 56% versus vs 41% and IV 11% versus 11%, p = 0.1996). CEA level has decreased in both SGs with the significant drop in SG1 (SG1 p = 0.0035 and SG2 p = 0.037). In SG2 CRM positive was more common than in SG1 (93% vs versus 89%, p = 0.7897). There was no significant difference in postoperative complications between the groups. There were nine patients in SG1 with complications that were classified as grades III and more according to the Clavien-Dindo classification vs 16 in SG2. Two death cases were recorded in SG1 and one in SG2.

Conclusion: Lengthening the treatment interval could moderately increase the pathologic complete response (pCR) rate in patients undergoing rectal cancer surgery for locally advanced rectal cancer.

Disclosure of Interest: None declared.

P138 | Diagnostic role of carbohydrate antigen 72-4 for colorectal pathology in fit positive patients

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Aim: The role of Ca72-4 in diagnostics of early CRC or removable precursor lessons (i.e. adenomas) in colon is still unclear.
Method: Patients coming for screening colonoscopy from 2021 January to April were included in our study. All patients had no complaints, was FIT positive and belonged to 50–74 years group. We collected serum samples of 96 patients with CRC or colorectal adenoma (larger than 10 mm) and 21 patients without any colon pathology as healthy controls. An automatic chemiluminescence immune analyser with matched kits (ECLIA) with Roche Cobas e411 analyser were used to determine the levels of serum CA72-4 in the study group patients. The discriminatory abilities of CA72-4 were assessed using receiver operating characteristic (ROC) curves.
Results: We found that Ca72-4 has high sensitivity (86.46%) and low specificity (41.94%) for CRC and precancerous lesion (CA) identification (A group), high sensitivity (80.95%) and low specificity (41.94%) for CRC (B group) identification and high sensitivity (88.00%) and low specificity (41.94%) for precancerous lesion (CA) (C group) identification. The statistical analysis showed the area under the ROC curve (AUC) Ca72-4 was in colorectal pathology group 0.633, in adenocarcinoma group 0.609, and in adenoma group 0.640.
Conclusion: The routine screening of CA72-4 levels for diagnosing CRC in asymptomatic patients may be ineffective due to low specificity, despite high positive predictive value. According our study results patients with positive FIT and doubt about colonoscopy, Ca72-4 may be considered an additional test.
Disclosure of Interest: None declared.

P139 | Tissue based markers as a tool to assess response to neoadjuvant radiotherapy in rectal cancer – Systematic review

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Aim: This review aims to investigate different types of tissue-based biomarkers and their capability to predict tumour response to neoadjuvant therapy in patients with locally advanced rectal cancer.
Method: We performed this systematic review. Two authors searched independently electronic databases of Cochrane Library, Embase, Web of Science, CENTRAL and PubMed until September 2021. Search string for Medline and Embase were used: "rectal", "cancer", "predictive", "response", "prediction", "predictor", "biomarkers", "tissue", "neoadjuvant", "radiotherapy", "chemoradiotherapy", "neoadjuvant treatment". Single words and different search combinations were used.
Results: We identified 169 abstracts in NCBI PubMed, selected 48 reports considered inclusion criteria and performed this systematic review. Multiple classes of molecular biomarkers such as proteins, DNA, micro-RNA or tumour immune microenvironment, was studied as potential predictors for rectal cancer response.
Conclusion: No literature up to date has provided enough sufficient evidence for any of them to be introduced into clinical practice.
Disclosure of Interest: None declared.

P140 | Hand assisted laparoscopic surgery for colorectal cancer: Surgical and oncological outcomes from a single tertiary referral centre

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Aim: to report overall experience, perioperative and long-term survival results in a single tertiary referral centre in Lithuania with laparoscopic hand assisted laparoscopic surgery (HALS) for colorectal cancer.
Method: A prospectively maintained database included 467 patients who underwent HALS for left-sided colon and rectal cancer from April 2006 to October 2016. We collected patients' demographic, intraoperative and postoperative data. Long-term oncological data was counted using Kaplan-Meier curves.
Results: There were 230 (49.25%) females and 237 (50.75%) males, with an average age of 64 ± 9.7 years (range, 26–91 years). 81(17.35%) – left hemicolectomies, 160 (34.26%) – sigmoid colectomies, 170 (36.4%) – anterior rectal resections with partial mesorectal excision, 45 (9.64%) – anterior rectal resections with total mesorectal excision, and 11 (2.25%) other procedures were performed. 140 (29.98%) patients had stage I, 139 (29.76%) – stage II, 152 (32.55%) – stage III and 36 (7.71%) – stage IV colorectal cancer. There were five conversion to open surgery (1.1%). The mean post-operative hospital stay was 6.9±3.4 days (range, 1–30 days). In total, 33 (7.06%) patients have developed postoperative complications. Overall 5-year survival for all TNM stages was 85.7 %: for stage I – 93.2 %, stage II – 88.5 %, stage III – 76.3%.
Conclusion: Hand assisted colorectal surgery for left sided colon and rectal cancer in a single tertiary referral centre was feasible and safe, had all advantages of minimally invasive surgery, with good perioperative parameters, adequate oncological quality, and excellent survival.
Disclosure of Interest: None declared.

P141 | A prospective study of Lithuanian colorectal cancer patients' association of the received information and their satisfaction and the quality of life

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Aim: The aim of this study is to assess the level of information received by Lithuanian colorectal cancer (CRC) patients about their disease, treatment and further care as well as to study the association of this information received with the satisfaction and quality of life among these patients.
Method: In this prospective study adult age colorectal cancer patients were involved. In the study the following questionnaires were used: European Organisation for Research and Treatment of Cancer (EORTC) quality of life questionnaire QLQ-C30, EORTC QLQ-CR29, EORTC QLQ-INFO25 and Modified Short Assessment of Patient Satisfaction (SAPS) questionnaire. Demographic and clinical data were collected too.
Results: The 150 participating patients, who fully completed the questionnairres, were included in the study. Acording to SAPS score there were: 8 (5.3%) very unsatisfied, 45 (30%) unsatisfied, 81 (54%) satisfied and 16 (10.7%) very satisfied patients. 98 (65%) of all the patients with different levels of satisfaction about their treatment (of which 75% of very unsatisfied, 58% of unsatisfied, 75% of satisfied and 31% of very satisfied patients) wished to have received more information about their disease, diagnostics, treatment, physical activity, rehabilitation, nutrition, prevention of further recurrence of illness and social aid. There were no significant correlation between the quality of life with the amount of information received (p = 0.3561). However, there was a significant correlation between the patients' satisfaction about their treatment and the amount of information received (p<0.0001).
Conclusion: The amount of information received does not influence the quality of patient's life, however, it does influence the patients' satisfaction level. Moreover, although most participating patients were satisfied with the provided information and treatment, a significantly higher proportion of patients wished to have received more information.
Disclosure of Interest: None declared.

P142 | Upregulation of PARP family genes in colorectal cancer patient tumor cells after the chemoradiation treatment

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Aim: Radiation and most of chemotherapy regimens are based on DNA damage and the evidence that cancer cells are more sensitive to the damage than normal cells, which are damaged as well during the treatment. Despite the deficient DNA damage response (DDR) of cancer cells the ability to activate DDR is not totally eliminated in cancer cells and is related to the development of acquired resistance to the treatment of tumor cells and the decreased efficiency and result of patient treatment. Better understanding of molecular pathways activated during the chemoradiation treatment of cancer would lead to the more efficient treatment strategies.
Method: In this study we prospectively included patients undergoing standard chemoradiation for locally advanced rectal cancer. We have investigated chemoradiation treatment dependent gene expression differences in CRC patient tumors. Genes for the analysis have been selected based on our previous global analysis in CRC cell lines (cdk1, rad51, exo1, ddb1, stat2, irf9, ifitm1, ifit1, oas2). All patients underwent biopsies of the tumor before treatment and after the treatment.
Results: sixty three patients have been analyzed in this study. We found significant upregulation of few PARP genes in the cells of CRC tumors after chemoradiation treatment.
Conclusion: PARP's expression status is a novel potential biomarker to individualize treatment of patients with locally advanced rectal cancer.
Disclosure of Interest: None declared.

P143 | Robotic surgery in a tertiary colorectal surgery unit – Assessment of post-op complications and short-term outcomes

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Aim: To determine the effect of using the da Vinci Xi robot on the short-term outcomes and post operative complications in a tertiary colorectal surgery unit.
Method: Retrospectively, data was collected of patients who underwent robotic surgery with the da Vinci Xi robot in a single tertiary colorectal centre between April 2021 and April 2022. Post-operative complications were analysed as well as operative time, conversion rate, readmission and mortality rate within 30-day.
Results: In the year analysed, 90 patients had robotic procedures; 26 had benign conditions while 64 had a cancer diagnosis. Surgeries included pan-proctocolectomy, sub-total colectomy, completion proctectomy, low and high anterior resections, right hemi-colectomy and abdominoperineal resections. In terms of patient demographics, the median age was 66 years and average BMI 26.6. There was a reduction in the operative time by the 15th case by 30%. 3 of the procedures were converted to open. 29 patients had at least one complication, including 1 death within 30 days of surgery, 8 post-operative ileus, 1 anastomotic leak (managed conservatively) and 5 collections, 5 haematomas, 8 wound infections (including perineal wounds), 1 internal hernia, 1 strangulated bowel and 3 pneumonia. Overall, 6 patients (6.4%) were readmitted within 30 days, all

of whom had significant pre-existing risk factors. 5 of these patients underwent complex surgery (low-anterior resection or panproctocolectomy) and were readmitted for collection formation. All of these patients were treated conservatively.

Conclusion: This data demonstrates the successful application of the da Vinci Xi robotic system in the treatment of a range of benign and malignant colorectal disease. It was found that the postoperative complications are substantially related to the complexity of the procedure performed. In summary, the da Vinci Xi robot is a feasible tool to perform complex and multi-quadrant benign and malignant colorectal procedures.

Disclosure of Interest: None declared.

P144 | Analysis of mirnas in serum and tissue samples from colorectal cancer patients with different body mass indexes

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Aim: The aim of this study was to detect serum markers useful in the diagnosis and follow-up of patients with colorectal cancer (CRC) and the influence of obesity on these biomarkers.

Method: Samples of 30 patients with CRC were analyzed. 7 were patients with normal-weight, 14 with overweight and 9 with obesity. In all cases, samples of serum, subcutaneous and omental adipose tissue, tumor and non-tumor colon tissue were obtained. A total of 5 miRNAs related to CRC, obesity and telomeric function were analyzed: miR-181a-5p, miR-143-3p, miR-132-3p, miR-23a-3p and miR-103a-3p. The expression study and telomeric function was performed by real-time quantitative PCR. Statistical studies were performed with IBM SPSS Statistics 27®.

Results: A positive and statistically significant correlation was observed between the serum expression of miR-181a-5p and both adipose tissues (omental, $p = 0.002$, and subcutaneous, $p = 0.001$), as well as between the expressions of both adipose tissues ($p < 0.001$). When patients were separated according to BMI, correlations were maintained in obese patients, but were lost in normal-weight patients. In obese patients, a negative correlation was observed between miR-181 expression in subcutaneous adipose tissue and the ratio of miRNA expression in tumor tissue with respect to non-tumor colon tissue ($p = 0.036$).

Statistically significant correlation was observed, in normal-weight patients, between the T/N ratio (relative telomeric length in tumor to non-tumor tissue) and serum miR-181 expression (negative correlation, $p = 0.023$), as well as with miR143 expression in colon tumor tissue (positive correlation, $p = 0.014$).

Conclusion: Serum miR-181a-5p expression could represent a potential diagnostic and follow-up biomarker in obese patients affected by CRC. Moreover, in normal-weight patients, the expression of miRNAs 181a-5p and 143-3p is related to telomeric function in CRC.

Disclosure of Interest: None declared.

P145 | Obesity and colorectal cancer

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Aim: Obesity is known as a risk factor for colorectal cancer and worsen the prognosis of patients on long term.

The aim of the study is to identify the impact of obesity on short ang long term results of CRC patients.

Method: Retrospective review of consecutive patients who underwent surgery for CRC was performed. Demographic, clinical, surgical and follow-up up variables were recorded and analysed with SPSS software.

Results: From total 355 patients, 44% were normal-weighted and 66% were overweight and obese.

There were no differencies between the groups in demographics, clinical or surgical data. Overweight patients had longer hospitalization stay ($p = 0.039$) due to more severe complications.

These patients presented more complications at 5 year follow-up ($p = 0.006$) most of them were incisional hernias.

Conclusion: In our cohort could not be confirmed that obesity worsens the prognostic of patients with CRC, however they presented more long-term complications.

Disclosure of Interest: None declared.

P146 | Impact of a trimodal prehabilitation and rehabilitation program to improve the predicted major anterior resection syndrome. "A non-randomized prospective study phase II"

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Aim: ARS is highly prevalent after LAR for rectal cancer. We designed a prehabilitation (before stoma closure) and rehabilitation (after closure) programme including supervised pelvic floor physiotherapy (PFP), biofeedback (BF) and tibial nerve stimulation (PTNS). We used the POLARS scale (which predicts the observed LARS scale at 1-year) for patient selection.

Method: Prospective pilot study (ClinicalTrial.gov: NCT04612569) for consecutive patients with RAB and a POLARS >20 pts intervened between 06/19 and 02/22 studying the impact (feasibility and

compliance) of the programme, as well as preliminary functional outcomes (ratio POLARS/LARS; correlation PFP and BF data with LARS, Vaizey, QoL, and qualitative VAS. (FIGURE 1: programme protocol)

Results: 57 patients were included, of whom 44 have completed one year of follow-up, of these 37 had a derivative stoma. 21/44 (47.7%) completed the full protocol; 9/24 (20%) completed it partially, and 14/44 (31.8%) did not complete the protocol (FIGURE 2). We observed no differences between LARS (26; IQR 15) and Vaizey (4; IQR 5) at 1 year and baseline POLARS (27; IQR 6) and Vaizey (0; IQR 1), although there was a large scatter of data. A pressure and volumetric increase was observed throughout the study, but we found no correlation (r = -0.025 and -0.288, respectively) with LARS or Vaizey. This contrasts with the quantitative (VAS) and qualitative (wc independence) satisfaction data.

Conclusion: The prehabilitation and rehabilitation programme is resource and time-consuming. More than one third of patients were unable to comply with the protocol due reasons analized. The programme performed better for continence than for defecatory dysfuntion, and should be reserved for severe cases (>30p), which are the cases that benefited the most. To improve adherence, we have simplified the program: neurostimulation is transcutaneous and at home. We have developed an APP to facilitate the PFP that connects via telematics to carry out the follow-up of the LARS.

Disclosure of Interest: None declared.

P147 | An observation and study of variables to account for a negative fit result in patients with colorectal cancer

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Aim: FIT has excellent discriminatory power to exclude serious bowel pathology in patients with lower gastrointestinal symptoms but a proportion of patients with cancers may have a false negative FIT result. We chose to examine this cohort of patients in greater detail and to investigate them for common features.

Method: There were two 6 month cohorts (March to October 2020 and June to January 2021), whereby all fast-track patients underwent FIT testing after their face-to-face consultation in secondary care. Demographics, presenting symptoms and signs, results of investigations, and FIT levels were collected prospectively. A FIT of ≥19 μgHb/g was regarded as positive while < 9 μgHb/g were considered negative, as per local policy.

Results: There were 3577 patients. 937 (26%) patients were FIT positive. There were 160 colorectal cancers of which 148 (93%) were FIT positive and 12 (7%) were FIT negative. Of these 12 FIT negative patients, 5 had neither anaemia nor a palpable mass. Of the 12 patients, 3 had metastatic colorectal cancer. All 5 operable patients had lymph node positive disease on histology. None were mucinous.

Conclusion: FIT negative patients with colorectal cancer do not appear to have early disease. We could not identify obvious patient or disease factors to account for a FIT negative result but technique may be a contributing factor. A repeat FIT in persistently symptomatic patients may reduce false negatives.

Disclosure of Interest: None declared.

P148 | Effect of surgeon gender on postoperative morbidity, mortality and long-term survival following colon cancer resections

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Aim: The aim of this retrospective study was to evaluate the impact of surgeons' gender on postoperative outcome and long-term survival following colon cancer resection in a secondary care hospital cohort.

Method: Clinical data of patients who underwent colon cancer resections between 2011 and 2020 at Helsingborg hospital were obtained from the Swedish Colorectal Cancer Registry. A review of medical records was performed to obtain additional clinical information. The annual resection volume and the gender of the most senior surgeon for each procedure was recorded.Perioperative results and long-term survial was compared between male and female surgeons.

Results: Colon cancer resections was performed by 30 male and 9 female surgeons in 1121 patients (79% elective, 21% emergent). After elective surgery there was no difference in postoperative complications, 30 days mortality and long-term survival of patients operated by male and female surgeons. In emergent resections, the overall complication rate was significantly lower for patients operated by female surgeons (41.8% vs. 57.7%, p = 0.032). Similarly, the rates of R_1-resections (0% vs. 5.1%, p = 0.041), reoperations (2.5% vs. 15.4%, p = 0.003) and need for postoperative ICU-care (6.3% vs. 17.3%, p = 0.020) was significantly lower for female surgeons. There was no difference between female and male surgeons in 30 days mortality after emergent resection (6.3% vs. 5.1%, p = 0.704). In comparison with female surgeons, male surgeons were associated with less favorable long-term survival (RR 2.02, 1.27–3.20, p = 0.003).

Conclusion: The short- and long-term outcome after elective colon cancer resections were similar for patients operated by male and female surgeons. In emergent colon resections, female surgeons compared favorably with male surgeons with fewer complications and reoperations, and better overall survival.

Disclosure of Interest: None declared.

P149 | Assessing risk if patients were offered watch & wait more liberally stratified for potential abdominoperineal resection avoidance

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Aim: Because of the dire consequences of abdominoperineal resection (APR) and the obvious attractiveness of Watch&Wait (W&W) for patients and surgeons alike we set out to analyse complete or near complete pathologic tumour regression after long-course chemo-radiotherapy (CRT) for low and mid rectal cancer differentiated for APR and low anterior resection (LAR).

Method: Single local health district multidisciplinary treatment unit retrospective review. Patients undergoing CRT for MRI diagnosed locally advanced rectal cancer (LARC), without distant metastases, located in mid to low rectum who underwent surgery and had synoptic, subspecialised, pathology reporting, including tumour regression grading. Macroscop scoring: no ulcer and no tumour (Gr A), ulcer but no tumour (Gr B), tumour but no ulcer (Gr C), and both ulcer and tumour (Gr D). It was assumed that Gr A and Gr B could be potential candidates for W&W.

Results: 190 patients underwent surgery and for 152 (80%) synoptic reporting was available. 47 (30.9%) underwent APR and 105 (69.1%) LAR. APR patients, all with tumour location 0–5 cm, were Gr A and B in 22/47 (46.8%) and in this group achieved complete pathological regression (TRG 4) in 77.3%, near complete pathological regression (TRG 3) in 18.2% and minimal/no pathological regression (TRG 0–2) in 5.5% and clinically detectable. pT was 2 or lower in 20/22 (90.9%) and pN0 was achieved 20/22 (90.9%), with 2 positive nodes in TRG 3 patients and likely undetectable by MRI. LAR patients, tumour location <10 cm, were Gr A and B in 47/105 (44.8%) and in this group achieved TRG 4 in 44.8%, TRG in 31.9% and TRG 0–2 in 21.3%. pT was 2 or lower in 41/47 (87.8%) and pN0 was achieved in 9/47 (80.9%) with 7 positive nodes in TRG 0–2 patients likely MRI detectable.

Conclusion: More liberal use of W&W, in patients with ulcers but no tumour after CRT, may be considered and would prevent an extra 20% APR and patients with a priori APR indication may have more favourable W&W starting points.

Disclosure of Interest: None declared.

P150 | Why preoperative colonoscopic assessment of neoadjuvant chemoradiotherapy induced regression is a logical and necessary first step

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Aim: To analyse the relation between complete or near complete pathologic tumor regression with the macroscopic aspect of the rectal mucosa after long-course chemo-radiotherapy (CRT) for low and mid rectal cancer

Method: Single local health district multidisciplinary treatment unit retrospective review. Patients undergoing CRT for MRI diagnosed locally advanced rectal cancer (LARC), without distant metastases, located in mid to low rectum who underwent surgery and had synoptic, subspecialised, pathology reporting, including tumor regression grading. Macroscopic appearance of the rectum was scored as: no ulcer and no tumour (Gr A), ulcer but no tumour (Gr B), tumour but no ulcer (Gr C), and both ulcer and tumour (Gr D).

Results: 212 patients were identified, 10 had complete clinical response and on Wait and Watch, 12 had residual disease but declined surgery, and 190 underwent surgery. For 152 (80%) synoptic reporting was available. Complete regression (TRG 4) was present in 46/152 (30.3%), near complete regression (TRG 3) in 30/152 (19.7%), mimimal to no regression (TRG 0–2) in 76/152 (50%). In Gr A 30/42 (71.4%) achieved TRG 4 and 9/42 (21.4%) TRG 3, Gr B achieved TRG 4 in 9/27 (33%) and 10/27 (37%) TRG 3, Gr C and D combined (no intergroup difference) TRG 4 in 7/83 (8.4%) and 11/83 (13.2%) TRG 3 (Chi square, $p < 0.001$). Using macroscopic evaluation the AUC for regression prediction was .83. 19 patients in GR A and B achieving TRG 1 were node positive in 4/19 (21.1%) and pT 0–2 in 17/19 (89.5%) and by definition likely MRI undectable. The 3 patients in Gr A and B achieving TRG 0–2 were node positive and likely MRI detectable.

Conclusion: Complete regression of tumour leaving no ulceration after CRT confers an a priori probability of TRG 4 and 3, complete and near complete tumour regression, in 91.4% of patients, dropping to 70% if ulceration is present, and should be a first step to determine further diagnostic work-up after CRT for rectal cancer.

Disclosure of Interest: None declared.

P151 | Doppler-guided transanal hemorrhoidal dearterialization via mucopexy is effective, safe, and improves quality of life in Canadian patients

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Aim: Haemorrhoidal disease is a common condition impacting Canadians. Surgical management of haemorrhoids includes 4 main approaches, all with differing clinical outcomes. This study evaluated post-operative results of the first Canadian patients who underwent Transanal Hemorrhoidal Dearterialization (THD) with mucopexy.

Method: This cohort study included patients with grades 3/4 haemorrhoids attending the Thornhill Endoscopy Center (Toronto, Canada) that underwent THD with mucopexy from June 2018 to March 2020. Patients were contacted via phone between 6 months to 2 years post-op. We collected baseline characteristics, previous medical and surgical treatments for haemorrhoids, number of weeks missed from work, pre and postoperative quality of life scores, failure and relapse rate, and haemorrhoid symptom severity scale by Thaha *et al* (2009). This scale evaluated pruritus, pain, prolapse, bleeding, soiling, and incontinence to gas.

Results: In total, 42 patients with a mean age 51.5 years and 21% female were used. Prior to surgery, 85.7% of patients experienced prolapse and 78.6% experienced bleeding. The average Thaha *et. al* score was 6.4 (out of 19). Half of patients noted that haemorrhoids impacted their quality of life in an unbearable way. Following the operation, 19% of patients experienced surgical failure, 14.3% of patients experienced recurrence, and 80% were able to return to work within four weeks post-op. THD with mucopexy improved quality of life in 78% of cases.

Conclusion: Our study demonstrated that the doppler-guided haemorrhoidal artery ligation with mucopexy technique was successful in relieving pain, improving quality of life, and having a quicker return to work.

Disclosure of Interest: None declared.

P152 | Tail gut cyst – A clinical case

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Aim: This clinical case aims a literature revision of Tail Gut Cysts.

Method: Description of a Tail Gut Cyst case, it's management and literature revision.

Results: A 66-year-old female patient was observed due to constipation and perianal pain with a 2-year evolution. Referred as continuous, relieved by defecation and aggravated by sitting position without rectal bleeding or suppuration. Rectal examination revealed a 2-centimeter extraluminal posterior rectal painful mass. Magnetic Resonance Imaging revealed a "retrorectal multi-cystic lesion with 25 millimeters" and endoscopy was normal. Submitted to excision via Kraske approach. Histology confirmed the diagnosis of tail gut cyst.

Conclusion: Tail gut cysts are rare congenital cysts located in retrorectal space that result from incomplete regression of distal part of the embryonic hindgut. They are more frequent in middle-aged Caucasian females and prone to infection, chronic fistulization and malignization in up to 40% of cases. Patients may be asymptomatic or present rectal pain, constipation or history of recurring retrorectal abscesses or anal fistulas. Tail gut cysts can be identified in ultrasound, computed tomography, but Magnetic Resonance Imaging (MRI) is particularly useful to determine anatomic relations and evidence of malignancy. Surgical approach is indicated (abdominal or perineal – midline, lateral (Kraske) or combination), and although the lack of consensus, wide margins are mandatory due to the malignant potential and high recurrence rates.

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Disclosure of Interest: None declared.

P153 | Cost effectiveness analysis in locally advance rectal cancer. Watch and wait strategy compared with minimally invasive surgery

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Aim: Watch and wait strategy (WW) is a potential option for patients with rectal cancer that obtain a complete clinic response (cCR) after neoadjuvant therapy. The aim of this study is to compare long term oncological outcomes and to perform a cost-effectiveness analysis in patients with locally advanced rectal cancer (LARC) treated with neoadjuvant that experiment a complete response, treated respectively with watch and wait and total mesolectal excision (TME)
Method: We performed a retrospective analysis of patients with LARC A propensity case match with patient with pCR treated with TME. Oncological outcomes and cost effective analysis were calculated.
Results: A total of 29 patients elected to undergo nonoperative management with a mean patient age of 68 years old. All patients were treated with neoadjuvant long course chemoradiotherapy. Nine patients were treated with initial induction chemotherapy followed by chemoradiation During a median follow-up of 37 months, there were 8 (27.5%) recurrences (5 = local, 2 = distant 1 local y distant). The 3 patients with local recurrence were candidates for salvage surgical resection. DFS and OS were 84% and 100% at three years of follow up. For patients treated with TME DFS and OS were respectvly 90% and 100% at three years of follow up. Cost effectivness analysis shows a benefit for Watch-and-Wait policy.
Conclusion: Neoadjuvant treatment strategies may facilitate durable rates of cCR. Continued responses after these treatments could possibly enable more patients to undergo nonoperative management. We believe nonoperative management can be offered to patients seeking rectal preservation, but more research is required to select the appropriate patients. Cost effectivness analysis shows a benefit for Watch-and-Wait policy.
Disclosure of Interest: None declared.

P154 | An ideal stage 2A evaluation of robotic-assisted soft-tissue pelvic exenteration for primary and recurrent pelvic tumours

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Aim: This study aimed to explore the feasibility, safety and cost-effectiveness of robotic assisted pelvic exenteration (R-PE) for primary and recurrent soft tissue pelvic tumours.
Method: An IDEAL stage 2a development study was performed with 92% compliance to reporting recommendations. Reporting of outcomes from the previous departmental standard practice, open pelvic exenteration (O-PE), was also performed to ensure acceptable standards were achieved. All patients participated in a formal ERAS programme.
Results: Analysis was performed following completion of 35 R-PE cases [57% (n = 20) primary rectal cancer, 20% (n = 7) recurrent rectal cancer, 14% (n = 5) other primary tumour, 6% (n = 1) other recurrent tumour] and compared to 70 previous O-PE for soft tissue pelvic tumours. 54% (n = 19) total R-PE and 46% (n = 16) posterior R-PE were included. Median operative time in R-PE was 310 mins (range 210–490) compared to 300 mins (range 150–540) in O-PE. Overall morbidity was lower in R-PE [54% (n = 19) vs 80% (n = 56), p = 0.006] with less severe morbidity also reported [26% (n = 9) vs 31% (n = 22), p = 0.019]. Length of hospital stay (LOS) was shorter in R-PE [12 vs 15 days, p = 0.024]. Considering the described morbidity and LOS profiles of these cohorts, R-PE was associated with a cost per case saving of €1272.
Conclusion: R-PE is clinically feasible, safe and cost-effective with lower morbidity and shorter LOS. To progress to IDEAL stage 2b,

R-PE requires prospective multi-centre evaluation to refine technique, further understand operative and oncological outcomes and define training requirements and core outcome measures.

Disclosure of Interest: None declared.

P155 | An analysis of feasibility of robotic colectomy: Post-hoc analysis of a phase III randomised controlled trial

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Aim: This study aimed to report the feasibility of robotic assisted colonic resection as a post-hoc analysis of a phase III randomised controlled trial (RCT).

Method: The PAROS trial was a phase III RCT that compared outcomes in low pressure (LP, 7mmHg) and standard pressure (SP, 12mmHg) pneumoperitoneum in elective colectomy. A post hoc analysis was performed to compare clinical and operative outcomes in laparoscopic and robotic colonic resection in a high volume colorectal surgery practice. A health economic comparison was also performed. Data were analysed using IBM SPSS Statistics™, version 20.

Results: 127 patients were compared [34% (n = 43) robotic, 66% (n = 84) laparoscopic]. LP pneumoperitoneum was practiced in 47% (n = 20) robotic and 50% (n = 42) laparoscopic cases. Cancer procedures were more commonly performed in the robotic group (p = 0.009). Clinical outcomes were comparable including postoperative surgical complications (p = 0.493). Operative times were longer (p = 0.005) but length of hospital stay (LOS) was one day shorter in the robotic group (p = 0.05). Conversion to SP pneumoperitoneum was required in 9.5% (n = 8) of the LP laparoscopic group compared to 2.3% (n = 1) of the LP robotic group. Surgeons reported good operative visibility in all robotic cases and 94% (n = 80) laparoscopic cases. Considering, capital investment and maintenance, instrumentation and LOS, robotic cases were €651 more expensive per case.

Conclusion: Robotic assisted surgery is feasible in colonic resection and may facilitate shorter LOS and the possibility to complete MIS using low pressure pneumoperitoneum.

Disclosure of Interest: None declared.

P156 | Integrating a tumour appropriate transanal or robotic assisted approach to total mesorectal excision in high volume rectal cancer practice is safe and cost-effective

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Aim: Total mesorectal excision (TME) is accepted as the gold standard oncological resection in rectal cancer. The best approach to TME is debated. In this study, we aimed to describe how both robotic (R-TME) and transanal (TaTME) TME can be integrated into high volume rectal cancer surgeon practice with a comparison of clinical and oncological outcomes and cost-analysis.

Method: A prospective comparative cohort study was performed in a high volume rectal cancer centre comparing the last 50 R-TME and 50 TaTME performed by the same surgeon. A comparison of tumour characteristics was performed to highlight a specific role for each technique. Clinical outcomes (operative duration, length of stay (LOS) and perioperative morbidity), cancer quality indicators (resection margin and completeness of TME) and cost-analysis were compared. Statistical analysis was performed using IBM SPSS, version 20.

Results: R-TME was preferred in mid rectal cancer, compared to TaTME preferred in low rectal cancer (9 *vs.* 5 cm, $p < 0.001$). Operative duration was longer in R-TME compared to TaTME (265 *vs.* 179 minutes, $p < 0.001$). Major complications (CD III-IV complications) were experienced in 10% of R-TME and 14% of TaTME (p = 0.476). A 98% (n = 49) clear R0 resection margin was achieved with both R-TME and TaTME and mesorectum quality defined as 'complete' in 86% (n = 43) in R-TME and 82% (n = 41) in TaTME. Length of hospital stay was shorter in R-TME (5 *vs.* 7 days, p = 0.624). An overall difference of €131 was observed favouring TaTME.

Conclusion: In high volume rectal cancer surgery practice, both R-TME and TaTME can be practiced and tailored according to patients and tumour characteristics, with good clinical and cancer outcomes and is cost-effective.

Disclosure of Interest: None declared.

P157 | Manipulating the hypoxia induced radioresistance in rectal cancer

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Aim: Locally advanced rectal cancer is primarily treated with chemoradiotherapy to reduce local recurrence and improve long term survival following surgical resection. However, tumour hypoxia induces strong radioresistance, although the reasons for this characteristic are still unclear. This research explores the mechanistic and biological factors underlying hypoxia-induced radioresistance, and development of novel therapeutic strategies in combination with radiotherapy to overcome this.

Method: HCT116 and HT29 CRC cell lines were incubated in relative normoxia (21% O_2) and under hypoxic conditions (1% O_2). Cells were irradiated at varying dosages of x-ray radiation before undergoing clonogenic survival assay to assess radioresistance, comet assay to assess DNA double strand break (DSB) damage and repair, or immunobloting to investigate cell death-related factors. HIF1α and HIF1b siRNA knockdowns were used to assess radioresponse in hypoxia. Metformin was used to treat cells prior to radiation and assess cell survival.

Results: Hypoxia induces strong radioresistance in CRC cells compared to relative normoxia in clonogenic survival assays. Neutral comet assays showed no significant difference in DSB repair kinetics following irradiation in hypoxia compared to normoxia, providing evidence that reduced DSB induction/repair is not a major contributor to the radioresistant properties of CRC in hypoxia. Immunoblotting analysis demonstrates activation of hypoxia-inducible factor 1a (HIF1a) in hypoxia but not in normoxia. Metformin did not improve radiosensitivity of CRC cells under different oxygen conditions.

Conclusion: Hypoxia induces a strong radioresistance in cultured CRC cells which is not explained by x-ray-induced DSB damage and the efficiency of its repair. HIF1a is activated in hypoxia alone and may contribute to this resistance. Metformin alone is unable to overcome this resistance and other therapeutic targets need to be explored.

Disclosure of Interest: None declared.

P158 | The management of chronic radiation proctitis: A systematic review of the endoscopic options

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Aim: Radiation proctitis is a known common complication of radiation therapy employed in the treatment of pelvic malignancies. Chronic radiation proctitis (CRP) significantly reduces patients quality of life. The current management options for CRP can be classified into medical, endoscopic, and surgical interventions with wide variation in practice. Endoscopic options have varied in popularity of their use, and there is little guidance to aid decision making. The aim of our review is to evaluate the role of endoscopic therapy of CRP and role in potential standardisation in the future.

Method: An extensive literature search was performed on the databases, PubMed, Scopus and Ovid. A total of 81 papers included in this review: 11 randomised control trials (RCT), 20 systematic reviews, 1 cohort, and 49 case series. 37 papers focused on argon plasma coagulation (APC) therapy and 17, on formalin therapy.

Results: A meta-analysis of proportions estimated that the rate of response in the APC group was 90% (CI 86–93%) and formalin 92% (CI 88–96). There are three randomised controlled trials investigating APC and formalin therapy and suggest similar results but potentially more complications with formalin. However, there is a scarcity of evidence investigating this disease.

Conclusion: Argon plasma coagulation and topical formalin had comparable efficacy but there is a huge paucity of evidence which requires large, international, well-funded trials to help improve the quality of life of these patients.

Disclosure of Interest: None declared.

P159 | Not blushing – The negative CTMA

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Aim: CT mesenteric angiogram (CTMA) is often used in the investigation of haematochezia, however not all are positive for arterial blush at time of testing. We aim to identify factors in the result of CTMAs used.

Method: All patients who underwent CTMA for haematochezia from January 2012 until May 2020 at a single tertiary center were analysed in a retrospective cohort study. Demographics, vital signs, blood tests, CTMA result and outcomes were analysed.

Results: 533 patients underwent a CTMA for LGIB bleeding, but only 192 (37%) had active extravasation identified, with 341 (64%) negative CTMAs. Those who had a negative CTMA tended to be younger (mean age 72 vs 75 years, $p = 0.04$), without macroscopic bleeding (89% vs 98%, $p < 0.01$) and no previous presentation for haematochezia (57% vs 64%, $p = 0.04$). There was a significant delay from presentation to imaging in those with negative CTMA (mean 1617 mins vs 517 mins, $p < 0.05$). The majority of all patients with negative CTMA were managed conservatively (73%), with mean 2.02 units of red cell transfusion. However, rebleeding occurred in 21 patients (6%), 7 patients at 24hours, 5 patients at 48hours, 5 patients in 72hours, and 4 patients at 7 days. There was no significant difference in gender (64% vs 68% male), use of antiplatelet or anticoagulant (57% vs 64%), heart rate (86 vs 85bpm) or systolic blood pressure (121 vs 125mmHg) on presentation.

Conclusion: A significant proportion of CTMAs performed for haematochezia do not identify active bleeding. Negative CTMAs and the longer time delay to imaging points to the majority of these being diverticular bleeds stopping under conservative management. More research is needed for more judicious use of intervention.

Disclosure of Interest: None declared.

P160 | Haematochezia – Who gets embolised?

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Aim: While CT mesenteric angiogram (CTMA) is used in the management of haematochezia, not all proceed to successful angioembolisation. We aimed to identify patients who underwent angioembolisation after CTMA, and identify factors associated with their use.

Method: A single center retrospective cohort study analysed all patients who underwent CTMA for haematochezia consecutively

from January 2012 until May 2020. Demographics, vital signs, blood tests, use of blood products, procedural details and outcomes were analysed.

Results: Of the 525 patients who underwent a CTMA for LGIB bleeding, only 187 (36%) had active extravasation identified. Invasive angiography was then conducted in 142 (27%) of these patients, progressing to embolization in 97 cases (18%). Compared to those who did not have embolization, there was no difference in age (75 vs 74 years), gender (68% vs 66% male), use of antiplatelet or anticoagulant (60% in both groups), or haemoglobin (101g/L vs 103g/L) on presentation. The location was mostly in the right colon and caecum (50 patients, 26%). The majority of embolisation agents used were coils (27%), or combination of coils and gelfoam (20%) or coils and particles (20%). Rebleeding within 72hours occurred in 30 patients, the majority of which, 19 patients, were managed conservatively, however 5 went to have endoscopy, 3 had re-embolisation, and one was palliated. Complications included 5 patients who had bowel ischaemia and underwent surgery but one patient died. Patients who require platelet transfusion on admission are 3.21 times more likely to undergo embolization (95% CI 1.51 0 6.83, $p < 0.01$), while patients who have previous LGIB are less likely (0.43 times, 95% CI, 0.22 – 0.87, $p = 0.02$) to require embolization.

Conclusion: Angioembolisation is only used in a proportion of patients in the management of haematochezia, with associated risk of rebleeding and complication. More research is needed to predict use, for more judicious use of intervention.

Disclosure of Interest: None declared.

P161 | Different oncologic outcomes in early-onset and late-onset sporadic colorectal cancer: A regression analysis

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Aim: The incidence of Colorectal Cancer (CRC) is increasing in the population aged less than 50 years old (Early-Onset Colorectal Cancer- EOCRC).[1] Recent studies highlighted the biological and clinical differences between EOCRC and Late-Onset Colorectal cancer (LOCRC).[2] This study aims to explore the effect of age of onset on the oncological outcomes of patients undergoing colorectal resection.

Method: Based on an institutional prospectively maintained database, patients who underwent colorectal resection for sporadic CRC from January 2010 to January 2022 were allocated to the EOCRC (≤ 49 years old at diagnosis) and LOCRC (≥ 50 years old at diagnosis) groups. The primary endpoint was the incidence rate of CRC progression and recurrence after surgery.

Results: Between January 2010 and January 2022, 2073 patients were included in the study: 423 EOCRC and 1650 LOCRC. Most of the baseline characteristics were comparable. EOCRC group showed a higher proportion of metastatic patients at diagnosis (32% vs 14%; $p < 0.0001$), left-sided tumors (78% vs 73%; $p < 0.0001$), and indication for neoadjuvant therapy with a worse response to chemoradiotherapy compared with LOCRC (33% vs 49%; $p < 0.0001$). At Cox-regression analysis, advanced tumoral stage and right-sided tumor location were independent risk factors for CRC progression and recurrence. In stage IV, EOCRC had better oncological outcomes ($p = 0.003$); interestingly, in stage I, EOCRC patients had an increased incidence rate of progression and recurrence compared with LOCRC ($p = 0.03$).

Conclusion: EOCRC patients were more likely to present with advanced disease stages at diagnosis compared with LOCRC, possibly due to reduced risk perception. The significantly worse outcomes of early-stage CRC (stage I) suggest a potentially more aggressive tumoral phenotype in younger patients.

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Disclosure of Interest: None declared.

P162 | Anxiety as a risk factor for postoperative complications after colorectal surgery: A new area for perioperative optimisation

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Aim: Recent evidence suggests that preoperative psychological distress may influence postoperative outcomes in several surgical settings [1–3]. This study aims to explore the effect of preoperative anxiety, depression, and stress on postoperative outcomes after colorectal surgery.

Method: This is a pilot prospective longitudinal study. Patients undergoing colorectal surgery for colorectal cancer (CRC) or

Inflammatory Bowel Disease (IBD) between March 2018 and April 2020 were included in the study. Preoperative anxiety, depression, and stress were assessed using the Hospital Anxiety and Depression Scale (HADS) and the Perceived Stress Scale (PSS). Postoperative complications- defined as Clavien-Dindo equal to or higher than II- were collected until 30 days after surgery.

Results: Sixty-five patients- 35 diagnosed with CRC and 30 diagnosed with IBD- were included in the study. The mean preoperative anxiety, depression, and stress were 7.52 (±4.08), 4.88 (±3.26), and 20.95 (±5.65) respectively. Nineteen patients (29%) had a postoperative complication equal to or higher than Clavien-Dindo II within 30 days from surgery. Preoperative anxiety was significantly higher in patients experiencing postoperative complications (9.16 ±4.97 versus 6.85 ±3.50; $p = 0.037$), and anxiety resulted as an independent risk factor for postoperative complications at multivariable analysis (OR = 1.16; 95%CI: 1.01 to 1.34; $p = 0.047$).

Conclusion: Preoperative anxiety may be associated with an increased risk of developing postoperative complications after colorectal surgery for both CRC and IBD, opening a window for psychological prehabilitation.

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Disclosure of Interest: None declared.

P163 | Triple composite reconstruction for perineal closure and pelvic filling in complex infralevator pelvic exenteration: Omentoplasty, surgimend mesh and flap

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Aim: There is no consensus on perineal closure and management of the empty pelvis after advanced pelvic exenterations (PE) requiring sidewall and bony resections. Options are limited if flaps have been used previously, or sidewall dissection necessitates gluteal vessel sacrifice. Composite reconstruction (CR) may be defined as combined methods of reconstruction by mesh, soft tissue flaps, and omentoplasty. Here we describe the largest case series of patients undergoing CR after PE.

Method: 13 patients were identified (7 male, 6 female, median age 64) that underwent PE for cancer and needed CR (4 recurrent rectal, 4 locally advanced rectal, 3 recurrent anal and 2 recurrent gynaecological). Pre-PE radiotherapy was given in 9/13; 8/13 received intra-operative electron radiotherapy to margins of concern; 9/13 had significant bony resection; and 11/13 had sidewall dissections. All had 4.0mm SurgiMend mesh (bovine dermal matrix) placed at the pelvic inlet. Above the mesh, the pelvis was filled with omentoplasties in 11/13, and 3/13 had rectus abdominis muscle-only (RAM) flaps above the mesh. All had thigh and/or gluteal flaps for perineal coverage below the mesh.

Results: There was 1 theatre return for graft revision and 1 flap-donor debridement. Pelvic collections above the mesh occurred in 6/13, 1 required formal drainage. Perineal collections below the mesh occurred in 2/13, 1 required drainage and 1 developed into a chronic discharging sinus. 4/13 developed partial perineal wound dehiscences and were managed conservatively. There were no perineal herniae. Median length of stay was 31 days.

Conclusion: The use of CR is a useful method of reconstruction in high-risk patients needing pelvic filling and perineal wound coverage. Use of non-irradiated tissue either side of a mesh may help in healing and mesh integration. In the future, pooled analyses of the work of multiple units may provide more information on comparative outcomes of different approaches to optimise reconstructive options for such patients.

Disclosure of Interest: None declared.

P164 | Non-operative management of elderly patients with non-metastatic colon cancer. Results of a retrospective study in a tertiary care referral center

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Aim: The aim of this study was to chart the natural history of elderly patients with colon cancer who are managed non-operatively, with the primary outcome being life expectancy from diagnosis to death. A secondary outcome was time of progression to metastatic disease or surgical intervention.

Method: This was a retrospective analysis of patients aged 80 years and above diagnosed with colon cancer in a tertiary care referral hospital in England between 1st January 2012 and 31st December 2017.

Results: Thirty-seven patients were diagnosed with non-metastatic colon cancer and managed non-operatively. The median age of

patients in this study was 85 years. Cardiopulomonary exercise testing was done in 6 patients. The group had a median Charlson comorbidity index (CCI) of 7 (range 6–12) and the median frailty score was 6 (range 3–8).

Progression to metastatic disease was identified in 2 patients, 2 further patients showed loco-regional progression of cancer and therefore required palliative surgical intervention.

Of those patients who died, life expectancy ranged 105 days – 1782 days with a median life expectancy of 586 days.

Place of death was identified in 15/31 patients of which 4 died in hospital, 2 died in their own home, 9 died in a nursing or residential home, of the remaining patients 6 had a nursing/residential home sited as their final home address, with a further 10 had their home address as their final address.

Conclusion: This study provides insight into the complex interplay between patient co-morbidities, frailty, and patient choice in decision-making processes. In appropriately selected patients with colon cancer, non-operative approach yields reasonable life expectancy and a low risk of life-threatening local complications. However, our present tools to decide and deny treatment are subjective and we conclude that newer tools are required to carefully select patients with colon cancer for non-operative management.

Disclosure of Interest: None declared.

P165 | Does negative preoperative CTE/MRE perclude the development of Crohn's disease-like pouch complications in uc patients undergoing pouch surgery?

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Aim: To determine whether ulcerative colitis (UC) patients with preoperative negative MR or CT enterography (CTE/MRE) were less likely to develop Crohn's disease-like pouch complications (CDLPC) and to establish the risk factors and predictors for developing CDLPC.

Method: A single center retrospective analysis of all UC and IBD-U patients undergoing TPC with IPAA between January 2010 and December 2020. The study group was comprised of patients who had negative preoperative CTE or MRE while the control group included patients who were operated without preoperative enterography imaging.

Results: 131 patients were divided into two groups. The negative CTE/MRE study group, included 76 patients (58%) while the control group was comprised of 55 patients (42%). There were no significant differences in incidence rates (21 vs 23.6%, $p = 0.83$) or in the mean time to develop CDLPC from ileostomy closure (22.3 vs 23.8 months, $p = 0.81$). There were also no significant differences in the rates of pouchitis (23.6 vs 27.2%, $p = 0.68$) or in the rates of pouch failure (5.2 vs 7.2, $p = 0.71$). Multivariate analysis showed that backwash ileitis (OR 2.9) and severe pouchitis (OR 5.3) were statistically significant factors associated with an increased risk for developing CDLPC.

Conclusion: Negative MRE/CTE prior to pouch surgery is unable to reliably exclude or predict the development of CDLPC. These patients should be counseled prior to surgery concerning the possibility of developing CDLPC. Patients with backwash ileitis should be made aware that they may be at increased risk for developing such complications.

Disclosure of Interest: None declared.

P166 | The prevalence of unfavorable histopathological features do not differ between young and elderly colorectal cancer patients – A national cohort study

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Aim: The incidence of colorectal cancer (CRC) in the young population is rising in western countries. It is debated whether the young patient has a more advanced tumour biology compared to the typical elderly CRC patient. In addition, the literature on the prognostic impact of high risk pathological factors such as perineural (PI) and intravascular (VI) tumour infiltration, tumour budding (TB), tumour infiltrating lymphocytes (TILs) and tumour stroma ratio (TSR) in young patients with CRC is limited. The objective of this study was to assess pathological tumour characteristics in a national cohort of young CRC patients and compare with a sample of elderly CRC patients.

Method: Specimens from a national cohort of 104 young CRC patients (18–40 years) diagnosed in 2010–2013 were assessed, and a sample of the national cohort of elderly patients (66–75 years) with CRC was used for comparison. The pathological assessments were done by one single pathologist, who was blinded to the patient's age and clinical data. Comparisons between groups were analyzed with parametric or non-parametric test as appropriate. Kaplan-Meier curves were used to graphically illustrate the prognostic impact on five-year overall survival (OS). Patient characteristics with an association with the hazard function at alpha-level ≤ 0.10 in univariate Cox regression analysis were included in a multivariate Cox regression analysis.

Results: Similar proportions of TSR, TILs, TB, VI and PI were seen between young and elderly CRC patients, and all histopathological features were significantly associated with poorer five-year OS in both young and old. In the adjusted survival model, a high fraction (>7.5%) of TILs were associated with improved survival while lymph node metastasis, distant metastasis and PI were associated with adverse outcome in young CRC patients.

Conclusion: The histological tumour features in young CRC patients, as assessed by well-established pathological factors, were not different from elderly CRC patients.

Disclosure of Interest: None declared.

P167 | To evaluate the efficacy of intravenous iron therapy in optimizing anemia in colorectal cancer patients and closed loop audit of this pilot programme

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Aim: Treatment of preoperative anemia is recommended aiming to minimize perioperative allogenic red blood cell transfusion. This study aims to analyse&evaluate the efficacy of administration Intravenous iron infusion (IV Iron) in preoperative optimization of anemic patients with colorectal cancer (CRC) in a Pilot Programme. A close loop Audit of the programme is also conducted.

Method: A Multidisciplinary Team was formed.CRC patients with anemia and met the inclusion criteria were included.IV Iron was given at least 4 weeks preoperation. Hemoglobin (Hb) & iron profile were collected as baseline, preoperation, postop Day 1, before discharge & 26 weeks after IV Iron given.Primary Outcome was need for blood transfusion,change in Hb and Fe profile level.Secondary Outcome was 2 Audit Cycles of this programme,postoperative morbidity, 30 Day mortality,hospital stay,safety profile&change in Hb level &anemic symptom 26 weeks after IV Iron.

Results: 214 patients were included with 183 patients proceeded to operation (1/1/17–1/2/21). 3.27%, 4.92% and 3.27% required preop, intraop & postoperation blood transfusion respectively. 94.9% had raised in Hb,the median increase in Hb was 2.35g/dl.There was also raised in Fe&ferritin of 3 and 332 respectively.This showed that IV Iron had the effect of reduction of preoperative blood transfusion from 20%->3.27% (when compared with our retrospective review of cases 2014–16).When compared with preIVIron Hb,there was an increase in 4g/dL in Hb 26 weeks after IV Iron.The %of patients with anemic symptom also dropped from 55.1%->0%.2 Audit cycles were conducted with improvement in recruitment rate 49%->100% & compliance rate.

Conclusion: Our data demonstrates that preop IV Iron can help reduction of blood transfusion preoperatively.It can also raise the Hb&Iron profile.It also demonstrates the sustainability in terms of Hb level &improvement in anemic symptom.A close loop audit also demonstrates the feasibility of implementing this programme in optimizing anemia in CRC patients.

Disclosure of Interest: None declared.

P168 | The oncological outcome of "bridging stent" insertion compared with emergency colectomy for patient with malignant left sided intestinal obstruction treated with a curative intent

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Aim: To investigate the oncological outcome of "bridging stent" insertion compared with emergency colectomy for patient with left sided intestinal obstruction (LSIO) treated with a curative intent.

Method: A retrospective review of patient record between 1/1/13–31/12/17 was done. Patients admitted with emergency LSIO with no distant metastasis, who were subsequently treated with an intent to cure were recruited. To fulfil the criteria of curative treatment, they should either receive "bridging stent" placement with subsequent definitive colectomy, or emergency colectomy. The primary outcome was 3-year overall survival. Survival status of patients was traced till 30/5/19.

Results: 70 (49M:21F) patients were recruited. The mean age was 64. The mean follow-up was 1173 days. 27 had bridging stent with 6 failed, all received emergency colectomies. 21 in stenting group received elective colectomies 2–4 weeks. 43 had emergency colectomy. Significantly more patients in stenting group had **laparoscopic surgery** for eventual colectomy (2.3% vs 63.0%, $p < 0.001$). Significantly less patients in resection group received **immediate bowel anastomosis** (27.9% vs 70.4%, $p < 0.001$). Amongst 12 patients who did receive immediate bowel anastomosis, 2 required stoma. The proportion of patients in resection group with **stoma** was significantly higher when compared with stenting group (76.7% vs 29.6%, $p < 0.001$). 41 (58.6%) had stage III disease. 31(44.3%) had disease recurrence or metastasis, 22(31.4%) had peritoneal metastasis. Peritoneal metastasis amongst resection versus stenting group was 25.6% and 44.4% respectively ($p = 0.102$). The overall 3-year survival was 63% vs 80%, $p = 0.369$).

Conclusion: For patients with LSIO, bridging stent insertion and delayed colectomy showed no significant difference in oncological outcome in terms of peritoneal metastasis and three-year survival. With available expertise, bridging stent insertion and delayed colectomy is a safe alternative to emergency colectomy for treating patients with LSIO.

Disclosure of Interest: None declared.

P169 | Influence of diabetes mellitus on inflammatory bowel disease course and treatment outcomes. A systematic review with meta-analysis

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Aim: Diabetes Mellitus (DM) may occur in patients with IBD and influence the disease progression. The aim of this study was to compare the course and outcomes of treatment in IBD patients with and without DM.
Method: This is a PRISMA-compliant systematic review with meta-analysis comparing patients with IBD plus DM with patients with IBD only. Primary endpoints were: need for surgery, IBD-related complications, IBD-related hospitalizations, sepsis, and mortality. Secondary endpoints were risk of infection, quality of life, and healthcare costs.
Results: Five studies including 71,216 IBD patients, of whom 49.1% had concomitant DM, were included in the meta-analysis. The risk for IBD-related complications (OR = 1.12), mortality (OR = 1.52) and IBD-related surgery (OR = 1.20) did not differ between groups. The risk of IBD-related hospitalizations (OR = 2.52) and sepsis (OR = 1.56) was higher in the IBD+DM group. The risk of pneumonia and urinary tract infections (UTIs) was higher in the IBD+DM group (OR = 1.72 vs OR = 1.93 respectively), while the risk of *C. difficile* infection did not differ (OR = 1.22).
Conclusion: DM appears to negatively affect the course of IBD by increasing the risk of hospitalization and infections (pneumonia, UTIs and sepsis), while it does not appear to influence IBD-related complications and mortality.
Disclosure of Interest: None declared.

P170 | Transanal transection and single-stapled anastomosis (TTSS): Early experience with this new technique

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Aim: The aim of this study is to report the initial results using the Transanal Transection and Single-Stapled anastomosis (TTSS) technique in a series of patients.
Method: Cohort retrospective study. Consecutive mid-inferior rectal cancer patients (RC) and ulcerative colitis patients (UC) operated on with TTSS technique were retrieved from a prospectively collected database. Patient demographics, tumor features, postoperative complications rate according to Clavien-Dindo classification were analysed.
Results: 13 patients were operated using TTSS technique. 61% were male, the average age was 55 (42–75), and 76.9% had comorbidities. 12 mid-inferior RC patients underwent either laparoscopic (91.7%) or open (8.3%) TME. Distance of the tumor from anal verge was on average 6.25 cm (5–8) and all of them received neoadjuvant chemoradiotherapy. 1 patient with UC underwent a completion proctectomy and J pouch. Operation room time was on average 334 minutes (300–400). Postoperative complications occurred in 23%. Anastomotic leak (AL) rate was 7% (n = 1). According to Clavien-Dindo classification 1 patient (7%) had a grade II complication due to surgical site infection, and 1 patient (7%) had a grade IIIa complication due to pelvic abscess secondary to AL treated by a percutaneous drainage. Distal and circumferential margins were negative in all cases. Mesorectal plane (complete) was reached in 100% of patients. The average hospital stay was 5 days (4–7)
Conclusion: In our initial experience, TTSS has demonstrated to be a safe and reproducible technique wich does not require expensive dedicated equipment. The rate of complications and reinterventions did not differ from those previously reported, however, the number of patients should be increased to obtain more significant results. We believe that TTSS provides the benefit of a controlled perpendicular division of the lower rectum as opposed to the other approaches, avoiding the weak points at the intersection of the staple lines.
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Disclosure of Interest: None declared.

P171 | Surgical treatment of stomal prolapse: a systematic review and meta-analysis of the literature

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Aim: To compare success, recurrence, and overall complication rates among the different surgical approaches to stomal prolapse.

Method: PubMed, Scopus, and Google Scholar were searched until March 2022 according to PRISMA 2020 guidelines. Studies including children <18 years or fewer than 10 patients, review articles, duplicate or animal studies, studies with no surgical treatment or non-English text were excluded. An open-source, cross-platform software for advanced meta-analysis "openMeta [Analyst] ™" version 12.11.14 was used to conduct the meta-analysis of data.

Results: 7 studies, published between 1988 and 2021, were identified, incorporating 128 patients (103 male). Almost half (53.1%) of the ostomies were created during elective operations. Most stomas (80.3%) were left-sided or colostomies. The five procedures used in the studies were: local stoma reconstruction (35%), redo laparotomy repair (21%), modified Altemeier's (31%), mesh strip (8%), and stoma relocation (5%). The majority of the operations (85.9%) were elective. The weighted mean rate of recurrence in patients who underwent local stoma reconstruction was 23.8% (95%CI: 8–56%, I^2=93.4%), higher than the weighted mean rate of modified Altemeier's technique: 16.1 % (95%CI: 5–27%, I^2=0 %).None of the six patients who were treated with stoma relocation and none of the ten treated with the mesh strip technique developed recurrence. The median follow-up ranged between 7 months and 2.5 years. Risk factors for recurrence were end colostomy (SE: 0.004, $p < 0.001$) and local stoma reconstruction (SE: 0.023, $p = 0.05$).

Conclusion: Local stoma reconstruction may be associated with higher rates of recurrence compared to modified Altemeier's, mesh strip and stoma relocation. End colostomies are a risk factor for prolapse recurrence. Further studies are needed in order to compare the efficacy of these techniques.

Disclosure of Interest: None declared.

P172 | Intracorporeal vessel ligation in laparoscopic right colectomy for cancer is associated with increased lymph node yield

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Aim: To compare intra- and extracorporeal division of the vascular pedicle in laparoscopic right colectomy in terms of pathological outcomes, short-term morbidity, local and distant recurrence.

Method: An Institutional Review Board (IRB)-approved database was reviewed for all patients that underwent a laparoscopic right colectomy for cancer between January 2011 and August 2021. Patients who underwent a right colectomy for benign disease were excluded. Furthermore, laparoscopic cases converted to open, patients presenting with metastatic cancer as well as open cases were excluded from the study. Statistical analyses were performed using EZR (version 1.55) and R software (version 4.1.2).

Results: During the study period, 271(136 males) patients underwent laparoscopic right hemicolectomy for cancer. Vessel ligation was intracorporeal in 171 patients (63%) and extracorporeal in 100 patients (37%); groups had similar baseline characteristics except for the extent of resection as extended right hemicolectomy was significantly more often performed in the intracorporeal group. On matching the two study groups in terms of the extent of resection (standard versus extended right hemicolectomy), the mean number of harvested lymph nodes [(28.61 (12.04) versus 25.37 (10.06)] and mean length of the resected colon [27.27cm (9.00) versus 24.23cm (7.99)] were significantly higher in the intracorporeal group than in the extracorporeal one, in both the pre-matched and matched cohorts. However, the intracorporeal group required a significantly longer operative time than did the extracorporeal group in both cohorts. No significant differences were noted between the two groups in terms of ileus, hemorrhage, surgical site infection, reoperation rates, recurrence, or distant metastases.

Conclusion: Intracorporeal vessel ligation in laparoscopic right hemicolectomy was associated with a higher lymph node yield, longer operative times and similar postoperative clinical outcomes to the extracorporeal ligation group.

Disclosure of Interest: None declared.

P173 | Waste generated from a single rectal cancer patient journey

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Aim: The National Health Service (NHS) is the biggest public sector contributor to greenhouse gases in the United Kingdom. This study is a snapshot audit carried out to understand the quantity of waste generated during the clinical journey of a patient with rectal cancer and the ways to reduce waste.

Method: A patient journey of a "typical" rectal cancer patient was drafted. Colonoscopy, CT scan, MRI scan, outpatient clinic, preassessment, radiotherapy, and surgery were attended, and waste generated in orange, black bag and sharps were measured in kilograms. The highest estimated kg CO2eq of a single journey was calculated by multiplying the distance (in km) by the relevant emission factor. Photographs were taken to visually record. Qualitative data was collected on waste from staff involved to understand the attitude of healthcare staff towards sustainability.

Results: There were 16.64kg of waste generated and most of this (15.80kg) was generated in the operating theatre. Only 1kg was recycled in theatre. One patient return car journey generated emission worth 19.16 kg CO2eq with 25 journeys required for complete radiotherapy treatment totalling 479kg CO2eq. There were over 150 pairs of plastic gloves used.

Conclusion: With over 42,886 individuals being diagnosed with rectal cancer per year, and the incidence increasing, the burden on

NHS along with the environmental pressures will be heightened. We must take steps to reduce the burden of waste and raise awareness amongst staff of ways we can recycle. Almost all staff were aware that we could do better, and we have identified many ways to work differently.

Disclosure of Interest: None declared.

P174 | Robotic surgery for locally advanced T4 rectal cancer: Feasibility and oncological quality

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Aim: Minimally invasive surgery still remains controversial to the treatment for T4 rectal tumours and local recurrences (LR) of rectal cancer. This study analyses the postoperative outcomes of robotic surgery for locally advanced rectal cancer and LR.

Method: An observational single-centre study was performed including patients who had undergone robotic rectal resection and had a T4 tumour confirmed in the pathological report, between 2010–2020. Primary endpoint was to analyse postoperative complications measured using the Clavien-Dindo scale. Secondary endpoints include conversion rate, hospital stay, readmission rate, mortality and pathological assessment of the quality of the specimen.

Results: 41 patients were analysed (61:39) with a median age of 67 (62–81) years, median BMI of 25.5 (23–29) Kg/m^2 and Charlson index 5 (4–7). 36 patients underwent surgery for primary tumor and 5 were reinterventions for local recurrence. The median distance from the tumour to the anorectal junction was 7 (4–12) cm. 68% received neoadjuvant chemoradiotherapy. The low anterior resection was the most common procedure performed (37%), followed by the abdominoperineal excision (34%) and pelvic exenteration (15%). Conversion to open surgery was necessary in 2 cases (5%). A diverting stoma was necessary in 29.3% cases and permanent stoma in 41.5% of them. Minor complications (Dindo I-II) were presented in 28% and 37% had major complications (Dindo >II), including 30% of anastomotic leak. Median length of hospital stay was 13 (7–27) days, with 22% readmission. The 30-day mortality rate was 7%.An R0 resection was achieved in 85.4% of the cases, median distal resection margin was 50 (20–62) mm and nearly 60% of the series were classified as pT4b tumours with 42% with lymph nodes involved.

Conclusion: Robotic surgery for locally advanced T4 rectal cancer is safe and feasible, with a low rate of conversion and an acceptable percentage of postoperative morbidity preserving a good quality of the resected specimen.

Disclosure of Interest: None declared.

P175 | Low anterior resection syndrome prevalence 5 years after deep endometriosis surgery

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Aim: Deep endometriosis (DE) is defined as the presence of endometrial tissue outside the uterine cavity, forming a solid mass located deeper than 5 mm underneath the peritoneum including the intestinal wall.

Low anterior resection syndrome (LARS) encompasses symptoms of fecal urgency, fecal incontinence and difficulty emptying the bowel after sphincter preserving rectal surgery.

Long-term prevalence of LARS in DE patients has not been studied. The objective of the study was to assess the long-term gastrointestinal functional outcomes and symptoms of LARS after DE surgery, with and without intestinal resection.

Method: A retrospective study was conducted between January 2015 and December 2017, revising patients who underwent DE surgery, with and without rectal involvement Patients were contacted by phone and interviewed about LARS symptoms.

Results: Sixty nine patients with a mean age of 36.8 ± 5.5 years at the time of surgery were eligible for the study. The most common symptom before surgery was dysmenorrhea (66 patients, 95%). Rectal involvement because of DE was present in 39 patients (57%), requiring rectal resection in 19 patients (49%), skinning in 7 patients (18%) and discoid resection in 13 patients (33%).

Patients were contacted by phone after 5.5 ± 0.8 years, answering fifty five of them (79.7%) the questionaries.

Median LARS score was 15 in patients with rectal surgery and 8 in patients without rectal surgery (p = 0.002).

Of the patients who had undergone rectal surgery, 14 (25%) had LARS (LARS score was >20) in the long-term. No statistically significant differences were found between the three surgical techniques (p = 0.8).

Conclusion: Median LARS score 5 years after DE surgery in patients with rectal surgery is 15. This score is significantly lower than DE surgery without rectal involvement (p = 0.002).

Presence of LARS (LARS score >20) in patients with DE and rectal surgery was found in 14 patients (25%), without finding significant differences between the three rectal surgery techniques.

Disclosure of Interest: None declared.

P176 | Endometriosis: A rare cause of bowel obstruction

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Aim: Bowel obstruction (BO) accounts for 20% of hospital admissions due to acute abdominal pain.Although endometriosis is a rare cause for BO, in young women without surgical history, differential diagnosis should rule out endometriosis.Diagnosis can be challenging due to the non-specific clinical and radiological presentation.BO due to endometriosis accounts for 0.1–0.7% of the cases.

Method: We report two cases of BO (ileum and sigmoid colon) caused by endometriosis.

Results: Case 1:34 year old patient without history of endometriosis presented with recurrent small BO, resolved with nasogastric decompression. A CT scan was performed, visualizing an endometriotic implant in the terminal ileum. After evaluation by gynecology and resolution of the symptoms, treatment with progesterone was prescribed.The study was completed with a colonoscopy, without pathological findings and an abdominal MR with visualization of the nodule.

Case 2: 39 year old patient presented with a 6 month history of colonic BO.A CT scan, a colonoscopy, showing extrinsic compression, and a pelvic MR were performed, without conclusive results. Gynecological exam was normal.After suspecting bowel endometriosis, an abdominal MR was performed,visualizing an endometriotic implant in the sigmoid colon.

Both patients were optimized before surgery.The ileal implant was excised performing a laparoscopic ileocecal resection, while for the sigmoid implant an open sigmoidectomy was performed, since colonic dilatation prevented a laparoscopic approach.Primary mechanic anastomosis was performed in both cases, who were discharged after 5 days without postoperative complications.

Conclusion: This cases serve as a valuable reminder of the clinical, anatomical and histological variation by which in bowel endometriosis can present.BO due to endometriosis are rare and mark an indication for surgery.Depending on the extent and location of the involvement,the best surgical technique will be decided during surgery, trying to avoid ostomies whenever possible.

Disclosure of Interest: None declared.

P177 | Neo-adjuvant treatment for advanced rectal cancer with chemotherapy: A phase II trial

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Aim: The present study aims to explore safety, feasibility and any beneficial effect of neo-adjuvant chemotherapy only in LARC in local and distant control.

Method: Patients with primary locally advanced rectal cancer, at high risk for local and/or distant failure (T3c or T3d and/or N+ and/or threatened circumferential resection margin-CRM and/or EMVI +ve) were included in one center after appropriate consent. All patients had preoperative chemotherapy in the form of either mFOLFOX (6 cycles) or XELOX (4 cycles). Restaging was performed 4–6 weeks after the end of chemotherapy. All patients were scheduled for TME 2–3 weeks after the restaging MRI. Endpoints of interest were clinical complete response, pathological complete response, morbidity, treatment compliance.

Results: Forty-two patients were included in the study with a median age of 64 years (33–82). Twenty-seven were males and 15 females. Thirty-three patients (78.5%) had N-positive disease. Sixteen patients (38.1%) had a threatened CRM. T3c tumors were identified in 8 patients and T3d in 4. EMVI +ve disease had 22 patients. All patients managed to complete the regime although 3 patients developed distant metastases while on treatment evident at restaging. One patient due to clinical complete response refused surgery and was entered in a wait & watch follow-up protocol. Thirty-eight patients had an operation. Morbidity at 30 days was 20.5% (8/38pts) and no patient died. Pathological complete response or near complete response had 18/38 patients (3 complete and 15 patients near complete). There were 2 patients with an R1 resection (5.3%).

Conclusion: Management of locally advanced rectal cancer with preoperative full chemotherapy is safe and feasible. The response rates from our study were comparable if not better with the ones in the literature with the conventional CRT. The issue of developing metastases during treatment is something that needs addressing.

Disclosure of Interest: None declared.

P178 | Delayed coloanal anastomosis (Turnbull-Cutait) after laparoscopic ultralow rectal resection for rectal cancer

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Aim: We present the technical details, indications, oncological and functional results of the delayed coloanal (CA) anastomosis (Turnbull-Cutait), for ultralow Rullier I-III rectal cancers.

Method: We have analysed retrospectively, over the past 3 years, 43 cases of ultralow rectal resection with total mesorectal excision and intersphincteric dissection, finalised either with a standard CA anastomosis (Parks) – 18 patients, or with a delayed CA anastomosis – 25 patients.

Results: The abdominal part of rectal resection was performed via a laparoscopic approach and the specimen was extracted transanally. The average duration of the procedure, blood loss and overall length of stay, was similar within both groups. The standard CA anastomosis was protected by the formation of an ileostomy in all cases.

Severe dehydration (1 case), peristomal dermatitis (3 cases) and ileostomy prolapse (1 case) were noted. In 2 cases, an anastomotic leak occurred and both were managed via local drainage and by recreation, at distance, of a delayed coloanal anastomosis (redo coloanal).

Delayed CA anastomosis had the advantage of avoiding an ileostomy and the complications associated with it, being performed even in difficult conditions with fibrotic or septic pelvis (the 2 cases aforementioned).

In both groups, at 1 year postoperatively, no cases of local recurrence were found and also the functional results were comparable (poor fecal continence in <40% of patients) and have seen gradual improvements. Therefore, amputation as a rescue technique was not imposed. We encountered an anastomotic stricture in 2 cases, after standard CA, both being treated by pneumatic dilation.

Conclusion: Delayed CA represents an excellent solution for ensuring digestive continuity in low rectal cancers, being feasible even in locally difficult situations. The technique is applicable nevertheless, for carefully selected, well informed patients.

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Disclosure of Interest: None declared.

P179 | Trends in the incidence of proximal and distal colorectal cancer in the screening era in England: An English population-based study

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Aim: Proximal and distal colorectal cancers exhibit different clinical, molecular, and biological patterns of disease. We aimed to compare temporal changes in the age-specific incidence of proximal and distal colorectal cancer (CRC), encompassing the introduction of the English Bowel Cancer Screening Programme.

Method: All incident cases of CRC in patients aged 60–74 years were identified from the National Cancer Registration and Analysis Service database between 2001 and 2017 using ICD-9/10 codes. Joinpoint regression was used to analyse age-specific incidence rate (ASIR) trends with stratification by tumour location, either proximal (caecum to descending colon) and distal (sigmoid to rectum), sex and index of multiple deprivation (IMD) quintile.

Results: A total of 186,447 cancers were diagnosed. Between 2005 and 2010, incidence rate increases of distal CRC were observed in both the initial screening age groups: 60–64 years (Annual Percentage Change (APC) +5.63%) and 65–69 years (APC + 7.32%). From 2010 onwards, significant incidence rate decreases were observed in all age groups: 60–64 years (APC -4.02%), 65-69 years (APC –7.52%), 70–74 years (APC -4.37%). Similar increases, and subsequent decreases, in incidence rates were observed across all sexes and IMD quintiles.

There were no significant temporal changes in the ASIRs for proximal CRCs, even when stratified by age-group, sex or IMD quintile.

Conclusion: A guiac-based faecal occult blood test (gFOBT) screening programme appeared effective at reducing incidence rates of distal, but not proximal, CRCs in England. The more sensitive faecal immunohistochemical test (FIT) replaced gFOBT in 2019 and its impact on CRC incidence rates is awaited.

Disclosure of Interest: None declared.

P180 | The impact of hospital volume on outcomes after complication requiring reoperation after colorectal surgery – A population-based multicenter cohort study

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Aim: The aim of this study was to determine whether hospital volume has an impact on outcome in managing complications requiring reoperation after colorectal surgery
Method: Adult patients undergoing elective colorectal surgery and a subsequent emergency reoperation within 30 days from the index operation between January 1, 2006, and December 31, 2017 in Hospital District of Helsinki and Uusimaa (HUS) were included. HUS comprises 10 hospitals of which 3 are high-volume centers (defined as >150 colorectal surgeries annually). Pre-, peri- and postoperative data on these patients was manually extracted from electronic patient records. Patients whose index elective surgery type was not performed in both high- and low-volume centers were excluded (e.g. proctocolectomy, abdominoperineal resection). Patients were propensity score matched for basic characteristics. Pre-, peri- and postoperative characteristics on these patients were collected. The main outcome measures were failure to rescue (FTR, defined as death within 90 days from reoperation), comprehensive comorbidity index (CCI), ICU free days (defined as alive and outside the ICU within 30 days after reoperation) and length of stay.
Results: The final study cohort of matched patients comprised of 284 patients undergoing a reoperation (142 from both high- and low-volume centers). For both groups the most common indication for reoperation was intra-abdominal infection. FTR rate was 7.7% in high-volume and 10.6% in low-volume hospitals (p = 0.41). Median CCI was 20.9 in patients in high-volume hospitals versus 28.6 in low-volume hospitals (p = 0.010). Median ICU free days was 30 days in both groups (p = 0.465).
Conclusion: Lower burden of cumulative overall complications were noted in high-volume centers in patients undergoing reoperation for colorectal surgery complication, but no difference was noted in FTR rate.
Disclosure of Interest: None declared.

P181 | Required distal mesorectal resection margin in partial mesorectal excision: A systematic review on distal mesorectal spread

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Aim: The required distal margin in partial mesorectal excision (PME) is controversial. This systematic review aimed to determine incidence and distance of distal mesorectal spread (DMS).
Method: A systematic search using PubMed, Embase and Google Scholar databases was performed. Articles eligible for inclusion were studies reporting on the presence of distal mesorectal spread in patients with rectal cancer who underwent radical resection.
Results: Out of 2493 articles, 19 studies with a total of 1742 patients were included, of whom 340 underwent neoadjuvant chemoradiotherapy (CRT). DMS was reported in 176 of 1742 (10.1%) specimens (1.2% in CRT group and 12.3% in non CRT group), with specified distance of DMS relative to the tumor in 84 (47.7%) of the cases. Mean and median DMS were 20.2 and 20.0 mm, respectively. Distal margins of 40 mm and 30 mm would result in 10% and 32% residual tumor, respectively, which translates into 1% and 3% overall residual cancer risk given 10% incidence of DMS. The maximum reported DMS was 50 mm in 1 of 84 cases. In subgroup analysis, for T3 the mean DMS was 18.8 mm (range: 8–40 mm) and 27.2 mm (range: 10–40 mm) for T4 rectal cancer.
Conclusion: DMS occurred in 10%, with a maximum of 50 mm in less than 1% of the DMS cases. For PME, substantial overtreatment is present if routinely a distal margin of 5 cm is utilized. Prospective studies evaluating more limited margins based on high quality preoperative MRI and pathological assessment are required.
Disclosure of Interest: None declared.

P182 | Possibilities of 3D CT angiography and virtual colonoscopy at the preoperative stage of planning reversal surgery after Hartmann's procedure

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Aim: to analyze the Hartmann's reversal (HR) outcomes and to investigate possibilities of 3D CT angiography and virtual colonoscopy at the preoperative stage of reversal procedure.
Method: 31 patients (16 males and 15 females) with average age 59.6 ± 10.31 (range 26–80) who underwent HR at Ternopil Regional Hospital between 2010 and 2021. The reasons for the Hartmann's procedure (HP) were: cancer in 20 (64.5%) cases, perforation of the

diverticulum – 6 (19.3%), traumatic rupture – 3 (9.7%) and Crohn's disease – 2 (6.4%). Preoperative computed tomography (CT) with virtual colonoscopy was performed in 9 (29%) patients. Due to this both technic were analyzed: 3D reconstruction of colon vascular anatomy; the length and presence of scarring in the distal stump of the rectum; course of the proximal part of the colon, accordingly, the need to mobilize the splenic flexure of the colon.

Results: Intraoperative time was 210.33±56.91 minutes (range 120–330). The interval between HP and HR was 11.13±9.24 months (interval 3–38). HR was performed in 30 (96.8 %) patients. Mobilization of the splenic flexure performed in 5 (16.1%) patients. Cicatricial deformity of the stump of the rectum diagnosed in 13 (41.9%) patients. Hand-sewn anastomosis was performed in 23 (74.2%) patients, stapler anastomosis - 6 (19.3%). Anastomotic leakage (AL) occurred in 3 (9.7%) patients on 15, 23 and 37 postoperative days. Mortality rate was 1 (3.3%) as a result of septic complications. There were not observed any serious complication in patients for whome was performed preoperative 3D CT angiography with virtual colonoscopy.

Conclusion: Hartmann's reversal is still associated with significant postoperative complications. 3D CT angiography and virtual colonoscopy are a good option in preoperative assessment of vascular anatomy, potentially reduce the risk of AL, show the complexity of HR, the need for mobilization of splenic flexure and to promote better selection of patients for surgery.

Disclosure of Interest: None declared.

P183 | Complicated acute diverticulitis of the left colon: Is there room for diverticulectomy?

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Aim: We present a poster where we performed a surgical approach by mechanical intracorporeal diverticulectomy with endostapler and epiploplasty with stitches for an acute perforated diverticulitis of a single sigmoid diverticulum.

Method: A 66-year-old female patient came to emergency room with intense acute pain in the lower abdomen. On examination, she presented peritonism predominantly in the left iliac fossa. Laboratory tests with leukocytosis and increased acute pase reactants. Abdominal CT scan showed diffuse pneumoperitoneum with free fluid.

Results: Urgent laparoscopy was performed, revealing purulent peritonitis in the pelvis (Hinchey III) and perforated diverticulitis of a single sigmoid diverticulum. In view of the indemnity of the rest of the sigmoid colon, mechanical intracorporeal diverticulectomy was performed with an endostapler and subsequently epiploplasty with stitches. Correct postoperative period and hospital discharge after 6 days.

Conclusion: Approximately 95% of patients with colonic diverticulosis in Western countries present diverticula in the left colon, these being multiple and most of them only in the sigma (65% of cases). The presentation in the form of isolated sigmoid diverticulum is anecdotal, being more frequent in Asian patients in the form of solitary cecal diverticulum.

Acute diverticulitis is the most common complication of left colon diverticulosis, and treatment varies according to the patient's hemodynamic status/comorbidities and the severity of the diverticulitis.

There is low scientific evidence to support diverticulectomy in cases of single complicated diverticulum in the left colon, mainly because it is a very rare entity. However, the evidence is greater in solitary cecal diverticula which, although being mostly observational studies, present good results and may suggest that it is a plausible surgical strategy in selected cases such as the one we present in this communication.

Disclosure of Interest: None declared.

P184 | Retroperitoneal resection margin in the treatment of right colon adenocarcinoma: The importance of the resection beyond toldt fascia

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Aim: To assess the incidence of patients with affected retroperitoneal resection margin (RRM) after oncologic right colectomy and its association with histological variables and oncologic outcomes.

Method: Prospective analysis of a series of 128 patients who underwent oncologic right colectomy and complete mesocolon excision (2017 – 2021). The RRM was inked and measured macro- and microscopically and it was defined as affected when tumour distance was less or equal to 1 mm. The association between retroperitoneal margin invasion and other histological variables and oncological results was analysed.

Results: RRM involvement was identified in 22 cases (17.2%). The following histological variables were significantly associated with the involvement of RRM: tumour size ($p < 0.01$), degree of dedifferentiation ($p < 0.01$), number of affected ganglionar nodes ($p < 0.01$), venous ($p < 0.01$), lymphatic ($p < 0.05$) and perineural invasion ($p < 0.01$), as well as tumour Budding ($p < 0.01$). Mean survival in patients with affected RRM was 30.5 months, significantly lower than patients without invasion of the RRM, which was 43.1 months ($p < 0.01$). Disease-free survival was also significantly decreased in patients with RRM involvement (30.2 vs 40 months; $p = 0.05$).

Conclusion: RRM involvement occurs in a not negligible percentage of cases, being in our series close to 20%. Tumoral invasion of RRM after oncologic right colectomy could be considered as a prognostic factor related to a lower overall survival and increased recurrence rate.

Disclosure of Interest: None declared.

P185 | MRI morphological characteristics of lymph nodes in anal squamous cell carcinoma for improved staging

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Aim: MRI criteria specific for detection of lymph node metastases (LNMs) in anal squamous cell carcinoma (ASCC) are currently lacking due to the rarity of the disease. The aim of this study was to describe the morphological characteristics of lymph nodes (LNs) in (ASCC).

Method: ASCC patients treated at Skåne University Hospital between 2009–2017 were eligible for inclusion if at least one PET-positive lymph node and a pretreatment MRI were present. All PET-positive LNs were identified on baseline MRI, and any additional suspicious PET-negative LNs on MRI were noted. Each lymph node was independently classified according to pre-determined morphological criteria by two experienced radiologists blinded to clinical patient information. Consensus was reached on each MRI-corresponding finding as either benign or malignant.

Results: Seventy-nine ASCC patients met the inclusion criteria, with 181 PET-positive LNs identified on baseline MRI of which 171 were deemed malign. An additional 78 malign PET-negative LNs were identified on MRI. The median size of PET-positive malign LNs was 9.5 mm, compared to 6.5 mm for PET-positive benign LNs. The majority of PET-positive malign LNs were MRI characterized by round shape (92.1%), regular contour (86.9%), homogenous signal (67%), nodal signal similar to primary tumor (75.5%) and depleted fat content (97.4%). The main MRI morphological features of PET-negative malign LNs were similar but nodal size was smaller (median 6.5 mm).

Conclusion: MRI morphological criteria were identified suggestive of LNM irrespective of PET-positivity. Size alone does not appear a reliable predictor for LNM. Further validation of suggested LNM morphological classification in ASCC is warranted.

Disclosure of Interest: None declared.

P186 | Comparison between the suction and strip rectal biopsies as diagnostic tools for Hirschsprung's disease – A signle centre experience

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Aim: Rectal biopsy is a gold standard tool for diagnosis of Hirschsprung's disease (HSCR). We reviewed our institution's experience with both suction and strip rectal biopsies over last 3 years and discuss the common indications, associated complications as well as the positive rate of HSCR in rectal biopsies.

Method: A retrospective analysis was conducted of all patients who had a rectal biopsy (suction, strip or both) from May 2018 till December 2021. Data collected included age, sex, indications, associated anomalies and any complications. We perform suction rectal biopsy (SB) in young infants (less than 6 months of age) and an open strip biopsy (OB) for older children or failed SB. Pathological samples were examined by routine staining and immunohistochemistry.

Results: Of a total of 170 patients, 157 patients were available for comparison (fig 1). 66 underwent a SB and the remaining 91underwent OB. Median age was 30 days (SB) and 4 years (OB). Indications for SB included delayed passage of meconium, neonatal bowel obstruction or perforation and associated intestinal atresia. Indications for OB included intractable constipation and failed SB. An average of 2 samples was obtained in SB (range 1–3). Biopsy was diagnostic of HSCR in 15/59 (25%) in SB compared to only 1/96 (1%) in OB. Complications in SB included inadequate samples requiring redo biopsy in 10 and bleeding requiring overnight observation in 1. Only 1 patient required re-do biopsy in OB.

Conclusion: Our study reviews common indications and complications of this oft performed gold standard diagnostic procedure for HSCR. Though complications are rare, we feel the need to exclude HSCR beyond infancy needs to be carefully balanced against a surgical procedure requiring a general anaesthetic. Parents need to be counselled appropriately about the high negativity rate of HSCR in this cohort.

Disclosure of Interest: None declared.

P187 | Management of treatment-related sequelae following colorectal cancer – pain and chemotherapy-induced peripheral neuropathy

S. Haas[1,2,*]; J. Ladefoged Fassov[3]; B. Thing Oggesen[4]; C. Jensenius Skovhus Kronborg[5]; A. Højer Mikkelsen[6]; P. Møller Faaborg[7]; C. Graugaard-Jensen[8]; N. Abild Frederiksen[9]; M. Krogsgaard[9]; P. Christensen[2,10]; K. Jøssing Emmertsen[1,2]; L. Ventzel[11]

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Aim: In colorectal cancer (CRC) survivors, pain is multifactorial and related to several aspects of CRC survivorship including a poorer self-related health and overall quality of life. Further, adjuvant

oxaliplatin used in CRC can cause both non-painful and painful chronic peripheral neuropathy (CIPN). In a national multidisciplinary setting, we have developed a guideline facilitating identification and management of pain and CIPN in CRC survivors.

Method: A systematic search for existing guidelines and relevant studies were performed across 16 and 4 databases, respectively, from inception to 2021. This yielded 13 guidelines and 886 abstracts of which 14 have been included for full text review for this section. Secondarily, bibliographies were cross-referenced and 37 additional articles were included.

Results: Recommendations: · It is recommended that survivors with persisting pain should undergo diagnostic work up to determine the cause of their pain (Grade D) · It is recommended that survivors treated with oxaliplatin should be screened for CIPN (Grade D). Management strategies: · Duloxetine reduces pain in painful CIPN (Grade A) · Agents recommended for the treatment of neuropathic pain may be effective in the treatment of painful CIPN (Grade D) · MRI should be the preferred imaging modality for detecting pelvic insufficiency fractures (Grade B) · Consider treatment with calcium and vitamin D in case of pelvic radiotherapy (Grade D).

Conclusion: Pain and CIPN following CRC is common and attention needs to be focused on identifying patients with unmet treatment needs and the development of evidence-based treatment algorithms.

Disclosure of Interest: None declared.

P188 | Management of treatment-related sequelae following colorectal cancer – Psychosocial distress

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Aim: Cancer is a traumatic event. A significant proportion of colorectal cancer (CRC) survivors experience adaptation problems, fear of cancer recurrence, anxiety, depressive symptoms, or reduced mental well-being. In a national multidisciplinary setting, we have developed a guideline facilitating identification and management of psychosocial distress in CRC survivors.

Method: A systematic search for existing guidelines and relevant studies were performed across 16 and 4 databases, respectively, from inception to 2021. This yielded 13 guidelines and 886 abstracts of which 39 have been included for full text review for this section. Secondarily, bibliographies were cross-referenced and 1 additional article was included.

Results: Recommendations: Survivors should be assessed for signs of depression and anxiety (Grade B). Assessment should be done at early follow up as depression may occur within three months of a CRC diagnosis (Grade B). Fear of recurrence and Body image distress should be acknowledged and addressed (Grade B). Referral of survivors with signs of clinical depression upon assessment for proper diagnosis and management is recommended (Grade D). Management strategies: Assessment of psychological distress should be performed using the Danish version of the Distress Thermometer (DIS-A) as a first step in identifying persons in need of support (Grade B). Physical activity and dietary interventions may improve Quality of Life (Grade B).

Conclusion: Psychosocial distress following CRC is common and attention needs to be focused on identifying patients with unmet treatment needs and the development evidence-based treatment algorithms.

Disclosure of Interest: None declared.

P189 | Management of treatment-related sequelae following rectal cancer – Bowel dysfunction

S. Haas[1,2,*]; J. Ladefoged Fassov[3]; B. Thing Oggesen[4]; C. Jensenius Skovhus Kronborg[5]; L. Ventzel[6]; A. Højer Mikkelsen[7]; P. Møller Faaborg[8]; C. Graugaard-Jensen[9]; N. Abild Frederiksen[10]; M. Krogsgaard[10]; P. Christensen[2,11]; K. Jøssing Emmertsen[1,2]

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Aim: Advancement of rectal cancer (RC) treatment has resulted in an increasing number of survivors. Unfortunately, 30–80% of RC survivors develop a change in bowel function including difficulty emptying the bowel, fecal urgency, -clustering and -incontinence (Low Anterior Resection Syndrome, LARS). In a national multidisciplinary setting, we have developed a guideline facilitating identification and management of LARS.

Method: A systematic search for existing guidelines and relevant studies were performed across 16 and 4 databases, respectively, from inception to 2021. This yielded 13 guidelines and 886 abstracts of which 41 have been included for full text review for this section. Secondarily, bibliographies were cross-referenced and 11 additional articles were included.

Results: Recommendations: RC survivors should be offered routine screening for bowel dysfunction (Grade B) Screening should be performed using the validated LARS score (Grade B) All survivors with major LARS should be offered treatment (Grade D). Management strategies: Soluble fibers may be beneficial in decreasing clustering and improving stool consistency (Grade D) Pelvic floor rehabilitation may improve functional outcome (Grade B) Patients with major LARS may benefit from transanal irrigation (Grade B) ·or from sacral nerve stimulation or percutaneous tibial nerve stimulation (Grade B) Stoma formation should be reserved for patients with refractory LARS as a final option (Grade D).

Conclusion: Treatment-related sequelae following RC are common and attention needs to be focused on identifying patients with unmet treatment needs and the development evidence-based treatment algorithms.

Disclosure of Interest: None declared.

P190 | Management of treatment-related sequelae following colorectal cancer – sexual dysfunction

S. Haas[1,2,*]; J. Ladefoged Fassov[3]; B. Thing Oggesen[4]; C. Jensenius Skovhus Kronborg[5]; L. Ventzel[6]; A. Højer Mikkelsen[7]; P. Møller Faaborg[8]; C. Graugaard-Jensen[9]; N. Abild Frederiksen[10]; M. Krogsgaard[10]; P. Christensen[2,11]; K. Jøssing Emmertsen[1,2]

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Aim: Sexual well-being is a significant health and QoL issue in cancer survivorship. Significant heterogeneity in the prevalence of sexual dysfunction following treatment for colorectal cancer is reported with rates ranging from 5% to 93%. In a national multidisciplinary setting, we have developed a guideline facilitating identification and management of sexual dysfunction in CRC survivors.

Method: A systematic search for existing guidelines and relevant studies were performed across 16 and 4 databases, respectively, from inception to 2021. This yielded 13 guidelines and 886 abstracts of which 32 have been included for full text review for this section. Secondarily, bibliographies were cross-referenced and 4 additional articles were included.

Results: Recommendations: CRC survivors should be offered routine screening for sexual dysfunction (Grade B) Sexual function requires focused assessment beyond broad QoL evaluation (Grade D) CRC survivors with persisting symptoms should be offered referral for treatment in specialized units (Grade D). Management strategies: Measure sex hormones in survivors with relevant complaints and consider replacement therapy (Grade B) Male survivors with erectile dysfunction shall be offered treatment with oral phosphodiesterase type-5 inhibitors (Grade A) It is recommended to offer hormone replacement therapy ± vaginal estrogens to women with treatment-induced menopause and superficial dyspareunia (Grade D) Introital- or vaginal fibrosis and/or deep dyspareunia should be treated with vaginal dilation (Grade B).

Conclusion: Sexual dysfunction following CRC is common and attention needs to be focused on identifying patients with unmet treatment needs and the development evidence-based treatment algorithms.

Disclosure of Interest: None declared.

P191 | Management of treatment-related sequelae following colorectal cancer – Urinary dysfunction

S. Haas[1,2,*]; J. Ladefoged Fassov[3]; B. Thing Oggesen[4]; C. Jensenius Skovhus Kronborg[5]; L. Ventzel[6]; A. Højer Mikkelsen[7]; P. Møller Faaborg[8]; C. Graugaard-Jensen[9]; N. Abild Frederiksen[10]; M. Krogsgaard[10]; P. Christensen[2,11]; K. Jøssing Emmertsen[1,2]

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Aim: A well-known sequela to treatment for colorectal cancer (CRC) is urinary dysfunction, defined as voiding dysfunction and/or incontinence. The symptoms may be transient and mild, but for some dysfunction is permanent. In a national multidisciplinary setting, we have developed a guideline facilitating identification and management of urinary dysfunction in CRC survivors.

Method: A systematic search for existing guidelines and relevant studies were performed across 16 and 4 databases, respectively, from inception to 2021. This yielded 13 guidelines and 886 abstracts of which 13 have been included for full text review for this section.

Secondarily, bibliographies were cross-referenced and 8 additional articles were included.

Results: Recommendations: Survivors should be screened routinely for urinary dysfunction (Grade B) Survivors with persisting symptoms should be offered referral for treatment in specialized units (Grade D). Management strategies: Using a three-day voiding dairy in survivors with urinary dysfunction is recommended (Grade D) Standard care for urinary dysfunction is conservative management including lifestyle interventions (Grade D) In postmenopausal women with overactive bladder symptoms and vaginal atrophy, treatment with vaginal estrogens is recommended (Grade D) Pelvic floor muscle training may alleviate symptoms in stress incontinence (Grade A) Sequencing of oral medication should be tailored depending on the most bothersome symptom and includes alpha-blockers and antimuscarinics or mirabegron (Grade D).

Conclusion: Urinary dysfunction following CRC is common and attention needs to be focused on identifying patients with unmet treatment needs and the development evidence-based treatment algorithms.

Disclosure of Interest: None declared.

P192 | Management of treatment-related sequelae following colon cancer – bowel dysfunction

S. Haas[1,2,*]; J. Ladefoged Fassov[3]; B. Thing Oggesen[4]; C. Jensenius Skovhus Kronborg[5]; L. Ventzel[6]; A. Højer Mikkelsen[7]; P. Møller Faaborg[8]; C. Graugaard-Jensen[9]; N. Abild Frederiksen[10]; M. Krogsgaard[10]; P. Christensen[2,11]; K. Jøssing Emmertsen[1,2]

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Aim: Bowel dysfunction following surgery for colon cancer (CC) is common, has a negative impact on quality of life and shows no improvement over time if untreated. In a national multidisciplinary setting, we have developed a guideline facilitating identification and management of bowel dysfunction in CC survivors.

Method: A systematic search for existing guidelines and relevant studies were performed across 16 and 4 databases, respectively, from inception to 2021. This yielded 13 guidelines and 886 abstracts of which 15 have been included for full text review of this section. Secondarily, bibliographies were cross-referenced and 2 additional articles were included.

Results: Recommendations: CC survivors should be offered routine screening for bowel dysfunction (Grade B) In case of chronic diarrhea, refer CC survivors to a gastroenterologist (Grade D) Referral for treatment in specialized units should be offered to patients with persisting symptoms (Grade D). Management strategies: Bile acid malabsorption should be treated with a low-dose bile acid binder (Grade D) Additional benefit may be gained by adding a fat-reduced diet (Grade C) Symptomatic small intestinal bacterial overgrowth should be treated with rifaximine (Grade A) Treatment with anti-diarrheals or laxatives should follow recommendations for treatment of idiopathic diarrhea and constipation (Grade D) Transanal irrigation may benefit some (Grade D) Dietetic intervention may benefit some (Grade D).

Conclusion: Bowel dysfunction in CC is common and attention needs to be focused on identifying patients with unmet treatment needs and developing evidence-based treatment algorithms.

Disclosure of Interest: None declared.

P193 | Treatment and survival of patients with metachronous colorectal lung metastases

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Aim: Recurrence to the lungs is the second most common site for metastases in colorectal cancer patients. There is no established treatment algorithm and the place for adjuvant chemotherapy is unclear. The objectives of this study were to map the pattern of pulmonary recurrences in modern multi-modal treatment and to evaluate survival depending on treatment.

Method: Retrospective study based on the COLOFOL-trial population of 2442 patients radically resected for colorectal cancer stage II-III. All recurrences within 5 years after primary tumour resection was identified and medical notes scrutinized.

Results: A total of 165 (6.8%) lung recurrences as 1st recurrence were detected, of which 89 were confined to the lungs. Potentially curative treatment was possible in 62 (38%) of all lung recurrences, of which 33 with surgery only and 29 with surgery and chemotherapy combined. The 5-year overall survival (OS) after lung recurrence was 28% (95% confidence interval [CI] 22%–35%). In the surgically treated group 5-year OS was 63% (CI 50%–74%) compared to 7.5% (CI 3.3%–14%) in patients treated with chemotherapy only ($p < 0.001$). Hazard ratio for mortality was 2.9 (CI 1.4%–6.1%) for chemotherapy only compared to surgery in multivariable analysis. In

patients treated with surgery only, 5-year OS was 55% (CI 36%–70%) compared to 72% (CI 52%–85%) when combined with chemotherapy (p = 0.106).

Conclusion: Metachronous lung metastases occurred in almost 7%, of which 38% were treated with curative intent with a 5-year OS of 63%. The combination of resection and adjuvant chemotherapy might be beneficial.

Disclosure of Interest: None declared.

P194 | Quantified fecal hemoglobin is associated with all-cause mortality and cause of death in colorectal cancer screening

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Aim: Colorectal cancer (CRC) screening detecting fecal hemoglobin (f-Hb) by Fecal Immunochemical Test (FIT) has been found to reduce all-cause and CRC mortality. New research indicates that f-Hb may be associated with the presence of other non-communicable diseases not related to CRC. We aimed to investigate how f-Hb is associated to all-cause mortality and cause of death in a large FIT-based CRC screening cohort using a register-based approach.

Method: We identified 1,262,165 participants who submitted a FIT in the Danish CRC screening program between 2014 and 2018 and followed them until end of 2018, using the Danish CRC Screening Database combined with several other national registers on health and population. We categorized the participants according to f-Hb values and compared them using a Cox Proportional Hazards regression on all-cause mortality and cause of death reported as adjusted Hazard Ratios (aHR). We adjusted for several covariates, including comorbidity, socioeconomic factors, demography and prescription medication.

Results: We observed 21,847 deaths in the study period. Multivariate analyses showed a dose-response-like pattern between increasing f-Hb value and the risk of dying in the study period from aHR 1.38 (95% CI: 1.32, 1.44) in those with f-Hb values 36–59 ng/mL increasing steadily to 2.20 (95% CI: 2.10, 2.30) in those with f-Hb >300 ng/mL. The pattern remained unchanged when excluding CRC from the analysis. Similar patterns were found between incrementally increasing f-Hb and the risk of dying from respiratory disease, cardiovascular disease and cancers other than CRC. We observed an increasing risk of dying from CRC with increasing f-Hb levels.

Conclusion: Our findings suggest that f-Hb may indicate an elevated risk of having chronic non-communicable disease if obvious causes for the bleeding have been excluded. The mechanisms still need to be established but f-Hb may have potential as a future biomarker for several non-CRC diseases.

Disclosure of Interest: None declared.

P195 | Upper rectal cancer: Irradiate or not?

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Aim: To evaluate the use of radiation for locally advanced tumors located in the upper part of the rectum with its oncological outcome as well as the complication profile.

Method: The Data was collected from the rectal cancer database with patients included between 2013 and 2020. A retrospective analysis and comparison of patients with locally advanced rectal cancer (cT3N0) located 11 to 15 cm from AV was performed. The patients were divided into 2 groups based on the use of neoadjiuvant chemoradiotherapy (nCRT).

Results: 31 patients with locally advanced upper rectal cancer were included in the study. 18 patients (58%, group 1) were treated with nCRT. 13 patients (42%, group 2) proceeded to surgery without neoadjuvant therapy. The groups were comparable in terms of age, gender, BMI and length of follow-up. The surgical pathology was comparable as well. The short term complications rate was 22.2% Vs 30.8% in group 1 and group 2 respectively (p = 0.071).

Conclusion: There was no difference in short terms complications and pathological outcomes between patients who received nCRT and those that did not. Irradiation therapy to locally advanced upper rectal tumors is safe and should be considered as part of the decision making algorithm.

Disclosure of Interest: None declared.

P196 | Fistula-associated anal adenocarcinoma – A twenty years' single-center experience

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Aim: The fistula-associated anal adenocarcinoma (FAAC) is a rare consequence in patients suffering from longstanding perianal

fistulas. There is a paucity of data available for this patient collective making clinical characterization and management of this disease difficult. Case reports often describe the late diagnosis, advanced tumor stage at diagnosis, and poor clinical outcome.

Method: All patients receiving surgery for an anal fistula in the years 1999 to 2019 at a tertiary university referral hospital were included in the final analysis. A retrospective review of patients' charts was performed. Patients suffering from FAAC were eligible for histopathological analysis including immunohistochemistry and molecular profiling.

Results: This study included 1004 patients receiving surgical treatment for an anal fistula. Of those, 242 had an underlying inflammatory bowel disease (IBD). Ten patients were diagnosed with a fistula-associated anal carcinoma (1.0%). Six of those patients suffered from a FAAC (0.6%). The mean overall survival of FAAC patients was 24 ± 3 months. Immunohistochemistry of FAACs revealed positive staining for CK20, CDX2, and MUC2, while stainings for CK5/6 and CK7 were negative. All FAAC specimen revealed microsatellite stability. Molecular profiling detected mutations in 35 genes with the most frequent mutations being TP53, NOTCH1, NOTCH3, ATM, PIK3R1 and SMAD4.

Conclusion: FAAC is rare but associated with poor clinical outcome. Tissue acquisition should be performed in all fistula patients in order to ensure early diagnosis and treatment for those who are affected. The immunophenotype of FAAC seems more similar to the rectal-type mucosa than the anal glands.

Disclosure of Interest: None declared.

P197 | Impact of the new definition of rectal cancer on multimodality treatment and inter-hospital variability: Results from a nationwide cross-sectional study

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Aim: The new definition of rectal cancer, where the lower border of the tumor is located below the sigmoid take-off (STO), was implemented in the Dutch guideline in 2019 after an international Delphi consensus meeting. This study aimed to determine the consequences for decision making in multidisciplinary team meetings (MDT).

Method: All patients with rectal cancer according to the local MDT, who underwent resection in 2016 in the Netherlands were eligible for this nationwide collaborative cross-sectional study. MRI-images were re-reviewed and the tumors were classified as above or on/below the STO. Outcomes included the proportion of tumors above the STO with inter-hospital variation, the hypothetical change in treatment and long-term oncological outcomes.

Results: This study registered 3107 of the eligible 3178 patients [97.8%], of which 2784 patients had an evaluable MRI. In 314 patients, the tumor was located above the STO (11.3%), with inter-hospital variation of tumors above the STO between 0% and 36.4%. Based on TN-stage, 175 re-classified patients with colon cancer (6.3%) would have received different treatment (e.g., omitting neo-adjuvant radiotherapy, candidate for adjuvant chemotherapy). Tumor location above the STO was independently associated with lower risk of 4-year local recurrence [HR 0.539; p = 0.035] and higher 4-year overall survival [HR 0.718; p = 0.030] compared to location under the STO.

Conclusion: Use of the STO redefined prior MDT based diagnosis of rectal cancer as sigmoid cancer in 11%, with potential implications for multimodality treatment and prognostic value. Given the substantial inter-hospital variation in proportion of redefined cancers, the use of the STO will contribute to standardization and comparability of outcomes in both daily practice and trial setting.

Disclosure of Interest: None declared.

P198 | Conversion of the ileal pouch-anal anastomosis (IPAA) to a continent ileostomy (CI) – outcome and patient satisfaction

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Aim: Description of consecutive patients converted from IPAA to CI at a tertiary centre, outcome after surgery and patient satisfaction after long time follow-up.

Method: All consecutive patients operated with IPAA which later was converted to a CI at Sahlgrenska University Hospital, Gothenburg, Sweden, were included in the study. Demographic data was registered and a questionnaire regarding quality of life was sent to included patients.

Results: A total of 28 patients were included during the period of 1985–2022. The most common diagnosis was Ulcerative Colitis (UC) (n = 23), other diagnoses included Crohn´s disease (n = 2) and Familial Adenomatous Polyposis (n = 1) (missing data n = 2). IPAA was performed at a mean age of 30 (15–49) years and IPAA converted to CI at a mean age of 39 (22–62) years. At follow-up, three of the patients were diseased, not related to conversion surgery, and one had moved abroad. All of the remaining 24 patients completed the questionnaire. 20/28 (71%) patients still had their CI in function. 17/28 (61%) were converted due to fistula problems and the rest due to functional problems. 20/28 (71%) were converted using their IPAA-pouch and 4/28 (14%) had a new-constructed reservoir (missing data n = 4). Totally, 18/20 (90%) were satisfied with the CI and 19/20 (95%) would choose it again if they were facing the same situation,

even if most of the patients needed revision of the reservoir (mean 2 (0–5) surgeries). Four patients required excision of the CI. All excised patients had UC and was converted using their original IPAA. The main reason for conversion in the excised group was fistula with the inner meatus in the IPAA (three Woman with anovaginal fistula and one man with perianal fistula).

Conclusion: A CI is an alternative that patients seem to be satisfied with, even after long follow-up time, when IPAA is no longer a suitable alternative. The majority of the patients in this study were converted from IPAA to CI using their IPAA-pouch.

Disclosure of Interest: None declared.

P199 | The relationship between frailty, malnutrition, body composition, systemic inflammation and short-term clinical outcomes in patients undergoing surgery for colorectal cancer

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Aim: While the current literature suggests an association with frailty and clinical outcomes in patients undergoing surgery for CRC, the basis of this relationship is unclear. The aim of the present study was to examine the relationship between frailty, malnutrition, body composition, systemic inflammation and short-term clinical outcomes in patients undergoing surgery for colorectal cancer.

Method: Consecutive patients who underwent potentially curative resection for colorectal cancer, between April 2008 and April 2018, were identified from a prospectively maintained database. Frailty was defined using the modified five-item frailty index (mFI-5). Associations between frailty, demographic data, clinicopathological variables, malnutrition, BMI, CT-body composition measures, systemic inflammation grade (SIG) and clinical outcomes were analysed using χ^2 test and binary logistics regression analysis.

Results: 1002 patients met the inclusion criteria. 28% (n = 221) scored 2 or more on the mFI-5. On univariate analysis, frailty was significantly associated with age ($p < 0.001$), tumour site ($p < 0.001$), BMI ($p < 0.05$), low skeletal muscle denisty (SMD) ($p < 0.001$), SIG ($p < 0.05$), incidence of post-operative complications ($p < 0.001$) and thirty-day mortality ($p < 0.05$). On multivariate analysis, sex ($p < 0.05$), SIG ($p < 0.05$) and mFI-5 score ($p < 0.01$) remained significantly associated with the incidence of post-operative complications. mFI-5 frailty was found to remain significantly associated with the incidence post-operative complications in patients who were SIG 0 ($p < 0.05$).

Conclusion: The mFI-5 frailty score was found to be significantly associated with body composition, systemic inflammation and post-operative outcomes in patients undergoing potentially curative resection for CRC.

Disclosure of Interest: None declared.

P200 | The effect of a patient-led follow-up program after rectal cancer surgery on symptom burden and quality of life – a randomised controlled trial

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Aim: To investigate the effect of a patient-led follow-up program after curative rectal cancer surgery on symptom burden and QoL three years after surgery.

Method: Patients were recruited from four Danish centers after curative resection of rectal cancer and randomised 1:1 to an intervention group or a standard follow-up group. The intervention consisted of patient-led follow-up based on patient-education and self-referral to project nurse, whereas the standard included six routine clinical doctor visits. Patients in both groups had a CT scan of lungs/abdomen/pelvis at 1- and 3-year. At baseline and follow-up patients completed a collection of PROMs, incl. the Functional Assessment of Cancer Therapy – colorectal (FACT-C) as primary endpoint, and validated measures of patient involvement and satisfaction.

Results: A total of 336 patients were included from Feb 2016 to Aug 2018. Patients who completed PROMs at 3-year were included in the analysis (n = 248). No differences were observed between the groups regarding no-response, loss to follow-up, and time to recurrence. At 3-year post-surgery, we found no statistically significant differences between the groups in total FACT-C score and FACT-C/TOI. Emotional well-being seemed better in the intervention group (p = 0.052). No statistically significant differences were found in the remaining subscales. The intervention group had higher scores for patient involvement in all six items, and statistically significance in three of these. Patient satisfaction was reported higher in the intervention group, with statistical significance in two out of five items.

Conclusion: In this RCT, we found no differences on symptom burden and QoL from an intervention with patient-led follow-up after rectal cancer surgery. However, patient-reported involvement and satisfaction were in favor of the intervention group. Thus, patient-led intervention does not compromise symptom burden and QoL, but may improve patient-perceived involvement and satisfaction.

Disclosure of Interest: None declared.

P201 | Rare ethiology of rectum-ovarian fistula

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Aim: Entero-ovarian fistulas are rare. They are related with diverticulitis or inflammatory bowel disease but it is mandatory to rule out cancer. An extrange cause is Xanthogranulomatous inflammation characterized by chronic infiltration of plasma cells, lymphocytes and histiocytes. It is an entity related to chronic inflammatory processes such as Proteus infection or Inflammatory Bowel Disease. It is unusual to involve genital tract having <30 published cases. By this time, It is not described Xanthogranulomatous oophoritis associated with recto ovarian fistula. Our aim is to describe this patologhy.
Method: 47-year-old woman suffer three months of diarrhea, hematochezia and abdominal pain. Examination revealed pain in the lower abdomen, sensing a 6 cm hypogastric mass. Rectum not occupated, without rigidity of the rectovaginal septum. Gynecological examination was unremarkable. CT scan shows thickening of the sigma 15 cm from the anal margin, with fistulous tracts between the anterior rectum and the right ovary where there is an abscess. Colonoscopy describes a fistula that is biopsied without evidence of malignancy. Transvaginal ultrasound shows a heterogeneous lesion of 55×70×53 mm in the right ovary. MRI confirms 3cm fistula communicating rectum with cyst. Surgical intervention was decided, finding a thickened right ovary, adhered to the Douglas with a 2 cm fistulous orifice in the anterior rectal face draining pus. Hysterectomy, right adnexectomy, left salpinguectomy with primary closure of the defect were performed. Cultivation of the abscess and cytology were negative. The anatomophatology exam showed chronic plasmocellular and xanthogranulomatous oophoritis with acute superinfection. The patient evolves adequately being discharged 5 days later.
Conclusion: This entity simulates a neoplastic process. It should be considered in the differential diagnosis. Resection of the fistula with primary closure of the defect via laparoscopy is enough in most non-oncologic causes.
Disclosure of Interest: None declared.

P202 | Our experience performing colectomies, results after 551 surgeries

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Aim: Several risk factors have been described for complications in colonic surgery. Our aim is to identify these factors in our series.
Method: We propose a retrospective, observational and descriptive study analyzing 551 patients undergoing scheduled colonic surgery between June 2013–December 2021. Oncologic and non-oncologic surgeries were included. Patients requiring more than one anastomosis or multivisceral resections were excluded. We describe our results in demographic variables, type of surgical procedure, postoperative complications at 30 days, hospital stay.
Results: 551 patients underwent surgery: 56.4% were men, mean age 69 years, 27.4% were obese, 29% had diabetes, 33.9% had cardiovascular disease. The most frequent anesthetic classification was ASAII (48.5%). The etiopathologic diagnosis was cancer in 69.5%. The most common technique used was right hemicolectomy 55.7%, laparoscopic approach in 58.4%, and mechanical anastomosis 92.6% of cases. Complication occurred in 40.1% of patients (principal Clavien-Dindo typeI-II 22.3%). The leaking was 10.3%, the need of surgical reintervention was 7.1%. Median hospital stay: 6 days. 5.6% of readmission. Among patients with complications (C) there were higher percentage of males 65.6% ($p < 0.05$), obesity (36.7% vs 20.6%, $p < 0.05$) and cardiovascular disease (49.2% vs 28.8% $p < 0.005$). Converted surgeries suffered complications in 61.8% ($p < 0.05$). Overall median hospital stay: NC 5 days vs C 10 days. Overhauling the patients who presented anastomotic leakage ($n = 57$), higher rate were observed in manual anastomosis vs mechanical (20% vs 9.6%, $p < 0.05$), also in patients with postoperative rectorrhagia (27.3% vs 9.6%, $p < 0.05$).
Conclusion: We found higher percentage of complications in men, obese, cardiovascular patience and reconverted surgeries. We also found a higher rate of leakage in those who had manual anastomosis compared to mechanical. Also, in those patients who suffered postoperative rectorrhagia.
Disclosure of Interest: None declared.

P203 | Is it elderly a key factor in colon surgery results?

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Aim: The increase in life expectancy has made colorectal surgery in elder people more frequent. Our aim is to analyze our colon surgery results in people >80 years vs <80 years old.
Method: We propose a retrospective, observational and descriptive study analyzing 551 patients undergoing scheduled colonic surgery between June 2013–December 2021. Oncologic and non-oncologic surgeries were included. Patients requiring more than one anastomosis or multivisceral resections were excluded. We describe the results in patients over 80 and younger than 80 years old.
Results: A total of 91 patients aged ≥80 years (A) and 460 patients aged <79 years (NA) underwent surgery. In the group over 80 years old: 50.5% were man with 83 years of mean age. The most prevalent anesthetic classification was ASA-III. The diagnosis of cancer was

made in 86.8% in all. The most frequently performed technique was right hemicolectomy (62.6%). Complications occurred in 48.4% (the principal Clavien-Dindo classification was type II 19.8%). The anastomosis leak was 8.8% (Clavien-Dindo ≥IIIB 4.4%). The mean Hospital stay was 6 days. Comparing both groups, the most prevalent anesthetic classification in group A was ASA III 53.9% while NA was ASA II 52% ($p < 0.05$). Group A had a higher complication rate (48.4% vs 38.5% $p > 0.05$), higher percentage of paralytic ileus (A 18.7% vs NA 8.9 $p < 0.05$) and AUR/UTI (A 5.5% vs NA 1.1% $p < 0.05$). There were no significant differences in anastomosis leaking, collection, occlusion, hemoperitoneum, anastomotic bleeding, evisceration, wound infection. Older patients had longer hospital stay (A 6 days, NA 5 days $p < 0.05$).

Conclusion: Overhauling our data, Colon surgery in patients over 80 years old has a similar complication rate to the general population with the exception of paralytic ileus and AUR/UTI.

Disclosure of Interest: None declared.

P204 | Rare rectal stricture: Lymphogranuloma venereum

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Aim: Chlamydia trachomatis infection generates condition called lymphogranuloma venereum (LGV) related to risky sexual practices: cruising, Chemsex, group sex. Anorectal form causes symptoms such as proctitis, tenesmus, anal suppuration. Delayed treatment can lead to complications such as fistulas and anorectal strictures. It is important to rule out other causes of proctitis such as infections (gonococcus, CMV), Crohn's disease, Ulcerative colitis and neoplasms. Our aim is to describe a rare infectious cause of anorectal strictures and fistulas.

Method: 57-year-old male with risky sexual practices consults for perianal pain and suppuration, incontinence and loss of 15 kilos in the last months. On anal examination: skin tabs and a stricture 4 cm from the anus that makes impossible rectal examination. Multiple perianal fistulous orifices with skin impaction. Colonoscopy and endoanal ultrasound were unsuccessful due to the stricture. CT and MRI showed rectal thickening 7 cm from the anal margin with rectal and perianal fistulas to dismiss inflammatory disease or neoplasia. Sexual diseases screening was positive for Chlamydia trachomatis. Doxycycline was administered for 21 days with slight improvement. A second colonoscopy evidenced a stenotic area that was pneumatically dilated showing ulcers that were biopsied. Pathological anatomy reports squamous epithelium with reactive atypia, with no signs of malignancy. Despite antibiotic treatment, the patient remained symptomatic. It was decided to perform an examination under anesthesia, finding complex perianal fistulas with cutaneous tracts in the left ischiorectal region and frank stenosis that makes impossible rectal exploration. Terminal colostomy and mucus fistula were performed, pending of proctectomy.

Conclusion: Lymphogranuloma venereum is increasing in incidence and should be considered in risk groups. Delaying treatment can lead to severe complication as anorectal strictures or fistulas.

Disclosure of Interest: None declared.

P205 | Systematic review of stricturoplasty for ileal strictures in Crohn's disease in the era of biologics

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Aim: Stricturoplasty has been one of the options for the surgical management of obstructing small bowel Crohn's Disease (CD). Since the advent of biologics, stricturoplasty has gone out of fashion. At the same time there has been an increasing trend of fistulating disease behaviour as a risk that increases over time in patients with CD. The long-term large study outcome results of the stricturoplasty have reinforced the resurgence of bowel sparing surgery.

Method: Medline database via PUBMED with terms was (Crohn's), (Surgery), (stricture) and (management) without any restriction to year of Publication. 490 articles were shortlisted. After inclusion and exclusion criteria following PRISMA guidelines, five articles were included in the study. Systematic review was done with stricturoplasty outcomes in the last 20 years.

Results: Recent large studies have estimated a risk of surgical recurrence over a period of 7–8 years post stricturoplasty at 30–34%. The number of patients included were about 1525. Studies with long term follow up over 25 years showed a tendency towards an increase in ileal disease from 38% to 67%. The most popular stricturoplasty techniques were Heineke-Mikulicz technique for strictures up to 7 cm, Finney for strictures for strictures of 7–15 cm in length, isoperistaltic side-to-side Michelassis for strictures more than 15 cm.

Conclusion: The likelihood of multiple bowel resections during the patient's lifetime in Crohn's disease is high, placing patients a definite risk of developing short gut syndrome. Stricturoplasty remains a part of an overall strategy to conserve intestinal length. Contraindications to stricturoplasty include penetrating disease, perforation of the bowel, malnutrition, suspicion of cancer. The effectiveness of biologics should not result in a neglected approach with the risk of intestinal failure among CD patients, and this event must be avoided by means of the application of bowel-sparing surgery in all suitable patients.

Disclosure of Interest: None declared.

P206 | Stop immediately now doing unnecessary hemorrhoidectomy (Sinuhe project) hemorrhoidal sclerosis outcomes in 400 patients with any degree of hemorrhoidal prolapse

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Aim: Hemorrhoidal treatment algorithms are currently based on Goligher classification which only assesses prolapse. In spite of its many drawbacks (i.e risk of incontinence and postoperative pain), hemorrhoidectomy is still the gold standard. However, sclerotherapy should be considered an alternative despite being restricted to the mildest degrees (I-II).
Method: A cohort of patients from 2017–2021 with hemorrhoidal sclerotherapy was analyzed. After inclusion/exclusion criteria were applied, demographic data, symptoms and safety of the technique were evaluated. Need for surgery was considered failure of the technique.
Results: 398 patients were analyzed (204 men/194 women), mean age 50.5±13.7 [21–90] years. Main reason for consultation was bleeding (59.3%), prolapse (30.7%), itching (9%) and pain (1%). After 1session, an improvement in all symptoms was seen ($p < 0.0001$). 62.6% of patients remained asymptomatic ($n = 249$) after the first session.75.1% reported improvement in bleeding with only one session and 60.1% with prolapse. A reduction in the number of patients with grade III-IV prolapse from 37% to 5.3% was achieved. Significant differences were observed for bleeding and prolapse ($p < 0.0001$), pain ($p < 0.005$) and itching ($p < 0.004$) in patients after 2 sessions. After three sessions ($n = 27$), only bleeding improved ($p < 0.0001$). Bleeding intensity was the factor determining number of sclerotherapy sessions ($p = 0.007$). 3.76% presented mild complications. No patient required admission. No cases of anal stenosis nor fecal incontinence. Sclerotherapy managed to reduce the number of patients with surgery despite failure of technique occurred in 16 patients (4%). If treatment algorithms had strictly been followed, all patients with grade III-IV prolapse (36.1%) would have had surgery.
Conclusion: New classifications for hemorrhoidal disease is needed to update therapeutic algorithms. Sclerotherapy can be a safe and effective alternative to surgery, saving hospitalization and risks derived from it, regardless of prolapse dregree.
Disclosure of Interest: None declared.

P207 | Long-term results and satisfaction survey after hemorrhoidal sclerotherapy

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Aim: Hemorrhoidal sclerotherapy carried out by coloproctologists allows control of the symptoms of hemorrhoidal disease without the need for surgery, thus avoiding its inconveniences: i.e. hospitalization, postoperative pain, wound healing, risk of fecal incontinence. However, there are no long-term studies on quality of life and satisfaction.
Method: A cohort of patients who underwent hemorrhoidal sclerotherapy as an exclusive treatment between January 2017 and March 2020 has been contacted by telephone. Demographic variables have been collected and a questionnaire about the procedure, its complications, the current existence of symptoms and degree of satisfaction with the technique have been carried out.
Results: Of 382 patients, 337 answered the survey. The rate of non-responders/unreachable was 11.8% ($n = 45$). The mean age was 48.9 ± 12.3 years and the follow-up was 37.1 ± 13.7 [10, 60] months. The main reason for consultation was bleeding ($n = 225$, 58.9%) followed by prolapse ($n = 118$, 30.9%). 53.4% ($n = 180$) patients had grade II-III prolapse and 8.6% ($n = 29$) grade IV. 63.8% ($n = 215$) patients became asymptomatic after one session, 28.8% ($n = 97$) after two sessions, and 25 patients (7.4%) after 3 sessions. None required hospital admission or sick leave. Two patients consulted the emergency room (0.6%) due to pain after the procedure. 99.7% ($n = 336$) of the patients reported feeling "well" or "very well" currently. 5.2% ($n = 20$) said they had occasional symptoms. Sporadic bleeding (2.7%, $n = 9$) was the most frequent followed by prolapse (7 patients, 1.8%). 99.7% ($n = 336$) of the responders are satisfied with the results, 96.7% ($n = 326$) would not mind repeating the treatment if necessary and 99.7% would recommend it to another patient.
Conclusion: Sclerotherapy is an alternative to surgery with advantages such as savings in hospitalization costs and sick leave, without the risk of incontinence and good control of long-term symptoms. Moreover, it has good acceptance by patients and consistent results over 3 years.
Disclosure of Interest: None declared.

P208 | Risks of lift surgery in women with transsphincteric anal fistula

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Aim: Surgery in women with transsphincteric anal fistula is infrequent. The present study aims to determine outcome predictors in women undergoing Ligation of Intersphinteric Fistula Tract (LIFT).
Method: Consecutive women with transsphincteric fistula were included in the present prospective observative study. Crohn's disease patients were excluded. Persistent transsphincteric fistula at follow-up examination was defined as "Treatment failure".
Results: Forty one women underwent LIFT surgery between 2012 und 2021. Twenty two women had seton placed mean 3 months prior to LIFT surgery (54%), 22 had ventral fistula, ten were smokers (24%). After mean follow-up of 12.4 months treatment failure was noted in 12 patients (30%). By multivariate analysis, smoking was associated with increased risk of treatment failure (Hazard ratio 14.9; 95% CI: 2.3–95.1, $p = 0.04$). The failure rate was 17% in non-smokers

and it was 70% in smokers. Duration and position of fistula, duration of seton drainage, age had no impact on long-term outcome.

Conclusion: Women with transsphincteric anal fistula should be strongly encouraged to stop smoking before undergoing LIFT surgery.

Disclosure of Interest: None declared.

P209 | Surgery for enterocutaneous fistula: the strongest predictor of postoperative mortality in crohn's disease patients

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Aim: To access the risk of bowel resection in Crohn's disease patients with enterocutaneous fistulae.

Method: Consecutive patients undergoing intestinal resections for Crohn' disease between 1992 and 2021 were included in the present prospective observational study. Exclusion criteria were: a) abdominoperineal resections for perianal disease, b) surgery for colorectal cancer complicating Crohn's disease, c) abdominal surgery without intestinal resection (e.g. stoma formation or closure, mere adhesiolysis etc. Enterocutaneous fistulae occurring after previous bowel resection were named "postresection fistulae", all other – "non-postresection fistulae".

Results: 750 patients were included. 70 patients (9%) underwent intestinal resections due to enterocutaneous fistulae. The frequency of surgery for enterocutaneous fistula decreased significantly during the last decade of the study (1992–2000: 13% of surgeries, 2001–2010: 12% of surgeries, 2011–2021: 6% of surgeries; $p = 0.05$). The postoperative intraabdominal septic complication rate was 15% ($n = 111$), six patients (0.8%) died. The mortality rate was 7% (5 of 79%) in patients with enterocutaneous fistulae. All five deaths occurred in patients with postresection fistulae. By multivariate analysis, surgery for enterocutaneous fistula (Hazard ratio 27.4, $p = 0.004$), age of 50 years and older (Hazard ratio 13.2; $p = 0.008$) and presence of intraabdominal abscess (Hazard ratio 11.8; $p = 0.035$) were associated with an increased risk of postoperative death. Age over 50 years was also associated with an increased risk of death in patients with enterocutaneous fistulae (mortality rate 20% vs 3.6%, Hazard ratio 16.61; $p = 0.032$).

Conclusion: Surgery for enteroctunaeous fistulae still poses significant risks, specially, when they occurred after previous bowel resection and in older patients.

Disclosure of Interest: None declared.

P210 | Biologic treatment does not reduce the risk of postoperative peristomal pyoderma gangrenosum in crohn's disease patients

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Aim: To assess risks of postoperative peristomal pyoderma gangrenosum risks in patients undergoing bowel resection and stoma formation Crohn's disease

Method: Retrospective study. Alle pyoderma gangrenosum occurrences were confirmed by clinical examination. Consecutive patients undergoing intestinal resection and stoma formation for Crohn's disease were included. Patients with mere stoma formation were excluded.

Results: Between 1997 and 2021, 62 patients with complete follow-up information were included. Peristomal pyoderma gangrenosum occurred in 17 patients (11%). By multivariate analysis, preoperative biological treatment (33% vs 10%), history of skin disease (59% vs 8%) and non-smoking (24% vs 0%) were associated with an increased risk of pyoderma gangrenosum ($p < 0.05$). By multivariate analysis, history of skin disease increased the risk of pyoderma gangrenosum significantly (Odds Ratio: 13.99 [95% CI: 2.24 – 87.2], $p = 0.005$). Skin diseases observed prior to stoma formation were psoriasis, erythema nodosum and pyoderma gangrenosum at other sites than peristomal.

Conclusion: There is a high risk of postoperative peristomal pyoderma gangrenosum in patients with a history of skin disease. Preoperative biological treatment does not protect from this severe complication.

Disclosure of Interest: None declared.

P211 | Robotic assisted surgery for left sided/ rectal resections is associated with reduction in the post-operative surgical stress response and improved short-term outcomes in the first year of full implementation

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Aim: Robotic assisted surgery (RAS) has grown world-wide in the last decade; in 2021 the highest volume speciality globally was colorectal (CR) surgery. CR-RAS was implemented in May 2021 at 2 large Glasgow hospital sites (GRI/QEUH) via a Scottish National Planning Process, prioritising conversion of left-sided and rectal resections to RAS. We report short-term outcomes during this initial period, comparing directly to a cohort of matched resections from the previous 11 yrs.

Method: Baseline demographic and post-op outcome data for patients undergoing CR-RAS (DaVinci Xi platform) between May 21-May 22 were collected at 2 hospitals (GRI/QEUH). Comparisons were made with a cohort undergoing lap/ open procedures in the past 11 yrs at GRI.

Results: In the first year, 156 CR-RAS procedures were performed (GRI 113 & QEUH 43), of which 123 were for cancer. Most were high anterior ($n = 66$, 42%) followed by low anterior ($n = 40$, 26%) and APR ($n = 23$, 15%). 391 open and 328 lap cases from 2008–2022 were assessed. Overall, length of stay (days) was shorter with RAS: 4 vs lap 7 vs Open 12, $p < 0.001$. Similar trends were seen for high anterior (3 vs 7 vs 10), low anterior (6 vs 6 vs 11) and APR (8 vs 9 vs

13). Median post-op CRP was lower in RAS vs Lap and Open surgery (POD2 CRP; 77 vs 105 vs 176 $p = 0.009$ and POD3 CRP; 70 vs 106 vs 159 $p = 0.007$). CD1-5 complications were lower in RAS (26% vs 45% vs 50%) $p = 0.001$. CD3+ rates were also lower in RAS (7.7% vs 12% and 12%). SSI rate in RAS (5%) compared with lap (6%) and was lower than open (19%). Rate of post-op CT-scanning was lower in RAS, (16% vs 27% vs 41% $p = 0.015$). Rate of postoperative blood transfusion in RAS was lower (2% vs 4% vs 24% $p < 0.001$).

Conclusion: We transitioned to RAS for all elective left sided CR resections demonstrating reduced surgical stress response and improved short term outcomes. Work is ongoing to understand the cost effectiveness of RAS and the benefits we expect to see beyond the implementation period.

Disclosure of Interest: None declared.

P212 | Spinal anaesthesia does not appear beneficial in patients undergoing robotic assisted left sided colonic or rectal surgery

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Aim: Spinal anaesthesia (SA) is often used in colorectal surgery as an adjunct to the perioperative analgesic regime to reduce postoperative pain and the surgical stress response. The role of SA in the era of robotic assisted colorectal surgery (RACS) has been questioned due to the perceived reduction in postop analgesic requirements with RACS. We report our experience in patients undergoing RACS at our sites who received SA vs those who did not. We report on postoperative failed trial of void (FTOV), postop days 1–4 CRP, complications, and anaesthetic room time.

Method: All patients undergoing RACS at Glasgow Royal Infirmary (GRI) and Queen Elizabeth University Hospital (QEUH) were prospectively entered into a database; demographics, CRP and complications were recorded. Anaesthetic room time was recorded using Opera software.

Results: 30/152 patients had SA across our sites. The remaining 122 patients received intraoperative laparoscopic Transvs Abdominus Plane (Lap TAP) block or local anaesthetic (LA) wound infiltration plus oral analgesia. There was no significant difference in operation type (SA; low AR 5/30, APRs 8/30, 12/30 high AR, 5/30 other. NonSA; low AR 28/122, APRs 11/122, high AR 66/122, 13/122 other, $p = 0.369$), BMI, frailty or ASA grade between the 2 cohorts. Anaesthetic room time was longer in the SA group – 66v57 minutes. There was no difference in POD2 CRP or POD3 CRP (both $p > 0.05$). More patients had FTOV in the SA group- 17% vs 5% in the NonSA group; $p = 0.035$. 7% of SA patients had a postop pneumonia but only 2% of the NonSA group. There was no difference in overall complications (CD1-5 and CD3+, both $p > 0.05$).

Conclusion: Since the introduction of RACS, we have moved away from routine use of SA. Although our cohorts appear well matched, selection bias could influence these results. In our experience SA does not appear to be beneficial in RACS patients. Contrarily, SA may delay return to function. Lap TAP block or LA infiltration appears a suitable alternative to SA in RACS.

Disclosure of Interest: None declared.

P213 | A1CHECK: External validatiion of machine learning models predicting colorectal anastomotic leakage

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Aim: An individualized prediction model is needed to detect patients at high risk of colorectal anastomotic leakage. Machine learning algorithms have proven to accurately describe the unpredictable and complex nature of cause and effect within individual patients. The aim of this study is to create, assess and validate a prediction model on postoperative day 0 for colorectal anastomotic leakage after colorectal surgery and consider its feasibility in clinical practice.

Method: Design and study setting: Multicentre retrospective study using prospectively collected data of the Lekcheck-study from January 2016 until December 2018 and one additional hospital with data from December 2018 until April 2021. Model was trained on 80% and tested on 20% of the data. Study population: Adult patients undergoing colorectal resection with creation of an anastomosis. Outcome measures: First, the best predictive machine learning model and subsequently the predictive performance of this model in predicting colorectal anastomotic leakage.

Results: Some 1,859 patients were included and anastomotic leakage occurred in 151 patients. The artificial neural network with 50 neurons with one hidden layer had the best predictive performance on the test data set with an area under the curve – receiver operating characteristics of 0.85, sensitivity 0.93 of and specificity of 0.57.

Conclusion: An artificial neural network with a good predictive performance in predicting CAL on postoperative day 0 was. This model can potentially be used to reduce the incidence and consequences of CAL, therefore reducing morbidity, mortality, and hospital stay and costs.

Disclosure of Interest: None declared.

P214 | Outcomes of non-curative video assisted anal fistula treatment

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Aim: Curative Video Assisted Anal Fistula Treatment (cVAAFT) is a minimally invasive, sphincter preserving procedure that demonstrates variable success rates. VAAFT can also be used to palliate fistula symptoms (pVAAFT), to rationalise or downstage fistula

complexity (dVAAFT) and can have diagnostic uses. The aim of this study was to demonstrate the expanded clinical utility and outcomes of VAAFT when managing anal fistula and persistent perineal sinus (PPS).

Method: A retrospective review was conducted of all VAAFT procedures carried out by a single surgeon at a tertiary referral centre between March 2018 and March 2020. Patient demographics, fistula anatomy, type and intention of procedure and clinical and radiological outcomes were recorded.

Results: Follow up data were available for 107 cases (73% male, median age 41, interquartile range 17 years), 72% of which were idiopathic, 26% Crohn's fistulae and 2% were ileoanal pouch fistulae or PPS. The majority (72%) had 1 or more surgical procedures prior to VAAFT. Approximately 33 procedures (31%) were cVAAFT with clinical closure achieved in 12%. A further 54 procedures (50%) were dVAAFT, demonstrating radiological improvement of morphology in 54%. Palliative VAAFT (pVAAFT) was performed 16 times (15%), resulting in symptom improvement in 53% of these patients. Four diagnostic procedures were performed in order to obtain tract wall biopsies, to delineate anatomy or plan for further procedures.

Conclusion: Our data suggest that VAAFT is more successful when being used to simplify fistula morphology or for palliating symptoms than when being used with curative intent, in this very complex cohort.

Disclosure of Interest: None declared.

P215 | Comparison of diversion and non-diversion surgery patients among patients with colon injury due to blunt trauma in a single center: is stoma formation essential?

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Aim: Patients with abdominal injuries due to blunt trauma are rare. In the case of colon injury due to blunt trauma when colon injury is destructive (full- thickness or perforation or presence of massive mesocolon devascularization), colon resection is often necessary. But for such destructive colon injuries, there has been a debate about whether one stage primary resection and anastomosis or staged operation through diversion should be performed when performing surgical treatment. Therefore, we compared and analyzed the patient group that underwent diversion and the group that underwent non-diversion surgery.

Method: We retrospectively reviewed patients who underwent surgical treatment for blunt colon injury at a single regional trauma center between January 2013 and July 2021. Other solid organ injury patients were excluded. A total of 147 patients were included to the study.

Results: A total of 125 patients were included in non- diversion group and 20 patients were included in diversion group. Between the non-diversion and diversion group, average amount of transfused packed red blood cells were 6 pints and 4 pints. Serum laboratory tests such as hemoglobin, creatine kinase, lactate difference was not statistically significant. Injury AIS of colon and abdomen, injury severity score showed no difference between two groups but only AIS of mesocolon showed differences and was statistically significant (p = 0.040). Number of damage control surgery and death of patients showed similar proportion and difference of both groups was not statistically significant. There was no anastomotic leakin both groups.

Conclusion: In blunt colon injury patients who underwent surgical treatment, non-diversion and diversion group showed similar results. As surgical diversion is still preferred in patients with destructive colon injury due to fecal contamination, further researches should be done as this study showed non-diversion surgery can be successfully performed in similar patient characteristics group.

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Disclosure of Interest: None declared.

P216 | Left PSOAS ABSCESS: Unusual initial presentation for crohn's disease: A case report

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Aim: Transmural inflammation of Crohn's Disease (CD) increases risk of bowel perforation and fistula formation that can lead to a psoas abscess. This is a rare condition especially as its first manifestation.

Method: Case report of a patient admitted with psoas abscess secondary to colonic penetrating CD.

Results: A 46-years-old female with a past medical history of ankylosing spondylitis with negative HLA B27 under Sulfasalazine since 2016 was admitted for uncontrolled left hip pain and antialgic gait. Laboratory test revealed sepsis and Magnetic Resonance Imaging (MRI) demonstrated a 10cm left psoas abscess secondary to fistula from descending colon. Broad spectrum antibiotics and percutaneous drainage were indicated without any improvement, and surgical drainage and laparoscopic derivative colostomy were performed. Postoperative Computed Tomography (CT) showed remission of the infection and a sigmoidoscopy and biopsies confirmed CD features. In gastroenterology outpatient clinics azathioprine and infliximab were started. After 6 months, patient was asymptomatic, colonoscopy showed no signs of acute colitis and MRI dismissed active inflammation nor fistulae track. Afterwards, a hand-sewn colostomy reversal was performed with an uncomplicated recovery. Before

re-starting medical treatment the patient referred sacroiliac pain. A recurrent abscess and activity in the descending colon were seen in the MRI. She was readmitted with multidisciplinary treatment consisting of antibiotics, percutaneous drainage and nutritional support. A laparoscopic resection of the affected colon with primary anastomosis was planned after favourable initial conservative therapy. She is currently asymptomatic under follow-up with azathioprine and infliximab.

Conclusion: Left psoas abscess can be the first manifestation of CD and its management is still controversial. Surgical drainage, derivative colostomy and biological therapy have been insufficient to avoid recurrence in our case.

Disclosure of Interest: None declared.

P217 | The role of colon capsule endoscopy following inclomplete colonoscopy

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Aim: Colon capsule endoscopy (CCE) was introduced in our department on two indications; *i*) following incomplete colonoscopy as an alternative to CT colonography, and *ii*) to patients with a history of incomplete colonoscopy as an alternative to colonoscopy under general anesthesia (GA). We aimed to compare the completion rate and polyp detection rate (PDR) of CCE, with that of CT colonography and colonoscopy under GA respectively.

Method: Patients referred to CCE from May 2020 until November 2021 were continuously included. Demographics, colonoscopy indication and CCE outcomes were identified in the electronic patient journal. Completion rate and PDR in CCE for indication *i* were compared with those of a historical cohort undergoing CT colonography following incomplete colonoscopy.[1] Completion rate and PDR in CCE for indication *ii* were compared with those of a time true cohort undergoing colonoscopy under GA.

Results: In 88 patients undergoing CCE, 68 patients signed an informed consent form for the study. Five were excluded, in total 63 patients were included. Of those, 57 % (n = 36) were referred under indication *i*. The completion rate in this group was 44 % compared to 96 % in CT colonography ($p < 0.001$). The PDR in group *i* was 83 % in CCE compared to 19 % in CT colonography ($p < 0.001$). The remaining 43 % (n = 27) of the sample was referred to CCE under indication *ii*. The completion rate in this group was 33 % compared to 100 % in colonoscopy under GA ($p < 0.001$). The PDR in this group was 78 % in CCE compared to 35 % in colonoscopy under GA ($p < 0.001$).

Conclusion: The completion rate of CCE following incomplete colonoscopy is inferior to that of CT colonography and colonoscopy under GA. The PDR of CCE was high, indicating an acceptable sensitivity of the investigations, but in order for CCE to be a viable investigation modality for patients with incomplete colonoscopy, the completion rate must be increased.

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Disclosure of Interest: None declared.

P218 | Long-term results of wide mesorectal excision vs total mesorecatl excision in middle and upper rectal carcinoma: Retrospective analysis of the national database of Spanish rectal cancer project (Vikingo project)

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Aim: The aim is to compare the pathological and long-term oncological results of total and partial mesorectal excision in patients with middle and upper rectal cancer.

Method: We performed a retrospective analysis based on the multicenter prospective database of the Spanish Rectal Cancer Project of the Spanish Association of Surgeons (79 hospitals, 2006–2011). Patients diagnosed of rectal cancer higher of 6 cm were included. A descriptive analysis is performed comparing partial and total mesorectal excision as well as a multivariate analysis and a propensity score of the variables related to recurrence and survival. A Kaplan and Meyer analysis is made to assess the influence of excision type. A propensity score in middle rectal cancer is performed as especific subgroup of patients.

Results: 10,736 patients were included (PME: 3217, mainly in upper rectal cancer p:0.001). There were significant differences at the TNM with higher T in the PME and a greater number of N+ in the TME. There were no differences in mesorectal quality, circumferential margin, distal margin, tumour perforation or pathology. Local recurrence was 3.4%, global recurrence 4.33%, and overall survival 81.72% at 60 months of follow-up. The multivariate analysis revealed that lymph node involvement, positive circumferential margin, positive distal margin, perforation, and type of mesorectal excision independent prognostic factors of increased local recurrence and reduced DFS. The quality of the mesorectum was significantly related to local recurrence but not to global recurrence. Overall survival was related to perforation and complete pathologic response but not to the type of mesorectal excision. Survival curves showed no differences in overall survival or cancer-related survival. Propensity score in middle rectal cancer demonstrated better results in TME.

Conclusion: PME seems oncological correct but we should reconsider the PME for middle rectal cancer to not jeopardize long-term oncological results.

Disclosure of Interest: None declared.

P219 | The impact of crohn's disease in patients with colorectal cancer: A danish nationwide cohort study, 2009–2019

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Aim: To investigate mortality, patient-, and cancer characteristics, in sporadic colorectal cancer and Crohn's Disease (CD) associated colorectal cancer (CRC) over a 10-year period.

Method: CRC characteristics were reported to the Danish Colorectal Cancer Group (DCCG) registry. We included patients diagnosed with CRC from January 1st 2009 to December 31st 2019. We identified individuals with inflammatory bowel disease (IBD) using registrations of diagnostic codes and pathology codes. Cox regression was used with adjustment for age at CRC diagnosis and sex.

Results: In this nationwide cohort study, 38 154 patients were eligible for inclusion. In the CD cohort and CRC cohort, 160 (52%) and 17343 (46%) were female (p = 0.024). Patients with CD had a statistical significant lower age at cancer diagnosis, 69 years (60–76), compared with sporadic CRC 71 years (64–78) (p = <0.001). In the age group analysis, 81 (26%) of the patients in the CD cohort were diagnosed before the age of 60. In comparison, 6531 (17%) of the patients in the sporadic CRC cohort were diagnosed before the age of 60, (p < 0.001). Colon cancer was more frequent in the CD and CRC cohort (234 (76%) vs 26753 (71%), p = 0.027). More CD patients presented with a UICC stage III (88 (29%), 9529 (25%)) (p = 0.014). Sporadic CRC patients presented with UICC IV more frequently (10 704, 28%, 61, 20%). In a Cox regression analysis, higher age at cancer diagnosis was significantly associated with increased mortality hazard ratio (HR): 1.04, 95% CI: [1.04–1.04], p = <0.001. Female sex was associated with reduced mortality HR: 0.89 [0.86–0.91], p = <0.001. Presence of CD was not associated with increased mortality. CD diagnosed before the age of 60 was not associated with higher risk of mortality by CRC among CD patients.

Conclusion: No statistically significant difference was found in the mortality in CD associated CRC and sporadic CRC. A higher percentage of CD patients had a UICC III stage tumor, suggesting a more progressive disease.

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P220 | Extraction site closure: an open and shut case?

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Aim: The authors' aim is to compare rates of wound complications (i.e. wound infection, dehiscence and incisional hernia) associated with 3 different extraction site techniques following laparoscopic right hemicolectomy.

Method: This single centre, retrospective, cohort study recruited consecutive patients undergoing laparoscopic right hemicolectomy, over 6 years and divided them into 3 cohorts by extraction site closure technique: Mass closure (MC), small bite closure (SB), and transverse closure (TC). MC was defined as a midline incision, closed with 1 loop PDS using a mass closure technique. Small bite closure was defined as a periumbilical incision, with anterior abdominal sheath closed with 2-0 PDS, 5 mm bites, 5 mm apart, secured with a self-locking knot. TC was defined as a right upper quadrant, transverse incision closed in 2 layers with 1 loop PDS with a gentamycin-impregnated collagen implant (Collatamp®) between the layers. Incisional hernia was identified as clinical or radiological evidence of hernia at the extraction site at any point during folow-up. Cases which were converted to open/ laparoscopic assisted were excluded.

Results: Cohorts where of comparable age and co-morbidity (recorded as ASA grade), and follow-up length. N = 107, 28 for MC, 50 for SB and 29 for TC.

Outcomes: Wound infection: The control group (MC) had a wound infection rate of 6 (21.4%), compared to 3 (6% p = **0.041**) for the SB cohort and 1 (3.4% p = 0.620) for the TC cohort. Incisional Hernia: The control group (MC) had an incisional hernia rate of 7 (25.0%), compared to 3 (6% p = **0.039**) for the SB cohort and 0 (0% p = **0.004**) for the TC cohort. There where no cases of full thickness dehiscence in any cohort.

Conclusion: Mass closure of a midline extraction site remains standard practice in many units. These findings support existing evidence[1-6] that alternatives to this technique are associated with reduction in wound complications, including incisional hernia and wound infection, and strengthen the case for their adoption.

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Disclosure of Interest: None declared.

P222 | Fluorescence time curves to assess anastomotic perfusion during ileal pouch anal anastomosis

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Aim: Intraoperative indocyanine green fluorescence angiography (ICG-FA) is potentially of added value during ileal pouch-anal anastomosis, especially after vascular ligation as a lengthening maneuver. This study aimed to quantitatively evaluate pouch perfusion patterns with and without vascular ligation using ICG-FA.

Method: This is a pilot study of all consenting patients that underwent FA-guided IPAA between July 2020 and December 2021. After intravenous bolus injection of 0.1 mg/kg ICG, the camera registered the fluorescence intensity over time by a Stryker 1688 camera. Fluorescence images were quantitatively analyzed by standardized region of interersts on the J-pouch. Extracted fluorescence parameters were T_0, T_{max}, ΔT, F_{max} and Slope.

Results: 21 patients (11 male, 40.5 +11.3 years) were included, and ICG-FA was successfully performed in all patients. Vascular ligation was performed in three patients (14%), which concerned central ligation of the ileocolic arcade in two patients and interconnecting branches in one patient. ICG-FA changed management in three patients (14%). There were four anastomotic leakages (AL) (19%), none of them concerning patients with vascular ligation. Median F_{max} in the overall group was 56 arbitrary units (AU) (IQR 35–59), whereas with vascular ligation 33 AU (IQR 41–94) and in AL group 34 AU (IQR 24–52). Overall mean slope was 2.4 AU/s (IQR 1.6–3.3) and 1.6 AU/s (IQR 0.9–2.6) in AL group and 1.7 AU/s (IQR 1.3–2.8) in ligation group.

Conclusion: Quantitative analysis of ICG-FA perfusion during IPAA is feasible and safe. The rise in intensity of the fluorescence signal, represented by the angle of the slope, might be decreased in case of vascular ligation or anastomotic leakage. The role of fluorescence time curves in IPAA surgery still needs to be elucidated.

Disclosure of Interest: None declared.

P223 | Light distribution variation in commercial near infrared systems: Impact for clinical use and potential pitfalls for signal quantification

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Aim: To investigate the fluorescence intensity distribution in a standardized setting of five different near infrared camera systems. Furthermore we demonstrate how angulation affects the fluorescence intensity.

Method: A 13x13 cm fluorescence phantom was created by diluting indocyanine green in intralipid (Representing 0.1mg/kg dose in a 80 kg 'reference male weight with a conventional blood volume estimate of 7L) to evaluate the light distribution and illumination of five different clinical near infrared camera systems using 0 degree laparoscope (Medtronic, Ireland NIR system, Pinpoint, Stryker, USA laparoscopic system, Stryker 1688, USA laparoscopic system, Quest, Firefly™, Intuitive Surgical Inc., Sunnyvale, CA, USA). The phantom was stabilized in a mechanical holding arm at a fixed distance. Two assessments were performed with phantom placed at a 0 degree and 30 degree angle. In-house software was used to quantify and analyze the fluorescence signal.

Results: Variability exists with regard to light distribution among the five cameras (see figure 1), especially towards the periphery of the field of view. Angulation does impact the fluorescence intensity as well, even in the central region of interest.

Conclusion: The distribution of light is heterogenous in a field of view and even more so between systems. The fluorescence intensity weakens towards the periphery. Such behaviors should be taken into account while choosing fluorescence parameters and selection of a region of interest for quantification of the fluorescence signal. In clinical practice surgeons should only comply with interpreting the center of field of view for decision making.

Disclosure of Interest: None declared.

P224 | Analysis of factors affecting response to preoperative chemoradiotherapy in rectal cancer

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Aim: The purpose of this study was to identify key predictors of the degree of regression after PCRT in LARC and to be able to plan treatments that may lead to better outcome.

Method: We retrospectively reviewed medical records of patients with primary rectal cancer who received preoperative chemoradiation therapy followed by surgical resection between January 2008 and December 2018. Patients were divided into good responder (total regression, near total regression) and poor responder (moderate regression, poor regression) according to the pathologic tumor regression grades. The tumor characteristics and various biomarkers of the two groups were compared and analyzed. Anemia was defined as Hgb < 12 g/dL for women and Hgb < 13 g/dL for men according to WHO criteria. NLR was determined by dividing the neutrophil count by the total lymphocyte count. PLR was defined as absolute platelet count divided by total lymphocyte count. The HALP index was calculated as the formula of hemoglobin (g/L) × albumin (g/L) × lymphocytes (/L)/platelets (/L).

Results: Good responder (n = 52) and poor responder (n = 87) were included. In univariate analysis, CEA, Hb and HALP were found to have significant differences. Factors that showed a significant difference in univariate analysis were Hb (OR 1.228, CI 1.026–1.469, p = 0.025), CEA (OR 0.618, CI 0.972–1.019), HALP (OR 1.025, CI 1.006–1.044, p = 0.009), anemia (OR 0.337, CI 0.156–0.727). p = 0.006). Anemia (OR 0.337, CI 0.156–0.727, p = 0.006) was identified as a significant factor in multivariate analysis. ROC curves and cutoff values for anemia were identified. (12.5, AUC = 0.636, p < 0.01).

Conclusion: Anemia is a major factor influencing response to preoperative chemoradiation and can be considered an important predictor. Therefore, more studies on strategies to correct it are needed.
Disclosure of Interest: None declared.

P225 | Patient-reported functional comparison between patients with pathological complete response and nonoperatively managed rectal cancer patients

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Aim: Nonoperative management (NOM) has been considered an alternative option for locally rectal cancer patients with complete clinic response after total neoadjuvant therapy (TNT). While similar oncological outcomes have been reported, there is scarce data regarding functional outcomes for patients with NOM and those achieved pathological complete response after sphincter preserving surgery (SPS). This study aims to compare functional outcomes of patients with pathological complete response (PCR) and nonoperative management.
Method: This retrospective study included 41 NOM patients and 16 patients with pathological complete response undergoing SPS between 2018–2020. Bowel and anorectal functions were measured with Low Anterior Resection Syndrome (LARS) and Cleveland Clinic Incontinence (CCI) scores, respectively, at a median follow-up of three years.
Results: Two groups were comparable in terms of all patient characteristics and initial clinical stage. No patients managed with NOM strategy experienced major LARS while 18% (n = 3) of patients with PCR suffered from major LARS ($p < 0.01$). Minor LARS scores were 17% (n = 7) in NOM and %50 (n = 8) in patients with PCR after TNT ($p < 0.01$). In terms of CCI score, %43 of patients managed with NOM strategy had perfect continence and 43% of patients had good continence. While perfect and good continence rates were %12 (n = 2) and %50 (n = 8), respectively, complete incontinence rate was 18% ($p < 0.01$) in patients with PCR.
Conclusion: In addition to previously published oncological outcomes, nonoperative management should be offered to patients with complete clinical response after TNT which provides further superior functional outcomes.
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Disclosure of Interest: None declared.

P226 | Quality of life after transanal total mesorectal excision in rectal cancer patients – A single-center initial experience

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Aim: To study the quality of life in rectal cancer patients before and after transanal total mesorectal excision (TaTME). Sixteen consecutive TaTME rectal cancer patients after the introduction of TaTME at our institution were included.
Method: Patients completed EuroQol-5D, EORTC QLQ-C30, EORTC QLQ-CR29, International Prostate Symptom Score (IPSS) questionnaires, LARS, and Vaizey score preoperatively and every 3 months postoperatively. The data were assessed for normality. A K-related sample analysis was then used to compare the results from the questionnaires. This work was supported by the ERDF, through the OP SESG, with a leading organization MU-Pleven, grant no BG05M2OP001-1.002-0010.
Results: Questionnaires were filled from 15 patients (93.75%), two patients were operated on in less than 3 months and did not fill the postoperative questionnaires. A total of 13 patients were included in the analysis. We analyzed the results from the preoperative questionnaire and the last available one. The longest period is 3 years after operation and the shortest is 3 months. All data were not normally distributed ($p < 0.05$). Statistically significant improvement in the following indicators postoperatively occurs compared to preoperative levels: pain/discomfort in EuroQol-5D (p = 0.014), physical functioning (p = 0.046), financial problems (p = 0.025) and global health in QLQ-C30 (p = 0.001), degree of anxiety/depression in QLQ-CR29 (p = 0.020) and specific quality of life in the IPSS questionnaire (p = 0.011). No statistical differences were found in: visual analogue scale for self-assessment in EuroQol-5D (p = 0.114), social functioning in QLQ-C30 (p = 0.705), faecal incontinence for patients without stoma in QLQ-CR29 (p = 0.317), LARS score (p = 0.763) and Vaizey score (p = 0.782).
Conclusion: Quality of life after transanal total mesorectal excision in rectal cancer patients seems promising. Larger international

randomized studies are needed to prove if there is an advantage over other approaches.

Disclosure of Interest: None declared.

P227 | Sphincter preserving techniques in treatment of complex anal fistulas – Our experience after 477 operations in 6 year period

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Aim: The aim of this retrospective observational study was to show different sphincter preserving techniques in treatment of complex anal fistulas and to present our results after 6-year period.

Method: Treatment of complex anal fistulas still presents a challenge for surgeons because of high recurrence rate and possible complication of which the most feared is fecal incontinence. Many sphincter preserving techniques have been developed in last few decades with various success rates according to data presented in scientific literature. In our practice, we have mostly used three techniques: LIFT (ligation of intersphincteric fistula tract), RAF (rectal advancement flap) and VAAFT (video assisted anal fistula treatment) or combination of these. These "hybrid" techniques can be used in order to take advantage of one's strong suits, overcome the shortages of another and vice versa.

Results: We started preforming sphincter preserving techniques in 2016. Initially, success rate was around 65% but, following a learning curve, with experience and adoption of some tips and tricks, it increased to 84%. We did not have any type of serious complications and none of the patients did not have any type of continence disturbance. Median primary healing rate was six weeks (range 3 weeks – 16 weeks).

Conclusion: Sphincter preserving techniques have very good postoperative results in regards to healing rate, recurrence and possible complications, especially when used in combination. Their advantages are low postoperative pain, faster return to everyday activities and, most importantly, there is no risk of postoperative fecal incontinence.

Disclosure of Interest: None declared.

P228 | Surgical tactics for colorectal cancer in conditions of peritonitis

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Aim: to light up surgical tactics at colorectal to crawfish in the conditions of peritonitis.

Method: In 2021, 12 patients with colorectal cancer under the conditions of peritonitis aged 55 to 80 were operated on at the Brovary Multidisciplinary Clinical Hospital. Men among them 7 (58,3%), women – 5 (41.7%). Tumor localization: cecum – 2 (16.7%) cases, transverse colon – 3 (25.0%), sigmoid colon – 3 (25.0%), rectosigmoid connection – 3 (25.0%), rectum – 1 (8.3%) case.

Results: The widespread forms of peritonitis were educed for all patients: general – in 5 (41.7%) patients, widespread – in 4 (33.3%) and diffuse – in 3 (25.0%) patients. By the nature of the exudate in the abdominal cavity in 2 (16.7%) cases peritonitis was serous, in 5 (41.7%) – serous-fibrinous, in 3 (25.0%) – fibrinous-purulent, in 1 (8, 3%) – fecal and in 1 (8.3%) case hemorrhagic. The toxic stage of peritonitis was in 9 (75.0%) patients and terminal – in 3 (25.0%) patients. Patients underwent the following surgical interventions: right hemicolectomy – in 2 (16.7%) cases, resection of the transverse colon – in 2 (16.7%), left hemicolectomy – in 1 (8.3%), Hartmann's operation – in 6 (50.0%), anterior resection of the rectum – in 1 (8.3%) case. All surgical interferences were executed without forming primary anastomoses with forming of eventual ostomy of the proximal area of the bowel. All patients were conducted a comprehensive treatment, including detoxication of the organism by the way of enterosorption. For prophylaxis suppurations of operating wounds applied the applique sorbents. All patients survived.

Conclusion: During surgery in patients with colorectal cancer, the course of which is complicated by peritonitis contra-indicated forming of primary interintestinal anastomoses. The effective method of detoxication of an organism at peritonitis is enterosorption in an early postoperative period. Also effective is a method of prophylaxis of suppuration of an operating wound with an application of applique sorbents.

Disclosure of Interest: None declared.

P229 | The introduction of complete mesocolic excision/central vascular ligation for right-sided cancer cases in a University Teaching Hospital

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Aim: Complete mesocolic excision (CME) with central vascular ligation (CVL) for right colon cancer remains controversial despite evidence of superior oncological outcomes due to concerns re safety and technical complexity most especially early in a unit's experience. Technology (3d recons of preoperative CT angiograms plus near-infrared (NIR) perfusion assessment) may aid implementation. Our aim was to compare perioperative outcomes between the CME/CVL group and a control group.

Method: Consecutive laparoscopic CME/CVL operations (December 2019–January 2022) with technology augmentation were audited against a control group of conventional laparoscopic right hemicolectomies.

Results: Twenty-two patients were studied in the CME/CVL group vs twenty in the control group. There were no significant differences by age (71.55 ± 11 vs 70.1 ± 10.4, $p = 0.33$), gender (50% vs 45% males, $p = 0.38$) and cancer stage (T1 ($n = 1$):T2 ($n = 6$):T3 ($n = 6$):T4 ($n = 5$) vs T1 ($n = 3$):T2 ($n = 2$):T3 ($n = 9$):T4 ($n = 2$), $p = 0.07$) respectively. There were no intraoperative complications in the CVL group vs one major vascular injury in the control group and no significant increase in early post operative morbidity (18% vs 30%, $p = 0.19$), length of hospital stay (8 days ± 3 vs 11 days ± 13, $p = 0.18$), 30-day readmission rates (5% vs 9%, $p = 0.3$) although 30-day reoperation rates were lower in the CVL group (0% vs 15% ($n = 3$), $p = 0.04$). Intraoperative time was significantly longer in the CVL group (208 minutes ± 42.9 vs 152 minutes ± 66.9, $p = 0.002$), however, this decreased significantly over the study timeframe. The mean length of bowel resected was significantly higher in the CVL group (332.29 mm ± 120.88 mm vs 258.19 mm ± 57.18 mm, $p = 0.025$) with mesenteric extent tending to be larger too (80 mm ± 19 mm vs 67.33 mm ± 24.28 mm, $p = 0.12$) although mean lymph node yields were similar (18 nodes ± 8 vs 20 nodes ± 8, $p = 0.28$).

Conclusion: Implementation of CME/CVL for right sided colorectal cancer was achieved safely in our institution.

Disclosure of Interest: None declared.

P230 | Surgical management of appendiceal tumours: are we aggressive enough in the emergency setting?

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Aim: Appendiceal malignancies are rare yet heterogenous in their presentation and management. We aimed to evaluate outcomes in elective and emergency presentations of appendiceal malignancy.

Method: A retrospective study was performed on patients presenting to Glasgow Royal Infirmary between 2012 and 2019 with pathological diagnosis of appendiceal malignancy. After Caldicott Guardianship was granted, demographics, pathology and outcomes were recorded. Elective and emergency patients were included as well as incidental tumours identified in appendix specimens at histopathology. Exclusion criteria included non-appendiceal primary tumours.

Results: 226 patients were identified, 54% were female. 143 (63%) of our patients were over the age of 50 years. 73% of cases presented as an emergency, 27% electively. Pathological subtypes included neuroendocrine tumours (NET) (29%), low grade appendiceal mucinous neoplasm (LAMN) (26%); sessile polyps (10%), adenomas (8%); adenocarcinomas (6%); cystadenocarcinomas (2%); goblet-cell carcinoid (7%); mixed types (2%) and 10% without defined subtype. While 23% of patients underwent right hemicolectomy as their primary procedure, 13% had completion right hemicolectomy following diagnosis of appendiceal malignancy at index appendicectomy. Tertiary referral occurred in 8%, with 1% requiring cytoreductive surgery. While emergency resection patients had a higher rate of further surgery, recurrence rates were lower compared to elective resection. Despite this, overall survival was equivalent between elective and emergency cases. Patients proceeding directly to right hemicolectomy (23%) had worse overall survival with significantly higher recurrence rates in appendiceal adenocarcinoma compared to other subtypes.

Conclusion: Patients with appendiceal tumours had good survival outcomes with low levels of recurrence. Emergency presentations are associated with higher reoperation, but with equivalent mortality. Appendiceal adenocarcinoma subtype had the highest rate of recurrence.

Disclosure of Interest: None declared.

P231 | Trimodal comparison of oncological right hemicolectomy: Open surgery vs laparoscopic procedures with intra- and extracorporeal anastomosis technique

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Aim: The aim of this study was to examine surgical short- and longterm outcomes and quality of life after oncological right hemicolectomy. Three patient cohorts (laparotomy, laparoscopy with intracorporeal anastomosis and laparoscopy with extracorporeal anastomosis) were evaluated in this regard. Our hypothesis was that the group with intracorporeal anastomosis would experience superior outcomes.

Method: 135 patients were included in the analysis from 2015–2020. In addition to the retrospectively collected data, prospective surveys were conducted between July-September 2021 using a validated Gastrointestinal Quality of Life Index (GIQLI) questionnaire and semi-structured interviews.

Results: Three patient groups were analysed: laparotomy with open anastomosis ($n = 67$), laparoscopy with extracorporeal ($n = 14$), and laparoscopy with intracorporeal anastomosis ($n = 54$). The comprehensive postoperative complication rate was significantly higher in the laparotomy group compared to the intracorporeal group *($n = 68$; open 64.2% vs intrac. 35.2%; $p = 0.006$)*, while the extracorporeal group's rate was 42.9%. This rate included surgical site infections *($n = 16$; open 13.4%, extrac. 7.1%, intrac. 11.1%; $p = 0.784$)*, anastomotic leakage *($n = 4$;only after laparotomy;$p = 0.212$)*, incisional hernia *($n = 6$; open 7.5%, extrac. 7.1%, intrac. 0.0%; $p = 0.069$)* and intestinal atonia *($n = 22$; open 23.9%, extrac. 21.4%, intrac. 5.6%; $p = 0.022$)*. Reoperation within 30 days was only performed after open surgery *($n = 9$; 13.43%; $p = 0.007$)*. Response rate to the survey was 75%. The overall GIQLI score was comparable among the three groups, while the highest average score per item was presented by the group with intracorporeal anastomosis. Questions on recovery, regained

function and contentment showed no significant difference among the groups.

Conclusion: The laparoscopic approaches showed considerably lower complication rates, while no significant differences were observed between the two laparoscopic techniques (extracorporeal vs intracorporeal anastomosis).

Disclosure of Interest: None declared.

P232 | An integrated magneto-electrochemical analysis of extracelluar vesicle for the prediction of tumor response in patients with advanced colon cancer treated with preoperative folfox chemotherapy

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Aim: We aimed to investigate the probability of biomarkers on circulating extracellular vesicles (EVs) for the prediction of tumor regression grade in patients treated with preoperative 4 cycles of FOLFOX chemotherapy.

Method: Electrochemiluminescent (ECL) assay that integrates the enrichment of EVs by antibody-coated magnetic beads and the electrochemical detection, in less than one hour of total assay time, of EV-bound proteins after enzymatic amplification. By using the assay with a combination of antibodies for clinically relevant tumor biomarkers [EGFR, EpCAM, CD133, GPA33, CEA, and MDR (multidrug resistant)] of advanced colon cancer, we classified plasma samples from 43 patients. The sample were tested at the time of diagnosis, completion of chemotherapy, and after surgery. The marker-associated current level was normalized against the loading control, the current level of CD63. The optial cut-off value of each EV markers were calculated using ROC curves. Tumor response were defined as good in Dvorak tumor regression grade (TRG) 3–4 and poor in TRG 0–2.

Results: Of the 48 patients who were included, good and poor responder were 26 and 17, respectively. Of the clinical factors, MSI-H/L was associated with poor TRG (0.042). A low pretreatment plasma level of EGFR (p = 0.019), MDR (p = 0.098), and CD133 (p = 0.016) were more associated with the good responder. Of these four markers, low level of CD133 [odds ratio (OR) = 6.964, 95% confidence interval (CI) = 1.606–36.101, p = 0.013] and MSS (OR = 7.657, 95% CI = 1.297–65.683, p = 0.035) in multivariate logistic regression.

Conclusion: Good tumor response (>50%) was achieved in approximately 60% of patients who were enrolled. MSS was a significant predictive factor for good TRG. Exosomal CD133 (colon ca. stem cell marker) could be used for prediction of TRG and good candidate biomarker study of liquid biopsy.

Disclosure of Interest: None declared.

P233 | Transanal minimally invasive surgery (TAMIS) for rectal tumor under spinal anesthesia: Long-term follow-up results

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Aim: Transanal minimally invasive surgery (TAMIS) is suitable for resection of rectal mass which was located from the middle to upper part of the rectum, if not available to approach under endoscopy. TAMIS can avoid the radical resection and general anesthesia which can be occurred more severe postoperative complication. In this study, we added a large number of patients and follow-up outcomes at least more than 3 years to address the feasibility of TAMIS.

Method: From June 2011 to June 2018, 87 consecutive patients with masses that was located to middle or upper third of rectum. Twelve patients were excluded because of the surgery under general anesthesia and 3 patients were inaccurate surgical record about location. Rest of all included patients were performed mechanical bowel preparation before surgery and spinal anesthesia during surgery. Follow-up period was more than 3 years in all patients and investigate the patient's anal function using Low Anterior Resection Syndrome (LARS) questionnaire answer for telephone. Majority outcome is local recurrence and resection margin positivity.

Results: Of the 73 patients, sixteen had adenocarcinomas (Tis:10, T1:5, T2:1), one is gastrointestinal stromal tumor, fifteen had neuroendocrine tumors, and rest of others were benign tumors. The distance of tumor from AV was 8.3 (range 4–17) cm, size was 2.3 (range 0.5–8) cm, and operative time was 36.6 (range 5–120) min. There were no fragmentation of specimen and conversion surgery to laparoscopy with any intraoperative complications. all patients were no postoperative morbidity. Recurrence was 1 patient for benign tumor during follow-up colonoscopy after 2 years and receive transanal excision successfully without any re-recurrence. No sphincter injury in all patients and most of all were no incontinence except 2 patients (high LARS score).

Conclusion: TAMIS under spinal anesthesia is maybe feasible and safe for resection of middle to upper rectal tumors. Spinal anesthesia is adequate for this procedure.

Disclosure of Interest: None declared.

P234 | Laparoscopic colon and rectum surgery

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Aim: Objectives: To analyze the first experience of laparoscopic colon and rectal surgery. Methods. The laparoscopic surgeries (n = 16) of the colon and rectum were performed. There were 6 men and 10 women out of 16 operated patients. The age of patients was 63 ± 10.4 yrs.

Method: The reason for interventions were as follow: 8 cases of colorectal cancer, 1 diverticulitis of the sigmoid colon, four dysplastic

villous polyps (grade 3), 1 large lipoma, 1 carcinoid, 1 functional sigmoidostomy. Six sigmoid resections, one lower anterior resection of the rectum, three right-sided and one left-sided hemicolectomy, two resections of the ileocecal angle, two total mesorectumectomies, one closure of sigmoidostomy had been carried out.

Results: Postoperatively patients' activation began within 12 hours after surgery. Duration of the patient's stay in the intensive care unit was 24 ± 11.5 hrs. Duration of operations composed 264 ± 88.8 min. Duration of hospital stay in the postoperative period was 8 ± 5.1 days. One patient was underwent to relaparotomy due to peritonitis on the 7th postoperative day caused the formed defect of the ileum wall in the deserosation region at adhesiolysis. All patients were discharged with satisfactory results.

Conclusion: The first experience shows that the treatment of surgical pathology of the colon and rectum laparoscopically is justified and highly effective. In performing surgical interventions due to the colorectal cancer, a complete fulfillment of oncological protocols concerning volume of resection and lymphadenectomy is complied.

Reference: The introduction of laparoscopic surgery for the management of the colon and rectum cancer reduces the amount of intraoperative blood loss, reduces the length of stay of patients and their rehabilitation, and minimizes the development of postoperative complications.

Disclosure of Interest: None declared.

P236 | Quality of life of patients with ileal pouch-anal anastomosis

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Aim: The purpose of our study was to analyse the quality of life (QoL) of our patients with ileo pouch-anal anastomosis (IPAA) related to their gastrointestinal function.

Method: Eligible patients with IPAA that were operated from January 2011 to December 2020 were sent questionnaires to evaluate QoL. Öresland scores, gastrointestinal quality of life index (GIQLI) and LARS scores were evaluated for each patient.

Results: Results of questionnaires of 16 patients were analysed. 10 women and 6 men were included, the median age of 31 years. The median of Öresland score was 7 points, average GIQLI score was 100.7. 5 patients scored less than 20 points at LARS score, 4 scored 21–29 points (traditionally regarded as minor LARS) and 7 patients scored 30 points or more (usually regarded as major LARS).

Conclusion: Defecatory disorders are common in patients with IPAA. Our results are comparable to results of other studies.

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Disclosure of Interest: None declared.

P237 | A randomised placebo-controlled trial of repeated faecal microbiota transplantation in patients with chronic pouchitis – The micropouch study

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Aim: To investigate if treatment with multidonor faecal microbiota transplantation (FMT) for four weeks was superior to placebo in inducing clinical remission in patients with chronic pouchitis.

Method: The study was designed as a randomised placebo-controlled study with a 4-week intervention period and a 12-month follow-up period. Eligible patients with chronic pouchitis were recruited from five Danish hospitals. Patients were randomised to treatment with either FMT derived from four faecal donors or placebo. The study treatment was delivered by enema daily for two weeks followed by every second day for two weeks. Disease severity was accessed before and after treatment at 30-day follow-up, using the Pouchitis Disease Activity Index (PDAI) score. A PDAI score <7 was considered equivalent to clinical remission.

Results: In total 30 patients were included and randomised to treatment with either FMT or placebo, 15 patients in each group. Preliminary results showed no difference in patients achieving clinical remission between the two treatment groups at 30-day follow-up RR 1.0 (95% CI 0.55–1.81). The PDAI score decreased in the FMT group from mean 8.9 (SD 1.75) to 6.8 (SD 2.52) at 30-day follow-up compared to a decrease in the placebo group from mean 9.1 (SD 1.30) to 6.4 (SD 2.71) at follow-up. In both the FMT and placebo group, 6 (40%) patients were in clinical remission with a PDAI score <7 at 30-day follow-up. The number of daily bowel movements decreased in both treatment groups at 30-day follow-up with a mean change of 2.50 bowel movements (SD 3.90) in the FMT group and 2.64 (SD 4.88) in the placebo group.

Conclusion: In this study, we found that repeated multidonor FMT was not superior to placebo in inducing clinical remission in patients with chronic pouchitis. However, further studies are needed to confirm if a subgroup of chronic pouchitis patients can benefit from FMT, and furthermore investigate selection of the optimal faecal donor for this patient group.

Disclosure of Interest: None declared.

P238 | Non-invasive assessment of bowel function in healthy volunteers – The E-bowel study

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Aim: Post-operative ileus (POI) is a common and distressing complication, occurring in up to 20% of patients undergoing colorectal surgery (1). The diagnosis of POI is challenging and is limited to clinical observation alone. There is a substantial opportunity to improve the assessment and management of POI. In this study, we aimed to correlate point-of-care ultrasound data with electronic stethoscope data when evaluating normal bowel motility in healthy individuals.
Method: An experimental study of adult healthy volunteers. Exclusion criteria included pregnancy, diagnosis of inflammatory bowel disease or slow transit constipation or previous abdominal surgery (excluding appendicectomy). Baseline demographics were collected. The non-invasive bowel function protocol included pre-prandial and post-prandial ultrasound and stethoscope assessments. Iterations of varied settings, abdominal areas and breathing patterns were explored. Image quality was assessed by a consultant radiologist. A peak-detection algorithm was employed to analyse sound data, with a minimum value threshold to determine the mean intestinal rate per second (MIR/s).
Results: 16 participants underwent non-invasive assessments of bowel motility. 8 of the participants were female, with an average age of 21.8 (19–29) and an average BMI of 22.8 (18–36.1). No statistical difference was seen in the MIR/s between the pre-prandial umbilical and epigastric auscultation locations (0.22 and 0.23 respectively). The post-prandial umbilical auscultation MIR/s was found to be higher than the epigastric (0.44 and 0.25 respectively). Higher BMI values were associated with lower MIR/s. The ultrasound images were utilised to correlate visible gastrointestinal motility with recorded bowel sounds.
Conclusion: The use of ultrasound and electronic stethoscopes is a feasible method for performing a non-invasive assessment of bowel motility. The results of this study have been used to inform a focused protocol which will be trialled in the clinical setting.

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P239 | Establishing an experimental animal model of postoperative ileus

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Aim: Following surgery for advanced colorectal cancer, paralytic postoperative ileus (POI) constitutes a significant problem. POI increases morbidity and mortality as well as represents a significant cost on hospital budgets. Treatment options are sparse and not very efficient. The aim of this study was to establish an experimental animal model of POI for further research in treatment options of POI after advanced colorectal surgery. We intended at designing a baseline model that could be implemented in different colorectal procedures.
Method: The study material comprises of 10 Landrace pigs (60 kg). Five pilot animals were used to establish the following surgical procedure: A midline laparotomy was performed, followed by peritonectomy and cholecystectomy. Bile was distributed intraperitoneally. In addition, the colonic adherences were dissected, and the colon mobilized. The gastrointestinal tract from stomach to rectum was manipulated for two hours using cotton gloves. The remaining 5 animals was used to validate the procedure. A SmartPill (Giving Imaging) was inserted in the stomach, enabling analyzation of intestinal motility. The pigs were observed up till 10 days postoperatively.
Results: Two of the 5 pilot animals were terminated prematurely. The remaining three passed stooled on day 1,2 and 3. The five validation animals all developed POI, defined as no stools for 3 days or more. Data from the SmartPill were available from 5 animals. In all animals, the SmartPill capsule was retained in the stomach and gastrointestinal transit times were not available.
Conclusion: This study established a baseline animal model of POI which can be applied on various colorectal procedures. It furthermore represents the novel use of the SmartPill system in a porcine model. The system has potential for further use, but the placement of the SmartPill needs further investigation. These animal experiments are a prerequisite before any clinical studies of new treatments of POI after colorectal surgery can be initiated.
Disclosure of Interest: None declared.

P240 | Exploring the impact of urogenital organ displacement after abdominoperineal resection on urinary and sexual function

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Aim: This study aimed to establish the functional impact of displacement of urogenital organs after abdominoperineal resection (APR) using validated questionnaires.
Method: Patients who underwent APR for primary or recurrent rectal cancer (2001–2018) with evaluable pre- and post-operative radiological imaging, and completed urinary (UDI-6, IIQ-7) and sexual questionnaires (male: IIEF, female: FSFI, FSDS-R) were included from 16 centres. Absolute displacement of the internal urethral orifice, posterior bladder wall, distal end of the prostatic urethra and cervix were correlated to urogenital function by calculating Spearman's Rho (ρ). Median function scores were compared between minimal or substantial displacement using median split.
Results: There were 89 male and 36 female patients included. The absolute displacement of the internal urethral orifice and posterior bladder wall were not correlated with the UDI-6 in men (ρ = 0.119 p = 0.29 and ρ = 0.022 p = 0.84) nor in women (ρ = 0.098 p = 0.60 and ρ = -0.154 p = 0.39). The absolute displacement of the distal end of the prostatic urethra was not correlated with the IIEF (ρ = 0.128 p = 0.54), whereas the cervix and FSFI were correlated (ρ = 0.450 p = 0.22). In women with minimal and substantial displacement of the internal urethral orifice, median UDI-6 scores were 25 (IQR 10–46) and 21 (IQR 16–36) (p = 0.83), respectively, with corresponding scores of 10 (IQR 0–22) and 17 (IQR 5–21) in men (p = 0.33).
Conclusion: We could not demonstrate a correlation between urogenital organ displacement and urinary function, but there seemed to be a correlation with sexual function in women. Larger studies are needed to confirm these findings.
Disclosure of Interest: None declared.

P241 | Gluteal fasciocutaneous flap reconstruction after salvage surgery for pelvic sepsis

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Aim: Chronic pelvic sepsis mostly originates from complicated pelvic surgery and failed interventions. This is a challenging condition that often requires extensive salvage surgery consisting of complete debridement with source control and filling of the dead space with well-vascularized tissue such as an autologous tissue flap. The abdominal wall (rectus abdominis flap), or leg (gracilis flap) are mostly used as donor sites for this indication, while gluteal flaps might be attractive alternatives. The aim of this study is to describe the outcomes of gluteal fasciocutaneous flaps for the treatment of secondary pelvic sepsis.
Method: Patients who underwent salvage surgery for secondary pelvic sepsis between 2012 and 2020 using a gluteal flap were retrospectively identified.
Results: In total, 27 patients were included, of whom 22 underwent index rectal resection for cancer and 21 patients had undergone (chemo)radiotherapy. A median of three (IQR 1–5) surgical and one (IQR 1–4) radiological intervention preceded salvage surgery during a median period of 62 (IQR 20–124) months. Salvage surgery included partial sacrectomy in 20 patients. The gluteal flap consisted of a V-Y flap in 16 patients, superior gluteal artery perforator flap in eight, and a gluteal turnover flap in three patients. Median hospital stay was nine (IQR 6–18) days. During a median follow up of 18 (IQR 6–34) months, wound complications occurred in 41%, with a re-intervention rate of 30%. The median time to wound healing was 69 (IQR 33–154) days with a complete healing rate of 89% at the end of follow-up.
Conclusion: In patients undergoing major salvage surgery for chronic pelvic sepsis, the use of gluteal fasciocutaneous flaps is a promising solution due to the high success rate, limited risks, and relatively simple technique.
Disclosure of Interest: None declared.

P242 | Trimodal colorectal anastomosis testing

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Aim: Colorectal Anastomotic Leak (CAL) is a severe complication with an incidence of up to 20% (1,2). Several variables have been associated with increased risk of CAL, but its prediction remains challenging. Indocyanin green (ICG) angiography (IA), air leak test (AL), and Methylene Blue enema (MB) is used to assess vascularization and adequate tissue approximation (3-5); alteration in one may lead to a change in action during surgery. This study aims to assess the feasibility and the impact on anastomotic leakage of the trimodal anastomosis test (TAT) as previously suggested (6).
Method: This is a retrospective analysis including consecutive patients undergoing elective surgery with the construction of a Colorectal Anastomosis (CA) between Jannuary 2020 and April 2022 in our institution. All patients were divided into two groups, TAT vs no-TAT. Demographic and perioperative data were collected and analyzed using IBM SPSS. Pearson correlation test, Chi2, and T-Test were used. Due to heterogeneity of open vs laparoscopic approach between the two groups only laparoscopic CA subanalysis was conducted.
Results: Fifty out of a total of 71 patients had a CA constructed laparoscopically. In 38 patients (76%) a TAT was used. No statistically significant correlation was found between TAT and postoperative complication rate and leak. Also, TAT didn't influence operative time, first bowel movement, and length of stay. A significant correlation was found between MB results and a change in action during

surgery in the laparoscopic subanalysis (.002). Such correlation was not repeted for AL results and IA.

Conclusion: TAT of CA is a safe and feasible method of anastomosis testing but, no statistically significant impact on post-operative outcomes was found. Still, MB showed the most promising results in terms of change in action during the procedure. Further investigation is needed to assess TATs significance as one and the contribution of its single components in clinical practice.

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P244 | Epsit in treatment of pilonidal sinus – Our 5-year experience, tips and tricks

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Aim: Aim was to show minimally invasive endoscopic technique in treatment of pilonidal sinus and to present our 6-year experience and results.

Method: Surgical treatment of pilonidal sinus disease encompasses various techniques – local flaps, negative pressure therapy, new minimally invasive techniques etc. Given the sheer number of surgical techniques we can conclude that there is no golden standard to treat this pathology. One of the more recent techniques in pilonidal sinus treatment is EPSiT (Endoscopic pilonidal sinus treatment). This is a minimally invasive technique which is preformed using fistuloscope – an endoscopic instrument which was originally inaugurated for treatment of anal fistulas with VAAFT technique (Video-assisted anal fistula treatment). This type of procedure enables visualization of sinus tract from within. Fistuloscope is inserted through sinus tract opening and forceps is introduced through the work channel to extract hair follicles, after which electrofulguration of the tract is performed by using monopolar electrode with the aim of obtaining acute wound to heal with secondary intention. We started using EPSiT technique in April 2016 and up to December of 2021. we performed 137 procedures on primary and recurrent cases.

Results: Success of this technique ranges from 80% to 95%. Our results are comparable with other publications with 90.51% primary healing achieved. Advantages in comparison to radical excisional techniques are avoidance of large operative wounds, low postoperative pain, faster return to everyday activities and better aesthetic result. Our results are comparable with other publications.

Conclusion: EPSiT is a very promising technique in pilonidal sinus treatment with good results and our experience with it is positive. Further multicentric randomized studies are needed to confirm the success of this procedure.

Disclosure of Interest: None declared.

P245 | Translation and cross-cultural adaptation of the patient-reported outcome measurement-haemorrhoidal impact and satisfaction score (PROM-HISS)

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Aim: The burden of haemorrhoidal disease (HD) can be evaluated by the Dutch Patient-Reported Outcome Measure-Haemorrhoidal Impact and Satisfaction Score (PROM-HISS), recently developed as a response to the international Core Outcome Set (COS) for HD. The PROM-HISS is a valid and reliable instrument to assess HD symptoms, impact on daily activities and satisfaction with treatment. The aim of this study was to translate the PROM-HISS to English to enhance international implementation of the COS.

Method: In our study, we followed the ISPOR good practice guidelines for the translation of a PROM. The following steps were taken: (1) Two forward and two backward translations. The forward translation concerned the translation from the source language (Dutch) to the target language (English), performed by two independent English speakers, one medical doctor and one naive. (2) A discussion about possible discrepancies in the reconciled version by an expert group, consisting of several stakeholders.

Results: Discrepancies in the reconciled forward translation concerned the terminology of the HD symptoms, e.g., the choice between prolapse/protrusion/swelling out of the anus, and the usage of the words 'experienced' or 'hindered' when exploring the impact of HD symptoms. Furthermore, special attention was paid to the response options, ranging from 'not at all', indicating minor symptoms, to 'a lot', implying many symptoms. Consensus among the expert

group about the final version of the translated PROM-HISS was reached.

Conclusion: The next step is to perform cognitive interviews with HD patients, probing the comprehensibility of the PROM-HISS. These interviews are currently being conducted in the UK and results are expected mid-2022. The availability of an English PROM-HISS will speed up international uptake of the COS, placing the patient's perspective at the forefront of HD effectiveness research, by evaluating symptoms, impact on daily life and treatment satisfaction.

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P246 | Non-operative management in locally advanced distal rectal cancer patients with clinical complete response after consolidation chemoradiotherapy: A single center experience

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Aim: This study aims to analyze the long-term clinical outcomes of non-operative management (NOM) in locally advanced distal rectal cancer (LADRC) patients who had a complete clinical response (cCR) following consolidation neoadjuvant chemoradiotherapy (CNCRT).

Method: LADRC patients with stage II/III amenable for surgery received neoadjuvant chemoradiotherapy (nCRT). Patients with an *incomplete* response following nCRT underwent surgery and patients with a *significant* clinical response were treated with six cycles of FOLFOX. Patients with a cCR following CNCRT were managed with NOM.

Results: A total of 112 patients treated between May 2016 and May 2020 were enrolled in this prospective, observational case series study. Fifty-seven (51%) patients with an incomplete response underwent surgery after nCRT and 55 (49%) patients received CNCRT. Following CNCRT 45 (82%) patients with cCR were followed up with NOM. The rate of local regrowth was 16% (n = 7) with all patients having an endoluminal growing pattern confined to the first two years. Distant metastases were diagnosed in 2 (4%) out of 45 patients. 3-year overall survival was 97,7% and 3-year disease-free survival was 84,4%.

Conclusion: The long-term clinical outcomes of NOM were promising in terms of pelvic tumor control and overall survival in strictly selected patients who had cCR after CNCRT.

Disclosure of Interest: None declared.

P247 | Assessment of PET-CT for synchronous colonic cancers in patients with left-sided obstructive colorectal cancer: Is postoperative total colonoscopy necessary?

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Aim: This study aims to evaluate the ability of positron emission tomography-computed tomography (PET-CT) to identify synchronous colonic cancers and the necessity of postoperative total colonoscopy (TCS) in patients with obstructive colorectal cancer.

Method: This is a single center retrospective cohort study conducted at a high-volume, comprehensive cancer center in Istanbul. All patients who underwent radical resection surgery for obstructive colorectal cancer with a preoperative PET-CT and postoperative TCS were enrolled into the study. Patients were analyzed for sensitivity, specificity, positive predictive (PPV) value, negative predictive value (NPV) and accuracy to detect synchronous colonic cancers with a preoperative PET-CT.

Results: Out of 86 patients 61 (71%) had a left-sided obstructive colorectal cancer. The tumor was localized in the rectosigmoid junction (n = 30), sigmoid (n = 14), descending (n = 11) and transvers (n = 6) colon. PET-CT scan revealed synchronous colonic cancer in five (8,1%) patients, which were confirmed by pathology report in patients with subtotal/total colectomy. Postoperative TCS revealed no synchronous colonic cancers. The sensitivity, specificity, PPV/NPV and accuracy of PET-CT for detecting synchronous invasive colonic cancers was 100%.

Conclusion: Although PET-CT is an effective advanced imaging modality for detecting synchronous colonic cancers, the necessity of postoperative TCS needs to be explored in future large-scale studies.

Disclosure of Interest: None declared.

P248 | Pelvic reconstruction with anterior pelvic peritoneal flap after extralevator abdominoperineal excision: A single center case series

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Aim: Extralevator abdominoperineal excision (ELAPE) is the standard of care for locally advanced distal rectal cancer (LADCR) following neoadjuvant treatment, when sphincter preserving procedures are inadequate. However, compilations such as perineal site infection, perineal hernia and acute mechanic intestinal obstruction are still challenging. The aim of this study is to reduce and/or prevent postoperative complications associated with ELAPE.

Method: We retrospectively analyzed the data of LADRC patients, who underwent laparoscopic ELAPE and pelvic reconstruction with pelvic peritoneal flap (PPF) in a comprehensive cancer center in Turkey. A peritoneal flap in various size was dissected from the anterior abdominal wall and fixed on the posterior and lateral pelvic inlet. Patients were mainly analyzed regarding baseline characteristics, perineal surgical site infection, perineal hernia, delayed perineal surgical site infection (>5 days), acute mechanic intestinal obstruction and hospitalization.

Results: Laparoscopic ELAPE-PPF was performed in 15 patients between January 2020 and December 2021. Out of 15 patients eight (%57) of them were female and median age was 62 years (39–80). All patients received neoadjuvant treatment before surgery. Median surgery time was 180 minutes. Complications developed in 5 (%35) patients. These were two (%13) perineal surgical site infections, one (%7) acute mechanic intestinal obstruction, 1 (%7) urinary tract infection and 1 (%7) urinary retention. Median hospital stay was 10 (4–20) days.

Conclusion: Laparoscopic ELAPE-PPF is a safe and effective procedure with perfect oncologic outcomes and enables to reduce perineal surgical site infection and especially acute mechanic intestinal obstruction in LADRC patients following neoadjuvant treatment.

Disclosure of Interest: None declared.

P249 | Re-laparotomy following total pelvic exenteration – The Guy's and St Thomas' experience (London, UK)

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Aim: There is limited data on re-laparotomy following total pelvic exenteration (TPE). This study investigates its prevalence and outcomes.

Method: All patients who had undergone re-laparotomy after TPE between 2005–2022 in our unit (tertiary referral centre for Southeast England) were identified from a prospectively maintained database. Patient demographics, indications, operative details, complications, and mortality rates were reviewed. Data were presented in median (interquartile range).

Results: 40 of 397 patients (10.0%) who had TPE underwent re-laparotomies after 264 days (126–653) [Age = 58 (52–68), M:F = 1.9:1, BMI = 24.8 (20.9–28.4)]. 75.0%, 22.5% and 2.5% had 1, 2 and 3 re-laparotomies respectively, resulting in 51 re-laparotomies. Commonest indications were fistula (37.3%) and ileal conduit complications (29.4%). Most patients (69%) required bowel resections. 45% needed conduit revisions by Urologists, of which 30% were unplanned. 8% needed Plastic reconstructions.

Commonest complications were pelvic collections (29%), urinary complications (24%), and fistulae (20%). 33% required interventional radiological (IR) drainage and 16% needed further surgery. 30-day and 1-year mortality were 0.0% and 20.0%.

Subgroup analysis on emergency (within 30d, 11.8%) and scheduled re-laparotomies (after 30d, 88.2%) showed the latter was more frequently indicated for conduit complications (31.1 vs 16.7%), cancer recurrence (17.8 vs 0.0%) and stoma reversals (8.9 vs 0.0%); and less commonly for peritonitis (4.4 vs 33.3%) and vascular reconstruction (0.0 vs 16.7%). Scheduled re-laparotomies involved more conduit revisions (48.9 vs 16.7%) and flap reconstructions (8.9 vs 0.0%). They had less complications requiring IR procedures (31.1 vs 50.0%), return to theatre (11.1 vs 50.0%), and lower 1-year mortality (14.7 vs 50.0%).

Conclusion: Re-laparotomy is indicated in 10% of TPE patients, mostly involves bowel resections and often needs urology inputs. 16% require further surgery. It should be performed in specialist centres.

Disclosure of Interest: None declared.

P250 | Effects of preoperative oral antibiotics on anastomotic leak and surgical site infection rates in elective right hemicolectomy – A pilot study

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Aim: Increasing evidence shows that preoperative mechanical bowel preparation with oral antibiotics (MOAB) reduce surgical site infection (SSI) and anastomotic leak (AL). However, it remains unclear whether this effect is due to oral antibiotics (OAB) alone.

This aim of this study is to investigate whether AL and SSI rates can be reduced by introducing OAB alone, which avoids the side-effects of bowel preparation (e.g., dehydration in frail patients).

Method: All patients undergoing elective right hemicolectomy for cancer with curative intent in our institution between December 2018 and May 2021 were identified from a prospectively maintained database. Preoperative OAB (neomycin & metronidazole) was accepted by NEL cancer alliance and introduced to our cohort since January 2021. Patient outcomes, demographics, and operative details before and after the introduction of OAB were compared using Fisher's exact and Mann-Whitney tests where appropriate. Primary outcomes were AL and SSI rates. Secondary outcomes were rates of reoperation, 30-day morbidity, 30-day mortality, and length of postoperative stay (LOS).

Results: During the study period, 107 patients had undergone elective right hemicolectomy without OAB (01/12/2018–31/12/2020) and 20 patients with preoperative OAB (04/01/2021–31/05/2021). There were no differences in patient and operative characteristics between the groups.

Following the introduction of OAB, the AL rate appeared lower (0.0% vs 4.7%), although it did not reach statistical significance. There were no differences in the rates of SSI (15.0% vs 13.1%), reoperation (10.0% vs 3.7%), 30-day morbidity (20.0% vs 27.0%), 30-day mortality (0.0% vs 2.8%), and LOS (5 vs 5 days) [$p > 0.05$ for all].

Conclusion: Our early data suggests that preoperative OAB may reduce AL rates, but not SSI rates. The study is ongoing to substantiate this observation.

Disclosure of Interest: None declared.

P251 | Gastral heterotopic in the rectum – A rare entity

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Aim: Pointing at a rare finding in the rectum.

Method: Case report.

Results: Histological finding showed polypous configured heterotopic of the gastric mucosa of the body type with partially ectaticly dilated glands and concomitant low grade chronic unspecific inflammatory reaction with aggregates of lymphocytes at the basis.

Conclusion: Heterotopic gastric mucosa is a rare finding in the rectum, hence Heterotopia of the gastrointestinal tract is a common finding. However Heterotopia of the large bowel occurs exclusively in the rectum. Apart from two other hypotheses, a misdifferentiation of entodermal stem cells is the most widely accepted etiopathogenetic assumption today. Due to acid secretion, the lesions predominantly manifest with hematochezia.

A surgical or endoscopic resection is always recommmended, due to the unkown risk of malignant transformation. This is undermined by low grade dysplasie within these lesions found in literature.

Disclosure of Interest: None declared.

P252 | A comparative study between transanal and transabdominal approaches in treatment of complete rectal prolapse

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Aim: There is a wide variety of surgical methods to treat rectal prolapse; however, to date, no clear agreement exists regarding the most effective surgical method. In general, surgical procedures can be classified into perineal and abdominal approaches. This study was designed to compare the results according to the surgical approach for complete rectal prolapse in women.

Method: This study was conducted from March 2016 to February 2021 on female patients with rectal prolapse who underwent surgery. First, all patients were classified into mucosal and full layer groups to confirm the difference in results between the two groups, and only full layer prolapse patients were divided into transanal and abdominal approaches to compare parameters and functional outcomes in each group.

Results: A total of 180 patients were included, with an average age of 71.7 years and 102 complete prolapses. The full layer group was found to have more abdominal access, longer operating time, and higher recurrence rates compared to the mucosal layer group. ($p < 0.001$) When targeting only the full layer patients, there were 65 patients with the transanal and 37 with the abdominal (laparoscopic) approaches. The abdominal approach group had a longer operating time and hospital stay ($p < 0.001$, respectively) and lower recurrence rate than the transanal group (transanal vs abdominal, 38% vs 10.8%, $p = 0.003$), while the Wexner constipation and incontinence scores showed improved results in both groups.

Conclusion: The two groups showed differences in operating time, hospitalization period, and recurrence rate. However, both groups demonstrated improvement in postoperative functional evaluation.

Disclosure of Interest: None declared.

P253 | Collagen paste injection in Crohn's perianal fistula: Long-term outcomes from a pilot prospective case-series (UPPCRO study)

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Aim: Perianal Crohn's disease represents a challenging condition to treat and several sphincter preserving techniques have been proposed in the last years. This prospective study aims to assess the long-term efficacy of collagen paste (Permacol™) application in patients with simple and complex Crohn's perianal fistulas (CPF).

Method: Patients with Crohn's disease (CD) diagnosis since at least 6 months, with CPF, with up to two internal opening and up to 3 external openings, assessed by physical examination and magnetic resonance imaging (MRI) with non-active or mildly active luminal CD defined by a CDAI of 220 were enrolled. Fistula was treated by curettage of the tract and injection within the tract of acellular, porcine dermal collagen paste (Permacol™) between 2017 and 2021. The minimal follow-up was 12 months after surgery. The primary endpoint was the clinical healing of the anal fistula at 12 months, defined as the absence of symptoms and signs of perianal disease recurrence on clinical examination. The trial was recorded on Clinical Trial.gov (NCT 03776825).

Results: Thirteen patients were included in the study. Nine patients (69%) had complex perianal fistula. All patients underwent previous fistula operations and 11 (85%) had seton in place at the time of Permacol injection. Five patients (38%) presented with a recurrent fistula. Nine patients (69%) reached complete clinical remission at 12 months, 2 patients (15%) had a recurrence at 6

months after surgery and 2 patients (15%) had a clinical recurrence of perianal fistula at 12 months follow-up. Two relapsed patients presented postoperative abscesses, one at 6 months and one at 12 months follow- up. No further complications were observed during the follow-up period.

Conclusion: This patient series reported a limited recruitment due to several factors including the pandemic. Nevertheless, the results suggest that collagen paste injection may represent a safe option for Crohn's fistulas worth investigation in bigger multicentric trials.

Disclosure of Interest: None declared.

P254 | What is the best surgical option after failure of graciloplasty in patients with recurrent rectovaginal fistula? A study in 19 consecutive patients

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Aim: Management of recurrent rectovaginal fistula (RVF) remains challenging despite the good reported results of graciloplasty (GP). However, in case of failure of GP, little is known about what to do in order to avoid definitive stoma. Thus, the aim of our study was to report the management of RVF recurrence after failure of GP.

Method: A retrospective study on 19 patients between 2005 and 2021 with RVF recurrence after failure of GP.

Results: Etiologies of RVF were: Crohn's disease (CD) (n = 10), post-operative (n = 5), post-obstetrical (n = 3), and unknown (n = 1). After failure of GP, 45 new procedures were performed, all of them with a covering stoma: transanal repairs (n = 31), delayed coloanal anastomosis (DCAA) (n = 4), biological mesh interposition (n = 3), second GP (n = 3), stoma only (n = 2) and redo ileal-pouch anal anastomosis (IPAA) (n = 2). One single patient was not reoperated and treated medically for CD. After a mean follow-up of 63 ± 49 months, success (i.e., absence of stoma or RVF) was obtained in 11 patients (58%): 4/4 after DCAA (100%), 6/31 after local repair (19%) and 1 after redoIPAA (50%). No success was noted after second GP nor biologic mesh. All 8 patients presenting persistent failure with RVF had CD.

Conclusion: Management of RVF after GP failure can still be successful in 58% of patients. Best results were obtained with DCAA. On the opposite, in case of CD, healing of RVF seems difficult to obtain.

Disclosure of Interest: None declared.

P255 | What is the influence of the type of initial treatment approach in patients with postoperative anastomotic leakage after rectal surgery?

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Aim: Management of colorectal or coloanal anastomotic leakage (AL) after rectal cancer surgery is debated. In patients with good clinical tolerance, a step-up approach using antibiotics and percutaneous drainage is often proposed. Conversely, a proactive strategy with early anal examination (EAE) and transanal drainage under general anaesthesia could improve outcomes.

Method: All patients (2012–2021) with AL after rectal surgery in 2 tertiary centers were included. The primary outcome was the rate of preservation of a functional anastomosis at the end of follow-up. Trends regarding the type of treatment and outcome across time were studied. A univariate analysis of the predictive factors of preservation of the anastomosis was carried out.

Results: Among 197 patients with AL, first treatment approach was antibiotics (n = 76), percutaneous drainage (PD) (n = 30), EAE/transanal drainage (n = 68) and emergency surgery (n = 23). Characteristics of patients treated by antibiotics or PD first and EAE differed significantly regarding the rate of ASA3-4 (24% vs 11%, p = 0.019), laparoscopic TME (74% vs 57%, p = 0.032), and the delay between surgery and AL diagnosis (8 ± 6 vs 15±19 days, p = 0.016). A second procedure was required for 49% (Antibiotics: 53%, PD: 37%, EAE: 46%). The global success rate was 72% (Antibiotics: 79%; PD: 70%; EAE: 74%; p = 0.574). The proportion of patients treated with EAE first increased with time (2012–2014: 38%, 2015–2018: 24%, 2019–2022: 50%). Simultaneously, the rate of definitive stoma dropped (2012–2014: 29%, 2015–2018: 31%, 2019–2021: 19%). Univariate analysis did not identify predictive factors of preservation of the anastomosis.

Conclusion: Although the success rate was similar with a frequent cross over among the different approaches, our results indicate that a wider use of EAE could be associated with a global improvement of the outcome of patients with AL after rectal cancer surgery.

Disclosure of Interest: None declared.

P256 | Experiences and results of the first 100 TaTME surgeries of our team

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Aim: Transanal complete mesorectum excision (TaTME) for the surgical treatment of lower-middle third rectal tumors, may have several benefits compared to laparoscopic rectum resection and TME. The technique allows the tumor to be visualized directly during surgery, allowing the mesorectum to be removed more precisely, reducing the chance of a positive resection margin. But due to the relative novelty of the technique, in addition to the individual learning curve, the technical learning curve associated with the development of the surgical technique can also pose challenges for workgroups. The aim of our present study is to present the results and experiences of the first 100 TaTME surgeries performed by our team between 2016 and 2022.
Method: Data were collected partly prospectively and partly retrospectively into the international TaTME register.
Results: The average surgical length was 263 minutes and the conversion rate was 5%. Complications were classified into minor (Clavien-Dindo 0-1) and major (CD 2-4) categories, with perioperative complications occurring in 38% of patients, of which major complications were 15% and 30-day mortality was 3%. The average number of days spent in the hospital was 8.9. Circumferential resection margin (CRM) positivity occurred in 4%, distal resection margin (DRM) positivity in 1%, and specimen quality was grade 1 in 92% of the cases.
Conclusion: TaTME requires high technical skills, has a long learning phase and is recommended to be used in high volume centers. The perioperative morbidity rate is relatively high, mostly consisting minor complications. With a standardized surgical technique, we found good specimen quality and a low DRM positivity rate.
Disclosure of Interest: None declared.

P257 | "Watch-and-Wait" for patients who had clinical complete response of rectal cancer after neoadjuvant chemoradiotherapy: A myth or a realistic option? Experience from a District General Hospital in the UK during the Pandemic

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Aim: Since the publication of Dr Angelita Habr-Gama's work in 2004 an increasing number of research has been put into investigating the safety of the "watch-and-wait" (WW) for patients who achieved clinical complete response (cCR) after receiving chemoradiotherapy for rectal cancer. This study aims to investigate the outcome of these patients in Chesterfield Royal Hospital, a district general hospital in the UK.
Method: In this centre, every patient who received chemoradiotherapy as the first treatment for rectal cancer from January 2016 to September 2021 was included in this study (n = 73). Their notes were investigated, and their clinical outcome was determined.
Results: 18 (25%) of patients with neoadjuvant chemoradiotherapy achieved cCR while 66% responded partially. Of the 18 of patients who had cCR, 14 patients decided to "watch-and-wait" instead of operation. The rate of recurrence is about 50%. Of the patients who had local recurrence, all of them have recurred in the first 15 months.
Conclusion: This study shows that neoadjuvant chemoradiotherapy may have 25% chance of achieving cCR and in patients who had initial CCR, up to 50% of them up achieve 5 years of disease-free survival. A non-operative approach might be suitable for some patients according to their co-morbidities and preferences. In this cohort of patients, all recurrence happens in the first 15 months, and this highlights the importance of a vigilant surveillance programme.
Reference
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Disclosure of Interest: None declared.

P258 | Comparison of outcomes between intracorporeal and extracorporeal anastomosis for minimally invasive right colectomy in elderly patients: A multicenter retrospective study

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Aim: Postoperative ileus (POI) is a frequent complication of right colectomy. It could lead to major morbidity and increase duration of hospital stay (DOS). However, morbidity of colorectal surgery has decreased with the emergence of laparoscopy and enhanced recovery after surgery. Thus, intra-corporeal ileocolic anastomosis (IA) developed with mini-invasive surgery is associated with shorter DOS, less morbidity and hasten gastrointestinal recovery. Elderly patients have higher risk of morbidity notably POI. The aim of this study was to determine the impact of IA vs extra-corporeal anastomosis (EA) on surgical outcomes, most specifically on POI, in patients 75 years and older.

Method: This retrospective multicentre study was conducted in 3 French centres. Seventy five years and older patients who underwent right colectomy for colon cancer by laparoscopic or robot-assisted surgery from January 2015 to February 2022 were included and divided in 2 groups according to the type of anastomosis. Exclusion criteria were emergency surgery, conversion to open surgery, and no anastomosis performed. The primary endpoint was the rate of POI. Secondary endpoints were DOS, duration of surgery, postoperative morbidity (defined by Clavien-Dindo classification) and quality of oncological resection (number of lymph nodes).

Results: 163 patients were include: 67 patients with IA and 97 with EA. Preoperative characteristics were similar in the 2 groups. The rate of POI was decreased in IA group vs EA group (13.6% vs 36.1%, $p < 0.01$), DOS was shorter in IA group vs EA group (4 days vs 6 days, $p = 0.02$). Duration of surgery was increased in IA group vs EA (195 vs 155 minutes, $p < 0.01$), but not associated with more surgical complications ($p = 0.14$), particularly severe complications (grade ≥III), or poorer oncological resection ($p = 0.29$).

Conclusion: Despite a longer duration of surgery, IA reduced POI and DOS in old patients without decreasing oncological resection quality.

Disclosure of Interest: None declared.

P259 | Heart rate variability in primary operable colorectal cancer: The relationship with tumour pathology, co-morbidity, systemic inflammation and survival

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Aim: Vagal nerve activity, indexed by heart rate variability (HRV), is thought to be protective in cancer. However, there is a paucity of research examining the prognostic value in colorectal cancer (CRC). Therefore, the aim of the present study was to examine the relationship between HRV, tumour pathology, co-morbidity, systemic inflammation and survival in patients with CRC.

Method: Consecutive patients who underwent potentially curative resections for colorectal cancer, within NHS Greater Glasgow and Clyde (NHSGGC), between April 2008 and April 2018, were identified from a prospectively maintained database. HRV time-domain measures included SDNN (ms) and RMSSD (ms). Systemic inflammation was determined using systemic inflammatory grade (SIG). Correlation between SDNN and RMSSD was explored using Spearman rank correlation. Associations between HRV, tumour pathology, co-morbidity, systemic inflammation and survival were examined using the Kruskal-Wallis and Pearson Chi square tests.

Results: 439 patients met the inclusion criteria. 38% ($n = 165$) stage III. 58% ($n = 256$) patients were alive at 3 years post-operatively. The median SDNN and RMSSD were 24.0 ms (17.9–35.8) and 29.8 ms (23.1–42.2), respectively. SDNN was positively correlated with RMSSD ($r_s = 0.957$, $p < 0.001$). On univariate analysis, SDNN was not associated with TNM stage ($p = 0.194$), ASA ($p = 0.215$), SIG ($p = 0.856$) or 3-year survival ($p = 0.955$). On univariate analysis, RMSSD was not associated with TNM stage ($p = 0.255$), ASA ($p = 0.783$), SIG ($p = 0.932$) or 3-year survival ($p = 0.881$).

Conclusion: Neither SDNN or RMSSD were associated with disease stage, co-morbidity, inflammatory status or survival in patients undergoing potentially curative surgery for CRC.

Disclosure of Interest: None declared.

P260 | The utility of a clinical score in diagnosing acute recurrent colonic diverticulitis

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Aim: Abdominopelvic CT is the diagnostic gold standard for acute colonic diverticulitis (AD). In community follow up clinical signs supported by raised inflammatory markers are used as a proxy for CT confirmation but it is unclear what the specificity, sensitivity and accuracy of a clinical approach is. CT is not readily available in the outpatient setting and there is a need for a reliable clinical score.

Method: Patients were selected based on CT proven acute diverticulitis and subsequent readmission(s), minimum 30 days post discharge, with CT at admission for abdominal pain. Clinical findings, body temperature, white cell count and CRP were collected at each admission. CT were scored along the following criteria defining acute diverticulitis: fat stranding and wall thickening and also whether complicated AD was present. Body temperature ≥37.5°C, CRP ≥ 10 mg/L, WCC < 4 or >10 × 10^9/L resulted in a positive score creating a score per patient admission of 0 to 3.

Results: 100 patients met inclusion criteria, 80 had subsequent recurrent AD and 20 showed no recurrent AD on first and only readmission. Patients were admitted 2.6 (1–8) times with a mean 10 months between scans and mean follow up of 42 months. A total of 233 follow up scans were available of which 163 (70.9%) showed AD which was complicated AD in 63 (15.2%) scans. Progression to complicated AD, mostly abscess, was seen in 20 (25%) patients (and 21 scans). Application of the score resulted in a sensitivity, specificity, and accuracy of 37%, 88% and 77%, respectively, in detecting acute diverticulitis (AUC .682). The score was statically significant in its ability to differentiate acute diverticulitis ($p < 0.05$) and abscess ($p < 0.05$) and showed a trend for complicated disease ($p = 0.071$).

Conclusion: Although statistically significant, application of a clinical score was unable to detect AD to a clinically relevant degree (AUC .682) and its use would overestimate the recurrence of AD in patients with a past history of the disease.

Disclosure of Interest: None declared.

P261 | Prognostic role of postoperative cell free dna with colorectal cancer based on next-generation sequencing

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Aim: Circulating tumor DNA (ctDNA) containing tumor-specific DNA mutations can be found in the cell-free component of peripheral blood in a proportion of patients with solid tumors. The detection of ctDNA after curative surgery for early-stage disease has been shown to be associated with a high risk of recurrence across multiple tumor types. The objective of this study was to characterize ctDNA mutations in colorectal cancer (CRC) patients and evaluate their prognostic values during treatment.
Method: A total of 115 plasma samples were collected pre-operation, post-operation, and post-chemotherapy. Cell free DNA analysis was performed using next generation sequencing (NGS) including 14 genes. In 22 (44.9%) out of 49 patients, at least one mutation (40 total mutations) was detected in the initial plasma sample. The median sum of variant allele frequency was 0.74% (range: 0.10–29.57%).
Results: All five patients experienced relapse or metastasis during follow-up. It was noteworthy that all three patients with persistent ctDNA relapsed after R0 resection. After surgery, 5 (14.3%) of 35 patients revealed ctDNA mutations. A total of 12 mutations were observed. Frequencies were as follows: TP53 (n = 5, 14.3%), APC (n = 3, 8.6%), KRAS (n = 2, 5.7%), FBXW7 (n = 1, 2.9%), and SMAD4 (n = 1, 2.9%). Vascular invasion and perineural invasion were observed more frequently in patients with persistent post-op ctDNA (80.0% vs 13.3%, p = 0.001; 80.0% vs 6.7%, p < 0.001). In 32 patients with available postoperative samples, patients with post-op ctDNA positive showed a significantly shorter DFS than patients with post-op ctDNA negative (p < 0.001).
Conclusion: Postoperative ctDNA might serve as a marker for identifying risk of recurrence, thus contributing to patient-oriented treatment strategies. We plan to conduct research to check cell free DNA in a more economical method.
Disclosure of Interest: None declared.

P262 | Fecal stream diversion leads to dysbiosis of gut microbiota

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Aim: The effect of fecal stream diversion on intestinal microbiota is still uncertain. The present study was designed to assess the effect of fecal stream diversion on changes in fecal microbiota.
Method: Inclusion criteria were (1) patients who were planned to undergo low anterior resection with diverting ileostomy for experimental group, and (2) patients who were planned to undergo left-sided colorectal surgery without diverting ileostomy for control group. Fecal samples were collected from 10 patients in each group before surgery (t_1), and were collected again after ileostomy repair in experimental group and 6–9 months after initial surgery in control group (t_2). Change of the composition of fecal microbiota was compared between the two groups.
Results: Baseline characteristics were similar between the two groups, except that ileostomy group had higher proportion of mid to lower rectum (60.0% vs 0.0%, p = 0.003) and preoperative chemoradiation (80.0% vs 0.0%, p = 0.001), and longer operative time (165.5 ±32.2 vs 86.5 ±15.1 min, p < 0.001). The diversity analysis revealed that the complexity of fecal microbiota decreased between t_1 and t_2 only in ileostomy group (OTU, 453.8 ±139.2 vs 280.9 ±83.0, p = 0.001; Shannon diversity index 4.1 ±0.4 vs 2.6 ±0.8, p < 0.001). The composition of the microbiota was similar between the two groups at t_1. However, at the phylum level in ileostomy group, Bacteroidetes decreased (26.1% vs 12.1%, p = 0.040) while Proteobacteria increased (5.8% vs 17.9%, p = 0.013) between t_1 and t_2. At the genus level, the proportions of *Streptococcus* (2.4% vs 18.0%, p = 0.022) and *Clostridium* (1.4% vs 27.2%, p = 0.109) increased between t_1 and t_2 in ileostomy group.
Conclusion: Fecal stream diversion is closely associated with less diversity and dysbiosis of gut microbiota. The increase in Proteobacteria in gut microbiota may attribute to the development of complication after ileostomy repair.
Disclosure of Interest: None declared.

P263 | Paradoxically low rate of lymph node metastasis in patients undergoing multivisceral resection for locally advanced colorectal cancer

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Aim: The purpose of this study was to investigate the impact of MVR on oncologic outcomes of patients with locally advanced colorectal cancer.
Method: We retrospectively reviewed locally advanced colorectal cancer patients who underwent MVR (MVR group) or single organ resection with pathologic T4a (pT4a) tumor (no MVR group) between January 2011 and December 2020. We analyzed prognostic factors for locally advanced colorectal cancer.
Results: A total of 630 patients were included, and 103 (16.3%) of them underwent MVR. In MVR group, 63 (61.2%) had pT4b tumor, whereas 16 (15.5%) were pT4a and 23 (22.3%) were pT3. MVR group showed significantly lower rate of lymph node (LN) metastasis (50.5% vs 72.5%, p < 0.001), lymphovascular invasion (26.2% vs 42.9%, p = 0.002) and perineural invasion (45.6% vs 70.6%, p < 0.001) compared with no MVR group. After median follow-up of 31months (range 1 – 125 months), MVR was not associated with 3-year disease-free survival (DFS) (MVR 70.4% vs no MVR 62.5%, p = 0.594) In MVR group, pathologic stage was not associated with 3-year DFS (non-pT4b 87.6% vs pT4b 77.5%, p = 0.227). Multivariate analysis showed

that age > 70 (hazard ratio [HR] = 1.141, 95% confidence interval [CI] 1.050 – 1.896), left colonic tumor (vs rectum; HR = 0.594, 95% CI 0.407 – 0.866), LN metastasis (vs N0; N1, HR = 1.814, 95% CI 1.201 – 2.741; N2, HR = 3.575, 95% CI 2.352 – 5.433) and perineural invasion (HR = 1.641, 95% CI 1.171 – 2.300) were independent prognostic factors for DFS.

Conclusion: In locally advanced colorectal cancer, patients with MVR had much lower rate of LN metastasis and similar oncologic outcome compared with those with single organ resection did. Considering that N0 tumor showed favorable oncologic outcome, MVR should be aggressively performed for the purpose of radical resection.

Disclosure of Interest: None declared.

P264 | Results of a SAFE2019 pilot trial assessing the use of the COLOVAC+ device: Diverting stoma can be avoided for 70% of patients after anterior resection for rectal cancer

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Aim: First evaluation of the safety and effectiveness of the use of Colovac+ in avoiding diverting stomas after anterior resection (AR).

Method: Prospective, open-label, single arm clinical trial, conducted in 5 centers in Europe. Following AR and low colorectal or coloanal anastomosis creation, the Colovac+ stent is placed in the colon. Colovac is comprised of a flexible bypass sheath that is anchored to the colon using a vacuum stent placed proximal to the anastomosis. The sheath isolates the anastomosis from any contact with the fecal content. At post-operative day 9, the anastomosis integrity was examined by CT-scan. At POD 10, Colovac+ is removed endoscopically. Patients who did not develop anastomosis leakage are discharged home. The ones who require a longer protection of the anastomosis are converted to stoma.

After the 8 first subjects were treated, a vacuum loss alert system (VLAS) was added as an accessory allowing an easier monitoring of potential vacuum loss. The remaining 17 subjects received the Colovac+ device with the VLAS. Data regarding demographics, surgical details, 90-day morbidity were evaluated.

Results: 25 patients were treated (men = 17 (68%); mean age = 64 y). Majority of the patients were staged cT3/T4 (56%). 72% of patients received neoadjuvant treatment. Two patients were excluded due to major protocol deviation.

Device placement was uneventful for all patients and placement was judged easy or very easy in 100% of the cases. Patients did not report major discomfort during the 10 days. Endoscopic removal was judged as easy or very easy in 80% of the cases.

Overall, 70% (16/23) patients avoided a diverting stoma and were discharged. Among the 7 patients with stoma created for anastomosis leakages, 6 (85%) had been already closed.

Conclusion: Colovac+ provides an effective local protection of the anastomosis, avoiding the need for a diverting ostomy and could become an alternative for patients undergoing low anterior resection.

Disclosure of Interest: J. Lefevre Consultant with: SafeHeal, G.-B. Cadiere: None declared, P. Rouanet: None declared, A. D'Urso: None declared, N. Komen: None declared.

P265 | The ability of mri to predict lymph node metastases and the risk of recurrence in rectal cancer

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Aim: This study aimed to examine the diagnostic accuracy and prognostic value of MRI detected positive lymph nodes in rectal cancer.

Method: Altogether 806 rectal cancer patients who were consecutively operated during the years 2015–2018 in Helsinki University Hospital were evaluated. Of these patients, 485 met the inclusion criteria of stage I-III disease and were intended for curative treatment at the time of diagnosis. The effect of MRI-detected lymph node status (cN) on cumulative overall survival (OS), disease-specific survival (DSS) and disease-free survival (DFS) was calculated with Kaplan-Meier analysis.

Results: In the preoperative MRI, 238 (49.1%) were cN0, 169 (34.8%) cN1 and 78 (16.1%) cN2. In the pathology reports the lymph node metastases proportions (pN) were pN0 305 (62.9%), pN1 112 (23.1%) and pN2 68 (14.0%), respectively. The correlation between radiological and pathological lymph node positivity was quite low. Negative predictive value (NPV) for MRI detected lymph node negativity was 74.8%. Positive predictive value (PPV) for lymph node metastasis was only 48.6%. During the follow-up time (median 3.0 years) there were 54 deaths (11.1%), of which 27 (5.6%) were cancer related. 72 patients (13.8%) experienced recurrence of the disease. Local recurrence was found in 9 patients (1.9%). In the Kaplan-Meier survival analysis OS, DSS and DFS did not significantly differ according to MRI nodal grade. Cumulative disease-free survival significantly ($p < 0.001$) differed according to the histological lymph node metastasis grade (pN). When divided according to T-grade into "good" (cT1-cT3b) and "ugly" (cT3c or above), the DFS was worse ($p = 0.025$) among "ugly" tumours but DSS and OS were not.

Conclusion: MRI detected lymph node positivity seems not to be precise enough and cannot predict disease recurrence or survival. Therefore, it should not be kept as an independent risk factor when neoadjuvant treatment options are considered.

Disclosure of Interest: None declared.

P266 | What are the outcomes of a systematic CT scan at postoperative day 2–3 when CRP is elevated?

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Aim: The ability to diagnose anastomotic leakage (AL) after colorectal surgery (CRS) before symptoms can improve patients' prognosis. C-reactive protein (CRP) has been well studied in this situation, and is a useful marker for the early diagnosis of AL. However, it is not well defined how to deal with an elevated CRP. The aim of this study was to evaluate the efficacy of an early CT-scan (postoperative day (POD) 2 or 3) after elective CRS, for the diagnosis of AL.
Method: From July 2017 to December 2021, all patients who had a CRP >150 at POD2 or POD3 had a CT scan with water-soluble colonic opacification. Data were extracted from our local prospectively maintained database. The primary endpoint od the study was the sensitivity and specificity of CT scan to detect AL.
Results: During the study period, 646 patients underwent an elective CRS. Based on CRP, a CT-scan was performed in 7.7% (n = 50). Among these patients, the mean CRP was 227.4 mg/l and 48% (n = 24) finally had an AL. AL was diagnosed on early CT-scan in 54.2% of patients (n = 13), and for 45.8% of patients (n = 11) the early CT scan was negative but they finally developed an AL. There were 25 patients with a negative CT-scan for AL who didn't develop any AL, and 1 patient had incorrect diagnosis of AL, which was eliminated by surgery. The sensitivity of early CT-scan for AL was 54.17%, the specificity was 96.15%, the positive predictive value (PPV) was 92.86% and the negative predictive value (NPV) was 69.44%.
Conclusion: Early CT-scan permits early diagnosis for more than half of AL, but can be falsely reassuring. It can be used to diagnose and early managing AL, but a negative CT-scan for AL doesn't exclude AL.
Disclosure of Interest: None declared.

P267 | 3-Dimentional educational materiale vs conventional medical textbooks in the understanding of the anal anatomy and perianal fistulas – A randomised trial

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Aim: The anatomy of the anal sphincter complex, the internal relations of perianal fistulas and the classification of which may be difficult topics to understand and to teach. Conventional medical textbooks are lengthy and often complicated. 3D segmentations of the anal sphincter complex and perianal fistulas according to Parks classifications were converted into 3D files and used to create a new educational material. The aim was to compare the educational yield from this new 3-dimensional (3D) educational material vs a conventional medical textbook.
Method: Medical students and PhD students were invited to participate and randomized into two groups. A 10-item multiple-choice-test was complete before and after exposure to either the 3D educational material or chapters from medical textbooks. Increase in number of correct answers after educational intervention was used as indicator of better educational yield. A linear regression was used to test for difference in learning outcome between types.
Results: In total 18 participants were included and randomised in two groups (9 '3D', 9 'conventional'). The number of correct answers between the two groups did not differ before intervention (mean difference = 1.11, SE = 0.83, 95%-CI = [−0.64 : 2.86], p = 0.199). The increase in number of correct responses increased significantly for the 3D educational material group where the participants answered on average 2.78 more questions correctly after readthrough of the educational material (mean difference = 2.78, SE = 0.7433, 95%-CI = [1.24 : 4.35], p = 0.0018).
Conclusion: This trial showed that the educational outcome of the 3D educational material is significantly higher than the conventional medical textbooks in the understanding of anal sphincter anatomy and internal relation of perianal fistulas. The study will be extended to investigate the educational yield among surgical trainees.
Disclosure of Interest: None declared.

P268 | Improved detection of colorectal cancer cells in lymph nodes and characterization of their aggressiveness

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Aim: The single most important risk factor for tumor recurrence (TR) in colorectal cancer (CRC) is lymph node (LN) metastases. Many patients (pats) without detected metastatic LNs will develop TR while many pats with detected metastatic LNs can live long. The aim was to investigate whether analyses of mRNA levels of 5 selected biomarkers can improve the detection of metastatic LNs and better prognosticate patient survival.
Method: Genome-wide hybridization bead array was used to identify genes overexpressed in metastatic LNs. mRNA levels of these genes were determined by qRT-PCR in LNs of 174 CRC-pats and evaluated for prognostic value using Kaplan-Meier survival model and Cox-regression. Biomarker-mRNA-levels and histopathology (HP) were compared in side-by-side-analysis for detection of tumor cells (TCs) in 185 LNs from 57 pats. The significance of analyzed tissue volume (TV) was examined in 107 LNs.

Results: CEACAM5-mRNA was chosen as proxy for TCs as not detected in immune cells, had high levels in TCs, and levels were proportional to the number of TCs. High levels indicated poor prognosis. Detection of metastatic LNs was 1.33 times higher using CEACAM5 levels compared to HP. Increasing the analyzed TV from an 80 µm section to half a LN increased the number of positive LNs 2.4-fold ($p < 0.0001$). Screening identified KLK6, SLC35D3 and POSTN as indicators of poor prognosis and MUC2 as indicator of good prognosis. The combination of the 5 biomarkers identified pats at risk for TR with higher sensitivity than HP ($p < 0.0001$). The formula KLK6:CEACAM5 + SLC35D3:CEACAM5 – MUC2:CEACAM5 + POSTN:18S rRNA allocated pats to groups with different risk for TR independent of TNM-stage and tumor grade.

Conclusion: Determination of CEACAM5-mRNA-levels improves detection of metastatic LNs, and together with KLK6, SLC35D3, POSTN and MUC2 is the capacity to prognosticate risk for recurrence improved and patients can be allocated to risk categories. The analyzed LN TV is important.

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P269 | Acute diverticulitis – development of a minimum radiology data-set to minimise endoscopic follow-up: Results of a single centre audit

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Aim: The incidence of diverticular disease is increasing worldwide with an associated increase on healthcare burden. ESCP guidelines suggest that those with a symptom free recovery after an admission with acute uncomplicated diverticulitis may not need endoscopic follow up. This study aims to assess guideline compliance and malignancy detection rate.

Method: We undertook a retrospective review of all non- elective patients admitted with the primary diagnosis of diverticulitis from October 2021-Nov 2021. This included review of inpatient imaging and outpatient follow-up.

Results: Over a 2 month period, 50 patients presented with an episode of diverticulitis. Mean age 61.8 years (28–95 years). 76% of these patients had an inpatient CT scan. 30% (15/50) of patients underwent either flexible sigmoidoscopy or colonoscopy as an inpatient or outpatient. 47% (7/15) of these patients received their endoscopy within the recommended 6 week target. Only 13% (2/15) were found to have diagnoses other than diverticular disease with 1 patient having tubular adenoma with high grade dysplasia and the other found to have a hyperplastic polyp.

Conclusion: The majority of patients being admitted with acute diverticulitis are not being follow up endoscopically. Of those that do undergo a lower GI endoscopy, the vast majority were confirmed to have diverticular disease with only a very small proportion recording other diagnoses including tubular adenomas. Accurate CT review and reporting is essential in maximising utilisation of resources, and we introduce a specific minimum data-set for this.

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Disclosure of Interest: None declared.

P270 | Effectiveness of sclerotherapy as "bridge treatment" for third- and fourth- degree hemorrhoids. Results of a prospective study after one year follow – up

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Aim: During the last two years anorectal surgery has been strongly affected and even surgery for urgent cases cannot be scheduled, also patients with III- and IV- degree bleeding hemorrhoids should be treated conservatively. The aim was to evaluate the effectiveness of sclerotherapy in those patients who had to postpone surgery.

Method: We included all patients with third- and fourth- degree bleeding hemorrhoids underwent outpatient sclerotherapy. The Visual Analog Scale and the Hemorrhoid Severity Score was used at the baseline, at 4 weeks after the procedure with telephone interview, and all patients were outpatient evaluated 1 week, 1 months and 1 year after the treatment. All pre- and post- operative data were recorded.

Results: From October 2020 to November 2021 a total of 19 patients with third- (12 pts; 63%) and fourth- degree (7 pts; 37%) bleeding hemorrhoids were enrolled. The mean operative time was 4.5 minutes, and no intraoperative complications were occurred. One case of tenesmus and three failures were detected. Six months after the procedure, the overall success rate was 84% despite at the end of the study period all the patients enrolled reported persistent bleeding. Of these, five patients (26%) were scheduled for surgery and eleven patients (58%) refused surgery and asked to underwent a re – do sclerotherapy.

Conclusion: Sclerotherapy with 3% polidocanol foam is a safe and effective procedure also in III- and IV- degree bleeding hemorrhoids. The long-term data on the length of the foam remain to be evaluated in additional studies.

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P271 | The significance of anaemia and symptoms for the prediction of colorectal cancer in the age of quantitative faecal-immunochemical test

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Aim: Patient risk stratification is vital for the investigation of colorectal cancer (CRC) in a time of limited colonoscopy resources. Determining the relative importance of all clinical information forms part of this risk assessment. The present paper investigates the relative importance of symptoms and anaemia in patients with a known qFIT.

Method: Symptomatic patients investigated with colonoscopy between 2018–2021 in a single health board were included. Machine learning models (e.g. Neural Network, Random Forrest) were generated using a 4-fold cross-validation process to predict CRC. Models with and without anaemia and symptom variables were compared using ROC curves and decision curve analysis to determine the predictive value of anaemia and particular symptoms. A multitude of anaemia definitions were considered (e.g iron deficiency, severe anaemia, low TSAT anaemia).

Results: 3776 patients were included (median age, 65; M:F, 0.9:1.0) and CRC was identified in 216 patients (5.7%). Adding anaemia variables into the models did not significantly increase the predictive value (anaemia, AUC = 0.806; without anaemia, AUC = 0.799; $p > 0.05$). Similarly, incorporating symptoms offered no significant predictive benefit (symptoms, AUC = 0.842; without symptoms AUC = 0.818; $p > 0.05$). The above findings were corroborated with diagnostic accuracy measurements and decision curve analysis.

Conclusion: Beyond being an entry criteria for referral, anaemia and symptoms confer little benefit in further risk stratification for CRC in the presence of a known qFIT result. The predictive ability of qFIT outperforms all other determinants in the risk assessment of CRC and should be considered as the key prioritization tool for patients undergoing colonoscopy where CRC is suspected.

Disclosure of Interest: None declared.

P272 | Women at high risk of anal cancer, are we doing them justice?

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Aim: Women with genital high-grade squamous intraepithelial lesion (HSIL) and squamous cell carcinoma (SCC) are recognised to be at a significantly higher risk of developing anal HSIL and SCC than the normal population.[1-4] This risk is generally acknowledged, but pathways for the management of anal HSIL in this patient group are still lacking.[5] This is a service evaluation project which aims to establish the number of female patients in a London NHS Trust with synchronous/metachronous anal and genital HSIL and/or SCC and their management pathways. This is to ultimately understand whether these women are being adequately managed despite the lack of guidelines and to support the need for the development of guidelines.

Method: ICD-10 codes for genital and anal HSIL and SCC were used to identify female patients with the relevant diagnoses between, 2001 and 2022. Patients were then eliminated from the study if they were erroneously coded as having one of the relevant diagnoses or if no electronic notes were available. Information on the timing of diagnoses, treatment, surveillance plan, screening for other anogenital lesions and chronic human-papilloma virus (HPV) infection risk factors was collected and analysed.

Results: Between 2001 and 2022, 1611 women were identified as having a diagnosis of genital and/or anal HSIL and/or SCC. A total of 96 women were diagnosed with either anal HSIL or SCC out of which 22 (23%) were also known to have a diagnosis of genital HSIL or SCC. Vulval pathology is most associated with anal pathology, affecting 17% of all women with anal pathology and 77% of those with concomitant disease. There was great variation in the management, treatment and surveillance of anal HSIL in this patient group. More importantly women with vulval disease were rarely sent for anal examination.

Conclusion: Women with genital HSIL/SCC are at increased risk of anal HSIL/SCC and vice versa. There is a need to improve and standardise the management and surveillance of anogenital neoplasia in women.

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Disclosure of Interest: None declared.

P273 | Outcome of Obsidian RFT® in the treatment of cryptoglandular and Crohn's fistulas

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Aim: To evaluate the outcome of Obsidian RFT® (Regenerative Fistula Treatment), autologous platelet-rich fibrin matrix, for complex cryptoglandular and Crohn's fistulas.

Method: This is a single-centre retrospective study of patients with complex anal fistulas treated with Obsidian RFT® between June 2019 and October 2021. The patients were assessed preoperatively by three-dimensional (3D) endoanal ultrasound (EAUS) and physical examination. Most patients were treated with a loose seton preoperatively. Prior to surgery, 120 mL of venous blood was withdrawn from the patient to prepare the platelet-rich fibrin matrix used to treat the fistula. Postoperative assessment by clinical examination and 3D EAUS was performed at 3, 6, and 12 months.

Results: 166 patients were included; 33 had quiescent Crohn's disease. The overall healing rate after one to three Obsidian RFT® procedures was 45%. Patients without cavities or diverging tracts showed significantly better healing response than those with them ($p = 0.046$). No statistically significant difference in success rate was found between cryptoglandular and Crohn's fistulas ($p = 0.347$). Postoperative infection rate was 13%.

Conclusion: The initial experiences of Obsidian RFT® give an acceptable success rate of for treatment of complex anal fistulas.

Disclosure of Interest: None declared.

P274 | Optimal lymph node dissection in early stage right colon cancer

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Aim: Complete mesocolic excision (CME) in the mesocolic plane with central vascular ligation (CVL), or high vascular ties, has become as the standard technique for right-sided colon cancer since it was adopted. Clinically, it is difficult to decide on radical lymphadenectomy in early stages. We aimed to clarify the optimum extent of lymph node dissection in patients with pT1-2 right colon cancer.

Method: We reviewed medical records of 99 patients with pT1 and 78 patients with pT2 right colon cancer, had undergone curative surgery. We evaluated the metastatic pattern according to LNN (N1 1–3, N2 4–6, N3 >6) and LND (LND1 metastases in pericolic nodes, LND2 metastases along the major vessels, N3 metastases around the origin of a main artery). The tumor type, grade, evidence of vascular invasion, depth of submucosal invasion (classed into 'sm1-3') were also evaluated.

Results: In patients with pT1 tumors, results showed either no lymph node metastasis (87.9%) or metastasis within the pericolic (LND1, 9.1%) and along the major vessels (LND2, 3.0%) region. The lymph node metastasis were identified 6.5% (SM1, all LND1), 16.7% (SM2, LND1 = 8.3%, LND2 = 8.3%), and 20% (SM3, LND1 = 16.7%, LND2 = 3.3%) according to the depth of submucosal invasion. Of 79 patients with pT2 right colon cancer, results showed that no lymph node metastasis (N0, 82.5%), metastasis within the pericolic (LND1, 10.3%), LND2 (5.1%), and metastasis around the origin of a main artery (LND3, 2.6%). Of the 2 patients with LND3, the number of positive lymph node was single only identified in the root of right colic artery from superior mesenteric artery.

Conclusion: CME should be considered as the gold standard of right-sided colon cancer because the tumor infiltration deeper than SM2 could metastasize LND2 or further and preoperative imaging tools cannot define SM invasion. When SM1 invasion confirmed pathologically by proper endoscopic treatment before surgery, D2 lymphadenectomy could be an limited surgical option.

Disclosure of Interest: None declared.

P275 | Feasibility of collecting automated, electronic patient-reported surgical site infection (SSI) outcome data: Developing valid and reliable methods for accurate and efficient remote post-discharge assessment

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Aim: Surgical site infection (SSI) rates after colorectal surgery are reported to be as high as 25% for some procedures. Accurate SSI data is essential to monitor and manage this common, debilitating and expensive problem. Assessment and surveillance is, however, challenging as SSI often presents after hospital discharge. Traditionally, assessment has required an in-person wound review by a healthcare professional but is resource intensive and costly. An accurate, reliable and comprehensive, patient-completed outcome measure (PROM) has been developed (the Bluebelle Wound Healing Questionnaire, WHQ) to measure SSI remotely. This study examined the feasibility of collecting automated, electronic PROM SSI data and validity of WHQ for use in trials, surveillance and routine practice.

Method: A prospective study at a large acute NHS trust. Adult patients undergoing surgery from 9 specialties, including colorectal surgery, were sent electronic WHQ 30 days after surgery by text/email. Clinical and sociodemographic variables were extracted from electronic patient records. Response rates across specialties and patient characteristics were examined for a 6-month period. WHQ scores were compared with routinely collected reference SSI diagnoses determined using Public Health England postal questionnaires for patients ± follow up phone calls.

Results: Response rates were 1111/2207 (50.3%) overall, with 39/85 (45.9%) e-PROMs completed by colorectal patients. Response rates were higher for patients aged 60–79 and lower for those undergoing gynaecological surgery. Sensitivity and specificity values for colorectal e-PROM scores will be presented compared with the reference SSI diagnosis.

Conclusion: Findings demonstrate e-PROM data collection is feasible and acceptable in providing SSI outcome data with strategies to improve response rates in some patient groups recommended. E-PROM data collection has significant advantages for SSI assessment, reducing costs and staff/patient burden compared to existing methods.

Disclosure of Interest: None declared.

P276 | Maintenance of resectional colo-rectal surgery in a scottish tertiary referral centre during the SARS-COV-2 pandemic

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Aim: Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is responsible for the Covid-19 pandemic. Global healthcare systems have adapted to cope. In response to COVID our general surgical unit has adapted in order to maintain colorectal resectional services. We determined if this was achieved and comment on the impact on wider services.

Method: Aberdeen Royal Infirmary is a tertiary referral centre in Scotland. It provides colorectal cancer resectional services as well as inflammatory bowel disease & benign colorectal disease.

We prospectively maintain a database of all patients managed by the unit. We examined major resections: APER, anterior resection, right hemicolectomy, Hartmann's, and Ileostomy reversal as a surrogate of non resectional services. The first national lockdown in Scotland was 24th March 2020. Group 1 (G1) 24/3/2019-23/03/2020, Group 2 (G2) 24/3/2020-23/03/2021 & Group 3 (G3) 24/03/2021-23/03/2022.

Results: Total procedures fell in group 2 and have trended upward in group 3. Anterior resection numbers fell during the year following lockdown accompanied by an increase in APER and Hartmann's. Numbers of ileostomy reversals fell to less than half the pre COVID level and have not yet fully recovered. Procedure numbers are displayed in Table 1 & Figure 1:

Conclusion: SARS-CoV-2 had a significant impact on service. Reconfiguration has allowed maintenance of resectional surgery during the COVID period. Anterior resection numbers have declined with a concomitant increase in Hartmann's and APER's potentially reflecting advice during this period to avoid anastomosis. As expected Ileostomy reversal numbers decreased. This surrogate of non-resectional benign work is indicative of a large number of minor cases not prioritised during the pandemic. Innovative strategies will be required to manage the resulting back log in these cases.

Disclosure of Interest: None declared.

P277 | Is there an association between patient factors and a successful colon capsule endoscopy test? – A prospective cohort study

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Aim: To establish patient factors associated with a successful colon capsule endoscopy (CCE) test.

Method: This was a prospective cohort study using data collected from patients who underwent CCE as part of the ScotCap evaluation prior to April 1st, 2020. A CCE procedure was considered successful if the procedure was complete (visualisation of whole colon and rectum) and the bowel preparation was adequate. Patient factors examined included patient age, gender, type (surveillance/symptomatic), faecal haemoglobin, surveillance reason, medications, medical conditions, and previous bowel surgery. Categorical variables and continuous variables were tested for an association with a successful test, adequate bowel preparation and complete test using the Chi-squared test and point biserial correlation, respectively.

Results: 401 patients were included in this study. The mean age of patients was 61 years and 50.9% were female. Most patients were symptomatic (65.9%), the remainder were on the surveillance list. The completion rate, adequate bowel preparation rate and successful test rate for all patients was 72.3%, 75.1% and 62.6%, respectively. There was a statistically significant, negative association between the age of symptomatic patients and a successful test (p = 0.019), and the age of symptomatic patients and adequate bowel preparation (p = 0.041). Symptomatic patient type was associated with adequate bowel preparation (p = 0.0015) compared to surveillance patient type. No patient factors were associated with a complete test.

Conclusion: Symptomatic patients, of a younger age, were associated with obtaining a successful test which clinicians may wish to consider when referring patients for CCE. Further research is required to examine whether these results translate into other or larger patient cohorts.

Reference

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Disclosure of Interest: None declared.

P278 | An evaluation of a novel bowel preparation regimen and its effect on the utility of colon capsule endoscopy

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Aim: To evaluate the efficacy of a novel bowel preparation and booster regimen for patients undergoing colon capsule endoscopy (CCE).

Method: This was a prospective cohort study carried out between 12/07/2021 and 29/11/2021. Symptomatic patients (those referred with lower gastrointestinal symptoms) undergoing CCE in NHS Highland trialled a new bowel preparation and booster regimen for their procedure using phospho-soda and gastrografin, in split doses as the booster. We recorded the completeness of procedure (visualisation of the whole colon and rectum), bowel preparation adequacy, if the test was successful (complete with adequate bowel preparation) and if a further test was required following CCE. We also noted the reason for further test (either due to CCE findings or inadequate CCE).

Results: 200 patients were included in this study. The median age was 61 years and 121/200 (60.5%) were female. 138/200 (69%) patients had a complete test, 168/194 (86.6%) had adequate bowel preparation and 121/200 (60.5%) had a successful test. 79/200 (39.5%) patients required no further test following CCE, 52/200 (26%) required a colonoscopy, 63/200 (31.5%) required a flexible sigmoidoscopy and 6/200 (3%) required a CT colonogram. 48/52 (92.3%) colonoscopy were required due to CCE findings, and 4/52 (7.7%) colonoscopy were required due to an inadequate test. The flexible sigmoidoscopy required due to CCE findings and an inadequate test were 31/63 (49.2%) and 32/63 (50.8%), respectively.

Conclusion: We found the rate of adequate bowel preparation using this novel regimen comparable to colonoscopy. However, further work is needed to improve the completion rate which will reduce the need for flexible sigmoidoscopy following CCE.

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Disclosure of Interest: None declared.

P279 | Adherence to nice guidelines for vte prophylaxis in surgical patients – Audit examining the impact of electronic prescribing and medicines administration (EPMA)

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Aim: Assess compliance with N.I.C.E guidelines of Venous Thromboembolism (VTE) prophylaxis in the form of a VTE prophylaxis protocol in surgical patients admitted over 4 months at Lister Hospital. Adherence to these protocol stages were evaluated and compared before and after implementation of ePMA. Poor VTE prophylaxis during hospital admission can lead to Deep Vein Thrombosis (DVT) and Pulmonary Embolism (PE). Therefore, it is vital to ensure compliance with accepted N.I.C.E guidelines of VTE prophylaxis. Lister Hospital uses a standardised VTE prophylaxis protocol within the drug chart, comprising six stages. When ePMA was introduced, this protocol was converted to an online format.

Method: Evaluation of inpatient drug charts and clinical/physical examination of 88 patients admitted to surgical wards between December 2021–March 2022.

Results: For 5/6 of the stages, post-ePMA had lower completion rate, reaching statistical significance for 3/6 (p-values: 0.00001, 0.05, 0.0001). Adherence at each stage of the protocol was varied and not universal. The clot and bleeding risk checklist was completed in just over half of patients (55.7%). Those prescribed dalteparin (85%) all were given. Patients prescribed thrombo-embolus deterrent stocking (72.7%) far fewer were actually given (40.9%). Second VTE assessment was seldom completed (8% of the time). Five out of the six stages of the VTE prophylaxis protocol were more likely to be completed for those with a lower mean age.

Conclusion: Introduction of ePMA negatively impacted protocol compliance. Adherence to the six stages of the VTE prophylaxis protocol are sub-optimal and not assisted by ePMA introduction.

Reference: www.nice.org.uk/guidance/ng89

Disclosure of Interest: None declared.

P280 | Short-term outcomes of ileostomy reversal following laparoscopic vs open surgery: Observational study in 145 patients

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Aim: A diverting loop ileostomy is often performed after low anterior rectal resection to decrease the risk of symptomatic anastomotic leakage or to treat anastomotic dehiscence. The advantages of laparoscopy over open procedures in colorectal surgery are well known. This study aimed to evaluate whether a minimally invasive approach at the time of ileostomy construction is associated with better postoperative outcomes after stoma closure.

Method: We conducted a retrospective analysis including patients who underwent ileostomy closure between 2010 and 2021. Demographic and preoperative data were collected in an single institutional database. Based on the primary surgical approach, patients were divided into open and laparoscopic groups and 30-days postoperative outcomes were analyzed.

Results: A total of 145 patients who underwent to ileostomy reversal were identified. Primary surgical approach was laparoscopy in 113 (78%) and open in 32 (22%) patients. Underlying malignant disease and anterior rectal resection as type of intervention were significantly more frequent in the laparoscopic group. In contrast,

a higher number of patients had a time to stoma closure > 90 days in the open group (p = 0.009). Minimally invasive surgery as primary surgical approach was related to faster recovery of bowel habits (p = 0.006) and shorter length of hospital stay (p = 0.018). A higher overall morbidity rate was found in the open group (25% vs 9.7%; p = 0.049), in particular for small bowel obstruction (9.4% vs 0; p = 0.009).

Conclusion: In this cohort of patients, ileostomy closure after laparoscopic rather than open surgery offers significant advantages at the time of restoration of intestinal continuity.

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Disclosure of Interest: None declared.

P281 | Endoscopic removal of symptomatic haemorrhoids: The safety and success of proximal arterial inflow of the vascular cushion

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Aim: Rubber band ligation efficacy rates are lacking in comparison to excisional or minimally invasive hemorrhoid surgery; the gold standard are effective but costly time-consuming surgical procedures. Endoscopic, proximal haemorrhoid removal endoscopically is likely to be safe, effective and cost-effective. We describe a single operator, double centre experience of over 200 cases.

Method: We collected data from 232 patients who complained of significant haemorrhoid symptoms who were seen and treated at the completion of their endoscopic survey. Patients who had significantly prominent internal haemorrhoids internally prolapsing inwards, above the anorectal margin or high in the anal canal were treated with multiple applications of snare/cautery with first short burst cutting current then alternating coagulation and cutting current applications until the trapped haemorrhoidal tissue was excised, and submitted for pathology. They were discharged on a low-residue diet for 2 days with sodium docusate stool softeners, medicated suppositories and diosmin for two weeks.

Results: Patients had between 1–5 prominent proximal columns excised per patient, pathology confirmed. 6 patients required short term narcotics (<5 days). No patients had severe bleeding or pain or other complication that required care subsequently. These patients are being followed up post-operatively to confirm and determine efficacy, complication rates and patient satisfaction. 8 cases of the advanced Grade 3 or minor Grade 4 prolapsed disease seen at the time of endoscopy disappeared post procedure.

Conclusion: Initial data reveals this technique to be an effective and safe procedure. We anticipate that this direct and easily performed procedure at the completion of an endoscopic survey will be shown to be a novel, effective, cost-efficient and durable treatment in the management of symptomatic haemorrhoids of a major proportion of haemorrhoid sufferers who seek definitive treatment.

Disclosure of Interest: None declared.

P282 | Mckittrick-Wheelock syndrome: A rare occasion in a young patient

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Aim: McKittrick-Wheelock syndrome is a rare condition where patient presents with prolonged diarrhea and lethargy due to colonic growth,commonly polypoidal.Clinical features of this syndrome includes hypokalemia,hyponatremia and metabolic acidosis. The exact mechanism is not very well known,although it has been postulated that hypersecretion of water and electrolytes from the mass that causes nutrients depletion and dehydration. The syndrome is usually seen in the elderly with male preponderance. Here, we would like to highlight a case of a young female patient that presented with chronic diarrhea associated with hematochezia, electrolytes imbalance and dehydration. We found that patient had a tubular adenoma growth in her descending colon.

	Anterior Resection	APER	Hartmann's	Right hemi colectomy	Ileostomy Reversal	Total
(G1)	69	26	26	107	26	275
(G2)	37	30	31	91	12	232
(G3)	64	31	30	86	17	254

Method: A 25 year old lady was referred to our centre with the complaints of chronic diarrhea,lethargy with poor oral intake. Further history suggested that patient also been having blood in her stool. She claimed that the diarrhea was intermittent and been there for the past one year. She also lost a few stones over a year. Otherwise she denies having any family history of colorectal cancer. Initial clinical examination showed that patient is thinly built and pale. Digital rectal examination demonstrated no mass palpable per rectum. We proceeded with a colonoscope the same day.

Results: McKittrick-Wheelock syndrome is a constellation of abnormalities that occurred due to growth in the distal large colon. Patient usually present with dehydration,lethargy with electrolytes depletion. The condition is thought to be caused by a large benign colonic tumor,commonly polyps. A few literature review documented tubular and tubulovillous polyps as the causative agent for this syndrome. In our case report we found a large sessile tubular adenoma 40cm from the anal verge.

Conclusion: Physicians should be vigilant in identifying the condition in timely manner as it is associated with a high morbidity and mortality.

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P283 | A rare case of synchronous colon adenocarcinoma

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Aim: Synchronous tumor is defined as the presence of more than one primary malignant lesion in the same patient at the indexed diagnosis. It is a rare occurrence, especially in the spectrum of colorectal cancer which accounts for less than 4%. The underlying pathology of a synchronous tumor is due to genomic factor, which is microsatellite instability (MIS) with the involvement of BRAF, KRAS and GSRM1 gene. There are no specific sites of occurrence for the colorectal synchronous tumor, but many literatures reported that synchronous tumor has about 43% predominance in the ascending colon with rarity in sigmoid colon.

Method: A 32 years old lady with no family history of colorectal cancer was diagnosed with a synchronous adenocarcinoma at the descending colon and recto-sigmoid region. She presented to the district hospital initially with hemorrhoids and constipation. Over the span of one month, she developed a 'football' sized right gluteal swelling extending to the left side with a complete intestinal obstruction and bilateral lower-limb paralysis. CT scan showed the tumor engulfed the sacrococcygeal region with multiple lesions in the colon as well as secondaries in the liver. After a multidisciplinary meeting, we proceeded with tumor debulking, anterior resection and pelvic exenteration.

Results: Synchronous colon cancer is rare with the incidence of 2.4% to 12.4%. It has male predominance and pathologically more advanced compared to a single colon lesion. Down staging the disease by means of chemoradiotherapy has shown to be effective in managing this tumor. It is seen commonly on the right colon but in our case we found on the left colon and the recto sigmoid region.

Conclusion: Managing a synchronous colon tumor could be challenging to the surgeons especially in deciding the extent of resection and postoperative functional outcomes of the bowel, thus, Individual treatment strategies needed to tackle this pathology.

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Disclosure of Interest: None declared.

P284 | Robotic colorectal cancer surgery in obesity: Single center observational study

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Aim: This study aims to compare outcomes for obese (BMI ≥30) and non-obese patients undergoing robotic-assisted colorectal cancer resections in a tertiary referral centre in the Northwest of England.

Method: Single-centre retrospective analysis of patients undergoing any robotic-assisted colorectal cancer operation between July 2019 and November 2021. Patient characteristics, operative factors and short-term outcomes were evaluated and compared between the two groups. Short-term outcomes included conversion-to-open rate, operative time, post-operative complications graded according to the Clavien-Dindo classification and 30-day mortality.

Results: Sixty-three patients met the eligibility criteria and were included in the study. Twenty-four patients were in the obese group and thirty-nine in the non-obese group. Age, sex, and ASA grade were similarly distributed between both cohorts. All outcomes were comparable between obese and non-obese patients (Conversion-to-open 4.2% vs 2.6%, $p = 0.62$; Operative time (mins) 365 ± 66 vs 352 ± 81, $p = 0.52$; All complications 37.5% vs 28.2%, $p = 0.58$).

Conclusion: This study confirms that robotic-assisted colorectal cancer surgery in obese patients is feasible and does not impact

short-term outcomes when compared to non-obese patients. More high-quality multi-centre studies are needed to evaluate this field further.

Disclosure of Interest: None declared.

P285 | A Systematic review of randomised controlled trials of prehabilitation in elective colorectal cancer surgery

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Aim: To review the available evidence for effectiveness of prehabilitation programmes to improve outcomes following elective colorectal cancer surgery. Patients with colorectal cancer can have significant adverse effects associated with the disease and its treatment. The Prehabilitation process supports patients in preparing for the physiological challenges of their cancer surgery, whilst aiming to shorten recovery time and reduce peri-operative complications.

Method: Ovid, Pubmed, Cochrane and Scopus databases identified 45 studies which were screened by two reviewers. 5 Randomised Controlled Trials were included in the final analysis.

Results: Quality of the studies was good. Majority of studies included trimodal interventions in physical activity, nutrition and psychological intervention. Range of duration 3–6 weeks pre-operatively, median 4 weeks. Heterogeneity existed in outcome measures used. Functional capacity was measured in 4 of the studies using the 6 minute walk test (6MWT), in one study incentive spirometry was used and in another cardiopulmonary exercise testing. Increase in VO2 max resulted in reduction in post-operative complications but no difference in length of stay. No difference in complication rates were identified in the studies which did not use CPET testing. In only one study did psychological intervention reduce post-operative anxiety score.

Conclusion: At present evidence for prehabilitation prior to surgery for colorectal cancer is limited. A core dataset is required in order to develop and measure the effect of prehabilitation programmes.

Disclosure of Interest: None declared.

P287 | Alginate dressings with silver and high-G cellulose vs simple gauges after elective pilonidal cyst excision: A randomized controlled trial

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Aim: In this study we compared alginate dressings with high-G cellulose and simple gauges in terms of wound healing efficacy and quality of life (QoL) after pilonidal sinus resection.

Method: This study incorporated a randomized controlled trial methodology. Prior to patient inclusion the trial protocol received a ClinicalTrials.gov registration (NCT03757572). The experimental group involved the application of alginate dressings with silver and high-G cellulose for the secondary intention wound healing after an elective pilonidal cyst resection. On the contrary, simple gauges were applied in the control group. The primary endpoint was time to complete wound healing. There was no blinding at the level of the patient and the surgeon.

Results: Overall, 65 patients were considered as eligible. There was no significant difference between the two methods regarding the primary endpoint (47 vs 60 days). Alginates and simple gauges were comparable in terms of postoperative pain scores and efficacy endpoints. Similarly, there was no difference in terms wound-related quality of life measurements. However, alginates resulted to a considerable reduction of wound secretions at specific time intervals.

Conclusion: Taking into consideration several study limitations further large scale RCTs are required to confirm our results.

Disclosure of Interest: None declared.

P288 | CRP-to-albumin ratio on post-operative day 3 predicts infectious complications after rectal cancer surgery

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Aim: The aim of the present study was to evaluate the role of CRP-to-Albumin ratio (CAR) as predictive marker for post-operative infectious complications following rectal cancer resection.

Method: Patients undergoing elective surgery for non-metastatic rectal cancer with curative intent were retrospectively identified from the hospital database. CAR was calculated on post-operative day 3 (POD3). Infectious complications included anastomotic leak, abdominal/pelvic collections, respiratory, urinary and surgical site infections. Severity of complications was stratified according to the Clavien-Dindo classification. ROC curve analysis was used to calculate the optimal cutoff value.

Results: In total, 123 patients were included in the final analysis (72% males, 28% females, mean age 65.9 years). 80% were operated on by minimally invasive approach (laparoscopic or robotic). 30-day mortality was nil, whereas 30-day all-cause morbidity was 54% (39% infectious complications). Mean CAR/POD3 was 2.75 for uncomplicated cases and 6.06 for infectious complications ($p < 0.001$). For the suggested optimal cutoff of 4.15, specificity was 87.5% and sensitivity 66.7%.

Conclusion: A CAR < 4.15 on POD3 predicts an uncomplicated postoperative course in 87.5% of patients following rectal cancer surgery. It is a useful and inexpensive marker that can be used routinely to assist with early discharge planning.

Disclosure of Interest: None declared.

P289 | Influence of splenic flexure mobilization on post-operative and oncological outcomes following anterior resection

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Aim: The routine mobilization of the splenic flexure (SFM) during anterior resection is often debated given its increased operative complexity and no clear benefit in oncological outcomes. This study aimed to compare post-operative complications and 3-year oncological outcomes in patients undergoing anterior resection with and without SFM.
Method: A retrospective single centre observational study was performed. Notes review was performed for all patients undergoing anterior resection in 2018 for sigmoid and rectal cancers.
Results: 81 patients were included. The mean age was 66 and 70% of patients were male. 37 (46%) of anterior resections were low and 29 patients underwent SFM (36%). There was a non-significant trend for higher 30-day complication rates amongst the SFM group; 14 (48%) vs 17 (33%) (p = 0.23). There was no difference in mean length of stay (7 SFM vs 5.5 days no-SFM, p = 0.80). There was 1 anastomotic leak in the SFM group (3%) and 3 in the non-SFM cohort (6%, p = 0.64). SFM did not increase lymph node harvest (mean 22 vs 21 nodes, p = 0.68) and there was no significant difference in 3-year recurrence (either local or distant) rates; 2 (7%) SFM vs 10 non-SFM (19%, p = 0.13).
Conclusion: Within limitations, this study suggests that routine mobilization of the splenic flexure neither significantly improves oncological outcomes, nor increases perioperative complications, and as such should only be utilised on a case-by-case basis as necessity arises.
Disclosure of Interest: None declared.

P290 | Differences in short-term outcomes after right and left sided colorectal resections may indicate a need to modify eras protocol

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Aim: Our study aims to compare postoperative bowel function recovery between standard right and left sided colorectal resections and explore the need to modify ERAS protocol for right sided colonic resections.
Method: Data from a prospective database of elective right colonic resections (RCR) and left colorectal resections (LCR) between January 2016 to December 2019 was analyzed. Primary outcome was to compare return of bowel function and development of post-operative ileus between RCR and the LCR groups. Secondary outcomes were length of stay, post-operative complications, 30-day re-admission, and re-operation rates.
Results: Of 193 eligible patients, 72 (37.3%) were in RCR group while 171 (62.7%) were in LCR group. Laparoscopic approach was used in (41/72) 56.9% of RCR group and (90/121) 74.4% in the LCR group. Time to escalation to low residue diet was 4.29 (1–18) days in RCR vs 2.89 (1–16) days in LCR group, p = 0.001. Time to flatus was 3.07 (1–12) days in RCR group and 2.44 (1–6) days in LCR group, p = 0.008. 21 (29.2%) patients in RCR and 16 (13.2%) in LCR groups had postoperative ileus, p = 0.007. Male sex and right colonic resections were found to be significant and independent risk factors for post-operative ileus after uni- and multivariate analysis.
Conclusion: Right colonic resections are associated with delayed postoperative bowel function even after high compliance with ERAS protocol. Modification of ERAS protocol elements related to postoperative feeding and addition of new interventions may help to avoid delayed bowel function recovery.
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Disclosure of Interest: None declared.

P291 | Hartmann's procedure in rectal cancer surgery is often an intraoperative decision

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Aim: To investigate patient related factors predicting selection of rectal cancer patients to Hartmann´s procedure as well as to investigate how often, and on what grounds, anterior resection is intraoperatively changed to Hartmann´s procedure.
Method: Data from the Swedish Colorectal Cancer Registry regarding patients with rectal cancer operated from January 1, 2007 to June 30, 2017 in the county of Skåne were used. Data were expanded with further details from medical charts.
Results: Altogether 1141 patients who underwent Hartmann´s procedure (275 patients, 24%), anterior resection (491 patients, 43%) or abdominoperineal resection (375 patients, 33%) were included in the study. Patients undergoing Hartmann´s procedure were significantly older and had more frequently comorbidity compared to patients undergoing anterior resection and abdominoperineal

resection. The decision to perform Hartmann´s procedure was made preoperatively in 209 (76%) of patients, most commonly because of comorbidity (27%) and oncological reasons (25%). Patient preference was noted in 8% of cases. In 64 cases (23%), the decision was made intraoperatively, most often due to anastomotic difficulties (60%) and oncological reasons (22%).

Conclusion: The decision to perform Hartmann's procedure was frequently made intraoperatively. Hartmann´s procedure should be considered and discussed with the patient preoperatively in old and frail patients, especially when mid-rectal cancer and/or a history of neoadjuvant radiotherapy as these factors increase the risk of intraoperative anastomotic difficulties.

Disclosure of Interest: None declared.

P292 | Rectal MRI after neoadjuvant radiotherapy for rectal cancer predicts the oncological outcome

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Aim: We wanted to determine the prognostic value of response magnetic resonance imaging (MRI) after neoadjuvant therapy for rectal cancer and to find out if the length of the delay between radiotherapy and surgery influences oncological results and complications. We also compared the results between long-course chemoradiotherapy (CRT) and short-course radiotherapy (RT) with delayed surgery.

Method: This was a retrospective study with 267 patients with locally advanced rectal cancer (LARC) operated on at Helsinki University Hospital during January 2016 to April 2019. All patients received either chemoradiotherapy or short-course radiotherapy with delayed surgery in the neoadjuvant setting. The main outcomes were overall and cancer-specific survival (OS and CSS) depending on radiological response to neoadjuvant therapy reported using the magnetic resonance tumor regression grade (mrTRG). Also, the effect of delay time between neoadjuvant therapy and surgery on the results was analyzed.

Results: The cumulative OS and CSS of the good and moderate response group (mrTRG 1–3) were significantly better than in the poorer response group (mrTRG 4-5) (p = 0.020 and p = 0.047, respectively). The risk of local recurrence and of severe complications was increased, if the time between termination of (chemo)radiotherapy and surgery was over 7 weeks compared to at most 7 weeks (p = 0.014 and p = 0.038, respectively). No significant difference in CSS and local recurrence rate was detected between the different neoadjuvant therapy regimens.

Conclusion: Unfavorable MRI response is an independent prognostic factor in LARC. There is no need to increase the delay of surgery after (C)RT to over 7 weeks.

Disclosure of Interest: None declared.

P293 | Pathologic complete response after initial experience with total neoadjuvant treatment (TNT) for rectal cancer

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Aim: Total neoadjuvant therapy (TNT) is a new modality for locally advanced rectal cancer treatment in an effort to reduce systemic relapses without compromising locoregional control, and allow for organ preserving approaches, such as watch and wait. Our aim is to report our initial experience with TNT and its pathological outcomes.

Method: Patients with locally advanced rectal cancer undergoing TNT at our institution were analyzed. TNT protocol was approved by the ethical committee and consists on induction chemotherapy (2 cycles of XELOX), chemoradiotherapy consisting on long course radiotherapy associated with capecitabine and consolidation chemotherapy (4 cycles of XELOX) followed by surgery at 3 to 4 weeks. Patients with cT3-4, cN+, EMVI + or CRM less than 1 mm were candidates for TNT and cases were discussed by the multidisciplinary tumor board. Data collected included tumor preoperative data, perioperative details, pathological outcomes, and short-term oncologic follow-up.

Results: Nine patients underwent surgery after TNT implementation from September 2021 to February 2022. Preoperative staging included T3N1, T3N2 and T4N2. Patients underwent low anterior resection, one of them without anastomosis. Mean distance to anal verge was 5.8 cm (range 1–10). Two patients presented with complete pathological response (22%). Complete mesorectum on final pathology was 88%. Morbidity was 11% with no anastomotic leak. No local or systemic recurrences were seen at 3.5 months mean follow-up (range 2–7 months).

Conclusion: TNT offers a significant rate of complete pathological response in cases of locally advanced rectal cancer, similar to literature reported rates. Further experience is needed to assess the mid and long term oncologic outcomes.

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Disclosure of Interest: None declared.

P294 | Pathologic complete response after initial experience with total neoadjuvant therapy (TNT) for rectal cancer compared to standard treatment

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Aim: Total neoadjuvant therapy (TNT) is a new modality for locally advanced rectal cancer treatment where the addition of induction or consolidation chemotherapy to concomitant neoadjuvant chemoradiation has demonstrated to increase pathological downstaging. Our aim is to report our initial experience with TNT and its pathological response compared to standard neoadyuvant treatment (CRT).

Method: Patients with locally advanced rectal cancer undergoing TNT at our institution were selected and matched for preoperative staging, age, comorbidities and tumor distance from the anal verge with patients treated by CRT. TNT protocol (induction chemotherapy, long course radiotherapy associated with capecitabine and consolidation chemotherapy followed by surgery at 3 to 4 weeks) was approved by the ethical committee and implemented after September 2021. Patients with cT3-4, cN+, EMVI + or CRM less than 1 mm were considered for TNT. Cases were discussed by the multidisciplinary tumor board. Data collected included tumor preoperative data, perioperative details, pathological outcomes and short-term oncologic follow-up.

Results: From January 2021 to April 2022, 9 patients underwent TNT and were matched with 9 patients undergoing CRT. Preoperative staging, distance to anal verge, age and comorbidities were similar in both groups ($p < 0.05$). Patients underwent low anterior resection, except 1 patient in the TNT group and 2 in the CRT that had an abdominoperineal resection. Complete response was 22% in both groups. Complete mesorectum was found in 88% of TNT and 77% of CRT. Morbidity was 12% in TNT vs 44% in CRT. No local or systemic recurrences were seen at 8 months mean follow-up in either group (range 2–15 months).

Conclusion: TNT offers similar complete pathological response in more advanced rectal cancers compared to standard CRT, with improved morbidity rate and complete mesorectum rate. A larger size is needed to assess the increase on complete pathological response found in previous TNT reports.

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Disclosure of Interest: None declared.

P295 | Total neoadjuvant therapy (TNT) for rectal cancer does not increase surgical morbidity compared to standard treatment: Our initial experience

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Aim: Total neoadjuvant treatment (TNT) is a new modality for locally advanced rectal cancer treatment. However, it delays surgery from 10 to 12 weeks from radiotherapy in the standard neoadyuvant treatment (CRT) to up to 21 to 30 weeks, increasing the tissue response and fibrosis. Our aim is to report our initial experience with TNT and its effect on surgical morbidity compared to standard neoadyuvant treatment (CRT).

Method: Patients with locally advanced rectal cancer undergoing TNT at our institution were analyzed. TNT protocol was approved by the ethical committee and consists on induction chemotherapy, chemoradiotherapy and consolidation chemotherapy followed by surgery at 3 to 4 weeks. Patients with cT3-4, cN+, EMVI + or CRM less than 1 mm were candidates for TNT and cases were discussed by the multidisciplinary tumor board. Data collected included tumor preoperative data, perioperative details, pathological outcomes, and short-term oncologic follow-up.

Results: From January 2021 to April 2022, 9 patients underwent TNT and were matched with another 9 patients undergoing CRT. Preoperative staging, distance to anal verge, age and comorbidities were similar in both groups ($p < 0.05$). Patients underwent low anterior resection with ileostomy, except 1 patient in the TNT group and 2 in the CRT that had an abdominoperineal resection. Morbidity was 12% in TNT, with a urinary sepsis treated with surgical ureteral catheter drainage, vs 33% in CRT with 2 paralytic ileus treated conservatively and 1 evisceration re-operated. Fifty percent of temporary stomas in the TNT have been closed during the follow up (2–15 months) vs 33% in the CRT group.

Conclusion: TNT does not increase morbidity in more advanced rectal cancers compared to standard CRT and increases the rate of stoma reversal due to completion of chemotherapy prior to surgery. Further experience is needed to assess the mid and long term outcomes.

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before total mesorectal excision (TME) vs preoperative chemoradiotherapy, TME, and optional adjuvant chemotherapy in locally advanced rectal cancer (RAPIDO): a randomised, open-label, phase 3 trial. Lancet Oncol. 2021 Jan;22(1):29–42.
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Disclosure of Interest: None declared.

P296 | Hemorrhoid artery laser ligation (help) in combination with sclerotherapy – Promising solution for office treatment of hemorrhoids

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Aim: Aim of the study was to estimate the suitability combination for Artery Laser coagulation (HeLp) and sclerotherapy for everyday office treatment of hemorrhoids.
Method: Material and methods. The rate of total HeLp procedures, office Help procedures and cases combination with sclerotherapy were calculated in period from 01.01.2013 to 31.12. 2022. The rate of complications were analyzed in blindly selected group of patients (*N* = 750), also the efficiency of treatment in case of anal itching analyzed in separated blindly selected group (*N* = 124).
Results: Results. Totally 2077 Help procedures were done. The shift towards outpatient setting and rise the combination rate with sclerotherapy were estimated. The bleeding as the main complication were ascertained (*N* = 750; totally 2% – 4 reops, 10 urgent observations, incl. 4 colonoscopies, several admitions to the ER with minor symptoms (slight bleeding, discomphort, etc.). In case of recurrency the repeated procedures as LHP or PPH were done in 9 (1.2%), in 8 (1%) cases repeated HeLP procedures were done. The HeLp procedure especially with skintagectomy was recognized as a good tool to solve the problems of perianal itching (*N* = 124; 72% reduction; 28% further dermatology treatment).
Conclusion: The Hemorrhoid Artery Laser coagulation (HeLp) in combination with sclerotherapy is the promising solution for office treatment of Hemorrhoids.
Disclosure of Interest: None declared.

P297 | Stress-induced extracellular vesicles promote EGFR-ERK dependent growth and cetuximab resistance in colorectal cancer

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Aim: Extracellular vesicles (EVs) are nanoized membrane-bound vesicles, which deliver their bioactive cargoes to target cells. Our lab has shown that metabolic stress leads to changes in both endosomal trafficking and also the protein cargo and functions of secreted EVs from a panel of colorectal cancer (CRC) cells, a response that we have called the "*EV switch*". A proteomic analysis has shown that switched EVs carry increased levels of the EGFR-ligand Amphiregulin (AREG). The aim of this work was to investigate the pro-tumorigenic properties of switched EVs *in vitro* and *in vivo*.
Method: Size exclusion chromatography was used to isolate EVs from HCT116 and Caco-2 CRC cells grown under glutamine-replete and -depleted conditions, and their effect on recipient cell growth measured using the IncuCyte Live Cell Imager. Co-incubation assays with an AREG-neutralising antibody were undertaken to test the role of AREG-containing switched EVs Similar experiments using a chick embryo model were performed to analyse the role of switched EVs *in vivo*. In addition, we tested whether the inhibitory effects of the anti-EGFR antibody, cetuximab, could be reversed by co-treatment with switched EVs
Results: Switched EVs from HCT116 and Caco-2 cells contain increased levels of AREG and promote EGFR-ERK dependent growth in recipient cells *in vitro* and *in vivo* in a dose-dependent manner. These effects were inhibited by co-treatment with an AREG neutralising antibody. Caco-2 (*KRAS*-wild type), but not HCT116 (*KRAS*-mutant), cell growth was inhibited by cetuximab, which was partially reversed by co-treatment with switched EVs AREG neutralisation reversed this EV-induced cetuximab rescue. Downstream EGFR kinase domain inhibitors were used to show that EV-induced cetuximab resistance is mediated by binding of EV-associated AREG to the EGFR.
Conclusion: Switched EVs are important mediators of CRC cell growth and cetuximab resistance, and could serve as novel biomarkers to predict response to treatment.
Reference: This work was supported by Cancer Research UK (CRUK) grant number C2195/A25190, through a CRUK Oxford Centre Clinical Research Training Fellowship and CRUK Programme award C19591/A19076.
Disclosure of Interest: None declared.

P298 | Outcomes of lateral pelvic nodal dissection in locally advanced rectal cancer

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Aim: Despite a lack of consensus on optimal management, lateral pelvic nodal involvement in locally-advanced rectal cancer (LARC) is often addressed with neoadjuvant chemoradiation (NACRT) followed by lateral pelvic nodal dissection (LPLND). We sought to evaluate the complications and outcomes of LPLND following NACRT in LARC.

Method: This retrospective single institution study included 148 patients with non-metastatic histologically-proven LARC who had undergone open or minimally invasive TME with LPLND either upfront or post-NACRT for clinically significant lateral pelvic lymphadenopathy. LPLND-specific complications were grouped as early (within 30 days), up to 90 days and late using Clavien Dindo (CD) grading. Urinary function was assessed using the International Prostate Symptom Score (IPSS).

Results: Overall, 91.9% patients received NACRT. Minimally invasive surgery (performed in 59.5%) had significantly lower intraoperative blood loss (median 400 ml vs 900 ml in open surgery; $p < 0.001$) and hospital stay (median 7 days vs 8 days; $p = 0.031$). Postoperative recovery was uneventful in 50.7% (CD grade 0); majority of the remainder experienced CD grade I/II morbidity. Grade III or greater general morbidity was seen in 12.8% and PLND-specific morbidity in 12.2% (including 2 deaths within 90 days of surgery). Six patients required re-exploration at a median 13 days postoperatively of which 3 were PLND-associated. Although pelvic collections were significantly associated with receipt of radiation, receipt of boost did not affect morbidity. Acute urinary retention was reported in 22.3% postoperatively. Sixty patients on follow up were evaluated with IPSS: 76.7% reported mild symptoms and 21.7% moderate, nocturia being the most common (in 86.7%) followed by frequency (in 83.3%).

Conclusion: In contrast to general complications which occurred immediately post surgery, most clinically significant LPLND related complications arose 30 days after, the majority of these a consequence of pelvic collections.

Disclosure of Interest: None declared.

P299 | New perineal hygiene device for mild faecal incontinence

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Aim: To present new medical device for mild faecal incontinence: from idea to testing and production.

Method: Analysis of existing medical devices for mild FI of physically active, mentally healthy and nursing-independent patients revealed shortage of safe and comfortable devices for everyday use. We proposed to create, test, licensise and produce perineal hygiene device for mild FI, which is safe, comfortable and reusable to wear as the closest to the body underwear for everyday use during months. For this we suited several devices and after testing for general safety and clinical use we received positive decision of State Health Care Accreditation Agency under the Ministry of Health for registration of devices to be produced and spread in EU. Several modifications of primary devices were done according to critical remarks about initial devices. Finally, first series of devices were produced in 2 differently specialized industrial enterprises from Lithuania. Enterprise "EUSTILIA" produced serial devices, and enterprise "KOPA boutigue" produced individually ordered devices. Clinical testing was performed by specialists of Lithuanian Society of Coloproctology.

Results: We created, tested and produced on industrial scale new perineal hygiene devices for mild FI – safe and comfortable for everyday wear. During retesting for clinical use, we noticed that new devices are also useful for patients with any severity of FI after defecation, because of predictable leak of liquid excretions of incomplete defecation, frequent in these patients especially in sitting position. Finally we found possible to produce a perineal hygiene device (band) for healthy persons who stay sitting long time – long distance travellers.

Conclusion: We created, tested, licensised and produced on industrial scale several models of new safe, comfortable, reusable perineal hygiene devices for everyday wear in different life circumstances.

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Disclosure of Interest: None declared.

P300 | Postoperative ileus: An invariable sequelae of bowel resection?

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Aim: Postoperative ileus (POI) is a common and debilitating complication associated with increased hospitalisation duration, cost of care and postoperative morbidity. Various patient and operative risk factors for the development of POI have been described. The use of enhanced recovery after surgery (ERAS) protocols in elective cases are believed to reduce the risk of POI, yet rates remain high in this cohort. This study aimed to investigate if emergency bowel resections were associated with an increased risk of POI compared to elective bowel resections.

Method: A retrospective cohort of 100 bowel resection patients was collected in two arms, 50 emergency cases and 50 elective

cases. The rate of POI, as well as baseline characteristics and operative data, was recorded and compared between both groups. Data was recorded and analysed using Excel and SPSS.

Results: In total, there was 30 cases of POI in the entire cohort (*N* = 100). POI was recorded in 16 (32%) of the elective cases (*N* = 50) compared to 14 (32%) in the emergency cases (*N* = 50). There was no statistical difference in incidence of POI between elective and emergency resections.

Conclusion: There was no significant difference in POI incidence when comparing elective and emergency bowel resection. This is unexpected given the commonly held belief that ERAS reduces rates of POI.

Disclosure of Interest: None declared.

P301 | Laparoscopic right colon resection carries double the risk of post-op ileus comapred to laparoscopic left colon resections

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Aim: The aim of this study was to investigate the incidence of post-operative ileus (POI) in patients undergoing colon and rectal resections entered into an enhanced recovery (ERAS) program.

Method: The study was conducted at a single tertiary centre. All colonic and rectal resections performed between 2015–2021 were analysed. Patients were enrolled into a standardised ERAS program. ERAS data were extracted from a prospectively maintained ERAS database to determine incidence of ileus. Ileus was defined and diagnosed by a combination of clinical and radiological determinants.

Results: From 2015–21, 184 of 1450 colon and rectal resection patients developed POI (13%), of which 628 underwent right colon resection, 822 left colon resection (62 left hemicolectomy, 456 high anterior resection), and 304 rectal resections (low anterior resection). The incidence of POI after left colon resection was significantly lower than after right colon resection (71/822, 9% vs 113/628, 18%, respectively, $p = 0.01$).

Patients undergoing open and laparoscopic-converted resection had higher incidence of POI (53/300, 18%) than those undergoing laparoscopic resection (126/1073, 12%; $p = 0.01$). Robotic resection had the lowest incidence of POI (5/77, 7%). The incidence of POI was significantly higher for malignancy resection compared to benign resection (168/1268, 13% vs 16/182, 9%, respectively, $p = 0.05$).

Conclusion: Patients undergoing laparoscopic right colon, laparoscopic-converted and open resections have higher incidence of POI. Those undergoing laparoscopic left colon and robotic resections have a lower incidence. It is unclear why laparoscopic right colon resection carries a particularly higher incidence, but duodenal irritation, ileocolic anastomosis and extra-corporeal anastomosis are 3 possibilities.

Disclosure of Interest: None declared.

P302 | Management strategies for malignant left-sided colonic obstruction: A systematic review and network meta-analysis of randomised control trials and propensity score matching studies

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Aim: The optimal treatment strategy for left-sided malignant colonic obstruction (LMCO) is controversial. Emergency colonic resection (ECR) has been the standard of care; however, self-expanding metallic stenting (SEMS) as a bridge-to-surgery may offer short term advantages, although oncological concerns exist. A decompressing stoma (DS) may provide a valid alternative, but evidence for this strategy is limited. The aim of this study was to compare the approaches for management of LMCO, and to identify the advantages and disadvantages of the various techniques in terms of oncologic efficacy, morbidity, successful minimally invasive surgery (MIS), primary anastomosis and permanent stoma rates.

Method: A systematic review of the literature was conducted from inception to the 30th of September 2021. Only randomised control trials (RCT) and propensity score matched (PSM) studies were included in the network meta-analysis to account for bias.

Results: A total of 16 articles from 3480 identified met our predefined inclusion criteria (8 RCTs and 8 PSM trials). Of 2429 patients, 928 underwent ECR, 1053 underwent SEMS, and 448 underwent DS. Both SEMS (Odds ratio [OR] 2.82; 95% Credible Interval [CrI] 1.68,4.72) and DS (OR, 3.48, 95% CrI 1.02,11.86) had increased primary anastomosis rates compared with ECR. SEMS (OR 0.46; 95% CrI 0.23, 0.90) and DS (OR 0.19; 95% CrI 0.05 0.71) were both associated with a significant reduction in the permanent stoma rate when compared with ECR. SEMS facilitated MIS more frequently (OR 11.03;95% CrI 3.77, 32.21) and was associated with lower overall morbidity (OR 0.52;95% CrI 0.32,0.83). There was no difference in the 90-day mortality, and overall and disease-free survival rates at 3 and 5 years, respectively.

Conclusion: This study provides high level evidence that a bridge-to-surgery strategy is safe for the management of LMCO, and may facilitate MIS, increase primary anastomosis rates, reduce permanent stoma rates and post-operative morbidity as compared to ECR.

Disclosure of Interest: None declared.

P303 | Local excision vs total mesorectal excision following neoadjuvant chemoradiotherapy for rectal cancer: A systematic review and meta-analysis

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Aim: Total mesorectal excision with or without neoadjuvant chemoradiotherapy remains the gold standard treatment for rectal cancer. However, newer organ sparing methods, including Local Excision (LE) have been introduced in conjunction with neoadjuvant therapy to improve morbidity and functional outcomes while not impacting oncological outcomes. This systematic review aims to assess the safety and efficacy of LE compared with TME in patients with rectal cancer post nCRT.

Method: A systematic review and meta-analysis was performed using the PRISMA guidelines. All studies comparing neoadjuvant chemoradiotherapy and local excision vs TME were included from 2000 to 2020. Primary endpoint included local recurrence rates. Secondary outcomes included distant recurrence, disease free survival and overall survival. Subgroup analysis was performed on randomised control trials (RCT).

Results: Of the 9 studies included, 2 were RCTs. A total of 1161 patients underwent neoadjuvant chemoradiotherapy and surgical excision (LE n = 252, TME n = 909). Local recurrence was 10% in the LE group compared to 7% in the TME group (OR 0.60, 95% CI 0.33–1.09, p = 0.09). Furthermore, there was no significant difference in distant metastasis (OR 1.37, 95% CI 0.84–2.26, p = 0.21), Disease Free Survival (DFS) (OR 1.08, 95% CI 0.65–1.82, p = 0.76) or Overall Survival (OS) (OR 1.14, 95% CI 0.56–2.35, p = 0.71). In subgroup analysis of RCTs, local recurrence rates of 7.2% were seen in the LE group compared to 6.6% in the TME group (OR 0.90, 95% CI 0.34–2.43, p = 0.84). No significant difference was seen in distant metastasis (OR 1.04, 95% CI 0.48–2.28, p = 0.91) or DFS (OR 1.01, 95% CI 0.53–1.93, p = 0.97).

Conclusion: Neoadjuvant chemoradiotherapy and local excision is oncologically safe in select patients. A higher non-significant local recurrence rate was seen in the LE group; however, this may be due to heterogeneity in patient selection. Similar local recurrences and oncological outcomes were verified in the RCTs.

Disclosure of Interest: None declared.

P304 | A novel MRI-based NAR score is a stage independent predictor of long-term outcome in locally advanced rectal cancer

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Aim: The Neoadjuvant Rectal (NAR) score is a surrogate endpoint for early determination of response combining MRI clinical and post-op pathological staging[1]. In an era of increasing organ preservation, resection specimens are not always available to calculate NAR. Improved response assessments could provide more uniformity for neoadjuvant strategies under investigation. MRI re-staging to assess regression has shown promise but its subjective assessment limits reproducibility. We explore the potential for a novel simple mrNAR score adapted from NAR formula.

Method: Locally advanced rectal cancer patients undergoing curative intent neoadjuvant therapy (nCRT) and surgery were retrospectively identified between 2008–2020 in a single trust. mrNAR score calculated by adapting NAR formula and replacing pathological (p) with post-nCRT MR stages (ymr). The relationship between clinicopathological characteristics, including NAR and mrNAR, to survival and recurrence was assessed by Cox regression.

Results: 381 NAR and 177 mrNAR scores were calculated. On univariate analysis NAR related to CSS (HR 3.00, 95%CI 1.65–5.46, p = 0.001), RFS (HR 2.52, 95%CI 1.77–3.59, p = 0.001) and Local Recurrence (HR 2.63, 95%CI 1.52–4.54, p = 0.001). 3-yr CSS for NAR < 8 was 98.9%, 8–16 was 93.8% and >16 was 85%. On univariate analysis mrNAR related to CSS (HR 7.61, 95%CI 1.73–33.60, p = 0.007) and RFS (HR 2.99, 95%CI 1.49–6.00, p = 0.002). 3-yr CSS for mrNAR < 8 was 100%, 8–16 was 97.8% and >16 86.4%. On multivariate analysis, mrNAR was a stage independent predictor of CSS and RFS. mrNAR corresponded to NAR score category in only 15% (PPV 0.23) and 47.5% (PPV 0.48) of cases for the categories <8 and >16 respectively.

Conclusion: NAR is validated as a surrogate endpoint for long term oncological outcome. The mrNAR categories do not closely correlate with NAR but do have stage independent prognostic value. mrNAR may represent a novel surrogate endpoint for future neoadjuvant rectal treatments that focus on an organ preservation strategy.

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Disclosure of Interest: None declared.

P305 | Evaluation of tumour stroma percentage, peritumoural inflammation and the glasgow microenvironment score as potential biomarkers for local recurrence risk in rectal cancer

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Aim: Modern rectal cancer management has reduced local recurrence (LR) to <10%. Although rates are low, LR associates with significant morbidity in a sizeable cohort. Pre-treatment LR risk is determined by staging criteria only; no tissue biomarkers are

routinely employed. We assessed tumour stroma percentage (TSP) and peritumoural inflammation (Klintrup-Mäkinen Score/KM), as Glasgow Microenvironment Score (GMS) components, in the context of rectal cancer to determine influence on LR and outcomes.

Method: Rectal cancer patients were identified from a departmental database between 1997–2007. Patients were included if resection tissue was available for TSP and KM assessment. Clinicopathological characteristics and disease outcomes were collected retrospectively. GMS 0 is high KM + any TSP, and GMS 2 is low KM + high TSP.

Results: 393 stage I-III patients were identified. 20% (n = 77) received neoadjuvant radiotherapy. LR rate for the entire cohort was 11.9%. High TSP related to serosal involvement only ($p < 0.05$). Low KM related to higher T stage, resection margin involvement (R1), and distant recurrence (DR) (all $p < 0.05$). Rate of LR in high TSP was 15.4% and 13.5% in low KM tumours. GMS 2 related to higher T stage, venous invasion and R1 (all $p < 0.05$). For GMS 0, LR rate was 8.1% vs GMS 2 18.1% (p = 0.031). On binary logistic regression, LR risk was associated with male gender, higher T stage and R1 status (all $p < 0.05$) as well as higher GMS (*OR* 2.50, 95%*CI* 1.06–5.92, p = 0.037). On multivariate analysis, R1 status was the only independent factor associated with LR. In R0 resection specimens, risk of LR was 7.8% GMS 0 vs 12.9% GMS 2 (p = 0.200).

Conclusion: We report a relationship between the GMS (based on tumour stroma percentage and Klintrup-Mäkinen assessment of peritumoural inflammation) and LR risk. Higher GMS tumours had more locally advanced features, but the relationship between GMS and LR was not independent of resection margin status which remains the most important factor driving LR risk.

Disclosure of Interest: None declared.

P306 | Invasive procedures at the end-of-life in patients with colorectal cancer: A population-based cohort study

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Aim: Understanding the use of invasive procedures (IPs) at the end-of-life (EoL) is important to avoid under- and overtreatment, but epidemiologic analysis is hampered by limited methods to define treatment intent and EoL phase. This study applied novel methods to report IPs at the EoL using a colorectal cancer (CRC) case study.

Method: An English population-based cohort of adult patients diagnosed between 2013–2015 was used with follow-up to 2018. Procedure intent (curative, non-curative, diagnostic) by cancer site and stage at diagnosis was classified by two surgeons independently. Joinpoint regression modelled weekly rates of IPs for 36 sub-cohorts of patients with incremental survival of 0–36 months. EoL phase was defined by a significant IP rate change before death. Zero-inflated Poisson regression explored associations between IP rates and clinical/sociodemographic variables.

Results: Of 87,731 patients included, 41,972 (48%) died. 9,492 procedures were classified by intent (interrater agreement 99.8%). Patients received 502,895 IPs (1.39 and 3.36 per person year for survivors and decedents). Joinpoint regression identified significant increases in IPs four weeks before death in those living 3–6 months, and eight weeks before death in those living 7–36 months from diagnosis. 7,908 (18.8%) patients underwent IPs at the EoL, with stoma formation the most common major procedure. Younger age, early-stage disease, men, lower comorbidity, those receiving chemotherapy and living longer from diagnosis were associated with IPs.

Conclusion: Methods to identify and classify IPs at the EoL were developed and tested within a CRC population. This approach can be now extended and validated to identify potential under- and overtreatment.

Disclosure of Interest: None declared.

P307 | Feasibility of automated, real-time monitoring of surgical patients' experience of sdm using patient-reported outcome measures

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Aim: High quality, patient-centred shared decision making (SDM) is a central to colorectal surgical care. Monitoring patients experience of SDM in real-time may allow problems to be rectified preoperatively. This study examined feasibility of automated, real-time monitoring of surgical patients' experience of SDM using patient-reported outcome measures (PROMs).

Method: A prospective study included adult patients booked for planned surgery (general, breast, orthopaedic, urological, vascular and neurosurgery) in two hospitals. Diagnostic endoscopy was excluded. A software system was developed to automatically identify patients booked for surgery, administer two validated PROMs (CollaboRATE, SDM-Q-9), and provide a report within 24 hours. Mixed methods usability testing assessed system effectiveness (error rates), efficiency (time per task), and user satisfaction. Response rates were assessed with descriptive statistics and uni- and multivariable logistic regression explore the association between response and demographic data.

Results: The software system was developed in collaboration with a commercial provider. Systems usability testing demonstrated high effectiveness (9 testing sessions, 169/171 (99%) task completion success; 2 non-critical errors), efficiency was good (median ePROM completion time 120 seconds n = 2,254) and qualitative interviews highlighted good accessibility and low burden. Up to date recruitment rates and response statistics will be reported. To-date, 7,381

patients were sent surveys, of which 3,543 (48%) completed both PROMs. Univariable regression revealed an association between response and female sex, middle age (40–69), low deprivation (lowest IMD quintile), and treatment by general surgeons compared to other specialties, but these were all attenuated in the multivariable model.

Conclusion: Automated, real-time monitoring of SDM is feasible across multiple surgical specialties, including colorectal. Research is now needed to understand how PROM results can improve care.

Disclosure of Interest: None declared.

P308 | Stage II high risk colon cancer: Survival analysis in operated patients

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Aim: To analyze the survival rate of patients with stage II colon cancer (CCII) resected with curative intent and to identify risk factors that justify complementary therapy.

Method: Retrospective database of patients with CCII according to TNM classification, who underwent radical surgery with curative intent between 01/01/91 and 12/31/16. Demographic variables, classic risk factors (tumor size, extension and differentiation, insufficient lymph node count, lymphovascular invasion and carcinoembryonic antigen), surgical results and long-term follow-up were analyzed. Statistical analysis with Chi-square, T student, Kaplan-Meier survival curves and comparison with Long-Rank Test. The Cox regression model was used to determine high-risk predictive factors in the multivariate analysis.

Results: In 26 years, 836 colorectal cancers were operated and 341 of them were CCII. The average age of this group was 69 years and 55.7% were women. The average hospital stay was 10.1 days (2–93) and the rate of unscheduled reoperations was 5.6%, with the main cause being anastomotic dehiscence in 12 cases. 14.3% of the CCII were considered high risk (n = 49) and adjuvant chemotherapy was indicated. Average follow-up of 101 months (2–312). 19 patients presented recurrence, 15 of them died due to the disease. In the survival analysis of this series, the risk of dying secondary to CCII was 8.9 times higher in patients with lymphovascular invasion, this histological finding being the only independent poor prognostic factor that reached statistical significance.

Conclusion: Analysis of this series suggests that lymphovascular invasion is a poor prognostic factor in patients with CCII, who may benefit from adjuvant chemotherapy and closer follow-up.

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Disclosure of Interest: None declared.

P309 | Robotic-assisted total mesorectal excision with intersphincteric resection. surgical technique

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Aim: To present the surgical technique of the robotic-assisted total mesorectal excision with intersphincteric resection.

Method: We present the case of a 75-year-old female with low rectal cancer with partial response to neoadjuvant chemotherapy with capecitabine and radiotherapy. We decided to perform a robotic-assisted total mesorectal excision with intersphincteric resection and a coloanal anastomosis with protective ileostomy.

Results: We performed a robotic-assisted total mesorectal excision. First we start to mobilize splenic flexure, then we achieve vascular control of inferior mesenteric vessels. We proceed to enter mesorectal space and dissect the entire mesorectum. Transanally we perform the intersphincteric resection with a LoneStar retractor and we perform a manual end to end coloanal anastomosis. We perform a protective ileostomy. Surgical time was 180 min, 30cc bleeding. Discharged on the second day postoperative. There were no complications 3 months after the surgery.

Conclusion: Intersphincteric resection (ISR) is a safe sphincter-preserving technique for low rectal cancers, it is an alternative to an abdominoperineal resection, with acceptable functional and oncological results, without compromising recurrence and survival rates. Indications for an ISR are T1–3 cancers, T4 downstaged after chemoradiation, rectal cancers 1 to 5cm from the anal verge, well to moderately differentiaes adenocarcinoma. Contraindications are infiltration of externar anal sphincter/levator ani muscle, poorly differentiated adenocarcinoma, mucinous component, severe comorbidities of psychiatric disease. Robotic ISR is a safe and efficient procedure, with reduced postoperative pain, decreased disability, shorter hospitalization and better cosmesis. The robotic platform offers an optimal view, improved dexterity and a safer and more meticulous pelvic dissection, thus facilitating an anus-preserving resection.

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Disclosure of Interest: None declared.

P310 | Role of local excision for suspected regrowth in a watch and wait strategy for rectal cancer

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Aim: Rectal cancer patients with a clinical complete response to neoadjuvant (chemo)radiation are eligible for Watch and Wait (W&W). For local regrowth total mesorectal excision (TME) is considered standard of care. This study evaluated the role of local excision (LE) for suspected local regrowth.

Method: From 591 patients prospectively entered in a national W&W registry between 2004 and 2019, 77 patients underwent LE for regrowth and were included. Differentiation between early LE (<6 months) and late LE (>6 months) was made. Outcomes were histological grade (pTN stage), locoregional recurrence, long-term organ preservation, colostomy-free and overall survival at 5 years.

Results: 27/77 patients underwent early LE (<6 months after neoadjuvant radiotherapy) and 50/77 late LE (≥6 months). Median follow-up was 53 (39–69) months. In 28/77 patients, the LE specimen was histopathologically classified as ypT0 (including 9 adenomas), 11/77 was ypT1 and 38/77 was ypT2-3. After LE, 13/77 patients with ypT2-3 and/or irradical resection underwent completion TME. 14/64 patients without completion TME developed locoregional recurrence and were successfully treated with salvage TME. 8/77 patients developed distant metastases. At 5 year, overall organ preservation was 63%, colostomy-free survival 68%, and overall survival 96%. There was no difference in outcome between patients with early or late LE.

Conclusion: In W&W for rectal cancer, LE can be considered as an organ-preserving alternative to TME for suspected regrowth in selected patients.

Disclosure of Interest: None declared.

P311 | Does prophylactic negative-pressure wound therapy prevent surgical site infection after laparotomy? An updated systematic review and meta-analysis of randomized controlled trials

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Aim: Our objective was to determine if pNPWT allows prevention of SSI after laparotomy pooling only high-quality evidence.

Method: MEDLINE, Embase, CENTRAL and Web of Science were searched from inception to the 25.08.2021 for RCTs reporting the incidences of SSI in patients who underwent laparotomy with and without pNPWT. The systematic review was compliant with the AMSTAR2 recommendation and registered into PROSPERO. Risk difference (RD) between control and pNPWT patients, risk ratios (RR) and log risk ratio (log(RR)) for SSI for patients with pNPWT were obtained using random effects models. Heterogeneity was quantified using the I^2 value. Heterogeneity was investigated using subgroup analyses (per RCT sample size, per type of pNPWT device, per quality of RCT), funnel plots and bubble plots. Risk of bias of included RCTs was assessed using the RoB2 tool.

Results: Eleven RCTs were included, representing 973 patients who received pNPWT and 970 patients who received standard wound dressing. Pooled log(RR), RR and RD between patients with and without pNPWT were of, respectively, −0.41 (95%CI: −0.71 to −0.10, I^2: 38.7%, p = 0.0098), 0.665 (95%CI: 0.49 to 0.91, I^2: 38.7%, p = 0.0098) and −0.07 (95%CI: −0.12 to −0.03, I^2: 53.6%, p = 0.0018), therefore demonstrating that pNPWT decreases the incidence of SSI after laparotomy. Investigation of source of heterogeneity identified a potential small-study effect.

Conclusion: The protective effect of pNPWT against SSI after laparotomy is confirmed by high-quality pooled evidence.

Disclosure of Interest: None declared.

P312 | Survivors of emergency laparotomy: Who is at risk of poor mental health outcome?

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Aim: Survivorship of any condition may have a detrimental affect on quality of life and mental health. Specifically, EmLap survivors may be compounded by a new stoma, cancer diagnosis and experience of a critical illness. We have previously demonstrated that 7% of EmLap survivors require mental health services (MHS). This study aimed to identify risk factors for EmLap patients requiring MHS at the time of discharge, in the hope of developing future preventative strategies.

Method: This is a single UK tertiary centre retrospective cohort study. All patients who had an EmLap registered on local National Emergency Laparotomy Audit database from 2016–2019 were included and electronic records reviewed. Primary outcome was referral to MHS in the 2 years following EmLap, where the referring practitioner identified EmLap as a trigger for symptoms. Oversampling and undersampling techniques were used to mitigate class imbalance. Data was normalised to ensure that all independent variables had the same magnitude. Principal Component Analysis was utilized to reduce dimensionality. Three models were evaluated: a logistic regression, K Nearest Neighbours and Support Vector Machine. All models were evaluated using k-fold cross-validation.

Results: 808 patients were included into the model; 55 of which were referred to mental health services at discharge. The logistic regression model achieved the highest average AUC measure of 0.68 (0.11), with a high sensitivity but low specificity. Younger age (18–40 years; OR 6.2, $p < 0.001$), pre-existing mental health diagnosis (OR 3.1, $p < 0.001$), chronic fatigue syndrome (OR 5.1, p0.008), and an unplanned return to theatre (OR 2,2, $p = 0.045$) were independent risk factors for requiring MHS following EmLap.

Conclusion: This is the first study to identify risk factors for poor mental health outcome following EmLap. Further work is needed in order to validate this model for application into clinical practice.

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P313 | Acute lower GI bleed admissions – Outcomes and management in comparison to BSG guidelines

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Aim: Lower GI bleeding (LGIB) is a common surgical emergency. The British Society of Gastroenterology (BSG) in 2019 developed a UK national guideline on the management of LGIB. Our aim is to audit the current practice and standards for patients admitted with LGIB.
Method: This retrospective audit identified patients presenting to the Emergency department and Surgical assessment unit between September 2020 to February 2021 with LGIB. The shock index and Oakland score (OS) at first presentation were calculated.
Results: A total of 27 patients satisfied the inclusion criteria. Average age of patients was 64.7 years. Three patients had an OS of ≤8 with 1 patient being hospitalised. 21 patients had an OS of >8 and 7 out of the 21 patients were discharged instead. 14 patients (51.8%) were on anticoagulants/antiplatelets of which 1 was on dual antiplatelet therapy. 10 patients had their drugs suspended appropriately and 2 did not. Eight patients were referred for OP endoscopy.
Conclusion: We found that improvements can be made with respect to suspension of anticoagulant and antiplatelet drugs and duration to colonoscopy. A more pragmatic approach to both intervention and interval to endoscopy may have to be applied due to service constraints. A checklist has been developed based upon the guidelines to Triage patients as stable or unstable bleed at admission. Recommend admission or discharge Guide decisions regarding suspension and re-commencement of antiplatelet and anticoagulants. We plan to re-audit the parameters prospectively after 3 months from the roll-out of the checklist.
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Disclosure of Interest: None declared.

P314 | The frequency(precentage) of fecal incontinence in patient undergoing complex fistula operation and sphincteroplasty at smae operation

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Aim: Anal fistula IhS a common disorder and incontinence post operation is common are main concer is reduce or prevent incontinece in complex fistula.
Method: In this descriptive study, 100 patient with complex fistula surgery were examied by face to face or telephone interviews and wexner questionnaire was used to evanuate incontinence rate, ptaient into two group due to healty sphinter (53) and patient with history incontinence pre operation or history of previous anal surgery (47) case and follow up perid were 6 month and one year post operation data analyzed by spss 16 sofware.
Results: out OD 53 pt with NL sphincter at six month later 7 case had incontinence (13.2%) mean wexner score 0.66 and one year later 2 case (3.8%) mean wexner score 0.19 in 47 patient with history of surgery and preoperation incontinence six moth later 7 (14.9%) and one month later 6 (12.7%) had incontinence.
Conclusion: Fistula operation associated with anal sphincter repair is safe and effective way to treat the complex fistula it recommended to preserve fistula operation and simultaneous repair of anal sphinctter of patient with complex fistula in both patient with nl sphincter or damaged sphincter preoperation.
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Disclosure of Interest: None declared.

P315 | Local and distant recurrence in colon cancer stage of T3N0M0IN in 2019–2021

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Aim: Local and distal metasatiss are importent prognostic factorin patient colon cancer especial iin t3n0mo stage which rule of post operation chemotherapy doesnt routine gave to all patient.
Method: In observational study that was performed as cross sectinal descripitive survey 50 patient with colon cancer stage T3N0M0 in tehran hospital from 2015 to 2020 were enrolled and local and distent reccurence in them was assessed.
Results: The local and distant metastases were seen in 11.6% and 32.6% respectively 10 patient didnt have adjuvent chemotherapy

(reccurence was 60%) (40% metastas-10% local -10% both) but in group with post operation chemotherapy was only 33.3%.

Conclusion: Totally according to the obtain results, it may concluded that local and distant reccurrence are seen in near to half of patients with colon cancer stage t3n0mo and chemotherapy post operation can decreased the reccurence.

Reference

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Disclosure of Interest: None declared.

P316 | Deep (aggressive) angiomyxoma perinal area

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Aim: Present rare case and emphasis in History and physical exam.

Method: This is 43 years old lady suffering for 23 years and miss diagnosis patient had diffculty in defection at first and gradually difficulty in urination and had longtime treatment as obstruction dysfunction syndrom without any improvment after history and physical exam (rectual exam andproctoscopy) mass find and surgery done she had huge Angimyoma (aggressive) at her perianal area which extended in right side rectum.

Results: I would like share my case and photo of 15 in 20 cm mass at perianal and right side anus of my patient as rare case and miss diagnosis.

Conclusion: focus on history and physical exam for diagnosis then use paraclinic.

Disclosure of Interest: None declared.

P317 | Circulating metabolic markers after surgery anticipate major postoperative complications: A prospective cohort study in colorectal cancer patients

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Aim: Surgery remains the basis of colorectal cancer (CRC) treatment and early detection of vulnerability is associated with improved outcomes. The identification of early biomarkers of postoperative complications is an unmet need. The aim was to investigate early metabolomics signatures able to anticipate short-term postoperative complications after CRC surgery.

Method: Prospective cohort study including patients undergoing CRC surgery from 2015 to 2018. Plasma samples were collected before and on postoperative day 4, and analysed by mass spectrometry-based targeted metabolomics obtaining 149 metabolites and 21 metabolic ratios. Postoperative complications were registered through Clavien-Dindo Clasification (CDC) and Comprehensive Complication Index (CCI).

Results: 146 patients were included. Preoperative metabolome was not associated with postoperative outcomes. Surgery substantially altered the metabolome, including variations in 118 metabolic markers. Metabolic changes after surgery were quantitatively associated with the severity of postoperative complications. The strongest positive relationship with both CDC ($\beta = 4.11$; $p < .001$) and CCI ($\beta = 63.52$; $p < .001$) corresponded to kynurenine/tryptophan ratio, and an inverse relationship of lysophosphatidylcholines and phosphatidylcholines was found. Stratification resulted in 21 patients with major complications based on CDC≥IIIa and 35 based on CCI≥26.2. Several metabolic markers reappeared as relevant anew, using only postoperative samples in order to facilitate the application into clinical practice. Patients with lysophosphatidylcholine18:2/phosphatidylcholine-a36:2 ratio below the cut-off of 0.084 (μM/μM) resulted in 6-fold higher risk of major complications (OR 6.29; 95%CI 2.51–17.18; $p < .001$), while patients with kynurenine/tryptophan above 0.067 (μM/μM) had more than 8-fold higher risk (OR 8.07; 95%CI 2.73–26.56; $p < .001$).

Conclusion: Metabolic phenotyping could improve the prediction of major postoperative complications.

Disclosure of Interest: None declared.

P321 | Variation and outcomes of minimally-invasive colorectal surgery in england: A national population-based study

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Aim: Robotically-assisted colorectal surgery is expanding rapidly, but large studies are limited, with no population-based studies in England and minimal information on regional and socioeconomic inequalities on uptake.

Objectives:

- Quantify the uptake of laparoscopic and robotic colorectal surgery by year, demographics and geographical region in England.
- Compare 90-day mortality and length of stay between minimally-invasive and open surgery.

Method: This population-based, retrospective observational study used national data from the Clinical Practice Research Datalink, linked to Hospital Episode Statistics, containing primary care data from over 13 million patients across England.

All patients having elective colorectal surgery between 01/01/2006 and 31/03/2020 were included.

Results: 93,735 patients were included: 52,098 (55.6%) open; 40,622 (43.3%) laparoscopic and 1,015 (1.1%) robotic. Robotic surgery was significantly more common in male, co-morbid and affluent patients having left-sided surgery.

Laparoscopic procedures went from 8.6% of the total in 2006 to 61.7% in 2019, overtaking open in 2015. Robotic surgery made up 3.2% of procedures in 2019. Patients in the South were more likely to have a minimally-invasive operation than those in the North (48.0%vs 39.9%, $p < 0.001$).

Length of stay was lower in minimally-invasive surgery compared to open (6 vs 9 days, $p < 0.001$), with no difference between laparoscopic and robotic.

Compared to open, 90-day mortality was lower in minimally-invasive surgery (OR 0.35, 95%CI 0.31–0.38); remaining when adjusted for other factors impacting mortality (OR 0.45, 95%CI 0.41–0.50). There was no difference between robotic and laparoscopic surgery (OR 0.52, 95%CI 0.25–1.10).

Conclusion: Minimally-invasive colorectal surgery is increasing, but significant regional and demographic inequalities in its uptake exist. There are clear clinical benefits over open surgery, but more patients are needed to assess the impact of robotics.

Disclosure of Interest: None declared.

P322 | Effect of folfoxiri plus bevacizumab treatment of colorectal peritoneal carcinomatosis on local and systemic immune cells

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Aim: The immune system plays a crucial role in the outcome of colorectal cancer. Systemic chemotherapies modulate the immune cell composition and thus interfere with the sensitivity of colorectal cancer to immunotherapy. Little is known about these changes in peritoneal metastasized colorectal cancer. Thus, we aimed to characterize local and systemic immune cells in the course of systemic chemotherapy.

Method: We included 20 patients with peritoneal metastasized colorectal cancer in our exploratory study. All patients received systemic chemotherapy with bevacizumab. Tumour tissue and peritoneal fluid were collected before and after systemic chemotherapy. Peripheral blood was taken at different times. The main immune cell subtypes were characterized using flow cytometry and immunochemistry.

Results: Neutrophils and the neutrophil-to-lymphocyte ratio significantly declined in response to systemic chemotherapy while circulating T cells increased ($CD8^+$ $p = 0.015$, $CD4^+$ $p = 0.041$). In peritoneal fluid we observed a decrease of $CD25^+/FOXP3^+/CD4^+$ regulatory T cells ($p = 0.049$) without loss of the ability to produce IFNγ. T cell infiltration in the tumour microenvironment showed a considerable variability between patients. However, the amount of tumour infiltrating lymphocytes was not significantly changed by the application of chemotherapy.

Conclusion: Our data show that immune cell distribution after systemic chemotherapy changes in peripheral blood. However, local T cells within peritoneal metastases remain unaffected. Interestingly, the inhibitory Treg population decreased in peritoneal fluid without a loss of T cell function, suggesting less local immunosuppression after systemic therapy and perhaps opening new opportunities for immunotherapy.

Disclosure of Interest: None declared.

P323 | Inflammatory markers may predict post-operative complications and recurrence in crohn's disease patients undergoing gastrointestinal surgery

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Aim: Most Crohn's Disease (CD) patients will require surgical intervention over their lifetime, with considerably high rates of post-operative complications. Risk stratification with reliable prognostic tools may facilitate clinical decision making in these patients. Blood cell interaction based inflammatory markers have proven useful in predicting patient outcomes in oncological and benign diseases. The aim of this study was to investigate their prognostic value in CD patients undergoing surgery.

Method: A retrospective single institution study of CD patients who underwent surgery between the years 2008–2019 was conducted. Data were collected from medical records and analyzed for association of Platelet-to-Lymphocyte Ratio (PLR), Neutrophil-to-Lymphocyte Ratio (NLR), Lymphocyte-to-Monocyte Ratio (LMR) and the modified Systemic Inflammatory Score (mSIS) with post-operative outcomes.

Results: A total of 81 patients were included in the analysis. Half were females; mean age was 36±15.54 years. Fifty seven percent ($n = 46$) were operated in expedited settings, with 23.5% developing post-operative complications. In elective patients, higher pre-operative NLR ($p = 0.029$) and PLR ($p = 0.034$) were associated with major post-operative complications, higher NLR ($p = 0.029$) and PLR ($p = 0.034$) were associated with re-operation and higher PLR correlated with Clavien-Dindo score ($p = 0.032$). In patients operated in expedited operations, higher pre-operative NLR ($p = 0.021$) and lower pre-operative LMR ($p = 0.018$) were associated with

thromboembolic events and higher mSIS was associated with major post-operative complications (p = 0.032).

Conclusion: Blood cell interaction based inflammatory markers confer an association with post-operative complications in CD patients undergoing surgery. These indices may facilitate patient selection and optimization when considering the risks and benefits of surgical interventions.

Disclosure of Interest: None declared.

P324 | The benefit of surgical resection in synchronous stage IV colorectal cancer (CRC): Single center retrospective review

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Aim: This study aims to compare the survival outcomes of the patients who received primary tumor resection (PTR) with or without metastasectomy at any point of the treatment period in stage IV colorectal cancer (CRC).

Method: This is a retrospective study at a single institute. The study population included all patients with synchronous metastatic CRC at the initial diagnosis from 2017 to 2019. The study groups were divided into three: Chemotherapy (CTx)-only; PTR; PTR plus metastasectomy (mPTR). The primary outcome of this study was 2-year overall survival (OS). A total of 88 patients were identified with synchronous stage IV CRC. Among them, 2 patients with recurrent colon cancer were excluded. Finally, 86 patients were included in this study.

Results: A total of 86 patients were identified with synchronous stage IV CRC: 14 patients in CTx-only group; 31 in the PTR group; 41 in the mPTR group. We compared patient's demographics and there were no statistical differences except the clinical M stage. The OS was the best for patients in the mPTR group, mean OS was 50.6±2.6 months. The patients in the PTR group showed better OS trend than the patients in the CTx-only group, but no statistical difference was found. In the 41 patients of the mPTR group, we classified them into 2 groups according to the initial resectability of metastatic lesion: 12 patients of non-resectable group (NR); 29 patients of resectable group (R). In the NR group, CTx was started in all patients as the initial treatment except 1 patient who got surgery first. In the R group, patients underwent metastasectomy simultaneously with PTR or as a staged operation. There was no significant difference in OS between NR and R group. Conversion rate in the NR group was 75%.

Conclusion: This study demonstrates that PTR with metastasectomy may be the choice of the treatment in selected patients. In the mPTR group, initially unresectable single organ metastases were converted to resectable lesions and R0 resection was achieved after CTx.

Disclosure of Interest: None declared.

P325 | Giant diverticulum mimiking bowel perforation

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Aim: To find the presentation of giant diverticulum of colon.

Method: Case report and literature search.

Results: Giant diverticulum can mimic bowel perforation.

Conclusion: Learning points.

Giant colonic diverticulum (GCD) is rare, with less than 200 cases reported in the literature.[1]

The CT findings of large diverticulum can be mistaken for a contained bowel perforation, and it is important to differentiate between the two pathologies as their managements can be different.

GCD can be complicated by volvulus, bowel obstruction, perforation, abscess formation, sepsis and rectal bleeding.[2,3]

Two per cent of giant diverticulum is associated with malignancy, either within it or distal to it, so it is important to arrange flexible sigmoidoscopy before elective bowel resection.2 However, a clear causal association between giant diverticulum and malignant transformation has yet to be established.

Although conservative management is possible for high-risk surgical patients (as in this case), surgical resection of the diverticulum is the mainstay of treatment for GCD.3 A review of 16 cases of GCD treated with sigmoidectomy and en bloc resection of the diverticulum reported no postoperative deaths and a morbidity rate of 6%.1

Due to the risk of complications from GCD and the low reported morbidity and mortality from their surgical resection, elective surgery could be considered as a management option for uncomplicated GCD.

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Disclosure of Interest: None declared.

P326 | Investigating the relationship between premorbid resilience with ileal-pouch anal anastomosis function for patients with ulcerative colitis: A pilot study

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Aim: Appropriate candidate selection for IPAA is of paramount importance. Objective predictive features of positive pouch outcomes include younger patients with histologically confirmed ulcerative

colitis (UC) and good sphincter function. More subjective factors however also contribute to a patient's pouch experience including an inherent resilience and ability to cope with change. To date, there is a paucity of literature exploring methods of quantifying these qualitative features. The aims were to examine the brief resilience coping score (BRCS) as a means of assessing coping abilities in a pouch cohort and to compare BRCS scores with functional pouch outcomes using the Orsland score to examine correlation.

Method: A prospectively maintained database was interrogated. Patients with IPAA for UC who were at least 6 months post closure of ileostomy were identified. Orsland and BRCS questionnaires were administered via telephone. All data were anonymised and analysed using GraphPad Prism v9.2.

Results: 13 patients were contacted (median age 32, M:F = 9:4) (reponse rate 81%). All had undergone IPAA between 2016 and 2021. 3 patients had good pouch function with 8 medium and 2 poor as defined by the Orsland score. Regarding coping, 5 exhibited good coping ability, 7 medium and 1 poor. Correlation was examined using the Pearson coefficient, indicating moderate correlation between functional scores and resilience (r = 0.3), $p = 0.3$.

Conclusion: These early data suggest that the majority patients in our institution have favourable coping ability and functional pouch outcomes, highlighting a potential role for BRCS as a screening tool for pouch selection. Further studies will interrogate these scores in those who declined IPAA or underwent excision for pouch failure to examine if a similar correlation exists.

Disclosure of Interest: None declared.

P327 | Five-year institutional experience of patients undergoing colectomy for ulcerative colitis

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Aim: Up to 30% of patients with Ulcerative Colitis (UC) will ultimately require a colectomy. The heterogeneity of patient cohorts and treatment options have diversified modern surgical management, particularly with the widespread adoption of minimally invasive reconstructive options such as ileal-pouch anal anastomosis (IPAA). The authors present a 5-year institutional experience of colectomies performed for UC.

Method: Two prospectively maintained databases were interrogated and cross-referenced. Patient demographics/laboratory results were obtained from an electronic patient record system and clinical notes were reviewed. All data were anonymised and analysed using GraphPad Prism v9.2.

Results: From January 2016 to December 2020, 83 colectomies (emergency 48, elective 35) were performed (M = 51, F = 32). Median age of all patients was 39 (17–79). Median length of stay was 9 days for elective surgery and 20 days for emergency. 13 patients undergoing elective surgery had an index panproctocolectomy with 6 IPAAs fashioned immediately and a further 5 as a second stage procedure. 45 patients undergoing emergency surgery had an index subtotal colectomy of which 14 subsequently had a completion proctectomy with 8 IPAAs fashioned as a second stage procedure. 77% of patients undergoing elective surgery had received steroids within 12 weeks of surgery with 51% having received biologics. For emergency resections, this was 93% and 80%. 60 surgeries (72%) were performed laparoscopically. 30-day morbidity was 19% for emergency cases and 7% for elective. Of 19 pouches fashioned, 10 (52%) experienced pouchitis. 2 pouches were excised (10.5%) with 14 patients using anti-diarrhoeals regularly (73.6%).

Conclusion: This review illustrates the heterogeneity of patients undergoing surgery for UC. Our practice reflects the evolution of UC surgery and changing trends in modern management, reinforcing that optimally timed operative intervention leads to favourable perioperative and long-term outcomes.

Disclosure of Interest: None declared.

P328 | Comparison of early postoperative results in laparoscopic and open colon resection

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Aim: Compared to the open approach, randomized trials have shown that laparoscopic colectomy is associated with a shorter hospitalization without increases in morbidity or mortality rates. The aim of this study was to clarify whether a laparoscopic approach could be considered the more effective strategy in patients undergoing different types of colectomy.

Method: A total of 140 patients were included in the study. Patients undergoing laparoscopic resection were more likely to have undergone planned resections than patients undergoing open resection. There were no differences in the adjusted odds of moderate-to-severe symptom scores between the laparoscopic and open approaches on multivariable analyses, adjusting for patient demographics, cancer stage, and planned vs unplanned admission status.

Results: Laparoscopic colectomy was associated with significantly less estimated blood loss, fewer total postoperative complications, shorter time to first flatus, time to a liquid diet, and length of postoperative hospital stay. There was no statistically significant difference between the groups concerning the intraoperative complications, anastomotic leakage, bleeding, abdominal infection, lymph nodes harvested, proximal resection margin, distal resection margin, OS, or DFS. The open group had a significantly lower total complication rate (17.6% vs 25.8%, $p < 0.0001$), including a lower rate of postoperative small-bowel obstruction (1.4% vs 2.9%, $p = 0.03$). The minimally invasive surgery group had a significantly lower

wound infection rate (2.9% vs 6.0%, $p = 0.02$) and a shorter length of hospital stay (4 vs 7 days, $p < 0.001$). There was no difference in 30-day mortality.

Conclusion: Although our results showed a lower complication in the open group, given the other results, we consider the laparoscopic technique to be feasible, safe, and oncologically adequate for the treatment of colon cancer and its technical advantages may lead to becoming a standard approach in future stadies.

Disclosure of Interest: None declared.

P329 | Overlapping and sleeve-like modification of the mucosal advancement flap improves outcome

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Aim: Successful outcomes of the mucosal advancement flap as sphincter sparing treatment for high and complex cryptoglanddular fistulas range between 60–80%. The objective of the present study is to evaluate whether overlapping and sleeve like modification of mucosal advancement flap (OS-MAF), which do the flap in sleeve like manner including the mucosa and part of internal sphincter and utilizes redundant proximal mucosa to overlap the distal suture line, enhances the outcome.

Method: A retrospective study was done on 187 patients who underwent OS-MAF by one team of two surgeons at a single institution from 2010 to 2021 with median follow-up of 12 months. A successful outcome was defined as closure of the external opening and cessation of drainage either from the anus or external opening after three months of the procedure. Failure was characterized by persistent drainage through the external opening or the anus or the need for additional surgery. Non-cryptoglandular fistulas and patients with insufficient follow up were excluded.

Results: 187 patients (88.7% male and 11.3% female) with range of age between 16–74 years underwent OS-MAF. Over a median follow up of 12 (range, 3–18) months, 93.5 % patients had a successful outcome. there were no instances of post-operative incontinence.

Conclusion: The overlapping and sleeve like modification applied to the mucosal advancement flap (OS-MAF) seems to be associated with higher success rate than the classical mucosal advancement flap technique (MAF).

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Disclosure of Interest: None declared.

P330 | Laser sphincterolysis vs surgical sphincterotomy for the treatment of chronic anal fissure

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Aim: Laser sphincterolysis has been used in our institution to mitigate potential for incontinence and postoperative pain that characterizes surgical sphincterotomy To assess the efficacy of laser sphincterolysis in comparison to surgical sphincterotomy.

Method: The study took place at the colon and rectal surgical division of a tertiary academic medical center in Jordan.

This is a non randomized comparative retrospective study.

The technique involves application of spot laser power within the substance of the internal sphincter using a linear diode laser probe [SiLaC™ (Biolitec AG, Jena, Germany)]. Lysis is completed by finger massage. It does not involve a surgical blade, scissors or suture materials.

Patients were divided into two groups: those undergoing laser sphincterolysis and surgical sphincterotomy.

Adult male and female patients who underwent either laser sphincterolysis or surgical sphincterotomy were identified via retrospective chart search.

Results: From April 2018 to December 2021, 229 patients (164males, mean age 40years) failed non operative management for anal fissure. 140 patients (61.1%) underwent laser sphincterolysis and 89 (38.9%) had surgical sphincterotomy. Postoperative pain, bleeding and constipation were significantly lower in the sphincterolysis group vs the sphincterotomy group. Return to work is significantly quicker in sphincterolysis patients. No patients in either group had fecal incontinence or recurrence at 6 months follow up. Overall satisfaction is significantly higher with sphincterolysis patients.

Conclusion: For the operative treatment of anal fissures, laser sphincterolysis offers improved outcomeswith pain, bleeding, constipation and recovery along with higher satisfaction than surgical sphincterotomy. Laser sphincterolysis is a safe procedure without any recorded incidence of fecal incontinence.

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Disclosure of Interest: None declared.

P331 | The role of transanal irrigation (TAI) in the management and salvage of anastomotic leaks

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Aim: Anastomotic leak is a feared complication of rectal surgery due to the high associated mortality and morbidity. Traditional management involves taking down the anastomosis. However, there is a movement to try to salvage the join with endoscopic techniques. This study evaluates a complementary strategy using TAI in suitable patients.

Method: A retrospective cohort study was performed of patients who, with the assistance of clinical nurse specialists were commenced on TAI to manage local sepsis as a step down from or alternative to endosponge management on an outpatient basis.

Results: Over a 7 year period, 11 patients adopted this approach. A 9 had a low anastomosis, 1 had a leak from a TAMIS wound and one had a rectal stump leak. Qufora Mini Go Flex or cones were used on all occasions. 200ml of warm tap was the standard irrigation fluid and volume and irrigation frequency ranged from once to three times daily. 10 patients had a stoma (2 Colostomy; 8 ileostomy) 4 of 8 patients with an ileostomy were reversed after a mean of 315 days with satisfactory function.

Conclusion: This study demonstrates that transanal irrigation is a feasible management strategy in selected patients. It can be adapted to variety of indications. Strengths of this approach include the avoidance of repeated endoscopic procedures, prolonged admissions and general anaesthesia with associated economic benefits.

Disclosure of Interest: None declared.

P332 | Predictive factors for conservative treatment failure of complicated acute diverticulitis

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Aim: Complicated acute diverticulitis (CAD), described by the presence of an abdominal abscess and/or extraluminal air, requires hospital admission. Conservative treatment is effective in most cases, but some patients will require rescue surgery. The aim of this study is to identify clinical, analytical and radiological data that might predict conservative treatment failure.

Method: A retrospective cohort study was performed in our tertiary center including all patients admitted for CAD from January 2011 to

July 2020. Significant variables in the bivariate analysis were transformed into dichotomous variables for multivariate analysis and applied in a nomogram-derived objective risk score that predicts the probability of surgery within 30 days after admission.

Results: Of the 156 patients who met the inclusion criteria, 53 (34%) required rescue surgery during admission. Multivariate analysis revealed heart rate ≥100bpm (OR 2.57; IC95%: 1.04–6.34, p = 0.041), C-reactive protein (CRP) ≥20mg/dl (OR 2.84; IC95%: 1.18–6.83, p = 0.020), neutrophilia ≥14.000u/µl (OR 3.88; IC95%: 1.52–9.93, p = 0.005), presence of extraluminal air bubbles with a total volume ≥2.5cm^3 (OR 5.68; IC95%: 2.03–15.88; p = 0.001) and presence of abscesses with a total volume ≥7.5cm^3 (OR 3.90, IC95%: 1.50–10.13; p = 0.005) were predictive factors for conservative treatment failure. The resulting predictive model using a nomogram showed a high discrimination capacity (AUC = 0.841) and a favorable calibration (p-value for the Hosmer-Lemeshow test = 0.197).

Conclusion: Heart rate, CRP, neutrophilia as well as radiological data on total volume of abscesses and air bubbles, are independent risk factors for requiring surgery within 30 days of starting conservative treatment for CAD. Further studies are warranted to validate these results that might provide a useful starting point for a future classification of CAD severity index with therapeutic implications.

Disclosure of Interest: None declared.

P333 | Real-time classification of colorectal tissue using diffuse reflectance spectroscopy to aid resection margin assessment

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Aim: Colorectal cancer is the fourth most commonly diagnosed malignancy and the third leading cause of mortality worldwide. A positive resection margin following surgery for colon cancer is linked with higher rates of recurrence and worse survival. The aim of this study was to use a developed diffuse reflectance spectroscopy (DRS) probe and tracking system to distinguish cancer and non-cancer colorectal tissue live on-screen intraoperatively in order to aid margin assessment.

Method: Patients undergoing elective colorectal cancer resection surgery at a tertiary hospital in London were prospectively recruited between April 2021 and July 2022. A hand-held DRS probe was used on the surface of freshly resected ex-vivo colorectal tissue. Spectral data was acquired for normal and cancerous tissue. Binary classification was achieved using supervised machine learning classifiers, which were evaluated in terms of sensitivity, specificity, accuracy and the area under the curve.

Results: A total of 2702 mean spectra were obtained for normal and cancerous colorectal tissue. The Light Gradient Boosting Model was the best performing machine learning algorithm for differentiating normal and cancerous colorectal tissue, with an overall diagnostic accuracy of 90.7% and area under the curve of 96.7%. Live on-screen classification of tissue type was achieved using a graduated colourmap.

Conclusion: Real-time classification of tissue type was achieved using a DRS system, with high diagnostic accuracy, allowing differentiation of cancerous and normal colorectal tissue. This is a promising step towards an in-vivo classification system that is able to aid surgeons with accurate resection margin assessment for colorectal cancer intra-operatively.

Disclosure of Interest: None declared.

P334 | Diagnostic yield of combining ct colonoscopy and endoscopy to investigate colorectal cancer

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Aim: Computerised tomography colonoscopy (CTC) is widely used as an alternative to colonoscopy. Bowel cancer screening guidelines for the UK states that CTC is a whole examination of the colon precluding the need for further endoscopic evaluation. However, missed lesions in CTC is a recognized pitfall, mostly for lesions in left colon. Thus, many centers perform CTC in conjunction with endoscopy (Flexible Sigmoidoscopy/ Colonoscopy) to improve diagnostic yield. This study aims to assess the advantage of using endoscopy as an adjunct to CTC.

Method: Prospectively maintained data was collected retrospectively regarding patients undergoing CTCs along with Flexible Sigmoidoscopy/ Colonoscopy from 2019 to 2022. Data was collected on patient demographics, indications and the findings. Significant findings were defined as polypoidal lesions >5mm, benign and malignant.

Results: A cohort of 480 patients was included for analysis. The overall incidence of polypoidal lesions >5 mm was 217/480 (45.2%). The overall incidence of malignancy was 35/480 (7.2%). 28 (5.83%) cancers were identified on CTC. 7 (1.45%) cancers were missed in CTC, 2 (5.7%) from ascending colon, 3 (8.5%) from anorectum, 2 (5.7%) from descending colon. 1 patient had sigmoid colon tumour detected on CTC but missed on sigmoidoscopy. 35/480 (7.08%) patients had polyps >5 mm missed on CTC.

Conclusion: This study highlights the diagnostic yield of combining CTC with endoscopy. The number needed to scope for one missed cancer in CTC is 69. Further research is required to validate the use of CTC alone for investigating colorectal cancer.

Disclosure of Interest: None declared.

P335 | Acute mesenteric ischemia involving the colon

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Aim: To evaluate the outcomes of patients with acute mesenteric ischemia involving the colon.
Method: The Data was collected from the institutional computerized database of a single tertiary center. Patients who presented with acute mesenteric ischemia between 2010 and 2021 were included. Demographic data, as well as patients' comorbidities, opertaive and post operative information was obtained. A retrospective analysis and comparison of patients presenting with ischemia involving the colon to the larger group of patients with ischemia limited to the small bowel was performed.
Results: Sixty seven patients underwent surgery for acute mesenteric ischemia. 34 were female and the the mean age was 75 in the study group.38/67 underwent bowel resection with 12 of them undergoing a colectomy as part of the resection.12/29 who didn't have bowel resection underwent a thrombectomy.7/12 undergoing colectomy died. 30 patients had CT findings demonstrating colonic ischemia. 24/26 who had small bowel resection only underwent a second look laparotomy compared to 9/12 undergoing colectomy. Patients undergoing colectomy were hemodinamically less stable (p = 0.0334) and their motality rate was signifacntly higher (p = 0.035).
Conclusion: The findings of colonic ischemia as part of acute mesenteric ischemia carry a dismal prognosis and warrants a special clinical attention is this group of patients.
Disclosure of Interest: None declared.

P336 | The use of a classification system in the management of pilonidal disease

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Aim: Pilonidal disease (PND) is a common benign pathology affecting the young. It rarely resolves without intervention. There are many techniques described in the literature, but very few classification systems have been proposed to help guide treatment selection for disease severity. We propose the use of a classification system developed by Wysocki et al in Berlin 2017, as a tool to aid clinicians' treatment choice for patients with PND.
Method: Consecutive patients undergoing treatment for pilonidal disease between 1990 and 2022 at 2 centres (St Mark's Hospital, London and Queen Alexandra Hospital, Portsmouth) were examined. Patients who had not been prospectively classified had their notes reviewed and were retrospectively classified in accordance with the Berlin classification. Choice of treatment was documented.
Results: 1449 patients in total were given a classification on a pilonidal database. Nearly half (n = 710) of all patients were classified as Type 2 (presence of pits with history of abscess drainage or a lateral drainage sinus). Majority of these patients (68%) were offered simple, non-excisional surgery in the form of either trephine or Bascom's pit picking technique. The remainder were too extensive for these treatments. 66 patients (4.6%) were classified as type 3 (disease extending out of the natal cleft beyond the coccyx). 23.5% (n = 341) of patients were classified as type 4 (recurrent PND after previous curative surgery). Majority of patients with type 3 or type 4 disease were offered excisional surgery and off midline closure (91.4%) in the form of Bascom's cleft closure.
Conclusion: We advocate the use of a classification system as a tool for treatment selection. Patients with simple disease and limited tissue involvement (type 1 or 2 Berlin classification) benefit from excision of pits ± management of abscess cavity where possible. Patients presenting with recurrence (Type 4) or greater tissue involvement should be considered for excisional surgery and off midline closure.
Disclosure of Interest: None declared.

P337 | Video capsule endoscopy in the diagnosis of Crohn's disease

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Aim: Повысить эффективность диагностики болезни Крона.
Method: В исследовании проанализировано 288 пациентов с синдромом раздраженного кишечника. В зависимости от диагностической тактики больные были разделены на 2 группы. Группы пациентов были сопоставимы по возрасту и полу.
В первую группу сравнения вошли пациенты с синдромом раздраженного кишечника за период с 2010 по 2013 г., которым был поставлен диагноз традиционными методами без применения видеокапсульной эндоскопии. В эту группу вошли 143 пациента (49,6%). Во второй группе больным диагностировали по разработанному нами алгоритму с применением видеокапсульной эндоскопии, илеоколоноскопии и, при необходимости, энтероскопии с биопсией из пораженных участков. В эту группу вошли 145 больных (50,3%).
Results: Результаты обследования больных первой и второй групп показали, что болезнь Крона выявлена у 20 (13,9%) больных первой группы и за счет применения видеокапсульной эндоскопии, колоноскопии, энтероскопии, биопсии выявлена у 48 (33,1%) больных второй группы. Кроме того, по разработанному алгоритму обследовано 68 больных первой группы с диагнозом синдром раздраженного кишечника, находившихся под динамическим наблюдением в нашей

клинике. Результаты показали, что 25 (36,7%) пациентов из 68 имели болезнь Крона тонкой кишки.

Conclusion:Применениеразработанногоалгоритмадиагностики с помощью видеокапсульной эндоскопиис илеоколоноскопией и биопсией с комплексными патоморфологическими исследованиями присиндром раздраженного кишечника выявление болезни Крона у 33,1% больныхпри стадии болезни, в то время как методы наблюдения позволяют выявить болезнь Кронатолько у 13%.

Disclosure of Interest: None declared.

P338 | Endoscopic treatment optimization for intestinal strictures in Crohn's disease

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Aim: Улучшить результаты лечения стриктур кишечника при болезни Крона за счет оптимизации методики эндоскопической баллонной дилатации.

Method: Эндоскопическое лечение стриктур кишечника при болезни Крона выполнено у 64 больных в Киевской областной клинической больнице в период с 2010 по 2020 г. В зависимости от метода эндоскопического лечения больные были разделены на 2 группы. Первую группу составили 32 (50%) пациента, которым была выполнена традиционная эндоскопическая баллонная дилатация стриктуры. Вторую группу составили 32 (50%) пациента, которым после баллонирования выполнялась эндоскопическая баллонная дилатация в сочетании с подслизистым введением преднизолона в область стриктуры.

Results: Частоту рецидивов оценивали через 6–12 мес у больных I и II групп. Среди пациентов I группы повторная эндоскопическая баллонная дилатация выполнена у 8 (25%) в течение первых 6 мес и у 3 (9,3%) через 8 мес. В течение 12 мес рецидив кишечной стриктуры возник у 5 (15,6%) больных I группы и у 3 (9,3%) II группы. Так, частота дилатационных процедур у больных I группы составила 1,44±0,66 процедуры в год, а у больных II группы – 1,1±0,3 процедуры в год. Полученные результаты показали, что эндоскопическая баллонная дилатация с введением 40 мг преднизолона у пациентов II группы была более эффективной по сравнению с традиционной баллонной дилатацией. Частота рецидивов снизилась с 34,4% до 9,3%. Риск рецидива кишечной стриктуры в I группе в течение первого года наблюдения был выше в 4,5 раза – HR = 4,5 (1,6–12,9); p = 0,010.

Conclusion: Усовершенствование эндоскопической баллонной дилатации стриктур кишечника при болезни Крона за счет сочетания баллонной дилатации и введения преднизолона в зону фиброзной стриктуры более эффективно по сравнению с традиционной баллонной дилатацией, что снижает частоту рецидивов стриктур до 9,3% против 34,3%. (p < 0,05).

Disclosure of Interest: None declared.

P339 | Feasibility and safety of laparoscopic approach in D3 lymph node dissection for colon cancer surgery. COLD trial: Analysis of 116 patients included in main center

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Aim: Extended lymph node dissection in colon cancer surgery may be associated with increased risk of intraoperative complications due to required exposion of superior mesenteric vein or aorta. The aim of this study was to determine feasibility and safety of laparoscopic approach for D3 lymph node dissection.

Method: COLD trial is a superiority multicenter randomized controlled trial comparing D3 and D2 lymph node dissection in colon cancer surgery with primary endpoint of 5-year survival. Eligible patients were randomized to D2 or D3 lymph node dissection group in allocation ratio 1:1. Retrospective analysis of prospectively collected data of 116 patients enrolled in main center was performed. 56 patients were randomized to D2 group, 60 patients – to D3. Only registered surgeons with required experience of no less than 20 D3 and 20 D2 lymph node dissection procedures for colon cancer participated in our study.

Results: The rate of laparoscopic approach in D2 group was 92.9%, in D3 – 88.3% ($p = 0.531$) with conversion rate 3.6% in D2 group and 6.7% in D3 group ($p = 0.678$). There were no significant differences in rate of laparoscopy, conversion rate and laparotomy in regard to extent of surgical procedure (right hemicolectomy, left hemicolectomy, sigmoid resection). The rate of all adverse events in patients with laparoscopic approach was 54.3%, in patient with conversion – 100%, in patient with laparotomy – 81.2%. Compared with laparoscopic approach conversion (RR – 2.23; 95% CI: 1.80–2.76, $p < 0.0001$) or laparotomy (RR – 1.83; 95% CI: 1.29–2.59, $p = 0.0007$) significantly increased risk of adverse events.

Conclusion: D3 lymph node dissection requires dissection beyond embryological layers and revealing of main vessels. In spite of anticipated technical difficulties, results of our study demonstrate that laparoscopic approach in D3 lymph node dissection for colon cancer surgery was feasible and safe. Moreover, laparotomy was associated with increased rate of adverse events compared with laparoscopy.

Disclosure of Interest: None declared.

P340 | The repairing of the recto-neovaginal fistula in a male-to-female transgender through perineal graciloplasty

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Aim: Treatment of recto-neovaginal fistulas is more complicated due to the altered perineal anatomy in individuals undergoing gender

reassignment surgery. The aim of this article to present a complication and management of this condition.

Method: In this article, we present a male-to-female transgender case of a recto-neovaginal fistula which was successfully treated with restorative perineal graciloplasty.

Results: A 24-year-old male-to-female transgender adult with a body mass index of 25.8 kg/m2 who underwent gender reassignment surgery through penoscrotal flap vaginoplasty in an external center was admitted to our clinic with the complaint of fecal incontinence through the vagina. After the initial surgery, neovaginal dilatation was performed using specifically designed dilators to prevent neovaginal stenosis, and fecal incontinence through the vagina occurred three months after the initial surgery. First, the fecal diversion was decided to prevent fecal contamination of the fistula tract and to provide secondary healing. After three months of surgery, the patient was reexamined. However, the methylene blue dye, which was given via the transanal route was found to be fistulized to the vagina through the anterior wall. As a result, restorative perineal graciloplasty was performed. No postoperative complications were observed, and she was discharged on day eight. At three months of follow-up in the outpatient setting, no vaginal leak was seen, and the fistula was found to be completely closed.

Conclusion: In conclusion, recto-neovaginal fistulas are one of the complications of gender reassignment surgery and difficult to treat. However, they can be successfully treated using the restorative garciloplasty technique in experienced centers.

Disclosure of Interest: None declared.

P341 | Different uses of the breast implant: To prevent empty pelvic complications following pelvic exenteration

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Aim: This study aims to show using a breast implant to prevent empty pelvic (EP) complications after total pelvic exenteration (TPE).

Method: Herein, we present the case of man in his 50s who was referred for pelvic pain, foul-smelling discharge, and non-functioning colostomy and operated for distal rectal cancer. We performed TPE for the recurrent tumor. To prevent TPE complications, we used a breast implant for filling the pelvic cavity.

Results: A man in his 50s was admitted to our clinic for pelvic pain, foul-smelling discharge, and non- functioning colostomy. 9 years earlier, the patient underwent low anterior resection for distal rectal cancer. 4 years earlier, PE was performed due to a pelvic recurrence invading the urinary bladder, and prostate. The exenterative surgery included en-bloc cystectomy, prostatectomy, ureter resection, ileal conduit, and permanent ileostomy. Due to the fixation of the small intestine to the deep pelvic side wall and fistulization to the perineum, the patient was reoperated for small bowel obstruction and pelvic cavity infection two years earlier. In this operation, fistulizing small bowel loop resection and primary anastomosis were performed. To prevent recurrent small bowel prolapse into the pelvic cavity, we decided to use a silicone breast implant to complete the deep pelvis. In the same operation, we used transperineal vacuum-assisted closure (VAC) system to promote wound healing process and to reduce inflammation and infection. Early and late postoperative course was uneventful. After fourteen months, the patient presented no signs of progression of the perineal infection and EPS.

Conclusion: In conclusion, breast implants are easily available, easy to deploy and effectively keeps the small bowel out of the pelvis after pelvic exenteration. As these are extremely rare cases, long term follow up and further research is needed to objectively evaluate the benefits of this technique.

Disclosure of Interest: None declared.

P342 | The results of turnbull-cutait abdominoperineal pull-through delayed coloanal anastomosis procedure and its role in modern surgery

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Aim: Turnbull-Cutait abdominoperineal pull-through delayed coloanal anastomosis procedure (T-C) was first described in 1961. It is predominantly used for Hirschprung disease, anal sphincter-preserving surgery after failed pelvic surgery, to avoid permanent ileostomy, and for distal rectal cancer. In this study, we present the results of T-C procedure and discuss its role in modern surgery.

Method: In this retrospective study, a total of 43 patients who underwent radical pelvic and intersphincteric surgery in our institution between 2018 and 2021 were screened. Of these patients, 12 in whom T-C procedure was performed were included. Clinical symptoms and postoperative morbidities of the patients were analyzed.

Results: Of 12 patients, seven (58%) were females and five (42%) were males. The median age was 63 (range, 20 to 73) years. The median body mass index was 27.08 (20–32) kg/m^2. The T-C procedure was successfully performed for primary rectal cancer, recurrent rectal cancer, rectovaginal fistulas, rectovesical fistulas, adult Hirschsprung disease, and recurrent anorectal abscesses. In the early postoperative period, complications such as urinary tract infection and ileus occurred. In the late postoperative period, anastomosis leakage, and anastomosis stenosis occurred. No early mortality was observed. As all cases were complicated, temporary diverting ileostomy was created. None of the patients required permanent ileostomy. The quality of life of the patients after ileostomy closure was evaluated using the Wexner scoring system and the results were acceptable.

Conclusion: The T-C abdominoperineal pull-through procedure, which is less utilized in modern surgery, is a safe method to avoid permanent ileostomy after complicated pelvic surgery and in distal rectal cancer surgery with acceptable complication and fecal incontinence rates.

Disclosure of Interest: None declared.

P343 | Stoma reversal: An already overlooked issue further compounded by the covid pandemic

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Aim: Operative management of rectal cancer often requires temporary or permanent stoma formation. Delay in stoma reversal is associated with poorer functional results and an increased risk of complications. Many surgical societies, including the Royal College of Surgeons of England, produced guidance at the beginning of COVID-19 pandemic that recommended considering de-functioning stomas to mitigate risks of anastomotic complications. The study aimed to assess the impact of COVID-19 on diverting ileostomy rates, reversal rates and waiting times in elective rectal cancer surgery.
Method: Consecutive elective anterior resections for rectal cancer were identified from the prospectively maintained database of a single colorectal MDT between January 2018 and December 2021. The database was analysed to reveal operative approach, type of stoma, waiting time from initial surgery to stoma reversal and reasons for delayed closures. March 23rd 2020 was taken as the cut-off date between pre-pandemic and pandemic patient groups.
Results: A total of 167 patients (70 in pre-pandemic) and (97 in pandemic) were included. An increase in the proportion of diverting stomas was observed in the pandemic group (58.8%) from pre-pandemic (38.6%). A three-fold increase in the end-of-year waiting list for ileostomy reversal was noted between December 2019 (n = 17) (pre-pandemic) to December 2021 (n = 47) (pandemic). Reasons for delay in stoma reversal included ongoing oncological treatment (34%), theatre capacity (20%), colorectal clinic capacity (26%) and access to water-soluble enema (9%).
Conclusion: The advent of the COVID-19 pandemic has been associated with increased diverting ileostomy rates among elective rectal cancer patients. A three-fold increase in the stoma reversal waiting list poses logistical challenges at different levels. This study has highlighted potential bottlenecks to develop locally tailored pathways to prioritise timely reversal and to mitigate the potential complications associated with delayed closure.
Disclosure of Interest: None declared.

P344 | Continuous organ perfusion monitoring using indocyanine green in a porcine model

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Aim: Unrecognized organ hypoperfusion can cause major postoperative complications with detrimental effects for the patient. The use of Indocyanine Green (ICG) to detect organ hypoperfusion is emerging but the optimal methodology is still uncertain. The purpose of this study was to validate real-time continuous quantitative perfusion assessment with Indocyanine Green (ICG) to monitor organ perfusion during minimally invasive surgery using a novel ICG dosing regimen and quantification software.
Method: In this experimental porcine study each of the twelve subjects underwent the following protocol: first a priming dose was administered, followed by a regimen of high-frequency, low-dose bolus injections with weight adjusted (0.008 mg/kg) ICG in 1-minute intervals allowing for continuous perfusion monitoring. Secondly, one randomly assigned organ of interest (stomach, ascending colon, rectum or spleen) was investigated while varying the camera conditions. Video recording and subsequent quantitative analysis of the ICG signal were performed using an image analysis software.
Results: ICG-fluorescence visualization and quantification in abdominal organs was sufficient in the pigs stomach (3/3), ascending colon (1/3), rectum (2/3), but not the spleen (0/3). Considerable variation in fluorescence signal was observed between the same organ in different subjects and between organs. Of the three different recording conditions, the superior signal seems to be condition 1, in which the camera is placed closest from the respective organ.
Conclusion: Real-time continuous perfusion monitoring in different abdominal organs using ICG is possible and tissue accumulation of ICG over time does not affect the quantification process. This proof-of-concept study further finds large variations in fluorescence signal intensity between different abdominal organs and between the same abdominal organ in different subjects when using a fixed weight adjusted dosing regimen.
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P345 | The impact on employment of those affected by obstetric anal sphincter injury related faecal incontinence

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Aim: Obstetric Anal Sphincter InjurieS (OASIS) are reportedly increasing and the consequences, particularly faecal incontinence can have a major impact on womens' lives. This study aimed to assess the impact on employment on those affected by these injuries.
Method: This study was conducted through two large UK pelvic floor centers. Women with a third or fourth degree tear sustained six months to 5 years previously with new onset of symptoms of faecal incontinence not related to any other condition, were included.

Postal questionnaires about the impact on employment status of these injuries were completed and returned.

Results: 26 questionnaires were returned. 46% had to change their career plans. 25% had a decrease in their annual income (average £ 10000 pa). No changes in career plans or income for their partner was reported. 25% took more maternity leave (7.3 ± 5.7 months). 42% had to make changes to their working conditions (such as unable to seek work, take extended leave or moved from full to part time). 17% had to change job. One lady had to leave her job because the toilets were not enough close to her workstation, another lady left her job because too embarrassed by her flatus incontinence.

Conclusion: There is a significant impact on the current and future employment status of those affected by faecal incontinence following an OASIS.

Disclosure of Interest: None declared.

P346 | Patient centered qualitative assessment of the impact of obstetric anal sphincter injury related faecal incontinence on quality of life

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Aim: Faecal incontinence is a frequent consequence of Obstetric Anal Sphincter InjurieS (OASIS) making these injuries life changing in many women. This study aimed to assess the impact of OASIS on womens' QOL.

Method: This study was conducted through two large UK pelvic floor centers. Women with a third or fourth degree tear sustained six months to 5 years previously with new onset of symptoms of faecal incontinence not related to any other condition, were included. Semi-structured interviews were conducted with those affected. Enquiry was made into the impact on quality of life following these injuries.

Results: From the qualitative analysis of the answers to open ended questions on the impact of OASI in their life, themes such struggle, inability, defeat, fear, embarrassment, isolation as a result of symptoms related to the tear were all reported. Other psychological effects were those of anger towards their healthcare professionals, embarrassment with the general public, feelings of guilt and irremediable changes and PTSD. Feelings of having been "let down, rushed, not listened, abandoned" by the healthcare providers after the tear happened were reported. There was a lack of trust with their healthcare providers, due to poor communication before,during and after delivery. Physical symptoms such as pain on standing or while carrying the baby may limit the bonding between mother and baby. Analysis of EQ-5D-5L questionnaires a resulted in a median score 68 (5–95) out of 100.

Conclusion: There was a significant effect on quality of life and an adverse psychological impact on those affected by faecal incontinence following OASIS.

Disclosure of Interest: None declared.

P347 | A prospective and retrospective assessment of consent for instrumental vaginal delivery

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Aim: Instrumental delivery describes the use of ventouse and forceps to aid vaginal delivery. They are used in 10–15% of all vaginal deliveries and in a third of all primaparous deliveries. They are associated with an increased risk of maternal and neonatal injury. Such maternal injuries may lead to significant functional problems, such as faecal incontinence. Informed consent should be obtained before any medical procedure. This should be taken well before delivery, should be written and alternatives should be discussed. The aim of this study was to assess the quality of consent obtained prior to instrumental vaginal delivery.

Method: For the prospective assessment, patients were approached prior to a planned vaginal delivery, at 36 weeks gestation. For the retrospective assessment, the medical records of those who underwent an instrumental vaginal delivery were reviewed. The study was undertaken in the obstetric department of a busy hospital in the UK.

Results: 116 patients, all around 36 weeks gestation were included for prospective assessment. 4% were able to describe all stages of labour, 28% could describe some of the stages of labour and 68% were unable to describe any of the stages of labour. 83% were unaware that instrumentation may be used during delivery. 6% were aware they may be used if necessary and 1% were aware of the risk of maternal injury. For the retrospective review, 59 case notes were reviewed. All had undergone either forceps or ventouse instrumentation. 10% showed no record of informed consent. 71% showed evidence of verbal consent and 18 % had signed consent. The majority of consents were obtained during the second stage of labour. In many cases opioid analgesia had been administered prior to consent.

Conclusion: The current process for obtaining informed consent prior to instrumental delivery is currently substandard with many women being unaware of the consequences of such intervention. There are particular concerns about the methods and timing of the consent process.

Disclosure of Interest: None declared.

P348 | The patient centered economic impact of obstetric anal sphincter injury related faecal incontinence

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Aim: The reported rate of Obstetric Anal Sphincter InjurieS (OASIS) in primiparous women in England tripled from 1.8% to 5.9% from 2000 to 2012. The consequences of an anal sphincter injury at childbirth may be life changing for women. Faecal incontinence is

a significant sequela of such injuries. This study aimed to assess the economic impact of these injuries on those affected.

Method: This study was conducted through two large UK pelvic floor centers. Women with a third or fourth degree tear sustained six months to 5 years previously with new onset of symptoms of faecal incontinence not related to any other condition, were included. Postal questionnaires about the economic impact of these injuries were completed and returned.

Results: 26 questionnaires were returned. The extra cost associated with extra GP appointments was approximately £84 per month. Private healthcare costs of £3000 (consultant fees, therapeutic equipment,, irrigation, physiotherapy and mental health treatment were reported. Necessary changes to the patient's home (downstairs lavatory etc) were deemed too expensive to undertake by some. Average extra monthly costs were reported, replacement of soiled clothing £42 (±36), extra laundry £3.7 (±2.1), additional taxi costs £106.7, additional train fares £51.5, dietary changes £26.7, new sofa/ chairs £175, new mattress protectors £49.7, new bed linen £86.7 and extra childcare 9 (±10) hours.

Conclusion: There is a significant economic impact on those affected by faecal incontinence following an OASIS.

Disclosure of Interest: None declared.

P349 | Assessment of symptoms of faecal incontinence following obstetric anal sphincter injury

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Aim: Young women can be condemned to lifelong symptoms of incontinence following Obstetric Anal Sphincter InjurieS (OASIS) which are increasing in primiparous women in England. This study aimed to assess rates of incontinence in those who had sustained one of these life changing injuries.

Method: This study was conducted through two large UK pelvic floor centers. Women with a third or fourth degree tear sustained six months to 5 years previously with new onset of symptoms of faecal incontinence not related to any other condition, were included. Postal questionnaires including the ICIQ-B and Vaizey faecal incontinence score were completed.

Results: 26 participants took part in the study. The average Vaizey score was 11 (max 22). 50% had urge FI, 33% had passive FI, 50% suffered from dyspareunia, 8% were no longer having sexual intercourse, 50% avoided long car journeys, 46% used pads (median 3.36 (1–7) per day), 66% used wet wipes, 8% used a radar key. The ICIQB questionnaire on a scale from 1 to 10, reported the following. The average impact of urgency 7.3, flatus incontinence 7.6, unpredictable bowel accidents 6.2, the possibility of an accident 6.3, restriction of sex 5.5, FI related embarassment 7, knowldge of nearest toilet 6.95, making plans in relation to the risk of FI 6.9, having to stay at home more 6 and overall effect of FI on daily life 6.7.

Conclusion: Significant symptoms were reported by those affected by FI following OASIS. These affected many different aspects of their lives.

Disclosure of Interest: None declared.

P350 | Polyglycolic acid pelvic partitioning mesh after abdominoperineal resection

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Aim: Compare the incidence of intestinal obstruction in patients who underwent abdominoperineal resection (APR) according to Safil® reabsorbable pelvic mesh placement. Analyze mesh related complications in both study groups.

Method: Retrospective, observational study including patients with low rectal cancer who underwent extralevator APR in Galdakao-Usansolo Hospital between 2010–2020. Patients were divided in two groups based on pelvic mesh placement during surgery. The decision to place a mesh or not was up to the surgeon. The mesh was placed cone-shaped in the small pelvis, without any suture, by an abdominal or perineal approach. Primary endpoint was readmission for small bowel obstruction. Secondary endpoints were early postoperative complications (surgical site infection, pelvic abscess, paralytic ileus, Clavien-Dindo ≥ 3) and long term complications (perineal hernia).

Results: In total 100 patients were included in the study, 65% with and 35% without mesh placement. There were 5 (7.7%) readmissions for intestinal obstruction in mesh group and 2 (5.7%) in no mesh group, with no statistically significant differences between them. There were also no differences in terms of postoperative complications. Surgical site infection was reported in 11 (17%) patients in Safil® arm and 7 (20%) in no mesh arm. Pelvic abscess rates were 5 (7.7%) and 3 (8.5%) respectively. The incidence of ileus was 6 (9.2%) and 3 (8.6%) in both groups. There were 11 (16.9%) and 3 (8.6%) Clavien-Dindo complications grade ≥ 3. Perineal hernia appeared in 3 (4.6%) and 1 (2.9%) patients.

Conclusion: Pelvic partitioning Safil® mesh has not demonstrated a decrease in small bowel obstruction rate after APR. Polyglycolic acid mesh placement is not associated with higher incidence of postoperative complications.

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Disclosure of Interest: None declared.

P351 | Outcomes following robotic assisted and laparoscopic colorectal surgery: A systematic review of randomised controlled trials and population-based studies

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Aim: Robotic assisted colorectal surgery (RCS) has gained global recognition over the past decade, as it possesses innovative advantages over conventional laparoscopic colorectal surgery (LCS). This review sought to assess the impact of RCS on patient outcomes compared to LCS, using population-based cohort studies and randomised controlled trials (RCTs).

Method: Electronic databases including MEDLINE, EMBASE, Cochrane library, ClinicalTrials.gov and WHO ICTRP were searched, from year 2000 to January 2022 with no language restriction. Case series, case reports and single centre studies were excluded. The primary endpoint was 30-day morbidity and mortality.

Results: Twenty-seven studies (6 RCTs, 6 Multi-centre cohort & 15 registry/database cohort) were included (n = 341,976 patients – LCS 314,999 and RCS 26,977) for data analysis. Endpoints were analysed according to study design subgroups, with the population-based cohort studies displaying marked heterogeneity in nearly all endpoints, and comparison was made between RCS and LCS cases. 24 out of 27 studies reported on 30-day morbidity, with an aggregated frequency of 3 – 65%. 4 out of 6 RCTs reported on 30-day mortality but only one study reported any deaths. 30-day mortality in the population-based studies was similar – 0.53% (144/26,977) in RCS and 0.54% (1,707/314,999) in the laparoscopic group. Length of stay in hospital (LOS) was reported in 21/27 studies (6 RCTs and 15 cohorts) and the average mean LOS was shorter in RCS (8 days) compared to LCS (9 days). Estimated blood loss (EBL) and lymph node (LN) yield showed no statistical significance when comparing LCS and RCS from population-based studies and RCTs.

Conclusion: 30-day morbidity and mortality, EBL and LN yield were equivocal between RCS and LCS. There was a reduction in LOS following RCS, and this may be due to an improved function after early onset post-operative mobilisation. Further large studies are required to further explore the potential benefits of RCS.

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P352 | Does robotic technique confer superior anorectal functions in terms of low anterior resection syndrome for rectal cancer patients?

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Aim: Data regarding whether ergonomic advantages of the robotic technique provides improved functional effectiveness after rectal cancer surgery are limited. The current study aims to compare functional outcomes of rectal cancer patients undergoing sphincter saving robotic and laparoscopic procedures.
Method: Patients undergoing sphincter saving minimally invasive rectal resection between January 2019-January 2021 in a tertiary care center were included in this prospective study. LARS score questionnaire was used to evaluate their bowel function 1-year after the surgery comparing laparoscopic and robotic technique. Impact of other clinical parameters that may cause defecatory problems were analyzed.
Results: Twenty-eight patients in robotic and 32 patients in laparoscopic group included in analysis. There were no significant differences in patient and tumor-related characteristics. Minor and major LARS scores were %25 and 42.9% in robotic and 18.8% and 46.9% in laparoscopic group respectively without any statistically significant difference (p = 0.75). In distal/mid rectum located tumors, prevalence of major LARS was found to be 54.1% compared to 30.4% in patients with tumors located in upper rectum. However, this difference failed to reach a statistically significant difference (p = 0.074). Presence of neoadjuvant therapy, type of neoadjuvant therapy (total neoadjuvant vs chemoradiotherapy), course of radiotherapy (long and short), number of stapler firings and completeness of mesorectal excision (TME vs PME) was not found to affect LARS scores.
Conclusion: LARS is a common undesirable outcome after sphincter saving procedures. Robotic approach did not yield an advantage in terms of anorectal functional after rectal cancer surgery. Further multidimensional efforts are required to improve LARS scores
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Disclosure of Interest: None declared.

P353 | Changes in patients' quality of life with differences in seton application: Preliminary results of a randomized controlled trial

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Aim: Perianal fistula is a very common disease which alters quality of life (QoL) of the patients. There are several treatment options, with seton being one of the most popular. The aim of this study is to evaluate the relationship between QoL and different knot types while applying seton to the anal fistula.
Method: Between July 2021 and May 2022, patients with transsphincteric anal fistula were enrolled in the study. Patients were divided into three groups based on the knot types. The seton tips in group A were knotted in an alpha-shaped pattern. In group B, the seton tips were overlapping and linked together. There were no palpable free ends. Comfort-knotless seton was used in group C. On the 14th, 30th, and 90th days, all of the patients completed the Quality of Life in Patients with Anal Fistula Questionnaire (QoLAF-Q).
Results: 28 patients were randomized. There were 24 males and four females. Median age was 43. There were 9 patients in group A, 9 patients in group B, and 10 patients in group C. Only two group c patients had complications. These include abscess and anal pain. There was no difference in postoperative quality of life between the groups according to questionnaire on 14th day, 30th day, and 90th day (respectively p: 0,227, p: 0,288 p: 0,067). The average duration of surgery was 10 minutes in group A, 9 minutes in group B, and 14, 5 minutes in group C. There was no significant difference between the groups (p: 0,269).
Conclusion: In terms of quality of life, there is no difference between the groups. However these are preliminary results of an ongoing study. Therefore, it is expected that the results will change as the number of participants increases.
Disclosure of Interest: None declared.

P354 | Workload in abdominal and colorectal operating: A systematic review

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Aim: The subjective workload of a surgical procedure can be measured by the NASA task load index (NASA-TLX), which includes components such as mental demand, physical demand, and frustration. A heavy workload can affect the likelihood of human error, capacity

to manage unexpected events, and also impact learning. This paper reviews the role of NASA-TLX in abdominal and colorectal surgery.

Method: A systematic search was performed including MEDLINE and Embase. All studies reporting NASA-TLX in abdominal and colorectal surgery (open, laparoscopic, or robotic) were included.

Results: The search strategy revealed 202 studies, 19 were included. Factors that increased workload were difficulty of procedure and long duration. The surgical approach affected workload: robotic surgery reduced workload compared to open or laparoscopic surgery; a robotic camera holder reduced first assistant physical demand; single-port surgery increased physical demand of both operating and assistant surgeons. Higher experience of the surgeon and first assistant reduced workload, as did a standardised procedure, and dedicated time for an educational brief. In laparoscopic surgery, three-dimensional laparoscopy did not affect mental demand. Objective correlates of subjective workload were also reported: blink analysis for mental demand (fewer blinks of shorter duration indicating higher demand), electromyography (EMG) for physical demand, and electroencephalography (EEG).

Conclusion: Several factors affect surgical workload, including operative duration, difficulty, approach, team experience, standardisation, and structured training. Though NASA-TLX is a measure of subjective workload, objective correlates are increasingly being identified. Workload recognition and management is a key consideration as new surgical techniques and technologies become available. It also highlights the interaction of technical and non-technical skills.

Disclosure of Interest: None declared.

P355 | Optimising port placement in laparoscopic colorectal surgery

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Aim: Port arrangement for laparoscopic surgery varies and can affect performance, posture, and training. Colorectal surgery is uniquely multiquadrant, adding to variability. Though robotic surgery has prescriptive port placement, the commonest approach to colorectal disease remains laparoscopic, so we review factors to optimise laparoscopic port placement.

Method: A systematic search was performed including MEDLINE and Embase. Studies reporting effects of laparoscopic port position in colorectal surgery were included.

Results: The search strategy revealed 247 studies, 16 were included. Port placement was predominantly determined by surgeon factors and patient factors. Technical factors reported were: manipulation angle (between two operating instruments, ideally 60 ± 15 degrees), azimuth angle (between instrument port and optical port), and separation between ports/ bony prominences. Manipulation and azimuth angles depended on phase of the operation and could not be optimum throughout multiquadrant operations. Some groups reported standardised port placement, including novel approaches e.g. extraperitoneal anterior resection, retrocolic right hemicolectomy. Reduced port anterior resection was also described with improved cosmetic satisfaction. Case reports described port position adjusted for special patient factors, including adhesions, need for synchronous organ resection (e.g. splenectomy), anterior resection in situs invs, and anterior resection in severe kyphoscoliosis aided by 3D CT. No randomised controlled trials compared port arrangement. Effect on open conversion was not reported, nor surgeon muscle use and fatigue.

Conclusion: Port arrangement (port size, site, separation) varies according to surgeon preference, surgical approach, and patient factors. Ergonomic angles cannot be optimised for all phases of multiquadrant surgery, which may have implications for task load (e.g. mental and physical demand) at difference phases of surgery and also for training.

Disclosure of Interest: None declared.

P356 | Management of suspicious neoplastic rectal lesions in octogenarians by a specialist early rectal cancer MDT

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Aim: Purpose of this study was to assess management of early rectal cancers in octogenarians going through a regional Small and Early Rectal Cancer (SERC) Multidisciplinary team (MDT) observing oncological outcomes, morbidity, mortality and quality of life after treatment.

Method: Consecutive octogenarian patients treated via the SERC MDT between Dec 2013 and 2019 were examined retrospectively from a prospectively maintained database. Patients underwent Transanal endoscopic microsurgery (TEMS), endoscopic mucosal resection (EMR), endoscopic submucosal dissection (ESD), contact radiotherapy or hybrid combinations (EMR+ESD, EMR+TEMS). Patient demographics were recorded and outcomes assessed including pre and post-operative oncological staging, morbidity, mortality, length of stay and FISI scores.

Results: 85 patients were assessed. 38/85 had TEMS, 40/85 EMR, ESD or hybrid procedures and 7/85 patients had contact radiotherapy. For patients undergoing TEMS, minor morbidity in 8% (5/38), one cancer recurrence and no cancer related mortality was seen. FISI scoring pre and post procedure were significantly different with deterioration in control of flatus and mucus but not faecal continence. 40 patients underwent EMR, ESD or hybrid procedures, 3/40 adenocarcinomas were detected and had further treatment, 2/40 patients had minor morbidity (bleeding, urinary retention).

Conclusion: Management of octogenarians with ERC via a specialised MDT presents a safe option, with minimal morbidity and no mortality in subgroup of patients who, otherwise, constitute a high risk cohort for surgical intervention. Important negative impact on

continence in this age group highlights the need for a careful counselling of patients to achieve the optimal balance between oncological outcomes and QoL.

Reference

On behalf of the Merseyside Early Rectal Cancer Network, Liverpool University Hospitals, NHS Foundation Trust.

Disclosure of Interest: None declared.

P357 | Surgery for advanced colorectal cancers with microsatellite instability (MSI) after immune checkpoints inhibitors treatment: For who and why?

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Aim: Microsatellite instability (MSI/dMMR) is the predictive biomarker for efficacy of immune checkpoint inhibitor(s) (ICIs) and is the treatment of choice of advanced MSI/dMMR colorectal cancers (MSI-CCR). With this completely new situation, we wanted to share our experience with these patients.

Method: A retrospective multicentric study was performed on prospectively maintained databases of patients having surgery after ICI(s), for advanced MSI-CCR between 2015 to 2021.

Postoperative morbidity was defined according to Clavien-Dindo score at 90 post-operative days. Pathological response, progression free survival and overall survival were reported. Kaplan-Meir methods were used for survival analysis.

Results: Thirty-one patients were included. Nineteen (61%) received chemotherapy ± targeted therapy before ICIs. Sixteen (52%) had resection for their primary MSI-CCR, including12 patients with synchronous metastasis resection and 15 (48%) for metastasis resection. Twenty (64%) were operated on for partial response, 4 (13%) for sanctuary site with progression and 7 (23%) for symptomes. Eleven cytoreductions, 20 colectomies, 9 hepatic resections, 2 adrenalectomies, and one splenectomy were performed. At 90-day, ten (32%) patients had at least one complication. Complete histological response was observed in 17 patients (55%). When surgery was performed for radiologic partial response, rate of complete histological response was 83% (n = 15/18). The median follow-up was 18 months [4–28]. Two patients died with progressive disease ans 3 other are alive with recurrence.

Conclusion: The complete histologic response rate observed in the present sereis is the highest rate of complete histologic response observed after any kind of preoperative treatment of CRC. Patients operated on for partial radiologic response have the highest rate of complete histologic response. The complication rate is unusually high. Indication for surgery have to be define as some patients may benefit from a more conservative attitude.

Disclosure of Interest: None declared.

P358 | 30 Years after prophylactic colorectal surgery: What is the outcome for FAP patients?

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Aim: Familial adenomatous polyposis is a genetic inherited disease responsible for multiple anomalies, some life threatening. Since the description of restorative proctocolectomy, colorectal cancer can be prevented. However, the long-term outcome of these patients after this operation has not yet been reported. The aim of our study was to evaluate the long-term outcomes of these patients.

Method: All the patients operated on between January 1981 and December 1989 were collated. All characteristics of patients including: medical history, follow up results, needs for operation or other procedures and results of these interventions, and the status at the end of follow-up were recorded.

Results: One hundred and two patients (53 females; 52%) were included in the study. The mean age at surgery was 30 years [10–67]. 92 patients had ileal pouch anal anastomosis, 4 an ileo-rectal anastomosis and 6 an abdominoperineal resection. Twenty-three patients had malignancies while they were operated on. After a mean follow-up of 20.7 years [0–37.3], 11 patients had died (mean age 48.3 years [18–78], mean delay since surgery 15.7 years [0–31]). Among the 91 patients who survived, 56 patients (61.5%) were lost at follow-up at the end of the study. Seven patients required an ampullectomy either endoscopically (n = 3) or surgically (n = 4) and 12 a Whipple procedure. Twenty-two patients developed Desmoid tumor among whom 10 required surgery. Five patients (4.9%) had Ileal Pouch failure and 3 (2.9%) a redo pouch.

Conclusion: Long-term follow-up of FAP patients is not sure with a high rate of lost at follow-up after 30 years Prophylactic colorectal surgery should include this variable in the decision making process. After thirty years of follow-up, most of the deaths observed are not due to FAP after prophylactic RCP. Desmoid tumors and duodenal polyposis are the most frequent manifestations observed after RPC and required frequently treatments.

Disclosure of Interest: None declared.

P359 | Low anterior resection syndrome following trans-anal total mesorectal excision for rectal cancer: A single center experience

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Aim: Trans-anal total mesorectal excision (Ta-TME) is a novel approach for resection of rectal cancer. It has been gaining popularity in recent years due to its ability to overcome technical limitations of the laparoscopic approach. Low Anterior Resection Syndrome (LARS) is a frequent functional disorder that might follow restorative proctectomy. However, data regarding bowel function after Ta-TME and its impact on patients' quality of life are scarce. The aim of this study was to evaluate the incidence and risk factors for the development of LARS following Ta-TME.
Method: A prospectively maintained database of all patients who underwent Ta-TME for rectal cancer at our institution was reviewed. All patients who were operated-on from January 2018 to December 2021 were evaluated. LARS score questionnaire was used via telephone interviews. Incidence, severity and risk factors for LARS were evaluated.
Results: Eighty-five patients underwent Ta-TME for rectal cancer between January 2018 and December 2021. Thirty five patients were excluded due to ostomy status, death, local disease recurrence, ileal pouch or lack of compliance with the study. Fifty patients were included in the analysis. Major LARS was diagnosed in 64% of patients and minor LARS in 12% of them. Anastomosis distance from dentate line and tumor height were identified as risk factors for LARS on multivariate analysis ($p = 0.042$ and $p = 0.034$, respectively). Neo-adjuvant therapy, hand sewn anastomosis and anastomotic leak did not increase the risk for or severity of LARS.
Conclusion: LARS is a frequent condition following ta-TME as it is for other approaches to low anterior resection. In this study anastomosis distance from dentate line was an independent risk factor for LARS. However, neo-adjuvant therapy, hand sewn anastomosis and a history of anastomotic leak were not. Further studies with longer follow up times are required to better understand the functional outcomes following Ta-TME.
Disclosure of Interest: None declared.

P360 | Predictors for perioperative morbidity in elderly patients undergoing colorectal cancer resection: A single center experience

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Aim: Colorectal cancer resection in the elderly might be associated with significant morbidity and mortality. This study aimed to assess perioperative morbidity and mortality in elderly patients undergoing colorectal cancer resection and to investigate risk factors for postoperative complications.
Method: Consecutive patients who underwent colorectal cancer resection between January 2014 and December 2020 at our institution were included. Patients were divided to two groups: aged <75 years (young) and aged ≥ 75 years (elderly). Postoperative complications, length of hospital stay (LOS), 30-day readmission and 90-day mortality rates were compared. Factors that might predict adverse events in elderly patients were evaluated.
Results: The cohort included 843 patients, 640 young and 203 elderly. Elderly patients had a significantly longer LOS than young patients (11.8 ±6.9 days vs 9.8±7.7 days, $p < 0.001$). There were no differences in mortality nor in morbidity between the groups. Sarcopenia, poor functional status, preoperative plasma albumin < 3.5g/dL and urgent surgery were significantly related to major complications among elderly patients ($p = 0.025$, $p = 0.049$, $p = 0.037$ and $p = 0.004$, respectively). LOS was longer in elderly patients with a Modified 5-item Fragility Index (MFI) ≥2 or preoperative plasma albumin < 3.5g/dL. Sarcopenia, preoperative plasma albumin < 3.5g/dL and urgent surgery were predictors of 90-day mortality.
Conclusion: Sarcopenia, preoperative plasma albumin < 3.5g/dL, MFI≥2 and urgent surgery may be used as predictors for postoperative morbidity and mortality in elderly patients undergoing surgery for colorectal cancer.
Disclosure of Interest: None declared.

P361 | Comparison of lymph node harvest between laparoscopic and robotic colectomy

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Aim: Colorectal cancer is globally the third most commonly diagnosed cancer in males and females combined and is second in mortality in male and females combined. More than 1.9 million new colorectal and anal cancer were estimated to occur in 2020. Lymphadenectomy during a colon resection is crucial in prognosis and survival. Laparoscopic surgery is becoming the gold standard for colonic resections. Robotic surgery is a growing field that is becoming important in colon resections due to the advantages that it bestows. Given the rising use of robotic approach in colon resection This study aims to Identify any differences in lymph node harvesting between robotic and laparoscopic surgery.
Method: We Conducted a retrospective study of colorectal cancer patients who underwent surgical resection at the Medstar Health Baltimore system. Between July 2017 and June 2020, a total of 134 patients underwent colorectal and anal cancer surgical resection either robotic or laparoscopic. Comparison of lymph node retrieval was the primary objective.
Results: Between July 2017 and June 2020, 134 colon and anorectal resections due to cancer were performed at Medstar Baltimore

system. 45 were laparoscopic and 89 were robotic. Data analysis showed no statistical difference between laparoscopic and robotic approach in the number of lymph nodes harvested during colonic, rectal or anorectal resections. (Laparoscopic 16.11+-7.28 vs Robotic 16.62 +-6.98. t Stat -0.39. *p*:0.34).

Conclusion: Lymphadenectomy in colon resections has a close association with survival, current international guidelines recommend removal of at least 12 lymph nodes during colonic resection for malignancy, robotic surgery is an emergent field that brings the same outcomes as laparoscopic surgery and some advantages in deep rectal cancer resections. There are not big trials to compare robotic vs laparoscopic surgery this is a field of further investigation.

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P362 | Evaluation of the implementation of patient-reported outcome measurements (PROMS) in colon cancer operated patients with curative intent

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Aim: surgical treatment on cancer colon patients has a great impact on patient`s quality of life the aim of this study is to determine the real perceptions of patients before and after a colon cancer surgery according to PROMs, which will allow us to improve patient-centered health care.

Method: this is a prospective observational study of patients operated on for colon cancer with curative intent at the Hospital del Mar between January and December 2021. All patients were given two validated questionnaires, the EORTC QLQ-C30 and the EORTC QLQ-CR29 before surgery and 2 months after surgery, and the results obtained were compared.

Results: to date, 59 patients have been included in the study. We have not identified significant differences in general health dimensions before and after surgery. The factors that were most altered after surgery were physical, emotional and role function, fecal frequency and continence and sexual function, where a worsening of the values compared to the previous ones was observed. Other dimensions that underwent changes, although of lesser relevance, were personal perception and digestive symptoms.

Conclusion: our results highlight the importance of involving patients in their own health care and the importance of collecting PROMs as a part of clinical care, as they provide a better insight into how surgery affect patients' quality of life. Integration of this information can lead to the development of a tool that may assist in therapeutic decision-making without forgetting those aspects considered most relevant to quality of life by the patients themselves, and thus guide towards a more appropriate and adapted surgical treatment.

Disclosure of Interest: None declared.

P363 | Evolving trends in the management of acute appendicitis during COVID-19 waves: The ACIE appy II study

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Aim: In 2020, ACIE Appy study showed that COVID-19 pandemic heavily affected the management of patients with acute appendicitis (AA) worldwide, with an increased rate of non-operative management (NOM) strategies and a trend toward open surgery due to the potential risk of virus transmission by laparoscopy and controversial recommendations on this issue in the literature. The aim of this study was to survey again the same group of surgeons to assess if any difference in management attitudes of AA had occurred in the later stages of the outbreak.

Method: From 1 August to 30 September 2021, an online questionnaire was sent to all 709 participants of the ACIE Appy study by email. The questionnaire included questions on Personal protective equipment (PPE), local policies and screening for SARS-CoV-2 infection, NOM, surgical approach and disease presentations in 2021. The results were compared with the results from the previous study.

Results: 476 answers were collected (response rate 67.1%). Screening policies were significatively improved with most patients screened regardless of symptoms (89.5% pavs 37.4%) with PCR alone as the preferred test (57.1 % vs 15.8 %). More patients tested positive before surgery and commercial systems were the preferred ones to

filter smoke plumes during laparoscopy. Laparoscopic appendicectomy was the first option in the treatment of AA, with a decline in the use of NOM.

Conclusion: Management of acute appendicitis seem to have improved in the last waves of pandemic. Increased evidence regarding SARS-COV-2 infection along with a better organization of healthcare systems has been translated into tailored attitudes and a better care of patients affected by AA worldwide.

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Disclosure of Interest: None declared.

P364 | Clinical relevance of consolidation chemotherapy in locally advanced rectal cancers: MRI based clinico-radiological correlation

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Aim: Patients of locally advanced rectal cancers (LARCs) with persistent involvement of mesorectal fascia (MRF) on MRI, post neoadjuvant radiation therapy are often given consolidation chemotherapy with an aim to decrease the involvement of MRF, thereby hoping to decrease the extent of surgery.

Method: Retrospective analysis of institutional database between January 2015 and December 2019 was done. Patients with LARCs who received consolidation chemotherapy for persistent involvement of MRF were identified (n = 46). The baseline MRI (MRI-1), restaging MR post radiation (MRI -2) and MR post consolidation therapy (MRI-3) were systematically studied. Objective was to analyze the impact of consolidation chemotherapy in decreasing the involvement of MRF and the extent of predicted surgery.

Results: Various MRI parameters were analysed to look for a change between MRI-2 and MRI-3 to predict an overall change in the extent of predicted surgery. Amongst the MRI features, T2 signal intensity, length of tumour, MRF involvement, diffusion restriction, and mesorectal nodes downstaged between MRI 2 and MRI 3. While there was no significant change in T stage, EMVI, Lateral nodes, Sphincter involvement, and predicted surgery. None of the morphological parameters demonstrated clinically significant changes after consolidation chemotherapy and thus, there was no change in the predicted surgery. However, MR signal parameters did change both on T2 as well as diffusion imaging. mrTRG weakly correlated with pathological TRG, and there was no agreement between mrTRG and pathological TRG. Hence, MRI cannot predict pathological response with certainty.

Conclusion: The utility of consolidation chemotherapy in decreasing the MRF involvement and thereby the extent of surgery is questionable and needs further study. Response assessment based on change in MRI parameters alone is insufficient in predicting the extent of surgery when assessing the effect of consolidation chemotherapy.

Disclosure of Interest: None declared.

P365 | Segmental vs total colectomy for Crohn's disease in the biologic ERA. Results from the scotch international, multicentric study

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Aim: The extent of resection in colonic Crohn's disease (cCD) is still a topic of debate, depending on the number of locations, the risk of recurrence and permanent stoma, and the unclear role of postoperative medical therapy. We aimed to compare segmental with total colectomy in patients with cCD.

Method: The **S**egmental **CO**lec**T**omy for **C**ro**H**n's disease (**SCOTCH)** international study is a retrospective analysis on the prospective databases of six tertiary centres, comprising all the consecutive, unselected patients operated on between 2000 and 2019 with segmental colectomy (SC) or total colectomy (TC) for cCD. Primary aim was long-term surgical recurrence. Secondary aims were perioperative complications, stoma formation, and predictors of recurrence.

Results: Among 687 (56.2% women), SC was performed in 285 (41.5%) and TC in 402 (58.5%) patients. Mean age at diagnosis and surgery, disease duration, and follow-up were 30±15.8, 40.4±15.4, 10.4±8.6, 7.1±5.2 years respectively. Isolated cCD, inflammatory pattern, perianal CD, younger age, longer disease duration, and preoperative

high-risk therapy were more frequent in TC, while SC presented more small bowel locations and perforating disease, required less 90-day readmissions, and temporary and definitive stomas. Morbidity and mortality were similar. The 15-year surgical recurrence was 44% in TC and 27% in SC ($p = 0.006$). In patients with 1–3 segments involved predictors of recurrence were the omission of biological therapy (HR 5.4), perianal disease (HR 1.9) and paediatric diagnosis (HR 2.1).

Conclusion: When technically feasible, SC is safe and reduces temporary and permanent stoma. Young age at diagnosis and perianal disease adversely affects, but postoperative biologicals therapy significantly reduces, the long-term surgical recurrence.

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Disclosure of Interest: None declared.

P366 | Threatened retroperitoneal margin in right colon cancer. Preoperative AI-based assessment

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Aim: The aim of this study is to assess the utility of a three-dimensional image processing and reconstruction (3D-IPR) technology to obtain R0 margins in right colon tumours with threatened retroperitoneal resection margins (TRM).

Method: Phase 1: development of a mathematical algorithm in a retrospective manner in two patients with right colon cancer and known TRM at CT scan. Development based on pathology report. Phase 2: Prospective application of mathematical algorithm developed in phase 1 for a patient with right TRM colon cancer at CT scan. CT scan report was compared with 3D-IPR using pathology report as standard of reference.

Results: Patient 1: Ascending colon cancer with suspect of duodenal infiltration at CT scan. Right colectomy was performed without duodenal resection due to intraoperative findings. Pathology showed R0 retroperitoneal margin with a 4mm distance between the tumor and the retroperitoneal margin. Retrospective reconstruction with 3D-IPR showed a minimum distance of 6.24 mm between the tumor and the duodenum and of 9.8 mm between the tumour and the pancreas. Patient 2: Ascending colon cancer without suspect of duodenal infiltration at CT scan. Right colectomy was performed, including part of the duodenum, based on intraoperative findings. Pathology confirmed duodenal infiltration. Retrospective reconstruction with 3D-IPR showed duodenal infiltration with an infiltration volume of 0.4 mm.

Phase 2: Patient with ascending colon tumor with suspect of anterior renal fat infiltration at CT scan. Prospective 3D-IPR ruled out retroperitoneal infiltration (distance between tumour and retroperitoneal fascia: 0.1 mm). En-bloc right colectomy was performed, including the retroperitoneal fascia and retroperitoneal fat. Pathology discarded retroperitoneal fascia and fat infiltration. R0 resection.

Conclusion: A 3D-IPR models can be useful to evaluate tumor infiltration of the retroperitoneal margin in right colon cancer. This preoperative tool may help to obtain R0 resections.

Disclosure of Interest: None declared.

P367 | Diagnostic accuracy of 3D-based ai technology to identify the status of the predicted resection in margins in patients with locally advanced and recurrent rectal cancer

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Aim: R0 or tumour-free surgical margins resection represents the strongest prognosticator of survival in locally advanced primary (LAPRC) and locally recurrent rectal cancer (LRRC). Magnetic resonance imaging (MRI) is the technique of choice to assess the infiltration of surrounding structures, currently representing the ideal tool for preoperative planning. In LAPRC, MRI negative predictive value of infiltration is reported to be 94%, however, a 54% positive predictive value has been estimated. In addition, diagnostic accuracy of MRI might not exceed 60% in LRRC. The aim of this study was to assess the usefulness of a three-dimensional image processing and reconstruction (3D-IPR) model to achieve R0 resections and to compare the diagnostic accuracy between MRI and 3D-IPR regarding the infiltration of surrounding structures in LAPRC and LRRC.

Method: This is a prospective study performed at two referral centres for rectal cancer between January 2020 and January 2022. 3D-IPR was applied to MRI of patients with LAPRC or LRRC, before surgery. The MRI findings were compared with those of 3D-IPR, focusing on predicted surgical margins. The standard of reference was definitive pathology of the specimen

Results: Twelve patients were evaluated (7 LAPRC and 5 LRRC). A complete agreement between MRI and 3D-IPR was observed in 16% of cases (examples provided in Figure 1–2). One patient received anterior resection of the rectum, 4 en bloc rectal resection extended to surrounding structures, and 7 pelvic exenteration; 75% of specimens were classified as R0. The diagnostic accuracy was 33% for MRI and 91% for 3D-IPR.

Conclusion: The 3D-IPR method can be useful to improve diagnostic accuracy of MRI scans in assessing the relationship with surrounding structures in patients with LAPRC and LRRC

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Disclosure of Interest: None declared.

P368 | Short- and long-term outcomes in YPT2 rectal cancer patients after neoadjuvant therapy and local excision: A multicentre observational study

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Aim: Although local excision (LE) after neoadjuvant chemoradiotherapy (nCRT) has achieved encouraging oncological outcomes in selected patients, radical surgery remains mode of treatment when unfavourable pathology occurs. However, the risk of undertreatment in patients who are not eligible for radical surgery is not negligible. This study aimed to evaluate the outcomes in patients with pathological incomplete responses (ypT2) in a multicentre cohort of patients undergoing LE after nCRT and to compare them with ypT0-is-1 rectal cancers.

Method: From 2010 to 2019, all patients who underwent LE after nCRT for rectal cancer were identified from five institutional retrospective databases. Forty-six ypT2 patients were compared with 119 ypT0-is-1 patients. The endpoints of the study were the early postoperative and long-term oncological and functional outcomes. Relapse was defined as recurrent endoluminal/pelvic or distant disease. Kaplan-Meier curves were compared using the log-rank test and postoperative anorectal symptoms were investigated with a questionnaire during follow-up.

Results: Among the baseline characteristics and interventions, the ypT2 group significantly differed for frail patients ($p = 0.02$) and type of nCRT ($p = 0.006$) than ypT0-is-1 group. They had a higher percentage of readmissions ($p = 0.008$) due to rectal bleeding in all cases and a higher R1 resection rate. Among the 109 patients (61.5%) who responded to the interview regarding anorectal symptoms, no difference between the groups was detected. In addition, the recurrence rates were comparable, and the 5-years overall survival rates were 95.7% and 89.1% in the ypT0-is-1 and ypT2 groups ($p = 0.056$), respectively.

Conclusion: Patients with ypT2 tumours after nCRT and LE have a higher risk of late-onset rectal bleeding and positive resection margins than those with complete or near-complete responses. However, long-term functional outcomes and recurrence rates seemed comparable, but a worse overall survival trend was found for ypT2.

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Disclosure of Interest: None declared.

P369 | Does oral and mechanical bowel PREP affect surgical outcomes in oncologic right colectomy?

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Aim: To assess whether full bowel preparation affects 30-day surgical outcomes in laparoscopic right colectomy for colon cancer.
Method: A retrospective chart review of all elective laparascopic right colectomies performed for colonic adenocarcinoma between Jan 2011 and Dec 2021 (11 years) was conducted. The cohort was divided into two groups – no bowel preparation (NP) group and the full preparation (FP) group – patients who received full bowel preparation, including oral and mechanical cathartic bowel preparation. All anastomoses were extracorporeal stapled side-to-side. The two groups were compared at baseline and then were matched using propensity score based on demographic and clinical parameters. The primary outcome was 30-day postoperative complication rate, mainly anastomotic leak (AL) and surgical site infection (SSI) rate.
Results: The study included 238 patients with a median age of 68 (SD 13) and equal M:F ratio. The FP group consisted of 115 patients (48.3 %), and the NP group of 123 patients (51.6%). Following propensity score matching, 96 matched patients were included in each group. Before matching the FP group had a significantly higher overall complication rate (27.6% vs 15.6%, $p = 0.02$). Minor complication rate was also higher in the FP group (21.3% vs 10.6%, $p = 0.02$) compared to the NP group. After matching, these significant differences were retained for both overall complication rate (27% vs 14.5%, $p = 0.03$) and minor complications (20.8% vs 10.4%, $p = 0.04$). There were no differences in major complication rates, SSI, ileus or AL rate. Although operative time was significantly longer in the FP group (119 vs 100 min, $p = <0.001$), length of stay was significantly shorter in the FP group (5 vs 6 days, $p = 0.001$).
Conclusion: Aside from shorter hospital stay, a full mechanical preparation for laparoscopic right colectomy does not seem to have any benefit and may be associated with a higher complication rate.
Disclosure of Interest: None declared.

P370 | Short term follow-up after rubber band ligation for internal hemorrhoidal disease: Our experience in a tertiary care center

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Aim: This retrospective study aims to present the results of our experience with rubber band ligation (RBL) for symptomatic hemorrhoids.
Method: We identified the patients who had RBL for symptomatic internal hemorrhoids in the outpatient office from January 1st to December 31st, 2021. The hemorrhoids were classified in 1st, 2nd, 3rd, and 4th degrees. A hemorrhoid suction ligator was used, with the application of the bands around the base of the pile, above the dental line. At least one follow-up visit was scheduled between 2 and 4 months after the procedure. Results were classified as a complete cure, partial improvement, and failure.
Results: A total of 224 patients were included in the study. 114 were men (50.9%) and 110 women (49.1%), with an average age of 53.84 years (SD 14.9). The symptoms included bleeding in 199 patients (88%), discomfort/pain in 94 (42%), and prolapsing in 85 (37.9%). At initial evaluation, 1st degree hemorrhoids were found in 25 patients (11.2%), 2nd degree in 110 (49.1%), 3rd degree in 85 (37.9%), and 4th degree in 4 (1.8%). At the first follow-up visit, 182 patients (81.3%) had improved, of which 90 (49.45%) had a complete cure and 92 (50.54%) had partial improvement. Of these, the percentage of improvement for 1st degree hemorrhoids was 72%; 85.45% for 2nd degree; 80% for 3rd degree, and 50% for 4th degree. A total of 68 patients required re-banding, achieving some kind of improvement in 44 (64.7%), of which 23 (52.27%) had a complete cure and 21 (47.72%) had partial improvement. Of these, the percentage of improvement for 1st degree hemorrhoids was 85.7%; 53.8% for 2nd degree; 71.8% for 3rd degree, and 33.3% for 4th degree. The mean follow-up period after first banding was 10.32 months (SD 3.36) and hemorrhoidectomy was offered to 27 patients (12.1%) in this time.
Conclusion: RBL is a safe and effective method for treating symptomatic internal hemorrhoids. It can avoid surgery in a high proportion of patients, especially for 1st, 2nd, and 3rd degree hemorrhoids.
Disclosure of Interest: None declared.

P371 | Treatment of chronic anal fissure using sphincter-preserving techniques. Our experience

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Aim: Chronic anal fissure (CAF) is one of the most common anorectal diseases which leads to a negative impact upon the overall quality of life of a patient.

Sphincter-preserving techniques, such as the anoplasty (CC) and botulinum toxin (BT), have emerged as alternative treatment options to achieve healing of the fissure without faecal incontinence. We present the results of our experience with the use of both surgical techniques in patients presenting CAF.

Method: We conducted a retrospective analysis on a database of patients undergoing surgical treatment of CAF with sphincter-preserving techniques between January-2019/December-2021.

Patients undergoing other surgical procedures associated with CAF as well as patients with inflammatory bowel disease were excluded

Results: There were 26 patients included with a median age of 43 years. 78.3% were women and 26.1% were smokers. Most CAF were posterior, and it was related to anal hypertonicity in 100% of patients treated with BT and 40% CC. All patients underwent non-operative management prior to surgical treatment (47.8% NTG). 26 procedures were perfomed: 13 CC and 13 BT. The median follow-up was 17 months, with 76.5% of patients without complications after the procedure. In the remaining, only mild complications such as pain or self-limited bleeding were described, with no surgical reoperation needed. The healing rate was 69.2% (BT) and 84.6% (CC). In 2 patients who did not have a successful result with anuplasty, treatment with BT was subsequently performed, and the CAF was healed. The impact on continence after surgery was mild, with a post-operative mean value on the Wexner scale of 0,7, similar to the value obtained in the pre-surgical survey 0,3.

Conclusion: Sphincter-preserving surgery shows good results with a high healing rate and mild complications related to the procedure. The impact on continence is minimal. For all these reasons, it can be considered as an alternative therapy to classic LIS in patients with risk factors for faecal incontinence.

Disclosure of Interest: None declared.

P372 | Permacol® collagen paste for cryptoglandular anal fistula: Our experience in a proctology unit

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Aim: Surgical treatment of complex perianal fistula (CPF) is a challenge for colorectal surgeons, who must attempt healing without compromising continence. Several sphincter-preserving surgical techniques have been developed, including the use of biological sealants such as Permacol® paste (PP). Our aim is to present our experience in the management of CPF with PP.

Method: A retrospective analysis was performed on a prospective registry between November 2019 and April 2021, including all patients with CPF who were treated with PP. The analysis included demographic variables, fistula characteristics and surgical outcomes. The technique performed was the same in all cases following the steps described in the literature.

Results: 12 patients were analysed of whom 58.3% were male and median age of 54 years. 16.6% were smokers and the median BMI was 31 kg/m2. All fistulas were complex, 33% of which had recurrence after previous treatment. All cases were preconditioned and had a single tutored pathway with a seton at the time of the procedure. 83.3% of fistulas were posterior and in all cases the CPF was mid-high trans-sphincteric except a case of low anterior trans-sphincteric case in a woman. The median follow-up was 8 months, with a success rate of 41.6%, being 50% in cases where CPF was used as the first treatment. The median time to diagnosis of recurrence was 4 months. No complications associated with the technique were reported, although recurrence was mostly in the form of suppuration or perianal abscess.

Conclusion: In our experience, treatment of CPF with PP has a lower success rate than described in the literature, although we believe that it can be used in selected cases, such as those CPF that have not undergone other previous treatments.

Disclosure of Interest: None declared.

P373 | Proctology and COVID-19: How we did it in a major ambulatory surgery unit during the pandemic?

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Aim: The COVID-19 pandemic has drastically impacted the surgical world. Proctology has been severely affected by the reorganisation of healthcare systems over the last year. We present the COVID-19 infection screening protocol that we have carried out in our Major Ambulatory Surgery (MAS) unit for proctological procedures.

Method: Analysis of the cases operated between April-20 and February-21 in the MAS unit following the protocol established for screening against COVID-19 for both, patients and staff, system alerts and solutions to outbreaks. Screening of patients is carried out by PCR test 48h prior to the intervention, outside the unit and extracted by trained staff. If positive, the intervention is postponed for 40–60 days or until a negative PCR is obtained. Screening of all staff is carried out weekly with a PCR test and 24–48 hours before any professional enters in the unit. If a positive case is detected, it is isolated for a week until negative PCR is obtained and all contagions are tested on days 0, 4 and 8. If an outbreak of less than 3 professionals is detected, they are isolated and follow-up continues. In case of 4 or more, activity in the unit is stopped until PCR is negative.

Results: 2068 procedures were performed in the MAS unit of which 202 were proctological interventions: 38.6% perianal fistulas, 20.8% haemorrhoids, 12.9% anal dysplasia, 9.4% fissures and 18.32% other

pathologies. 48 positive cases of patients were detected and the intervention was postponed without prejudice to the patients. Five alerts were detected in the staff screening, with a maximum of 3 professionals infected in one outbreak. The affected cases were removed from the unit until a negative PCR test was obtained. At no time did the MAS unit have to be closed due to infection.

Conclusion: Our COVID-19 screening for patients and professionals has been effective and has allowed us to continue our healthcare practice during the pandemic, without the need to close the unit due to outbreaks.

Disclosure of Interest: None declared.

P374 | Is there a pattern in the appearance of postoperative complications in colorectal surgery?

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Aim: To determine if there is a defined temporal pattern in the incidence ofpostoperative complications in a ColorectalSurgeryUnit.

Method: A time series study of all patients operated on between 2012 and 2021 was carried out. The statistical method consisted of creating atime series that was laterbrokendown into three components: trend, seasonality and noise to identify a possiblepattern of the appearance of postoperative complications. Subsequently, the months of greatest risk wereidentified using hierarchical unsupervised learning techniques (dendogram) and non-hierarchical (k-meansmethod) to eliminate possible researchbias.

Results: The decomposition of the time series into its components identified the existence of a seasonal pattern in the three complications of the study. Through the described "machine learning" techniques, four groups were identified that carried different risks of postoperative complications. Group1 included June and October, Group2included:January, May,November andDecember,Group3 included April, July andAugust and Group4 was made up of the remaining months. Groups1 (OR:1.4; 95% CI:1.01–2.06) and 4 (OR:1.52; 95%CI:1.52–2–01) showed ahigher riskof anastomotic leak, while group 2 (OR:0.41; 95%CI:0.33–0,78) had the lowest risk. Patients inGroup2 carried alower risk (OR:0.684; 95%CI:0.50–0.83) or reoperations. Group3 hadthe highest (OR:1.733; 95%CI:1.21–2.48) and Group 2 the lowest (OR:0.51; 95%CI:0.29–0.89) risk of post operative death.

Conclusion: The distribution of complications in colorectal surgery follows a seasonal pattern in which periods of higher risk and protective periods for the appearance of complications can be identified. This seasonality considers the months of April, July and August as those with the highest risk of complications. This could be explained by the vacation periodwith a change of surgeons,nurses and the startof new trainees. For all these reasons, we emphasizethe importance oftheneed for a qualified multidisciplinary teamin the management ofthese patients throughoutthe year.

Disclosure of Interest: None declared.

P375 | Is the preoperative blood test a prognostic factor for overall and disease-free survival in colorectal cancer patients?

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Aim: To assess the use of a model to predict overall survival (OS) and disease-free-survival (DFS) based on the immunological indices obtained from preoperative laboratory blood tests in patients with colorectal cancer (CRC).

Method: A retrospective study of patients operated on for CRC between 2012–2018 was carried out. A correlogram and scoring system based on the indices with scores between 0–4 were performed. The predictive capacity of this index was performed using a cox regression.

Results: 787 cases were included. The model obtained included a serum albumin level of 4.1 gr/dL; a neutrophil to lymphocyte ratio (NLR) of 2.68 and a prognostic nutritional index (PNI) of 40.01. In the analysis of the scores, it was observed that patients with scores higher than two have a worse prognosis (p <0,001). The risk expressed as the hazard ratio (HR) of recurrence for the high-risk group was 1.809 (95% CI: 1.301–2.515). The area under the curve (AUC) of the model for OS at 5 years was 62% (95% CI:53,9%-70,2%). For DFS, the risk expressed as the HR of recurrence based on the index scores was 1.809 (95% CI:1.301–2.515). There were significant differences in survival between the risk groups (p <0,001). The AUC of the model for DFS based on the index scores was 60% (95% CI:53,9%-66%).

A cox regression including the new index, TNM stage, age and sex was performed. The results showed that the index score was an independent predictor of OS and DFS (p = 0.006 and p <0.001, respectively).

Conclusion: Our prognostic index based on the different immunological indices obtained from conventional analysis may be prognostic for OS and DFS in patients with CRC.

Disclosure of Interest: None declared.

P376 | Could the "LARS score" be an adequate tool in assessing the postoperative outcomes and quality of life of patients undergoing restorative proctocolectomy with ileal pouch anal anastomosis (IPAA) for ulcerative colitis?

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Aim: Some patients who have undergone restorative proctocolectomy with ileal pouch anal anastomosis (IPAA) in a J-Pouch configuration for ulcerative colitis have symptoms like those who underwent anterior resection for rectal cancer. Our aim is to evaluate the effectiveness of the LARS (low anterior resection syndrome) score in this cohort of patients for whom there is a lack in standardization and evaluation of functional outcomes.
Method: We conducted a retrospective analysis of a prospectively maintained single center database. Functional bowel complaints were assessed by the LARS score. Quality of life was assessed by the Inflammatory Bowel Disease Questionnaire (IBDQ-32).
Results: Between 2015 and 2020, 70 patients with ulcerative colitis underwent total colectomy and subsequent IPAA with J-Pouch configuration. Among these, 49 patients who closed the ileostomy and were followed for at least 6 months, were selected for the present study. Nineteen patients did not have the LARS; among 30 who complained the LARS, 17 had a major LARS. The latter had a worse quality of life on the IBDQ-32 questionnaire, especially in relation to urgency and frequency. We compared the two scores using Spearman's test correlation coefficient, detecting a significant correlation (rho -0.7664185; p-value < 0.005); a significant correlation between the urgency sub-category with LARS score (rho -0.6515759; p-value < 0.005) and frequency (rho -0.6744705; p-value <0.005) was evaluated.
Conclusion: The LARS score appears to be a simple and effective tool in predicting functional outcomes and QoL also in patients with ulcerative colitis after restorative surgery.

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Disclosure of Interest: None declared.

P377 | The potentially therapeutic role of coffee in the treatment of the postoperative ileus after oncological colorectal surgery

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Aim: This study aims to evaluate the feasibility of postoperative coffee or caffeine consumption in patients undergoing elective oncological colorectal surgery.
Method: A literature search was performed using PubMed database, until April 2022, to identify papers about the effect of coffee on postoperative ileus after colorectal surgery and on the risk of colorectal cancer. A manual search of the reference lists in relevant articles was also performed.
Results: Three systematic reviews showed that postoperative coffee consumption likely reduces the time to first defecation, length of hospital stay, and the incidence of postoperative ileus after colorectal surgery. No association was found between coffee and colorectal cancer. According the current evidence, it could also have a protective effect.
Conclusion: Coffee or caffeine products seem to improve postoperative bowel recovery. Postoperative coffee consumption should be considered as a well-tolerated with no adverse effects supplement in the treatment of postoperative ileus after elective oncological colorectal surgery. Further studies are needed to better understand the mechanisms involved in this potentially protective and therapeutic role of coffee.

Disclosure of Interest: None declared.

P378 | Setting up a specialized robotic colorectal center for 'high risk' patients in greece: our preliminary results

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Aim: When it comes to colorectal surgery for cancer,, it is widely accepted that specialized surgeons and high-volume centers could result in better oncological outcomes. We aim to present our experience, setting up a specialized colorectal center in Greece.
Method: Our robotic program started in end of 2019. The primary surgeon has completed an international robotic colorectal fellowship in UK and is a qualified member of the European Academy of Robotic Colorectal Surgery (EARCS). We have a dedicated same theatre team and we use a single side docking technique and standardized technique, as described by the European Robotic group. All patients are within an established ERAS Protocol.
Results: 50 high risk patients are included. (90%) had cancer. The first robotic NOTES (natural orifice transluminal extraction colectomy) in Europe also performed in our center All patients are ASA II or III and 70% of them had previous abdominal surgeries through

an open approach. The median age is 72 y.o (43–82) and BMI is 29 mg/m^2 (20–43). The length of stay is 3 days (2–26). We had 2 serious complications (Clavien-Dindo IIIc and IV); The median lymph node harvested is 35 for the whole group (15–55) and 48 (35–55) for the subgroup of CMEpatients. Quality of total mesorectal excision is grade I or II in all patients and all patients had a negative CRM. The data are monitored due to participation in European collaborations.

Conclusion: Setting up a specialized robotic colorectal center for high risk patients needs to follow specific protocols and training of surgeons and staff, so robotic surgery can be safely performed in high risk patients with excellent oncologic and short term outcomes.

Disclosure of Interest: None declared.

P379 | Impact of epidemiology on management of full-thickness rectal prolapse: A South Asian perspective

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Aim: The epidemiology of rectal prolapse suggests an elderly predisposition and female preponderance. Sparse data from the Indian subcontinent indicates that prolapse is common in young males. We studied the epidemiology of rectal prolapse and outcomes of various operative approaches.

Method: This is an ethics-approved retrospective analysis from a single colorectal unit of a tertiary care teaching hospital. All consecutive operated patients between Jan 2004 and Dec 2021 were included. Data was collected from electronic hospital records.

Results: 170 patients were included; 111 (65.3 %) were male. The mean age at presentation was 43.5 years (SD 15.2, Range 12 to 78). 58 % had associated constipation and 88% faecal incontinence. 20.6 % had a recurrent rectal prolapse.

141 underwent abdominal procedures (60.3% laparoscopic) which included 121 (71.1%) suture rectopexy, 13 (7.6%) mesh rectopexy, and 7 (4.1%) resection rectopexy. 29 underwent a perineal procedure, 18 (10.5%) Delorme's procedure and 11 (6.4%) Altemeier's procedure. 30-day morbidity after abdominal and perineal operations were 14% and 24%.

Follow-up was available for 98 patients with a mean follow-up of 33.8 months. 9.8% of patients recurred (13% abdominal approach and 6.7% perineal approach).

Among young (<40) male patients, 75.9% underwent abdominal approach (88% suture,10% mesh rand 2% resection rectopexy) and 24.1% underwent perineal approach (46.2% Delorme's and 53.8% Altemeier's procedure). 3 young patients needed a stoma after Altimiers procedure. 30-day morbidity was 9.8% in abdominal procedures and 23.5% in perineal procedures (p = 0.15). Recurrence in abdominal approach and perineal approach was 11.5% and 6.7% respectively.

Conclusion: The epidemiology of rectal prolapse was primarily young males in our cohort. Perineal procedures in this group of patients were associated with higher morbidity. Abdominal suture rectopexy has good outcomes in this group of patients with minimal morbidity.

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Disclosure of Interest: None declared.

P380 | Surgical approach to retrorectal tumours – Single centre 15 years experience

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Aim: The rarity of retrorectal tumours and their diverse aetiology pose a challenge in their management. This study aimed to review the operative strategies and treatment outcomes through this large case series.

Method: This was a single-institution, retrospective analysis of all consecutive patients operated on for retrorectal tumours between January 2005 and December 2021 in a dedicated colorectal unit of a tertiary care teaching hospital. We collected data on a predefined case report form from electronic hospital records.

Results: The study included 38 patients; 53 % were female. 84% of tumours were benign. The mean age of presentation was 40 yrs.(SD – 11.3, Range – 20 to 60), with malignant tumours presenting later (46 yrs.) compared to benign tumours (39 yrs.). In that order, schwannoma, cystic hamartoma, epidermoid cyst and teratoma were the most common etiologies.

82 % of patients had a positive posterior extra mucosal bulge on digital rectal examination. 97% of patients had a Magnetic resonance imaging (MRI) for evaluation. Seven patients had a preoperative image-guided biopsy.

55.3% had an anterior abdominal approach, 42.1% had a posterior/perineal approach, and one patient had a combined approach operation. One patient was inoperable. The anterior approach was used in 74%, and the posterior approach in 78% of patients with tumours above and below the level of S3 respectively.

There was no mortality. 30-day morbidity in anterior and posterior approaches were 38% and 25%, respectively. The mean follow-up was 28 months, and 19% presented with recurrence/residual disease with a median time to recurrence of 12 months.

Conclusion: Both anterior and posterior approaches to retrorectal tumours are associated with low morbidity and mortality. The

anterior approach is helpful for high lesions, while the posterior approach can be used safely for retrorectal tumours below the S3 level.

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Disclosure of Interest: None declared.

P381 | Total pelvic exenteration: Results from a newly developed service

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Aim: This single-centre retrospective cohort study examines outcomes from pelvic exenteration surgery undertaken at a newly established exenteration service at a district general hospital. We compare real-world data against international standards from larger centres, to determine whether pelvic exenteration surgery carried out within newly developed hospitals can be safe and effective.

Method: Single-centre cohort analysis of patients undergoing pelvic exenteration between October 2017 and February 2022. Specialist radiological expertise was obtained from a well-established regional exenteration centre. Univariate and multivariate analyses were performed to assess patient outcomes. Data compared to international outcomes.

Results: Thirty-one patients underwent pelvic exenteration during the study period, mainly for locally advanced colorectal cancer (n = 26, 84%). Of the 28 patients undergoing surgery with curative intent, negative margins (R0 resection) were achieved in 23 patients (82%). This is comparable to outcomes reported by the PelvEx collaborative (82.1 vs 79.8%, Chi-squared p = 0.77). Overall survival was 96.7% at one year, 93.5% at two years and 87.5% at three years. 1-year disease free survival was 77.4%. Univariate survival analysis revealed positive resection margins (p = 0.01) and nodal status (p = 0.003) was associated with inferior one-year disease-free survival. Patient age, sex, neoadjuvant treatment, and tumour stage was not associated with inferior overall or disease-free survival (p > 0.05 throughout).

Conclusion: This study demonstrates that with appropriate support and access to specialist advice and expertise, a newly developed collaborative service within a high-volume cancer centre can safely carry out complex exenterative surgery, with comparable patient outcomes to well-established specialist centres.

Disclosure of Interest: None declared.

P382 | Time trend in the surgical management of obstructed defecation syndrome: A multicenter experience on behalf of the italian society of colorectal surgery (SICCR)

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Aim: Surgical management of obstructed defecation syndrome (ODS) is challenging, with several surgical options showing inconsistent functional results over time. This study aims to evaluate its trend across Italian referral centers in a 10-year timeframe.

Method: Surgeons from referral centers for the management of pelvic floor disorders and affiliated to the Italian Society of Colorectal Surgery (SICCR) provided data on the yearly volume of procedures for ODS from January 2010 to December 2019. Six common clinical scenarios of ODS were proposed, including details on patient's anal sphincter function and the presence of rectocele and/or rectal intussusception. Perineal repair, ventral rectopexy (VRP), transanal repair, stapled transanal rectal resection (STARR), TranSTAR, and transvaginal repair were considered in each clinical scenario.

Results: Twenty-five centers were included providing data on 2,943 surgical patients. Procedure volumes ranged from 10–20 (54%) to 21–50 (46%) per year across centers. The most performed techniques in patients with good sphincter function were transanal repair for isolated rectocele (243/716 [34%]), transanal repair for isolated rectal intussusception (287/677 [42%]) and VRP for combined abnormalities (464/976 [48%]). When considering poor sphincter function, these were perineal repair (112/194 [57.8%]) for isolated rectocele, and VRP for the other two scenarios (60/120 [50%] and 97/260 [37%], respectively). STARR and TranSTAR have lost popularity over time.

Conclusion: The Italian experience will inform the surgical community on treatment pattern changes among ODS patients. Of note, the latest figures do not fully reflect the recent European consensus guidelines on the surgical management of this condition.

Disclosure of Interest: None declared.

P383 | The realise score: a new statistically validated scoring system to assess the severity of anal fissures

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Aim: Anal fissure (AF) is a common, painful disease that strongly affects patients' quality of life, however, no scoring system to assess the severity of AF is available in the literature. The aim of this study was to set up and validate a reliable scoring system to quantify the severity of AF, to be used in prospective trials comparing the efficacy and the outcomes of surgical or medical treatments.
Method: The study was conducted on patients with acute or chronic AF and a control group in a tertiary centre for coloproctology. in June 2020–September 2020. Two researchers independently carried out a structured interviewer-led questionnaire at two different time points (T1/T2). The questionnaire consisted of five items selected according to the most commonly reported symptoms for AF: the item pain, was scored from 0 to 10 using a visual analogue scale, and quality of life, duration of pain, use of painkillers, and bleeding were scored from 1 to 5 using Likert-scale questions. The scoRing systEm for AnaL fIsSurE (REALISE) score was the sum of the points. Patients with AF and a control group of patients with haemorrhoids, anal fistula, or obstructed defecation syndrome entered the study. Main outcome measures were reliability, inter-/intraobserver agreement, and repeatability.
Results: One hundred and fifty well-matched patients (75 with AF and 75 controls) were enrolled. A significant difference was found between the mean REALISE score for patients with AF and controls ($p < 0.001$). The two REALISE scores were highly correlated (r = 0.99). The coefficient of repeatability was 1.45 in T1 and 1.18 in T2.
Conclusion: The REALISE score may have an important role in the assessment and management of AF, in grading the severity of AF and comparing results of different treatments.
Disclosure of Interest: None declared.

P384 | How well do endoscopic morphological and histopathological characteristics correlate in colonic polypectomy reporting?

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Aim: Endoscopy is the gold standard diagnostic modality for various lower gastrointestinal tract presentations. Polyps are a common cause of these symptoms and endoscopists are obliged to fully describe morphological characteristics using pit pattern type. Higher grades as well as larger polyps (≥20mm) are associated with more sinister pathology. Similarly, histopathologists are required to produce a standardised report to describe any abnormalities to guide therapeutic management, if required. The aim of this project was to identify any discrepancies between endoscopic characterisation and histopathological reporting.
Method: A retrospective case analysis was performed on random polypectomies at the George Eliot Hospital during Aug 2021-Apr 2022. Electronic endoscopic and histopathological data were recorded and analysed for completeness and correlation.
Results: Over the eight-month period, *N* = 149 polypectomies were performed in eighty-three patients. Of these, the majority identified dysplasia (low-grade in 70.5%, high-grade in 2.0%), 2.0% colorectal adenocarcinoma, 15.4% benign disease or normal mucosa, whereas histological data was missing in 10.1%. The size of the polyp was not described in 1.3% of endoscopy, and 18.8% of histopathological reports. Size correlated between reports in 20.2%, with over-sizing identified in 45.6% and under-sizing in 34.2%. Pit grading was not described 36.2% of endoscopy reports.
Conclusion: Endoscopic examination and polypectomies, and its thorough histopathological assessment is key in establishing the diagnosis of people presenting with lower gastrointestinal symptoms, especially in adenocarcinoma. Thorough reporting is important in this regard, and our project found some discrepancies endoscopic and macroscopic analyses. Therefore, we suggest a full description and grading of each lesion to help guide patient management.
Disclosure of Interest: None declared.

P385 | French multicentric prospective evaluation of surgical treatment of hemorrhoidal disease by radiofrequency

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Aim: This study was a prospective and multicentric evaluation of the efficacy and tolerance of radiofrequency in patients suffering from internal hemorrhoidal pathology.

Method: Patients had isolated internal hemorrhoidal disease. Radiofrequency surgery (Rafaelo®) was performed under general or spinal anesthesia. The patients were followed at 1, 3, 6 and 12 months. The primary endpoint was the change in the HEMO-FISS-QoL score at 3 months [1].

Results: Between January 2019 and March 2021, 129 patients (69% men, median age 49 years) were operated on in 16 centers. The initial grade of the hemorrhoidal pathology was respectively 1, 2, 3 and 4 in 2%, 41%, 54% and 3%. The median Joules delivered per patient was 3925 with a median operating time of 15 minutes.

Three months after surgery, median HEMO-FISS-QoL score dropped from 15.8/100 to 0/100 ($p < 0.0001$) remaining at 0/100 at M6 and M12. At 3 months the rate of patients reporting bleeding decreased (21% vs. 84%, $p < 0.001$), prolapse (34% vs. 91.3%, $p < 0.001$) and anal discomfort (median 0/10 vs. 5/10, $p < 0.0001$).

The median work interruption duration was 4 days. The median maximum postoperative pain was 1.7/10, 0.4/10, 0/10 and 0/10 during weeks 1, 2, 3 and 4.

At 1 year, 7 patients (5%) were reoperated for hemorrhoids, all using the Milligan and Morgan technique.

3 patients (2.3%) had postoperative hemorrhage, one requiring hemostasis. 3 patients (2.3%) required bladder catheterisation, 2 had an abscess, 2 a faecal impaction, 1 patient was operated on for an anal fissure. Finally, 10 patients (7.7%) presented external hemorrhoidal thrombosis.

Regarding patient satisfaction, 86% would agree to repeat the same procedure if necessary and 80% would recommend it to those around them.

Conclusion: The treatment of internal hemorrhoidal disease by radiofrequency can significantly improve the quality of life of patients and their symptoms at 1 year. Postoperative pain is not significant in the majority of cases with a short work interruption.

Reference:

[1] Colorectal Dis 2019; 21:48–58.

Disclosure of Interest: None declared.

P386 | Cut-off value of 12 lymph nodes retrieved and its impact on adverse oncological outcomes on patients with rectal cancer

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Aim: It is established that the minimum number of lymph nodes to analyze during colorectal cancer resection is 12, in order to allow a correct staging. Nonetheless, there is no such evidencia to justify this cut-off value. The goal of this study is to analyze the influence of retrieval of more or less than 12 lymph nodes in surgical resections of rectal cancer on locoregional recurrence (LR), distant recurrence (DR), overall survival (OS) and disease-free survival (DFS).

Method: We conducted a retrospective and observational study of 445 patients -prospectively included in a database- treated for rectal cancer with curative intent between January 2008 and January 2017. The statistical analysis was performed with the SPSS 25.0 program for Windows. The differences are considered statistically significant with $p < 0.05$.

Results: In 205 patients (46.1%), <12 nodes were collected. In the middle and upper rectum, the percentage of patients with <12 nodes was significantly lower than in patients with 12 nodes (42.9% vs. 57.1% and 37.3% vs. 62.5%), while in the lower rectum it was significantly higher (58.5% vs. 41.5%, $p = 0.009$). After neoadjuvant therapy and surgery, the percentage of patients with <12 nodes was significantly higher than that of patients with surgery alone (61.7% vs. 36.7%, $p < 0.001$) and the percentage of patients with N+ was 26.9% vs. 39.2% ($p = 0.028$). There were no significant differences between patients with <12 vs. 12 nodes analyzed in relation to LR (15.6% vs. 8.8%, $p = 0.072$), DR (25.85% vs. 22.08%, $p = 0.467$), OS (71.71% vs. 75.42%, $p = 0.705$), DFS (59.51% vs. 65.00%, $p = 0.496$).

Conclusion: Our results suggest that the 12 nodes cut-off value should not be considered a predictive factor for adverse oncological outcomes, and probably the criteria for the collection of this number of nodes should be reviewed.

Disclosure of Interest: None declared.

P387 | International standardization and optimization group for intersphincteric resection (ISOG-ISR): A modified delphi study

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Aim: Intersphincteric resection (ISR) is an oncologically safe technique for ultra-low lying rectal cancers. ISR is not yet fully standardized: definitions, anatomical terms, indications, surgical technique, and functional follow-up are highly variable throughout the literature. The aim of this study is to standardize ISR, by reaching international consensus from experts, allowing future high-quality comparative studies on this technique.

Method: A modified Delphi method was adopted. 29 international experts (11 countries) were selected. Six aspects were evaluated: anatomical definitions, definition of ISR, indication of ISR, surgical technique, specimen description, and functional outcomes.

Results: Round 1 included 44 statements. Preliminary results showed agreement (≥80%) on definitions of complex pelvic anatomical structures. Rectal cancer height for ISR indication was debated: anal verge (44.8%), dentate line (20.7%), and anal ring (24.1%). Rullier's classification is standard only for lateral/posterior tumors (72.4%), with 55.2% agreeing for change for anterior tumors. Intersphincteric plane (ISP) involvement should be staged as T3 and defined as T3isp (79.3%). External anal sphincter/levator ani infiltration (75.9%), poor responders to neoadjuvant treatment with suspicious CRM and anterior location (93.1%) were contraindication to ISR. Age ≥70 and previous colonic surgery/pelvic radiation were not contraindication (51.7 and 69%). Surgical approach affects ISR achievement and oncological/functional outcomes (55.2%). 72.4% agreed for stoma creation (ileostomy) as first choice. Adequate distal resection margin was debated: 5mm (31%), 10mm (37.9%), and others. 62.1% disagreed on standard perioperative use of anorectal manometry. Wexner score was agreed by 75.9% of responders. Perioperative urological/sexual function tests were not yet settled.

Conclusion: Multiple clinical and technical statements did not reach enough agreement yet. Further rounds are undergoing for consensus statement.

Disclosure of Interest: None declared.

P388 | Analysis of a novel diverticulitis database from a single tertiary hospital

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Aim: Acute colonic diverticulitis (ACD) is a common problem of the colon. Classification of this problem is based on the Hinchey classification method created in 1978[1]. The aim of this study was to analyse a novel database of patients with confirmed ACD to understand trends seen in this population with regards to disease complications and site of disease as an initial step towards designing a new classification method for ACD.

Method: A retrospective review of Computed Tomography Abdo/pelvis (CTAP) scan reports was completed for any patient who presented to the emergency department with abdominal pain or clinical concern for ACD as the scan indication in a single calendar year. This enabled a database collation with 10 independent data points per scan.

Results: A total of 2386 scan reports were reviewed with 1411 (59.1%) showing evidence of diverticulosis and 603 (25.3%) of these showing concomitant evidence of ACD. The mean age of those with ACD was 61.7 years and was 52.7% female. There were slight differences in disease location when comparing ACD and diverticulosis with regards to sigmoid colon involvement (81.1% vs. 89.9%), transverse colon alone (1.5% vs. 0.9%), ascending colon alone (1.3% vs. 0.9%) and caecum alone (1.0% vs. 0.4%). Pan-colonic involvement differed with 0.3% of ACD reports noting it compared with 5.1% of diverticulosis reports. The most common complication of ACD was fat stranding (96.8%), with a perforation seen in 12.4%, abscess in 9.1% and a fistula seen in 0.3% of reports. A population of patients emerged who were scanned multiple times in the calendar year

(*n* = 112, total scans = 263). This population has not been clearly characterised in the literature.

Conclusion: The site of ACD differed slightly to that of simple diverticulosis, particularly regarding pan-colonic involvement. A variety of complications were seen in patients with ACD, ranging from fat stranding to perforation.

Reference: 1. HINCHEY, E., SCHAAL, P. & RICHARDS, G. 1978. Treatment of Perforated Diverticular Disease of the Colon. *Advances in Surgery*, 12, 85–109.

Disclosure of Interest: None declared.

P389 | Validation of a novel 'traffic light' model for screening patients at high risk of readmission 30 days post discharge after single-stoma formation surgery

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Aim: Patients who have a stoma surgery are at higher risk for readmission following discharge. Some may benefit from closer post-discharge surveillance to detect complications earlier and provide timely intervention to avoid readmission. We previously devised a 'Traffic Light' screening tool to identify post-operative single stoma patients at higher risk of readmission within 30 days of discharge. We further validate our "traffic light" model in a new patient population.

Method: Retrospective review of all patients who underwent single stoma formation at a single tertiary colorectal service (2021–2022).

Results: The risk factors comprising our screening tool included post-operative high-output stoma and presence of loop ileostomy. Our previous model classified patients with no risk factors as low risk, one risk factor as moderate risk and patients with both risk factors at high risk of readmission. The previous model evaluating 423 patients had an AUC of 0.58 (0.52 – 0.63). A new population of 105 patients were identified, with overall readmission rate of 22.9% (*n* = 24). Rates of readmission were; 7.14% for high-output stoma only, 21.1% for loop ileostomy only and 72.7% for patients with both. When our previous model was applied to the new population, we found an AUC of 0.63 (0.50 – 0.77).

Conclusion: Here, we describe the validation of our 'Traffic Light' model for screening post-operative single stoma patients at increased risk of readmission. Initial results suggested the model may be helpful for identifying high-risk patients. Future work will now involve measuring the clinical impact of an enhanced monitoring system based on such risk triage and further validation of our model in other centres and settings.

Disclosure of Interest: None declared.

P392 | The experimental biologic and structural grounds of clinical advantages for next-generation, sutureless, bio-welded gut anastomosis (SWGA)

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Aim: to substantiate creating the sutureless, continuous weld connection of live gut tissues, to become the reduced risk of leakage.

Method: We developed the original technology, included series of 66/440 kHz electric pulses, compression to tissue 2–5 N/mm^2, temperature 72-99C. The structural (optical, electron, X-ray), physical and biologic studies were provided. Its data was compared to one observed at animal (46) and clinical (29) SWGA studies.

Results: SWGA compound edge had an amber-polymer appearance, dense-elastic consistency, thickness 0.1 ±0.02 mm, morphological structure was continuous with organ tissues. Collagen and smooth muscle fibers formed fusion areas between the muscle plate and muscle layer sequentially along the SWGA, and intercellular matrix became the high-grade orderliness.

The circular SWGA burst strength was 53.6 ±9.8 mm Hg, its diameter increased by 40%, comparing to stapled one: 24.2 ±3.2 mm Hg, and 12% ($p < 0.001$).

After 8 days exposure in model intestinal and abscess microbial environment, the SWGA compound stayed stable.

In vivo, SWGA structure includes stable spatial through architecture of fibers-a framework for the further granulation tissue formation, and emergence the newly formed, throughout micro vessels to 4th day. The threshold burst pressure of SWGA increased to 220 mm Hg to 7th day. SWGA compound restoration showed the continuous tissue structure elements, and throughout germination of SWGA line with newly formed vessels until the 45th day. No leakage or narrowing was observed during the animal experiment, up to 90 days.

At retrospective study, the SWGA leakage (II-III stage) rate decreased to 3.4% from 18.8% after traditional formation ($p = 0.001$).

Conclusion: The SWGA has prevailing burst strength, elasticity, unique primary integrity and bacterial resistance, different way of primary healing - without necrotic phase - which provides improvement of functionality, reduction of complications, and expansion of surgical possibilities.

Disclosure of Interest: None declared.

P393 | Impact of textbook outcome after colorectal cancer surgery

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Aim: This study aimed to compare the long-term outcomes of patients who achieved and did not achieve textbook outcomes after the colorectal cancer resection.
Method: All patients who underwent colorectal cancer resection with primary anastomosis between 2014 and 2018 at study centers were enrolled in the study. Textbook outcomes were defined if the following criteria were met: no reintervention needed after surgery, tumor-free margins, ≥12 lymph nodes retrieved, no postoperative morbidity, a hospital stay <14 days, no readmission, and no 30-days mortality. Long-term outcomes were compared between the groups.
Results: 1524 patients were included in the study. 795 (52.2%) of the patients achieved the textbook outcomes. Older age (>75 years), higher ASA score (III-IV), and open surgery were associated with failure to achieve textbook outcomes ($p < 0.05$). Textbook outcomes after surgery resulted in significantly higher 5-year overall survival (80.2 % vs. 65.5 %; $p = 0.001$) and 5-year disease-free survival (76.6 % vs. 62.6 %; $p = 0.001$).
Conclusion: Textbook outcomes after colorectal resection for cancer are associated with improved long-term outcomes.
Disclosure of Interest: None declared.

P394 | The role of PET-CT in the detection of post-surgery metastatic disease in colorectal cancer: A systematic review and meta-analysis

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Aim: Through a systematic review of the literature, we have consolidated and analysed published data relating to the role of PET-CT in the detection of tumour recurrence in asymptomatic patients post colorectal cancer (CRC) surgery.
Method: This review was registered with the online database PROSPERO (CRD42021283241). A systematic search of 6 medical databases (MEDLINE, Embase, PubMed, Cochrane CENTRAL library and Web of Science) was undertaken from database inception to May 2022. Studies reporting on PET-CT outcomes in the context of asymptomatic post-CRC surgery surveillance were included. The primary outcome measure was the recurrence of CRC. Secondary outcomes included disease-free survival and overall survival.
Results: 2243 studies were identified via database searches. Nine studies involving 1642 patients fulfilled the inclusion/exclusion criteria. Three prospective randomised control trials were included in the meta-analysis. Time to recurrence was significantly shorter in patients undergoing PET-CT (MD = −3.1 CI −5.16, −1.04 $p = 0.003$), although the overall detection of recurrence (RR = 1.18 CI 0.94–1.48 p = 0.15) and overall survival (RR = 0.91 CI 0.58,1.44 $p = 0.69$) is comparable between the two surveillance modalities.
Conclusion: This systematic review has demonstrated a statistically significant reduction in the time to detection of metastatic disease in patients undergoing PET-CT imaging as part of their routine cancer surveillance. Although the time to detection of metastatic disease is decreased, this does not translate into an improvement in overall survival. Further, adequately powered, prospective research is warranted to establish whether the improved time to detection of metastatic disease offered by PET-CT will improve overall survival.
Disclosure of Interest: None declared.

P395 | Secondary casualties of the Covid-19 pandemic: Has a reliance on telemedicine led to an increase in late presentations of colorectal cancer?

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Aim: To evaluate the impact of telemedicine on the diagnosis of colorectal cancer during and after the COVID 19 pandemic.
Method: 120 – 200 patients/year are diagnosed with colorectal cancer at Darent Valley Hospital. Our database of colorectal cancer patients from 2018 to 2022 was reviewed and patients stratified according to staging and diagnostic pathway (e.g. screening, rapid access referral or emergency admission). These data were compared pre-, during and post-Covid 19 pandemic. Where possible, local data were compared with available national statistics.
Results: Our analysis suggests that there has been an increase in patients presenting with advanced (T3/T4) colorectal cancer during and after the pandemic. Several had experienced telemedicine consultations and triage both in primary and secondary care and had never been physically examined by a healthcare professional. A comprehensive analysis of these cases will be presented.
Conclusion: Data from the UK suggests that the Covid-19 pandemic led to a significant reduction in the diagnosis and treatment of colorectal cancer. This implies that there are a large number of people in the community with undiagnosed colorectal cancer, who may subsequently present with advanced disease. As the early detection of cancer improves outcomes, delays to diagnosis could negatively impact survival from colorectal cancer. The COVID-19 pandemic has led to a rise in tele-medicine and the NHS has recommended that >25% of outpatient appointments should take place remotely. However, the suitability of this mode of communication in surgery has been questioned, especially in the assessment of new patients. It

is our concern that an over-reliance on telemedicine is causing delays in the physical examination of patients and may be associated with the apparent increase in patients presenting with advanced colorectal cancer. New pathways should be developed for a post-pandemic NHS to ensure that potential cancer patients are physically seen in a timely manner.

Reference: 1. Poynter L., Allan C.S., Mahfouz Y.R.A., Garrett W.V. (2021). 'Re-emerging historical clinical signs: The psychological and physical bystander victims of COVID-19.' Annals of Surgery 274:189–190.

2. Morris E.J.A., Goldacre R., Spata E., et al. (2021). 'Impact of the COVID-19 pandemic on the detection and management of colorectal cancer in England: a population-based study'. Lancet Gastroenterol Hepatol 6:199–208.

Disclosure of Interest: None declared.

P396 | Pancreatocolic ligament, a new ligament in colorectal surgery. Anatomical and histological research

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Aim: Ligament of fixation in abdominal cavity is considered to be the fusion of embryological fasciae. To date, 3 ligaments that fix the Splenic Flexure of the Colon (SFC) have been described: Gastrocolic, Phrenicocolic and Splenocolic. There are attachments between the pancreatic body-tail and the transverse mesocolon that do not receive a specific name. The aim of the study was to describe, from the macro and microscopic point of view, a new SFC fixation ligament and its application in its surgical release: The pancreatocolic ligament.

Method: Phase 1. Anatomical study: 10 cadavers. Complete extraction of the SFC with the adjacent structures without sectioning any of the fixation elements. Each of the fixation elements was prepared for microscopic study.

Phase 2. Microscopic study: With hematoxylin-eosin and Masson's trichrome stains, the number of collagen layers in each ligament was identified, which is a reflection of the number of mesothelial layers in each fusion.

Results: -Macroscopic: 100% (10/10) of the corpses presented the following attachment structures of the SFC: Gastrocolic, Splenocolic, Phrenocolic ligaments and Pancreatocolic attachments.

-Microscopic: Gastrocolic: 80% (8/10) specimen had 2 mesothelial layers, 10% (1/10) 4 layers, and 1 cadaver was not evaluable. Splenocolic: 100% specimen had 2 mesothelial layers. Phrenicocolic: 100% specimen had 2 mesothelial layers. Possible Pancreatocolic ligament: 60% (6/10) specimen had 4 mesothelial layers, 30% (3/10) 2 layers, and in 1 cadaver it was not evaluable.

Conclusion: In the SFC, we find fascial fusions between the parietal and visceral peritoneum classically called ligaments. We confirmed the presence of a differentiated anatomical structure that joins the transverse colon to the body and tail of the pancreas, comparable to the rest of the classically described SFC fixations and therefore should be called the Pancreatocolic ligament.

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Disclosure of Interest: None declared.

P397 | Resection of retrorectal tumor by transanal minimally invasive approach

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Aim: Retrorectal tumors ara rare and often found incidentally. Ussually are benign, but have potential for malignant transformation and therefore should be resected when found. We show a transanal minimally invasive surgey in a retrorectal tumor.

Method: 44year-old female patient with retrorectal tumor is showed.Tumor was found incidentally on CT for evaluation of non specific right-side abdominal pain.MRI was informed as a probably congenital retrorectal tumor (tailgut cyst) There was no evidence of involvement of other structures The tumor was palpable at rectal examination. A transanal minimally invasive surgery (TAMIS) approach was proposed.

Results: The contour of the tumor is not visible due to small size. Palpation of tumor and placement of clips to lolocate was done. Placement of rectal and insufflation.A longitudinal incision was made in posterior left-side of rectal wall.The insufflation of perirectal extraperitoneal space allowe for excellent exposure of the tumor. The tumor was disected with ligasure and extracted transanally. Proctotomy was closed in a single layer with reabsorbible monofilament continuous suture (PDS).No complications after the procedure. The patient was discharged at 2 days.

Conclusion: Traditionally, the retrorectal tumors have been resected using a posterior parasacrococcygeal approach, an abdominal approach or a combined abdominal and posterior approach. With the advent of minimally invasive surgery, laparoscopyc approach has been described too. However, TAMIS approach is feasible, with low pain, morbidity, fester recovery and excel·lent cosmètic (no scare) results. It can be accomplished using standard laparoscopic equipment, with transanal access. We think that perhaps it could be the gold standar approach for this tumors.

Disclosure of Interest: None declared.

P398 | Laparoscopic resection of giant appendicular mucocele

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Aim: We present the case of a patient with a giant appendicular mucocele (16cm) opperated by laparoscopic approach.

Method: Patient 66 years ago, CMI 41, history of probable appendicular plastron 30 years ago (conservative treatment). Umbilical hernia Diagnosed by CT of appendicular and cecal tumor of 12cm, as a result of left iliac fossa discomfort palpating the tumor during exploration in right iliac fossa. Non-locoregional adenopathies. Laparoscopic surgical intervention is indicated. Given the broad cecal involvement, Right hemicolectomy is indicated.

Results: The surgical technique is shown, which must be very meticulous to avoid the rupture of the mucocele. Treatment options are discussed.

Conclusion: Appendicular mucocele is a rare disease estimated at 0.2–0.3% of all appendectomies and 8–10% of all appendicular tumors.

It can be asymptomatic and diagnosed by incidental finding but can also present as abdominal pain in the right iliac fossa similar to acute appendicitis, as a palpable mass, digestive hemorrhage or even as urological symptoms.

Disclosure of Interest: None declared.

P399 | Lower gastrointestinal bleeding following right hemicolectomy: Is there a difference between handsewn and stapled anastomosis?

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Aim: Controversial results have been published regarding safety and complications of handsewn and stapled anastomosis after right hemicolectomy. Our aim was to compare the incidence and clinical outcomes of lower gastrointestinal bleeding (LGB) after right hemicolectomy using handsewn vs. triple stapled anastomosis.

Method: A single-center, observational retrospective study was performed. We analyzed the incidence and outcomes of anastomotic bleeding after handsewn vs. tripled stapled anastomosis for patients undergoing right hemicolectomy in our Colorectal Unit at a tertiary hospital from January 2017 to April 2022, in Madrid, Spain.

Results: Results: 254 patients were included prospectively from our data base. In 175 patients (68.9%) a handsewn anastomosis was performed and in 79 patients (31.1%) a triple stapled anastomosis was made. Any type of postoperative lower gastrointestinal bleeding was present in 25 patients (10.9%), of which 15 were after handsewn (60%) and 10 after stapled anastomosis (40%); no statistical difference was found between the two groups. 18 patients (72%) were managed conservatively and 7 patients (28%) underwent endoscopic treatment, with 100% success rate and no procedure-specific complications. For LGB, transfusion requirements did not differ significantly between the two groups (manual, n = 2 vs. stapled, n3; p = 0.358).

Conclusion: LGB is a frequent complication of right hemicolectomy, and most patients can be managed conservatively. Endoscopic treatment for LGB after right hemicolectomy is a safe and effective procedure. No difference on incidence and outcomes of LGB was found comparing handsewn vs. triple stapled anastomosis after right hemicolectomy.

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Disclosure of Interest: None declared.

P400 | Clinical impact of anastomotic leakage after handsewn vs. stapled anastomosis in right hemicolectomy: Our experience

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Aim: Many studies have analyzed the risk of anastomotic failure depending on the type of anastomosis (handsewn versus stapled), but only a few have evaluated the clinical impact regarding each

type. Our aim is to assess the clinical impact of anastomotic leakage (AL) after right hemicolectomy comparing handsewn vs. stapled anastomosis.

Method: This is an observational retrospective study including all right hemicolectomies performed in our Colorectal Unit in a tertiary hospital from January 2017 to April 2022, in Madrid, Spain. The clinical impact was evaluated according to the Clavien-Dindo classification.

Results: 254 right hemicolectomies were performed in the indicated period. In 175 patients (68.9%) a handsewn anastomosis was performed and in 79 patients (31.1%) a triple stapled anastomosis was made. AL was diagnosed in 16 patients (6.3%), 8 patients in the handsewn anastomosis group (4,57%) and 8 patients in the stapled group (10.3%); this difference was not statistically significant (p = 0.092). Regarding clincal impact, the stapled anastomosis group that had more severe complications: 1 patient (12.5%) with Clavien-Dindo I-II and 7 patients (87.5%) with Clavien-Dindo III-IV-V vs. handsewn anastomosis group who had 4 patients (50%) with Clavien-Dindo I-II and 4 patients (50%) with Clavien-Dindo III-IV; the difference between both groups was not statistically significant (p = 0.141).

Conclusion: In our experience, the clinical impact of anastomotic leakage in patients with stapled anastomosis after right hemicolectomy is higher than in patients with handsewn anastomosis. We need a larger sample size to obtain a statistically significant difference.

Reference: Espin E, Vallribera F, Kreisler E, Biondo S. Clinical impact of leakage in patients with handsewn vs. stapled anastomosis after right hemicolectomy: a retrospective study. Colorectal Dis. 2020 Oct;22(10):1286–1292. doi: 10.1111/codi.15098. Epub 2020 May 26. PMID: 32348603.

Disclosure of Interest: None declared.

P401 | Application of 3D modelling of rectal cancer in surgical education

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Aim: 3D modelling provides a unique way of presenting generic, as well as patient-specific anatomy. It is utilised in surgical training, especially in areas involving intricate anatomy or complex decision making, such as pancreatic or liver surgery. Rectal cancer education poses several challenges, from cancer pathophysiology and staging, through relevant surgical anatomy, to principles of operative approaches. The aim of our work was to explore the possible applications of virtual 3D models in rectal cancer education.

Method: Anonymised MRI scans of normal pelvic anatomy and of rectal cancer, T2-weighted with 3mm slices, were selected. Virtual 3D models were created through manual segmentation of digital imaging and communications in medicine (DICOM) images in an open source, previously validated programme; 3DSlicer.

Results: Virtual 3D models were created to address each aspect of rectal cancer education. Models of normal pelvis highlight the complex surgical anatomy. Models intended to illustrate the spread and staging of rectal cancer comprise of the mesorectum and rectal wall. Models relevant to surgical approaches display rectal cancer within the central compartment, as well as other pelvic organs, pelvic floor and bony pelvis. Anonymised 3D models can be easily disseminated and viewed on computers or mobile phones. They can be rotated, zoomed in and out. Tags can be placed to highlight relevant structures.

Conclusion: 3D modelling technology has not been utilised in rectal cancer surgical education, apart from limited number of case reports. Current work illustrates the potential of this technology to enhance surgical training. It can facilitate understanding of complex pelvic anatomy and principles of rectal cancer spread and staging. It can become an adjunct in teaching the principles of transabdominal and transanal TME dissection, as well as minimally invasive approaches. Patient-specific models can allow surgical trainees to engage in pre-operative patient-tailored planning and rehearsal.

Disclosure of Interest: None declared.

P402 | Complicated diverticulitis: Should we be more conservative in the management of immunocompromised patients?

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Aim: Management of acute diverticulitis in immunocompromised patients is still controversial. The main aim was to study the recurrence and virulence of acute diverticulitis in immunocompromised patients. Secondary aims were to evaluate the differences in treatment and complications developed by immunocompromised patients.

Method: A retrospective study was performed in a tertiary hospital in Spain. We included all patients who were admitted due to complicated diverticulitis from January 2012-December 2018. Variables included were sex, age, state of immunocompromise and cause, treatment of first episode of diverticulitis, recurrence and severity, medical management or emergency surgery, morbidity and mortality rates of surgery and stoma formation.

Results: Two hundred-forty-one patients were included, with a mean follow-up of 65 months. Patients were divided in two groups: Group 1: 31 immunocompromised patients (12,9%); Group 2: 210 immunocompetent patients (87,1%). 54,8% of immunocompromised patients required emergency surgery in the first episode, compared to immunocompetent patients (23.2%) (p = 0.002). Hartmann's procedure was performed equally in both groups (p = 0.35). However, immunocompromised patients had a higher rate of definitive stoma at the end of follow up, 71.4% vs. 22.2% (p = 0.002). Mortality rate after emergency surgery was higher in group 1 (23.5%) than group 2

(4.2%), (p = 0.034). No differences in recurrence were found between groups (p = 0.747). The severity of recurrence in group 1 was not higher than in group 2; rates of emergency surgery were similar (p = 0.68).

Conclusion: We did not find any difference in the recurrence rate or severity of recurrence in immunocompromised patients. Nonoperative management should be considered whenever possible, as mortality and definitive stoma rates are higher after emergency surgery in these patients. The inclusion criteria for elective sigmoid colectomy should be individualized.

Disclosure of Interest: None declared.

P403 | Total neoadjuvant therapy based on short course radiotherapy and consolidation chemotherapy for non-operative management in locally advanced rectal cancer patients in a Latin American public hospital

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Aim: Total Neoadjuvant Therapy (TNT) based on long course chemoradiation followed by consolidation chemotherapy has been recently advocated as a strategy to enhanced non operative management (NOM) in selected patients with locally advanced rectal cancer (LARC) (1). However, there is no clear evidence if short course radiotherapy (SCRT) may also be useful to improve NOM in a TNT context. The aim of the present study is to evaluate the initial results of a TNT strategy on based SCRT followed by consolidation chemotherapy as a way to improve NOM in a public hospital from Latin America.

Method: Retrospective study that included LARC patients treated with TNT from October 01, 2019 to November 30, 2021 at Complejo Asistencial Doctor Sotero del Rio, Santiago, Chile. TNT consisted in SCRT (25Gy in 5 doses) followed by consolidation chemotherapy based on FOLFOX or CAPEOX. For all patients, tumor response was assesed using the Memorial Sloan Kettering Regression Schema (2). NOM was considered for selected patients with a cCR. For patients with a incomplete response (IR), total mesorectal excision (TME) was recommended. The combined rate of cCR/pCR was reported.

Results: A total of 15 patients were included. The median age was 58 years (34 to 78), 11 (73%) were male. Median distance of the tumor to the anal verge was 6 cm (1 to 10 cm). 11 patients (74%) were considered node-positive by a baseline MRI. 11 patients (74%) received consolidation FOLFOX with a median number of 9 cycles (5 to 9). The remaining patients received 6 cycles of CAPEOX. A total of 6 patients (40%) had a cCR, all of them recruited into a NOM protocol. Additionally, 2 patients (13%) who underwent TME had a pCR. No differences were observed in the cCR/pCR group compared to the TME group.

Conclusion: In our study, the implementation of a TNT protocol based on SCRT and consolidation chemotherapy was associated with higher rates of cCR/pCR (53%). Prospective studies are needed to adopt this approach as a NOM strategy.

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Disclosure of Interest: None declared.

P404 | Evisceration of recurrent perineal hernia with pelvic biological mesh repair and interposition of gracilis muscle transposition with perineal skin flap, a clinical case

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Aim: Abdominoperineal amputation (APR) is associated with significant postoperative morbidity and mortality. Perineal hernia is a late and rare complication (1–7%) that occurs when the abdominal organs protrude through the pelvic floor. We report a case of perineal evisceration in a patient who underwent to APR for rectal cancer and its repair with gracilis muscle interposition and skin flap.

Method: A 74-year-old woman who underwent APR surgery for rectal cancer in 2020 with perineal hernia mesh repair, comes to our emergency service presenting small bowel perineal evisceration, with bowel ischemia.

Urgent operation is carried out by reducing eviscerated small bowel intestine, intestinal resection with anastomosis and positioning of biological mesh in the pelvis, leaving the perineal wound open. After post operatory optimization and cures of the perineal cavity, intervention is scheduled for perineal repair with interposition of gracilis muscle and skin flap.

Results: In the postoperative period, it presents minimal surgical wound dehiscence at the flap level that is managed with wound healing being discharged 3 weeks after the intervention.

Conclusion: Perineal hernia is a rare complication of abdominoperineal amputation and there is a lack literature on this important topic and there is no clear consensus about its treatment. Repair of the

perineal defect with interposition of gracilis muscle and skin flap can be a good option in these cases.

Disclosure of Interest: None declared.

P405 | Pelvic exenterations with synchronous cytoreductive surgery: A study of feasibility and safety

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Aim: Determine safety of combined pelvic exenteration with cytoreductive surgery with or without HIPEC for advanced/recurrent rectal cancers.

Method: A retrospective study from our prospectively maintained surgical database of 29 pelvic exenteration cases who underwent synhronous peritonectomies

Results: Between 2013 and 2021, pelvic exenterations were performed for 230 rectal cancer patients of which 29 had synchronous peritonectomies. 14 patients (48.3%) amongst these also received HIPEC with combined Mitomycin C and Doxorubicin @1.5mg/m^2 each for 60 minutes. Mean age of our patients was 37.5 years and 13 (44.8%) had signet ring cell histology. Median PCI was 4 (range: 1 – 14) and all but one patient had complete cytoreduction. 30-day major complications were in 3 patients (10.3%; 95% CI: 2.19 – 27.3%) and there were no 30-day mortalities. Complications at 90 days were in 6 (20.6%; 95%: 7.9% - 39.7%) with one mortality. 22 patients (75.8%) had R0 resection at all sites. At a median follow up of 30-months, 15 (51.7%) recurred giving a median disease-free survival of 10 months and overall survival of 30 months. In the subgroup of total pelvic exenterations with HIPEC (10 patients), one (10%) major morbidity occurred at 30 days (95% CI: 0.25% - 44.5%). Follow up was insufficient for long-term oncological outcomes in this group.

Conclusion: Pelvic exenterations for advanced or recurrent rectal cancers with synchronous cytoreductive operations for peritoneal metastasis is safe and feasible. Larger numbers and follow up is required for oncological viability of the combined procedure.

Disclosure of Interest: None declared.

P406 | Investigating the performance of faecal immunochemical testing (FIT) to detect colorectal cancer (CRC) in symptomatic patients in the urgent suspected colorectal cancer pathway

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Aim: NHS England, in June 2020, published guidance that required Faecal Immunochemical Testing (FIT) for all symptomatic patients, including high and low-risk patients, prior to the referral to the suspected colorectal cancer pathway. FIT was utilised as a stratification tool to ration limited diagnostic services during the COVID-19 pandemic. This study investigates the feasibility of the recommended guidelines in a Northeast London catchment population.

Method: Patients considered for referral on the two-week wait (2WW) pathway for suspected colorectal cancer provided stool samples for FIT analysis. Samples were analysed at a single centre using an OC-Sensor FIT-Screening System, with FIT >10 µg Hb/g warranting urgent investigation. Results were then retrospectively correlated with patient records.

Results: From January 2021 to June 2021, there was a 111.4% increase in FIT requests compared to the previous 12 months. However, of the 8475 samples, 19% (1607) were unprocessed by the lab. There were 20% (1718) FIT positive above the NICE threshold of 10 µg Hb/g, while 61% (5150) were negative. 27% underwent referral and urgent investigation. 314 patients were also identified as FIT positive, though not referred.

Conclusion: This study highlights concerns about FIT's real-world feasibility and acceptance as a risk stratification tool prior to referral. Despite recommendations implemented in mid-2020, significant proportions of patients referred lacked a FIT result prior to referral. Furthermore, literature suggests FIT is widely accepted; however, this is not congruent with the study results demonstrating a substantial proportion of 19% of unprocessed samples due to incorrectly labelled and inadequate samples received by the lab. This, therefore, raises concerns about relying on FIT and the potential delays in the diagnosis of CRC due to repeating unprocessed samples. Finally, we are investigating the outcome for the 314 patients with FIT results above the 10 µg Hb/g threshold that were not referred.

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Disclosure of Interest: None declared.

P407 | Primary anastomosis in patients with secondary peritonitis due to perforation of the small intestine and vacuum-assisted abdominal closure a retrospective study

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Aim: We assessed whether primary anastomosis or suturing was safe in patients with faecal peritonitis caused by an intestinal perforation or anastomotic leakage using the open abdomen principle by VAC.
Method: Between January 2005 and June 2018, we performed a retrospective chart review of 20 patients (>18 years) with faecal peritonitis caused by small intestinal perforation, and treated with primary anastomosis/suturing and subsequent open abdomen with VAC.
Results: The median age of the 20 patients was 65 years (range: 23–90 years). Twelve were female (60%). Of the 20 intestinal perforations, three were sutured, and the remaining 17 were treated with resection and primary anastomosis. Anastomotic leakage occurred in five cases (25%), and three patients developed enteroatmospheric fistulas (15%) outside the surgical site. Thirteen patients (65%) had no stoma at discharge and after 1 year, three patients (15%) had a stoma at discharge and after 1 year. The 90-day mortality rate after primary surgery was 20%% (four patients).
Conclusion: Primary anastomosis and open abdomen with VAC for patients with faecal peritonitis are associated with a high risk of anastomotic leakage and fistula formation.
Disclosure of Interest: None declared.

P410 | Analysis of outcome of suboptimal lymph node yield in colorectal cancer patients

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Aim: Adjuvant colorectal cancer treatment is predicated upon accurate staging by histopathological assessment of surgical resection specimens. The involvement of local lymph nodes surrounding the tumour implies systemic spread and hence adjuvant therapy is often required. Thus, a minimum number of lymph nodes assessed is a standard of care. In the UK, this currently is 12 or more nodes. However, it may not be possible to obtain this lymph node number and this review analyses and assesses the outcome of patients with a sub-optimal lymph node yield (<12) in a single Scottish Health board.
Method: All colorectal resections with suboptimal (11 or fewer) lymph node yield between the years 2007 to 2017 in our region were analysed. Patients were identified from a prospectively maintained pathology database of all colorectal resections. Electronic medical notes were used to gather data. Factors such as gender, age, BMI, surgical technique and procedure and survival rate were evaluated.
Results: A total of 216 cases out of 2850 (7.6%) cases had suboptimal yield and were assessed. The median age was 71 years old and the male to female ratio was 16:11. The number of obese patients was 31 (14.3%) and emergency procedures were 27 (12.5%). 93 (43.1%) surgeries were undertaken laparoscopically with 61 (28.2%) undertaken open. There was a significant reduction in the number of cases with suboptimal yields with 39 cases in 2007 and 5 in 2017. This correlated with the standardisation of care in a cancer centre.
Conclusion: In this regional assessment of quality, focusing on the management of colorectal cancer by subspecialty surgeons has significantly improved the quality of care, as determined by the matrix of lymph node resections.
Disclosure of Interest: None declared.

P411 | Adjuvant chemotherapy after colon cancer resection is associated with increased risk of incisional hernia

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Aim: Incisional hernia (IH) is a frequent complication after abdominal surgery. Patients undergoing adjuvant chemotherapy after resection for colonic cancer might have impaired fascial healing, and thus a potential increased the risk of IH. This study aims to assess the association between adjuvant chemotherapy and the development of IH after colon cancer surgery.
Method: This study includes all patients with colon cancer stage I-III undergoing curative intended elective colon cancer resection between January 2010 and December 2017 at our institution. The intervention group included patients receiving adjuvant chemotherapy. The primary outcome was the development of IH. IH was assessed by review of follow-up computerized tomography (CT). Secondary outcomes included mortality and surgical site occurrences. Competing risk analysis was done after Inverse Probability of Treatment Weighting (IPTW), in order to adjust for possible confounders. Competing risks to IH occurrence were intraabdominal surgery and death.

Results: Preliminary data included patients from April 15, 2015, to December 31, 2017. A total of 224 patients were included of whom 78 (34.8%) received adjuvant chemotherapy. The control group consisted of 146 (65.2%) patients. With CT, IH was diagnosed in 21 (26.9%) and 23 (15.8%) patients respectively. After IPTW, the mean risk of developing IH in the adjuvant chemotherapy group after 4 years was 25.9% versus 14.9% in the non-chemotherapy group, thus giving a 11.0% (95% CI: 0.2% - 21.7%, $p = 0.045$) increased risk of IH after adjuvant chemotherapy for colon cancer.

Conclusion: Preliminary data shows that adjuvant chemotherapy is significantly associated with the development of IH after curative intended resection for colon cancer. Data collection is still ongoing.

Disclosure of Interest: None declared.

P412 | No significant difference in the incidence of incisional hernia after pfannenstiel versus supraumbilical transverse incision

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Aim: When compared with midline incisions, the risk of incisional hernia (IH) after Pfannenstiel incision is lower. This is often used as an argument in support of intracorporal ileocolic anastomosis in laparoscopic surgery. An alternative to the midline incision is the supraumbilical transverse muscle-sparing incision which enables easy extraction and extracorporeal anastomosis. We aimed to compare the incidence of IH after Pfannenstiel incision and supraumbilical transverse incision.

Method: This single-centre study includes all patients undergoing curative intended laparoscopic elective resection for colon cancer stage I-III between January 2010 and December 2017. Patients were stratified by type of incision, i.e., Pfannenstiel or supraumbilical transverse muscle-sparing incision. Computerized tomography (CT) follow-up was review for radiological evidence of IH. The primary outcome was the incidences of IH. A competing risk analysis after Inverse Probability of Treatment Weighting (IPTW) was done to adjust for possible confounders. Death and intraabdominal surgery were competing risks to IH occurrence.

Results: Preliminary results on patients undergoing laparoscopic colon resection from April 15, 2015 to December 31, 2017. In total, 164 patients were included in whom 99 (60.4%) Pfannenstiel incision and 65 (39.6%) supraumbilical transverse incision was used for bowel extraction. 13 (13.1%) and 12 (18.5%) developed IH respectively. After IPTW the risk of developing IH after 4 years was 14.5% for Pfannenstiel incision and 16.7% for supraumbilical transverse incision with a non-significant risk difference of 2.2% (95% CI: -8.7% - 13.0%, $p = 0.693$) of developing IH.

Conclusion: These preliminary data show no association between IH and supraumbilical transverse incision compared to Pfannenstiel. Data collection is still ongoing.

Disclosure of Interest: None declared.

P413 | Anti-thrombotic treatment as a barrier to complete the follow-up colonoscopy after a positive faecal immunochemical test – a danish nationwide cross-sectional study

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Aim: We aimed to assess if anti-thrombotic treatment influences adherence to the follow-up colonoscopy after a positive faecal immunochemical test (FIT) in the Danish screening programme for colorectal cancer (CRC).

Method: CRC screening was introduced in Denmark in 2014. Data regarding FIT positivity and the screening colonoscopy is stored in the Danish Colorectal Cancer Screening Database. Data regarding antithrombotic treatment were extracted from the Danish National Health Service Prescription Database. Data regarding sex, age, Charlson comorbidity index (CCI), and previous colonoscopy was identified using the Danish National Patient Register. Data is presented as proportions with 95% confidence intervals (95% CI). The risk of receiving the follow-up colonoscopy was assessed using multivariable Poisson regression and presented with relative risks (RR).

Results: Of 551,594 patients accepting the invitation for screening, 37,439 were positive (6.8%, 95% CI [6.7; 6.9]). The proportion of patients who failed to receive the follow-up colonoscopy was 17.9% (95% CI [17.1; 18.7]) in patients receiving any type of antithrombotic treatment compared to 13.5% (95% CI [13.1; 13.9]) in treatment-naïve patients. Other risk factors associated with failing to receive the follow-up colonoscopy were female sex, age, and increasing CCI. Multivariable analysis showed that any antithrombotic treatment regimen was associated with a decrease adherence to the follow-up colonoscopy. Especially treatment with direct acting anticoagulants lead to a significant decrease in adherence to the follow-up colonoscopy (RR = 0.94, 95% CI [0.91; 0.97]) regardless of sex, age, CCI, and prior colonoscopy.

Conclusion: Antithrombotic treatment is a barrier for receiving the follow-up colonoscopy in a FIT-based CRC screening. Especially treatment with direct acting anticoagulants leads to a marked decrease in follow-up colonoscopy completion rates after a positive FIT.

Disclosure of Interest: None declared.

P414 | The surgical extent of cytoreductive surgery and hyperthermic intraperitoneal chemotherapy do not affect overall and functional health-related quality of life

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Aim: To investigate whether the extent of cytoreductive surgery(CRS) affects overall and functional Health-Related Quality of Life within the first 12 months postoperatively.

Method: The study was a prospective cohort study including patients undergoing CRS+ Hyperthermic Intraperitoneal Chemotherapy(HIPEC) due to peritoneal metastases from gastrointestinal origin at Department of Surgery at Aarhus University Hospital, Denmark in the period from 2006 through 2019. Consecutive patients treated with CRS+HIPEC were followed at 3, 6 and 12 months postoperatively. Late adverse effects were assessed using the European Organization for Research and Treatment of Cancer QLQ-C30(EORTC QLQ-C30) at each follow-up. The surgical extent was categorized into three groups(major, intermediate and minor) based on peritonectomy procedures(yes/no) and colorectal resections(yes/no). EORTC data regarding overall and functional HRQoL were analysed using a linear mixed effects regression model adjusted for age, gender, origin of tumour and comorbidity.

Results: We included 257 patients who responded to at least one EORTC QLQ C30 questionnaire during the follow-up.

The surgical extent did not affect any of the functional scales: Physical, Social, Role, Cognitive, Emotional nor Financial, nor the overall HRQoL.

However, overall HRQoL significantly increased from 3 to 12 months(mean difference 10.1(6.6; 13.7 (p = 0.0)). Further, both Physical(mean difference: 6.8 (4.9; 8.8; p = 0.0)), Social(mean difference: 10.3(6.2; 14.5; p = 0.0)), and Role Functioning(mean difference: 16.1(10.3; 21.8; p = 0.0)) increased significantly in the period from 3 to 12 months. Cognitive and Emotional functioning were associated with increased functioning, however not statistically significant.

Conclusion: The surgical extent of CRS does not affect these outcomes. Patients undergoing CRS+HIPEC experience a significant improvement in physical, social and role functioning as well as global HRQoL within one year postoperatively.

Disclosure of Interest: None declared.

P415 | Young, aggressive and seemingly, less responsive rectal cancers: challenging problem statement from the developing world

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Aim: The aim of the study was to present the rising problem statement of aggressive rectal cancers in young patient population in Indian sub-continent.

Method: This is a retrospective observational analysis of all rectal cancer patients treated at a tertiary care centre over a 1-year period in year 2021, highlighting the treatment profile.

Results: 102 patients of rectal cancers were screened with a mean age of 42 years, 45% patients being less than 40 years. 43 patients (42.2%) patients had signet ring cell adenocarcinoma (SCRA). 80 patients received neoadjuvant radiation therapy (NART), long course chemoradiation (LCRT) (n = 58) and short course radiation therapy (SCRT) (n = 22). 16 patients were offered consolidation chemotherapy after radiation therapy (13 after SCRT and 3 after LCRT) in view of persistent involvement of mesorectal fascia (MRF). Upon radiological response assessment, partial to good response was seen in 52 (65%), stable disease in 18 (22.5%) and disease progression in 3 (3.8%) patients. Inferior response to NART was seen in young patients (p = 0.009) and in patients with poor differentiation with or without signet ring cell histology (p = 0.008). Amongst 64 patients with involved MRF at baseline, persistent involvement of MRF was seen in 18 patients (28.1%) (p = 0.03) leading to beyond TME surgery in 17 patients.

Conclusion: Disproportionately higher percentage of young rectal cancer patients with poorly differentiated histology and locally aggressive cancers are seen which often respond sub-optimally to the traditional management strategy. This demographic profile demands a change in the traditionally practiced treatment paradigm for rectal cancers.

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3. Patel S, Prem A. Mucinous differentiation of rectal cancers: does it really impact oncological outcomes? Colorectal Dis. 2021 Oct;23(10):2774-2775.

Disclosure of Interest: None declared.

P416 | Distinct ultrasound characteristics of the appendix in patients with ulcerative colitis: A prospective, cross-sectional cohort study

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Aim: Increasing evidence suggests appendectomy as alternative treatment for ulcerative colitis (UC), especially in patients with histopathological inflammation of the appendix. Intestinal ultrasound (IUS) is an established imaging modality for diagnosing appendicitis. This study aimed to assess ultrasound characteristics of the

appendix in UC patients and compare characteristics with healthy controls.

Method: This prospective study assessed the appendix by IUS in consecutive UC patients with active (A) or quiescent (Q) disease and in healthy controls (HC). As appendicitis corresponds with a transverse appendiceal diameter (TAD) of ≥6 mm on IUS, we assessed TAD along with additional IUS parameters (e.g. bowel wall thickness, colour Doppler signal, incompressibility) in UC patients and HC[1-3].

Results: The appendix was visualised in 41/65 UC patients (63.1%; A vs. Q : 23/35 vs. 18/30) and in 18/30 (60%) HC. Appendicitis was mainly reported in A-UC patients (A: 43%, Q: 6%, HC: 0% $p = 0.01$). Appendicitis occurred irrespective of disease extent (28% E1/E2). The median TAD was numerically higher for A-UC patients when compared to Q-UC patients (A: 5.5mm-Q: 5.0mm, $p = 0.20$), and both A- and Q-UC patients demonstrated a higher TAD when compared to HC (A- HC: 4.3mm $p < 0.01$, Q- HC $p = 0.01$).

Conclusion: Appendicitis (TAD ≥ 6 mm) was predominantly observed in A-UC patients. A higher appendiceal diameter on IUS was reported in UC patients, irrespective of disease activity. Correlating appendiceal IUS findings to histopathology could contribute to identifying UC patients likely to benefit from experimental appendectomy.

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2. Puylaert JB, Rutgers PH, Lalisang RI, de Vries BC, van der Werf SD, Dorr JP, et al. A prospective study of ultrasonography in the diagnosis of appendicitis. N Engl J Med. 1987;317(11):666–9.

3. Birnbaum BA, Wilson SR. Appendicitis at the millennium. Radiology. 2000;215(2):337–48.

Disclosure of Interest: None declared.

P417 | Long-term outcomes after appendicectomy as treatment for therapy refractory ulcerative colitis patients- an update of the passion study cohort

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Aim: Increasing evidence is suggesting appendicectomy as alternative treatment for Ulcerative Colitis (UC). Failure and response rates up to 3.5 years after appendicectomy have shown to be promising(1). This study aimed to provide an update on long-term outcomes of patients who underwent appendicectomy for therapy-refractory UC.

Method: This is a mono-center cohort series in which all patients with UC referred for a subtotal colectomy or proctocolectomy between November 2012 and June 2015 were counselled to undergo a laparoscopic appendicectomy. The endpoint of this study was failure after long-term follow-up. Failure was defined as colectomy surgery or start of new biological or experimental medication. Secondary endpoints were medication use, clinical response and –remission (Total Mayo score ≤2) and endoscopic remission (Endoscopic Mayo score ≤1).

Results: A total of 25 patients underwent appendicectomy (12 men, median age 41.0). After a median follow-up of 7.5 (6.4–8.6) years, nine (36%) patients required colectomy. The median time to colectomy was 5.0 (IQR 2.0–13.5) months. Eight (32%) additional patients required step up to biological ($n = 7$) or trial medication ($n = 1$), translating into a failure rate of 68%. Clinical response and remission rates were 28% and 24%, respectively. An endoscopic remission rate of 20% was observed. Overall, six (24%) patients were in clinical remission using mild or no medication.

Conclusion: Long-term outcomes after appendicectomy for therapy refractory UC are promising, as nearly a quarter of patients were in clinical remission with mild or no use of medication, and colectomy surgery was eventually necessary in thirty-six percent of patients.

Reference:

1. Stellingwerf ME, Sahami S, Winter DC, et al. Prospective cohort study of appendicectomy for treatment of therapy-refractory ulcerative colitis. Br J Surg. 2019 Nov;106(12):1697–1704.

Disclosure of Interest: None declared.

P418 | Long-term outcomes after close rectal dissection and total mesorectal excision in ileal pouch-anal anastomosis for ulcerative colitis

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Aim: During ileal pouch-anal anastomosis (IPAA) surgery for ulcerative colitis (UC), rectal dissection can be performed via close rectal dissection (CRD) or total mesorectal excision (TME). As autonomic nerves are at risk during TME, the technically challenging CRD was introduced. The aim of this study was to compare long-term outcomes among patients undergoing CRD and TME.

Method: This monocentre retrospective cohort study included consecutive patients who underwent IPAA surgery for UC between 2002–2017. Outcomes were chronic pouch failure (PF) among patients who underwent CRD and TME and the association between CRD and developing chronic PF. Chronic PF is defined as a pouch-related complication occurring ≥ 3 months after primary IPAA surgery requiring pouch- redo surgery, -excision or permanent ileostomy surgery.

Results: Out of 289 (44.2%) patients, 128 underwent CRD. A shorter median postoperative follow-up was found in CRD patients (3.7 vs. 10.9 years, $p < 0.01$). Chronic PF occurred in six (4.7%) CRD patients and in 20 (12.4%) TME patients. The failure-free pouch survival rate three years after IPAA surgery was comparable among CRD and

TME patients (96.1% vs. 93.5%, $p = 0.5$). CRD was no predictor for developing chronic PF in univariable analyses (HR 0.7 CI-95 0.3–2.0, $p = 0.54$). A lower proportion of CRD patients developed chronic PF with a septic cause (1% vs. 6%, $p = 0.03$).

Conclusion: No differences in long-term outcomes after either CRD or TME were observed. As an earlier study reported superior short-term outcomes for CRD, surgeons should consider performing CRD during IPAA surgery for UC.

Disclosure of Interest: None declared.

P419 | Which total neoadjuvant therapy protocol is superior for patients with locally advanced rectal cancer: 3-year outcome of sandwich technique vs. chemoradiotherapy plus consolidation

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Aim: Total neoadjuvant therapy (TNT) is an alternative approach that could reduce distant metastases and increase the proportion of patients who could safely undergo non-operative management. We sought to compare sandwich technique, which hypothetically aims to maximize systemic control and increase pathological complete response rates, with chemotherapy plus consolidation.

Method: This retrospective study conducted between 2015–2020 and compared locally advanced rectal patients (10 cm from the anal verge, cT2 or cT4 and any N category) who managed with different TNT protocols including sandwich technique (ST) (induction cycles before CRT and consolidation chemotherapy cycles after CRT with folinic acid, fluorouracil and oxaliplatin (FOLFOX)) vs. chemoradiotherapy plus consolidation (C).

Results: The groups consisted of 53 and 96 patients for ST and C regimens, respectively. Patient demographics, and initial tumor characteristics were comparable between the two groups. Clinic/pathological complete response rates were 39% for S group and 24% for C group ($p = 0.069$). At the end of a median follow-up of 3-year, local and systemic recurrence rates were 3.8%, 11.5% in S group and were 3.1% and 17.7% in C group ($p = 0.6$). Overall survival rates were found to be 92.6% in S and 97.6% in C group.

Conclusion: TNT protocol with sandwich technique yields, although not statistically significant, higher clinical/pathological complete response rates and similar 3-year oncological outcomes with consolidation therapy.

Reference:

1. Kong JC, Soucisse M, Michael M, et al. Total Neoadjuvant Therapy in Locally Advanced Rectal Cancer: A Systematic Review and Metaanalysis of Oncological and Operative Outcomes. *Ann Surg Oncol*. 2021;28(12):7476–7486. doi:10.1245/s10434-021-09837-8

2. Park SY, Lee SM, Park JS, Kim HJ, Choi GS. Robot Surgery Shows Similar Long-term Oncologic Outcomes as Laparoscopic Surgery for Mid/Lower Rectal Cancer but Is Beneficial to ypT3/4 After Preoperative Chemoradiation. *Dis Colon Rectum*. 2021;64(7):812–821. doi:10.1097/DCR.0000000000001978

Disclosure of Interest: None declared.

P420 | Exploring patient perspectives of seton use in anal fistula management using a patient and public involvement exercise

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Aim: Loose setons are used for drainage, fistula tract preparation for repair, and palliation. Variation exists in seton material and knots due to a lack of evidence demonstrating superiority. Setons may considerably affect quality of life.

Method: A patient and public involvement (PPI) exercise was conducted to explore the impact of setons in cryptoglandular sepsis. Participants were recruited through advertisement at St Mark's Hospital and social media. Seton material, knots, and the general impact on quality of life were discussed within the group. Sensitive topics such as the impact of a seton on relationships, sex and mental health were discussed in gender specific small group sessions. Participants were encouraged to draw clear distinctions between the impact of the fistula and the seton.

Results: There were 16 participants including 13 patients (12 females) with a mean age of 35 years (range 21–47), a median fistula duration of 21 months (range 8–84), and median of 2 setons per patient. Only 3 patients had had more than one type of seton. Patients described a substantial impact in all domains of quality of life including social life, body image, employment, exercise, mental health, sex, and relationships. Hygiene was compounded by long, very loose setons with multiple knots and this adversely affected intimacy. Patients described feelings of shame and embarrassment related to having a seton which was 'difficult to keep clean'. There was an overwhelming sense that patients are often unaware of what to expect of the management of a fistula and the long-term consequence of a seton. Most patients were dissatisfied with the seton material or knots but only 3 were given the opportunity to change setons. The ideal seton was described as smooth, soft material that was a 'snug' fit with very small knots that adequately prevented recurrence of sepsis.

Conclusion: This PPI exercise illustrated previously unexplored themes which should be used to develop future research and innovation in seton design.

Disclosure of Interest: None declared.

P422 | Impact of gut microbiota and immune contexture on effectiveness of neo-adjuvant chemo-radiotherapy in locally advanced rectal cancer (LARC)

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Aim: The possibility to adopt a "wait and see" strategy for patients affected by Locally Advanced Rectal Cancer (LARC) is hampered by the lack of reliable indicators of complete responsiveness to nCRT. Our hypothesis is that the composition of LARC-associated microbiome and immune contexture may predict the responsiveness to nCRT. We therefore proceed to a quantitative and qualitative evaluation of gut microbiome composition and immune contexture in LARC bioptic tissues and we then comparatively evaluated those markers in complete responders (Tumor regression grade, TRG,1) versus others (TRG2-3-4).

Method: FFPE (Formalin Fixed Paraffin Embedded) LARC tissues from diagnostic biopsies and corresponding resections from patients treated at our hospital from 2012 to December 2019 were collected. Following sample deparaffinization, n. 71 genomic DNA (gDNA) and total cellular RNA were extracted. DNA used for microbiome analysis, upon amplification and sequencing of the hypervariable V3-V4 region of 16S gene. Expression of immune cell genes was evaluated by the Nanostring PanCancer Immune profiling panel on extracted RNA.

Results: Regarding the Microbiome profile we found no difference in terms of biodiversity between complete responders and others. However, we found some species significantly disregulated, in particular an over-expression of Alloprevotella Rava and down-expression of Porphyromonas Asaccharolytica, Turicibacter Sanguinis, Leptotrichia Trevisanii, Fusobacterium Nucleatum. The immune contexture analysis revealead a significant disregulation of 41 genes.

Conclusion: FFPE tissues from diagnostic biopsies proved suitable for the analysis of LARC-associated microbiome and immune contexture. A specific microbiome signature appears to be associated with responsiveness to neo-adjuvant chemoradiotherapy. Defined immune related genes, in particular those associated with IFN-gamma response, are up-regulated in tumors exhibiting complete response.

Disclosure of Interest: None declared.

P423 | Pouch-related fistulae: A systematic review with meta-analysis on incidence, treatment options and outcomes

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Aim: Ileoanal pouch related fistulae (PRF) are a complication of restorative proctocolectomy often requiring repeated surgical interventions and with a high risk of long-term recurrence and pouch failure.

This study aimed to assess the incidence of PRF and to report on the outcomes of all available surgical treatments.

Method: A PRISMA-compliant systematic literature search for articles reporting on PRF in patients with inflammatory bowel diseases (IBD) or familial adenomatous polyposis (FAP) from 1985 to 2020.

Results: 34 studies comprising 770 patients with PRF after IPAA were included. Incidence of PRF was 1.5–12%. In IBD patients Crohn's Disease (CD) was responsible of one out of four pouch-vaginal fistulae (PVF) (OR 24.7; p = 0.001). The overall fistula recurrence was 49.4%; procedure-specific recurrence was: repeat IPAA (OR 42.1; GRADE +); transvaginal repair (OR 52.3; GRADE ++) and transanal ileal pouch advancement flap (OR 56.9; GRADE ++). The overall failure rate was 19%: pouch excision (OR 0.20; GRADE ++); persistence of diverting stoma (OR 0.13; GRADE +) and persistent fistula (OR 0.18; GRADE +).

Conclusion: PVFs are more frequent compared to other types of PRF and are often associated to CD; surgical treatment has a risk of 50% recurrence. repeat IPAA is the best surgical approach with a 42.1% recurrence rate.

Disclosure of Interest: None declared.

P424 | Can artificial intelligence improve the quality of colonoscopy investigations? Evaluation of the GI genius endoscopy module in daily clinical practice

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Aim: Studies have shown how artificial intelligence, in the form of computer-aided detection (CADe), can significantly increase the adenoma detection rate (ADR). We performed a single centre, prospective, observational case-control study, evaluating a real-time CADe (GI Genius, Medtronic), comparing junior and senior endoscopists.

Method: We analysed data from 469 individuals undergoing an elective colonoscopy at a single centre in Denmark (November 2020 – January 2021). Patients were allocated to either high definition colonoscopy with the GI Genius endoscopy module (case) or without (control). The primary outcome was ADR. The effect of CADe was investigated with both a χ2 test and a multivariate logistical regression.

Results: ADR was higher when CADe was used (35%) compared to regular colonoscopy (28.8%), but the difference was not statistically significant (p = 0.16). Among less experienced endoscopists, the adenoma detection rate was 38.7% in the CADe group and 32.9% in the control group (p = 0.45), compared to 32.4% in the CADe group and 27.1% in the control group among experienced endoscopists (p = 0.33). The use of CADe was not associated with increased odds of detecting an adenoma (OR = 1.31; p = 0.24).

Conclusion: This study is the first to investigate the effect of computer-aided detection on adenoma detection rate in a real day-to-day clinical setting. Our findings indicate that CADe may not be as beneficial as suggested by prior studies. Future similar studies with larger sample sizes are warranted to further investigate the everyday clinical effect of CADe on ADR.

Disclosure of Interest: None declared.

P425 | Impact of adjuvant chemotherapy on long-term overall survival in patients with high-risk stage II colon cancer: A nationwide cohort study

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Aim: Adjuvant chemotherapy in patients with stage II colon cancer is still controversial. The aim of the present study was to investigate the impact of adjuvant chemotherapy on long-term survival in unselected patients with high-risk stage II colon cancer including an analysis of each high-risk feature.

Method: Data from the Danish Colorectal Cancer Group, the National Patient Registry, and the Danish Pathology Registry from 2014 to 2018 was merged. Patients surviving 90 days, or more were included. High-risk features were defined as emergency presentation, including SEMS/loop-ostomy as bride to resection, grade B or C anastomotic leakage, pT4 tumors, lymph node yield less than 12 or signet cell carcinoma. Eligibility criteria for chemotherapy was age younger than 75 years, proficient MMR gene expression and performance status of 2 or below. The primary outcome was 5-year overall survival, secondary outcomes included proportion of eligible patients allocated for adjuvant chemotherapy and time to first administration.

Results: In total 939 of 3937 patients with stage II colon cancer had high-risk features, of which 408 were eligible for chemotherapy. 201 (49.3%) patients received adjuvant chemotherapy with a median time to first administration of 35 days after surgery. The crude 5-year overall survival was 84.9% in patients receiving adjuvant chemotherapy compared with 66.3% in patients not receiving chemotherapy, p < 0.001. This association corresponded to an absolute risk reduction of 14%.

Conclusion: 5-year overall was significantly higher in patients with high-risk stage II colon cancer treated with adjuvant chemotherapy comparted with no chemotherapy. Less than half of eligible patients did in fact receive adjuvant treatment for unknown reasons.

Disclosure of Interest: None declared.

P426 | Outcomes of postoperative enterocutaneous fistula after surgery for Crohn's disease: Results in a tertiary centre over 17 years

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Aim: Patients with Crohn's disease (CD) have an increased risk of developing enterocutaneous fistula (ECF) after surgery. The predictors of the resolution of the ECF have yet to be identified.

Method: CD patients affected by postoperative ECF (<90 days from surgery) between 2004 and 2021 were retrospectively included. Minimum follow-up was 6 months. The potential independent predictors of the resolution of the ECF over the postoperative follow-up were evaluated using the Cox proportional hazards analysis.

Results: A total of 39 patients were included. In 29 patients (74.3%) the ECF resolved, at a median time of 104 days (57–390). Patients with a low output fistula (<200ml/day) were 22 (56%). The ECF originated from the small bowel in 20 patients (51%). The source of ECF was the anastomosis in 27 cases (69%). A reoperation was carried out in 28 patients (71.8%).

At the univariate analysis, a number of <2 previous surgeries for CD (p = 0.031), an albumin concentration ≥ 3.5 g/dl (p = 0.027), a low fistula output (p = 0.002), and the origin of the ECF from the colon (p = 0.022) were significantly correlated with an earlier healing of the fistula.

At the Cox regression analysis, an albumin concentration ≥ 3.5 g/dl (HR 3.14, 95% CI 1.13–8.78, p = 0.029) and an ECF output <200 ml/die (HR 8.17, 95% CI 1.97–33.89, p = 0.004) were significantly associated with the ECF healing.

Conclusion: Postoperative enterocutaneous fistula represents a challenging postoperative complication in Crohn's disease. However, a complete healing is obtained in the majority of patients treated in a referral centre, providing that a multidisciplinary tailored approach was carried out. The nutritional status and the severity of the fistula represent the major predictors of the resolution of the fistula.

Disclosure of Interest: None declared.

P427 | The oncologic outcomes of colorectal cancer have worsened during the Covid-19 pandemic: Results of a national multicentre cohort study (COVID-CRC)

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Aim: Delays in the screening programs for colorectal cancer and the reluctance of patients to seek medical attention due to the outbreak of SARS-CoV-2 could have resulted in more advanced cancers at diagnosis. The aim of this study was to compare the oncologic outcomes of patients with colorectal cancer in Italy between the pandemic and pre-pandemic periods.
Method: A retrospective multicentre cohort study of 17,938 patients who underwent surgery for colorectal cancer from March 2020 to December 2021 (pandemic period: 7796 patients, 43.5%) and from January 2018 to February 2020 (pre-pandemic period: 10,142 patients, 56.5%) in 81 centres. The primary outcome was advanced stage at diagnosis. Secondary outcomes were T4 stage, M stage, aggressive biology, stenotic lesion, emergency surgery, and palliative surgery. The independent association between the pandemic period and the outcomes was assessed using multivariate random-effects logistic regression, with hospital as the cluster variable.
Results: At the logistic regression, the SARS-CoV-2 pandemic period was significantly associated with an increased rate of advanced stage (OR 1.07, 95% CI 1.00–1.13, $p = 0.034$), distant metastases (OR 1.10, 95% CI 1.00–1.21, $p = 0.050$), aggressive biology (OR 1.32, 95% CI 1.15–1.53, $p < 0.001$), and stenotic lesions (OR 1.16, 95% CI 1.02–1.31, $p = 0.028$).
Conclusion: The present study reports a significant correlation between the SARSR-CoV-2 pandemic and the worsening of the oncologic outcomes in patients undergoing surgery for colorectal cancer, and might predict a potential reduction of survival of these patients. An adequate large-scale response is necessary to reduce the impact of the pandemic on colorectal cancer patients' survival.
Disclosure of Interest: None declared.

P428 | Outcomes of first-stage vs. second-stage endoscopic vacuum-assisted therapy for the treatment of low anastomotic leak

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Aim: Anastomotic leak is one of the most challenging complications after colorectal surgery. Low colorectal, coloanal and ileal pouch-anal anastomoses are at highest risk of developing anastomotic leak Endoluminal-Vacuum-Assisted Therapy (EVAT) has been proposed as an effective treatment, however, the best timing of the procedure remains unclear. The aim of the study was to compare the outcomes of EVAT as a first-stage vs. second-stage (following other operative procedures) treatment.
Method: Retrospective study including patients undergoing EVAT after confirmed anastomotic leak in a single centre between October 2016 and March 2021. EVAT was applied either as a first-stage treatment or a second-stage treatment based on the individual case. The device was positioned in the cavity and replaced until the gap was reduced in size and covered by granulating tissue. The main outcome was the comparison of the one-year healing rate in the two groups base on the log-rank test. The resolution of the anastomotic leak was confirmed at the endoscopy.
Results: Of the 25 patients who were included, 9 underwent first-stage EVAT, while 16 underwent second-stage EVAT. The anastomotic leak was diagnosed at a median of 14 days (range 10–413) after surgery for the first-stage group and 38 days (range 11–362) in the second-stage group ($p = 0.82$). The The time of EVAT from the onset of the leak was 7 days (1–60) in the first-stage group and 76 (6–780) days in the second-stage group ($p = 0.058$). The one-year healing rate was significantly higher in the first-stage EVAT group (73.3% vs. 29.3% in the second-stage group, $p = 0.005$).
Conclusion: The present study confirms the effectiveness of the EVAT in the treatment of low anastomotic leaks, in particular when it is used as a first treatment after diagnosis.
Disclosure of Interest: None declared.

P429 | Development of a national strategy for the implementation of multispeciality robot assisted surgery in Scotland

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Aim: The use of Robotic assisted surgery (RAS) has increased globally in the past decade. In 2021, the highest volume speciality globally

is colorectal surgery. In 2019, the NHS Scotland National Planning Board undertook a review of RAS. At the time, Scotland had one of the lowest RAS system rates/million of Western European countries. Following this, a National RAS Framework was developed providing oversight for expansion of RAS in Scotland with emphasis on equity of population access.

Method: Initial priorities (Phase 1) were procedures where RAS had an evidence base for reducing open surgery, unplanned conversions and improving perioperative outcomes. These were urological procedures (building on existing regional prostate services), hysterectomy (endometrial cancer) and rectal/left sided resections for CRC. Select regional ENT and thoracic procedures were also prioritised. Procedure volumes identified via national administrative data (Scottish Morbidity Record SMR01) were used to estimate RAS system numbers required for Phase 1 expansion. The highest volume specialty in Phase 1 is colorectal surgery.

Results: Following significant investment by Scottish Government and NHS Boards, systems rolled out in 2021/22. As of May 2022, the RAS rate/million has increased from 1.1 to 3.3 in line/ ahead of other Western European countries. The majority of health boards now provide colorectal RAS for phase 1 procedures with planning ongoing to ensure access for all boards. Early data demonstrates significant transition of colorectal procedure volume nationally towards RAS with a number of hospitals reporting reduced length of stay compared to lap and open surgery.

Conclusion: Scotland is the first country to adopt a national planning process to deliver a population-based RAS strategy. Work is underway to demonstrate successful implementation. In particular, Scottish colorectal surgery has seen a significant change in the way surgical care is delivered with measurable patient benefits already being realised.

Disclosure of Interest: None declared.

P430 | Morbid obesity among Crohn's disease patients is on the rise and is associated with higher rate of surgical complications after ileocolic resection

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Aim: Crohn's disease (CD) is regarded as a wasting disease, yet there is a growing population of CD patients with BMI of 35 and above. The rate of postoperative complications is relatively high in CD patients but might be even higher in CD with Morbid Obesity (MO). The aim of the study is to assess the rate of morbid obesity among Crohn's disease patient undergoing ileocolic resection, and the correlating rate of post-operative complications.

Method: A retrospective study of all patients that underwent ileocolonic resection (ICR) for CD (2014–2021), compering surgical complication rate according to body mass index (BMI).

Results: a total of 346 patients were identified. Sixty patients (17%) had a BMI over 30 kg/m^2, of these, 28 (8.1%) had BMI of over 35 kg/m^2 (≥35 group). In the BMI≥35 group there was a higher rate of females (78.6% vs. 52%, $p < 0.1$), higher rate of patients not getting an anastomosis (7.1% vs. 2.5%, $p = 0.02$), higher rate of postoperative surgical complication (32.1% vs. 25.2%, $p = 0.41$), with a higher rate of Clavien-Dindo ≥3 (14.3% vs. 7.2%, $p = 0.2$), a higher rate of stoma creation on re-operation for complications (7.2% vs. 1.7%, $p = 0.04$), and a higher rate of 30 days readmission (10.7% vs. 5.2%, $p = 0.2$), but a lower rate of postoperative medical complication (3.6% vs. 15.7%, $p < 0.1$).

Conclusion: The rate of MO among CD patients undergoing ICR is on the rise and is associated with a higher rate of postoperative surgical complication, which are more severe, with a higher rate of readmission and a higher chance for a bailout stoma creation upon re-operation. MO seems to be a protecting factor for medical postoperative complications which might suggest better nutritional status.

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Disclosure of Interest: None declared.

P431 | Is deep submucosal invasion a risk factor for lymph node involvement of T1 rectal carcinoma?

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Aim: To assess possible risk factor of regional lymph nodes involvement (N+) for T1 rectal carcinoma.

Method: Eighty four specimens after rectal resection for carcinoma pT1 were investigated. Of them 14 specimens were obtained from salvage resection after TEM.

Following prognosticators were evaluated: depth of submucosal invasion (sm 3), grade of differentiation (G), lymphovascular invasion (LVI), tumor budding (Bd), poorly differentiated clusters (PDC) of tumor.

Results: Median number of investigated lymph nodes was 21 (range 11–46). Lymph nodes metastases were found in 22 (26.2%) specimens. In univariate analysis positive LVI ($p < 0.0001$), tumor budding of high grade (Bd3; $p = 0.01$) and poorly differentiated clusters ($p = 0.03$) significantly increased risk of lymph node metastases.

There were only 3 specimen with G3 tumors and LN metastases were found in 2 of them.

LN metastases were detected in 9/31 (29.0%) specimen with T1sm1-2 vs. 13/53 (24.5%) with T1sm3 ($p = 0.8$).

In logistic regression only LVI was independent risk factor of lymph node tumor involvement OR 45.0 95%CI 6–233 ($p < 0.0001$).

Conclusion: The data of the study suggests that sm3 is unjustified risk factor of T1 rectal carcinoma lymph node metastases. Lymphovascular invasion, tumor budding and poorly differentiated clusters of tumor are more reliable in decision making process to use radical surgery for T1 tumor.

Disclosure of Interest: None declared.

P432 | Simple prehabilitation bundle improves postoperative recovery in elderly colorectal cancer patients – single centre prospective study

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Aim: The purpose of this prospective study was to determine the impact of simple prehabilitation bundle on early postoperative recovery in elderly patients treated for colorectal cancer.

Method: Data from all consecutive patients aged over 70 who underwent elective curative surgery for colorectal cancer before, during and after implementation of new prehabilitation bundle in RLI UHMBT NHS FT were analysed. All patients were provided with instructions for home-based aerobic (at least 30minutes daily), resistance-based (10–15min 5 days a week) and breathing exercises as well as incentive spirometer exercise (4 times per day). Protein intake was increased to 1.5 g/kg of body weight and advanced oral care including regular use of mouthwash was introduced. Spirometer exercise and mouthwash were prescribed even after surgery. Compliance was monitored perioperatively with simple checkbox questionary.

Results: In total, 196 patients aged 77±5.0 (F/M - 85/111) were enrolled (Group A - 57 patients before prehab; Group B - 72 patients during introduction period and Group C - 67 patients after establishment completed). There was no significant difference in major (Clavien-Dindo ≥ III) postoperative morbidity - 7.2% vs. 10.1% vs 7.8% ($p > 0.05$) and mortality - 3.5% vs. 1.4% vs. 3.0% ($p > 0.05$). However, incidence of postoperative ileus decreased significantly - 46% (group A) vs. 28% (group C); $p = 0.04$ as well as pulmonary complications rate 17.5% (group A) vs. 6.0% (group C); $p = 0.04$. Mean length of stay reduced progressively during the study – 10.4±9.8 vs. 10.2±9.1 vs. 7.7±6.3 ($p = 0.007$) in groups A, B and C respectively. The difference became significant compared to baseline once prehab bundle was fully established.

Conclusion: Introduction of simple prehabilitation bundle can reduce the rate of selected postoperative complications and thus shorten the overall length of stay in elderly patients undergoing elective resection for colorectal cancer.

Disclosure of Interest: None declared.

P433 | Utility of routine histological examination of stoma reversals

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Aim: Diverting stomas are frequently used when bowel anastomosis is not feasible or to divert faeces from high-risk anastomoses. Despite being unrelated and distant to the initial pathology, histopathological examination is commonly requested. The aim of this study is to identify the benefit of histopathological analysis of these specimens and their impact on patient management.

Method: A retrospective review was conducted on all patients who underwent a reversal of ileostomy or colostomy at a tertiary referral teaching hospital between January 2016 to July 2021. Patient demographics, stoma indication, histopathological reports and postoperative outcomes were reviewed.

Results: The study identified 110 cases of stoma reversals between January 2016 and July 2021. The mean age of the patients was 57 years old; 75 (68.2%) patients were male. Seventy-six (69%) stomas were formed electively, the majority of these for ultralow or low anterior resections (41 and 18 patients respectively). A further 33 (30%) stomas were formed in the emergency setting, 4/33 (12%) cases were due to a malignant pathology and 29/33 (88%) were benign conditions. The majority of all stomas formed were loop ileostomies (75.5%). Overall, fifty-nine samples were reviewed, 58 (98.3%) of these showed normal small bowel histopathology and malignancy was identified in only 1 (1.7%) specimen. There was no change in management for the patient with the malignant pathology.

Conclusion: Selective histopathological examination may be of value in macroscopically suspicious or high-risk patients for peritoneal disease based on primary pathology, however the utility in routine use requires further evaluation.

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Disclosure of Interest: None declared.

P434 | Intra-operative small bowel ultrasound in patients with Crohn's disease

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Aim: Histological involvement of surgical resection margins in Crohn's Disease (CD) is considered an important risk factor for recurrence after surgery. Decision on the surgical resection extension is currently left to preoperative investigations and surgeon's experience. Aim of the study is to evaluate usefulness of intra-operative small bowel ultrasonography (IOUS) to best identify the surgical resection margin.

Method: Consecutive patients who underwent surgery for CD from June 2020 to May 2022 were enrolled. In a group proximal ileal section was decided on the basis of the absence of macroscopic signs of disease as usually assessed. In the other group proximal section was conducted considering also IOUS findings (wall thickness, mucosal, submucosal and muscular layer thickness, echogenicity of the wall stratification and mesenteric fat) acquired with a linear wireless probe by a gastroenterologist expert in CD ultrasound. IOUS was performed through the mini-laparotomy used to extract the specimen. Histological involvement of the resection margins was judged positive in case of granulomas or signs of active ulcerative inflammation.

Results: Among 102 patients (42% female, median age 43 years, median BMI 21.3) 69.6% had Ileocecal resection and 30.4% bowel resection including anastomosis for recurrence. In 13 patients IOUS was performed. Gender, BMI, age and disease characteristics were comparable between the IOUS and non-IOUS group.

The IOUS group presented a lower numerically rate of microscopic positive margins compared to non-IOUS group (23.1% vs. 37.1%, $p = 0.32$).

No significant differences were found in terms of mean duration of surgery between the two groups (228.4 min vs. 230.6 min; $p = 0.19$) or in terms of mean length of surgical specimen (24.9 cm vs. 26.6 cm; $p = 0.38$).

Conclusion: The use of the IOUS seems to be associated a lower rate of histologically positive margins with a comparable duration of the surgery and no significant difference in length of the intestinal specimen.

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Disclosure of Interest: None declared.

P435 | New biomarkers for early diagnosis of post-operative infectious complications in IBD patients: A pilot study

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Aim: The aim of the hypothesis-generating study was to investigate if Presepsin and Pro-Adrenomedullin (proADM) could represent earlier and more accurate predictors compared to C-reactive Protein (CRP) and Procalcitonin (PCT) in detecting post-operative infectious complications in patients with inflammatory bowel disease (IBD) undergoing surgery.

Method: A prospective single center observational study was conducted between January 2018 and July 2020, recruiting patients who underwent surgery for IBD. The endpoint was the assessment of the discrimination achieved by CRP, PCT, Presepsin and proADM values measured at different timepoints (POD3 and POD5) in predicting the occurrence of infectious complications.

Results: Fifty-three patients were enrolled in the study. The overall rate of infectious complications was 20,8%, and the rate of anastomotic leak was 5,7%. In POD3, the area under the ROC curves (AUCROC) was 0.896 (0.790–1), 0.860 (0.754–0.967), 0.645 (0.454–0.836), 0.767 (0.591–0.944) for PCR, PCT, Presepsin and proADM respectively. CRP was superior to PCT ($p = 0.043$) and Presepsin ($p < 0.001$) at this timepoint while no significant difference with proADM was detected. In POD5, the AUCROC was 0.976 (0.939–1), 0.692 (0.456–0.927), 0.777 (0.615–0.939), 0.786 (0.620–0.952) for CRP, PCT, Presepsin and proADM, respectively; AUCROC of CRP was superior to PCT ($p = 0.020$), Presepsin ($p = 0.021$) and proADM ($p = 0.031$).

Conclusion: Presepsin, proADM and PCT were not superior to CRP as early predictors of major infective complications after surgery for IBD. Given the minor cost and greater discrimination, CRP should be used as the reference screening postoperative marker.

Disclosure of Interest: None declared.

P436 | Epigenetic of colorectal polyps

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Aim: Colorectal cancer occurs because of the transformation of the normal glandular epithelium into the invasive adenocarcinomas due to the genetic and epigenetic changes.

Method: They assist to understand the thousands of molecular changes found in the genome of colorectal cancer and their clinical behavior. Recent studies have shown that cancer stem cells also have an important role in the transformation of adenomatous polyps into colorectal cancer.

Results: The use of methylated genes, such as biomarkers and the most advanced of those, which is DNA-based intestinal cancer selective tests, are for the colorectal cancer detection.New potential biomarkers and stem cells can play a pivotal role in determining the colorectal color specificity andit can represent targets to promote self-renewal and inclusion.

Conclusion: The use of molecular markers aiming at the prevention and treatment of colorectal cancer in their treatment creates a new direction, which is of crucial importance in clinical practice.

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Disclosure of Interest: None declared.

P437 | Rectal neuroendocrine carcinoma: An aggressive and rare neoplasm

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Aim: Neuroendocrine carcinoma of rectum (NEC) are rare 0.6%, poorly-differentiated, with low survival and they are diagnosed on

advanced stages. The objective of the study is to present our series of rectal NEC cases.

Method: We present a retrospective observational study between 2015 – 2021 in our Coloproctology unit. Patients with a diagnosis of NEC have been analyzed, excluding well-differntiate neuroendocrine tumors and other locations, analyzing affiliation, demographic diagnosis, treatment and survival.

Results: During the study period, four patients with rectal NEC have been treated. The mean age at diagnosis was 66 years, with two men and two women. The rectal location was 50% in the upper third and 50% in the middle third. Two of them, had distant tumor spread at diagnosis. As treatment, an anterior resection of the rectum (ARR) was performed with neoadjuvant radiotherapy and adjuvant chemotherapy; 1 ARR and adnexectomy with adjuvant chemotherapy in another patient due to tumoral stenosis, observing adnexal involvement during surgery, another patient (stage IV) began neoadjuvant chemotherapy with subsequent loss to follow-up, a recently diagnosed patient is currently undergoing neoadjuvant radiotherapy and chemotherapy treatment. Regarding survival, one patient died during adjuvant chemotherapy treatment one year after diagnosis, having dissemination in the breast and brain; one was lost to follow-up, another has been disease-free for four years and the fourth patient is currently undergoing treatment.

Conclusion: Rectal NECs are rare tumors. Its clinic and symptoms do not differ from other tumor types in the rectum. Its diagnosis is eminently anatomopathological, being mainly low grade, with high mitotic activity and ki67 >20%. At the diagnosis, they usually present distant disease as in our series, and are associated with a poor prognosis. Neoadjuvant radiotherapy - chimiotherapy, surgery and subsequent chemotherapy play a fundamental role in its treatment. Despite this, its prognosis is poor.

Disclosure of Interest: None declared.

P438 | Long term bowel functional outcomes following anal sphincter preserving surgery for rectal cancer: A single center longitudinal study

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Aim: Despite advances in the neoadjuvant chemoradiation therapy and anal sphincter-preserving surgeries for rectal cancer, bowel dysfunction is still unavoidable which negatively affect the patients' quality of life. In this longitudinal study, we aimed to investigate the changes in bowel function with follow up time and the effect of the neoadjuvant chemo radiotherapy on bowel function following low anterior resection for rectal cancer.

Method: In this study, 171 patients with rectal cancer who underwent low anterior resection between 2012 and 2018 were included. Bowel function was assessed longitudinally with Memorial Sloan Kettering Cancer Center and Wexner scores every 6 months after restoration of bowel continuity. Patients with at least two follow-up visits were included.

Results: Overall, 100 patients received neoadjuvant chemo radiotherapy. Urgency, soilage and fecal incontinence were noted within 24months in the radiation group. After 2years of follow-up, significant bowel dysfunction and fecal incontinence were observed in the radiation group. Lower tumor level and neoadjuvant chemoradiotherapy were associated with delayed bowel dysfunction.

Conclusion: Neoadjuvant therapy together with lower tumor level was significantly associated with delayed bowel dysfunction even after 2 years of follow up. Therefore, careful selection and discussion with patients is paramount.

Disclosure of Interest: None declared.

P439 | The unknowns in goblet cell carcinomas of the appendix make the management more challenging; A multicentre cohort study

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Aim: Goblet cell carcinomas (GCC) are a rare, aggressive sub-type of appendiceal tumours with neuroendocrine features. We undertook a retrospective review of GCC patients surgically treated at four district general hospitals.

Method: Clinical and histopathological data were extracted from a prospectively maintained database.

Results: 35 patients were recruited with ratio 1:1 for male and female and median age of 68 years (33–89). The radiological staging is as follows; 30 were un-staged, stage IV [4], stage II (1). Of the 35 patients, 19 cases of GCC were incidentally diagnosed following laparoscopic appendicectomy. Of these 19 patients; 8 underwent completion right hemicolectomy and 10 had cytoreductive surgery. The remaining 16 patients had the following index operation; small bowel resection [2], right hemicolectomy [13], total abdominal hysterectomy with bilateral salpingo-oophorectomy, appendicectomy and omentectomy [1]. 9 patients HIPEC . The AJCC histological staging was as follows; stage II [7], stage III [9], stage IV [15] and 4 were not staged, which meant that >65% were at advanced stage. The median follow -up was 13months. 8 of the 35 patients died, 2 patients were lost to follow-up. Two patients had recurrence and had further resection with curative intent. One patient received Neo-adjuvant chemotherapy (CAPOX). 15 patients (curative intent 8 and 7 palliative patients) had adjuvant chemotherapy of varying combinations (FOLFIRI, FOLFOX, CAPOX, FOLFIRI and cetuximab and ralitrexed and oxaliplatin). CEA /Chromogranin A/B; 5HIASS,

CA 19−−9, CA125 and 68Ga-DOTATATE PET/CT were not routinely performed by all the 4 centres during follow-up.

Conclusion: GCC must be clearly discriminated from relatively indolent appendiceal neuroendocrine neoplasms. All patients with advanced disease were treated in line with current management for colorectal cancer. Therefore, more robust studies will be needed before consensus on the guideline for surveillance and chemotherapy could be reached.

Reference: Nil.

Disclosure of Interest: None declared.

P440 | Functional outcomes of emergency surgery for perforated diverticulitis, hinchey grade III

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Aim: The aim was to compare functional outcomes, distress and quality of life in patients operated for perforated diverticulitis, Hinchey III, with laparoscopic lavage or resection surgery with or without stoma formation in a national cohort.

Method: Based on data from the Swedish Patient register all patients operated with emergency surgery for perforated diverticulitis in Sweden during the years 2016–2018, and still alive, were invited to answer a detailed and specific questionnaire 2–3 years after their index surgery. Propensity score with Inverse probability weighting was used to adjust for confounding factors. Primary outcome was "Distress due to bowel dysfunction", i.e. how much the dysfunction bothers the patient.

Results: Out of 499 potential patients, 360 were able to answer the questionnaire (122 dead and 15 impaired cognitive ability) In total 226 returned the questionnaire and 209 were included in the analyses. Patients operated with laparoscopic lavage had a significantly higher degree of distress due to bowel dysfunction (odds ratio: 1.98 (95%CI: 1.29; 3.06), p = 0.002). Bowel dysfunction measured as LARS-score was significantly higher for the lavage group (odds ratio: 1.65 (95% CI 1.11; 2.45)). Stoma was more common after resection surgery (40% vs. 6%). The degree of distress due to bowel- or stoma dysfunction did not differ significantly between the groups. Odds ratio: 1.32 (95%CI 0.908; 1.92, p = 0.15).

Conclusion: Patients in the lavage group had a higher degree of distress due to bowel dysfunction. However, the difference in stoma frequency was high and the distress of bowel- or stoma dysfunction did not differ. Both groups reported a considerable degree of discomfort overall and would benefit from a structured follow-up.

Disclosure of Interest: None declared.

P441 | Relationship between the presence of indeterminate pulmonary nodules and the development of pulmonary metastases in colorectal cancer

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Aim: The aim of this study is to identify clinical characteristics of indeterminate pulmonary nodules (IPN) founded at diagnosis of colorectal cancer (CRC) that will help to predict the risk of progression to pulmonary metastases.

Method: Single-center observational study including patients who underwent elective surgery for CRC (January 2016 and June 2019), presented with IPN at diagnosis. Patients with metastatic disease, synchronous and/or metachronous neoplasms were excluded. Demographics and pathological variables were compared between patients who progressed to pulmonary metastases and those who did not.

Results: A total of 485 patients underwent surgery; 153(31.5%) presented IPN at diagnosis. Median age 73(64, 80) years old, male:female 59:41%, colon:rectum 68:31%. Multiple bilateral IPN were identified in 48% vs. 52% single IPN. Median size of the nodules was 5.6(4, 7) mm. Pathological report showed 57% pT3-T4 and 39% pN+.

A total of 17(11%) patients with IPN progressed to pulmonary metastases at 67 (95%CI 64–71) months. Significant differences were found in the univariate analysis regarding the size of the pulmonary nodules 5(4, 6) mm in the control group vs. 7(4, 9) mm in the study group (p = 0.007), pN (stage III) 35% vs. 65% (p = 0.020), and vascular invasion 21% vs 47% (p = 0.026). The only independent RF identified in the multivariate analysis for the progression to pulmonary metastases was >6mm in size at diagnosis (OR 7.1, 95%CI 1.7–30, p = 0.008).

After a median follow-up of 43(34, 57) months, 44% patients received adjuvant therapy and 18(12%) patients died. Overall survival in the study group was 62(95%CI 50–73) months vs. 69 (95%CI 66–72) months in the control group, with a 3-year overall survival of 80% vs. 92% (p = 0.127).

Conclusion: According to our results, those patients with colorectal cancer and IPNs >6mm at diagnosis will have a higher risk of progression to pulmonary metastases, so they would require individualized management to optimized outcomes.

Disclosure of Interest: None declared.

P442 | Preoperative CT in right colon cancer. Is it useful to detect locoregional lymphatic dissemination?

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Aim: Locoregional lymphatic spread (N+) in colon cancer is associated with a worse prognosis. Right hemicolectomy with D3 lymphadenectomy has recently gained greater relevance as a more radical therapeutic option for right-sided colon cancer (RSCC). The indication of this more complex technique raises controversy due to the lack of preoperative tools to allow the identification of patients with a higher risk of N+.

The objective of this study was to assess the Sensitivity (Se), Specificity (Sp), Positive Predictive Value (PPV) and Negative Predictive Value (NPV) of the preoperative staging CT (POSTC) to evaluate its usefulness for detecting N+ in RSCC, and therefore to preoperatively identify patients that are candidates for D3 lymphadenectomy.

Method: Type of study: Retrospective study of the cohort of patients undergoing regulated RSCC surgery in our tertiary care center between February 2016 and February 2020.

Methodology: Staging CT at diagnosis to allow a review of preoperative lymph node involvement and its correlation with the pathology analysis (PA) of the surgical piece.

Results: A total of 221 patients underwent surgery, with a median age of 74 (66–83) years and 57.9% men. 171 (78.1%) patients underwent right hemicolectomy.

The preoperative CT described 90 (40.7%) N+ patients. The PA analysis resulted in 59 (26.7%) N+ patients, 97 (43.9%) T3 and 37 (16.7%) T4.

With a median follow-up of 31 (23–44) months, local recurrence was observed in 9 (4.1%) patients and distant recurrence in 40 (18.1%) patients.

The Se and Sp of the POSCT as imaging test to detect preoperative locoregional lymphatic involvement was 71% and 70%, respectively, with a PPV of 47% and a NPV of 87%. An overdiagnosis rate of 21.20% was obtained.

Conclusion: The reliability of preoperative POSCT to identify locoregional lymphatic spread of RSCC seems insufficient to determine the need for D3 lymphadenectomy in our center. However, it allows ruling out this technique in those patients with negative N.

Disclosure of Interest: None declared.

P443 | Prognostic factors in right colon cancer. Is the log odds of positive lymph nodes (LODDS) a parameter associated with a higher risk of recurrence?

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Aim: The aim of this study is to determinate if the log ODDS of positive lymph nodes (LODDS) is a factor associated with a higher risk of local recurrence (LR) and distant recurrence (DR) in patients underwent surgery for right colon cancer (RCC) and identify other independent risk factors of recurrence in these patients.

Method: Single-center observational study including patients who underwent surgery for RCC in our tertiary care center (February 2016 and February 2020). Patients with metastases at diagnosis were excluded. Demographic and pathological variables were compared between patients with and without LR and patients with and without DR.

Results: 200 patients were included, median age 76(66–83) years, 58% men.

32(16%) patients presented lymph nodes in the root of the Superior Mesenteric artery in the preoperative CT. Pathological analysis (PA): 24% patients with positive lymph nodes (LN+), 32(15.5%) pT4, 52(26%) lymphovascular invasion and 32(16%) perineural invasion.

8(4%) patients presented LR and 32(16%) DR. Significant differences were found in the univariate analysis when comparing patients with LR vs. patients without LR regarding: LN+ 63% vs. 22% (p = 0.021) and LODDS>-2.5 63% vs. 21% (p = 0.017); when comparing patients with DR vs. without DR: LODDS>-2.5 47% vs. 19% (p = 0.000) and pT4 41% vs. 11% (p = 0.000). The independent RF identified in the multivariate analysis were: LODDS>-2.5 for LR (OR 6.5, 95%CI 1.5–28.6, p = 0.013) and LODDS>-2.5 (OR 2.7, 95%CI 1.1–6.7, p = 0.035) and pT4 (OR 3.2, 95%CI 1.2–8.7, p = 0.023) for DR.

After a median follow-up of 32(23–45) months, the 3-year locoregional/distance disease-free survival was 86%/62% in LODDS>-2.5 vs 99%/92% in LODDS<-2.5 (p = 0.004/p = 0.000).

Conclusion: According to the results, the presence of LODDS>-2.5 involve a higher risk of LR and DR in patients with CCD. In addition, those patients with pT4 in the PA will present a higher risk of DR.

Disclosure of Interest: None declared.

P444 | 5 years of follow-up in tatme. Is a safe treatment in rectal cancer?

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Aim: The Gold Standard for treatment of rectal cancer is total mesorectal excision (TME) and it can be perform by laparoscopic, open or transanal approach.
The use of the transanal approach for TME would allow a minimally invasive surgery, with a better approach in these patients with surgical results comparable to laparoscopy or open surgery. However, there is controversy with the use of transanal approach due to the lack of long-term oncological and functional outcomes and the complications described in some series.
Method: In our centre, 83 patients of the 251 cases of rectal cancer treated by TaTME approach had an oncologic follow-up of minimum 5 years, 56 men and 27 women. Aged between 29 and 91 years old (mean of 66.1). Surgeries were performed from August 2013 to January 2017. We analysed the data of mortality, recurrence and disease-free.
Results: The average follow-up was 4.06 years (0.98–6.57). In our series, 14 cases of recurrence has been reported (2.4% of local recurrence) with a mean time of disease-free 44 months. The 5-year survival was 80.7% and the mortality caused by disease progression was 13.2%.
Conclusion: -TaTME is a safe surgery in surgeons with experience in rectal cancer and well trained.
-The medium-term oncological results are equivalent to open and laparoscopic surgery.
-It is necessary to follow our patients and continue evaluating the results.
Disclosure of Interest: None declared.

P445 | Does type of anastomosis matter? Low anterior resection syndrome 3 years after low anterior resection in a swedish national cohort

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Aim: After low anterior resection, the bowel can be anastomosed in different ways. It is not clear which type of anastomosis is optimal from a functional and complication point of view. The primary aim of this study was to investigate the impact of the type of anastomosis on long-term bowel function. Secondarily, we wanted to explore the prevalence of post-operative complications based on anastomotic type.
Method: All patients who had undergone an low anterior resection from 2015 to 2017 were identified in the Swedish Colorectal Cancer Registry. After 3 years, patients were sent a questionnaire on existing/previous stoma, quality of life and the Low Anterior Resection Syndrome (LARS) Score. Patients were analysed based on reconstruction with either a "pouch" (J-pouch/side-to-end anastomosis) or a "straight anastomosis". Inverse probability weighting by propensity score was used.
Results: Among 892 patients, 590 responded (66%). The final analyses included 494 patients. After weighting, there were no significant differences between the groups in the overall LARS-score (OR 1.05, 95% CI 0.82;1.34) or the separate items of the score. There was a high prevalence of major LARS, 62% (95% CI 57; 66) in the pouch group and 59% in the straight group (95% CI 49; 69). Incontinence for liquid stools was the most common symptom, affecting 78% (95 CI 73; 82) in the pouch group and 73% (95 CI 63; 82) in the straight group. The prevalence of overall postoperative complications was 36% (95 CI 32;40) and anastomotic leakage 5% (95 CI 4;8) with no signifciant differences between pouch and straight anastomosis.
Conclusion: To our knowledge, this is the first study of a large national cohort, investigating the impact of the type of anastomosis on long-term bowel function evaluated by the LARS score. Our results showed no functional benefit for pouch and no difference between the groups on postoperative complications. The anastomotic strategy may be based upon the anatomical conditions of the patient and surgical preference.
Disclosure of Interest: None declared.

P446 | Bilateral covid pneumonia and intestinal ischemia, an analysis of our experience

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Aim: COVID-19 is mostly well known because of its respiratory pathology, nevertheless several ischemic complications have been reported during the pandemia. The aim of this report is to present 9 cases of acute intestinal ischemia in patients with concomitant SARS- COV-2 bilateral pneumonia.
Method: We present a case series collected from a retrospective database, that includes 9 patients with intestinal ischemia and bilateral COVID 19 pneumonia diagnosed during the years 2020 and 2022 at the “Hospital Universitario Nuestra Señora de Candelaria.”

Results: Of the 9 patients, 6 were men with a mean age of 63 years, 5 of them unvaccinated and 2 with partial dose. All presented with bilateral covid pneumonia requiring admission and intubation at the intensive care unit. During admission, after a hemodynamic worsening with increasing lactate, acute intestinal ischemia was diagnosed on a CT scan (7 non occlusive and 2 occlusive ischemia of the SMA). 7 of them underwent damage control surgery of whom only 2 survived. The remaining 3, died hours after diagnosis, not undergoing surgical treatment due to poor short-term prognosis.

Conclusion: The severe inflammatory response along with a hypercoagulable state secondary to COVID 19 is responsible for many severe ischemic diseases such as intestinal ischemia. These can go unnoticed in intubated critically ill patients, or with concomitant respiratory disease due to the absence of obvious clinical manifestations. Given its high mortality, it is essential to take this differential diagnosis into account, to obtain an early diagnosis and treatment.

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Disclosure of Interest: None declared.

P447 | Short-term outcomes for intracorporeal vs. extracorporeal anastomosis in laparoscopic right hemicolectomy for colonic cancer (ICEA) – a prospective cohort study

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Aim: To compare short-term outcomes between intracorporeal anastomosis (IA) and extracorporeal anastomosis (EA) in patients undergoing right hemicolectomy. Primary outcome measure: Overall complication rate evaluated by the Comprehensive Complication Index (CCI). Secondary outcome measures: time to bowel movement and length of hospital stay.

Method: A single center, prospective cohort study. Patients diagnosed with cancer in the right colon eligible for laparoscopic surgery with primary anastomosis were included. Complications were registered according to the Clavien Dindo classification. Based on this a CCI score for each patient was calculated. For statistical comparisons the Wilcoxon Mann-Whitney test was used.

Results: A total of 104 consecutive patients were included, 52 in each group. EA: median age 76.1 years, 46% male and 54% female patients. IA: median age 76.6 years with 48% male and 52% female patientsThe median CCI score in the two groups were identical (8.7) ($p = 0.75$). Median time to bowel movement: EA 31.6 hours, IA 32.5 hours ($p = 0.88$). The median length of hospital stay was significantly lower in the IA group (EA 3.9 days, IA 2.9 days) ($p = 0.01$).

Conclusion: Right hemicolectomy with IA significantly reduces the length of hospital stay without increasing the overall risk of complications compared to EA. We found no difference in time to bowel movement between IA an EA. Data on long-term outcomes are forthcoming.

Disclosure of Interest: None declared.

P448 | Incidence and risk factors of blowout within 90 days after hartmann's procedure. A retrospective cohort study

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Aim: Hartmann's procedure (HP) is used in both emergency and elective colorectal surgery, especially in comorbid and frail patients, when a primary anastomosis is contraindicated. The literature reports a varying incidence (3–33%) of blowout of the rectal remnant, often manifested by pelvic abscesses or rectal discharge of pus. We aimed to estimate the incidence of blowout within 90 days after HP. Secondary aims were to identify potential risk factors for blowout, length of hospital stay (LOS), readmission rate, and 30- and 90-day mortality rates after HP.

Method: A retrospective cohort study was conducted on all patients undergoing HP at Department of Surgery, Aarhus University Hospital, between September 2016 through August 2021. Univariate analyses were performed to identify risk factors for developing blowout. Multivariate analysis was performed on potential predictors for blowout found in the literature and in our univariate analyses.

Results: In total, 178 patients were included. Blowout occurred in 30 patients (16.9%), of which 14 had a defect in the closure line of the rectal stump and 16 had pelvic abscesses with no proven defect. Multivariate analysis showed increased risk of blowout among patients with Hinchey stage IV diverticulitis (RR 6.32 (4.09–9.75)), previous radiotherapy (RR 3.35 (1.67–6.74)), and alcohol overconsumption (RR 1.69 (1.05–2.72)). Intra-operative insertion of a Foley catheter in the rectal remnant reduced the risk of blowout within 90 days after HP (RR 0.18 (0.05–0.65)). Patients with blowout had significantly longer LOS and higher 90-day mortality ($p < 0.0001$, $p = 0.049$, respectively).

Conclusion: Blowout remains a severe and common complication within 90 days after HP. Hinchey IV diverticulitis, previous radiotherapy in the pelvic area and alcohol overconsumption are risk factors. An intra-operatively inserted Foley catheter in the rectal remnant is a protective factor and the authors recommend it being used more frequently in patients undergoing HP.

Disclosure of Interest: None declared.

P451 | Long-term oncological outcome of segmental versus extended colectomy for colorectal cancer in Crohn's disease: Results from an international multicentre study

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Aim: Crohn's Disease increases colorectal cancer risk, with high prevalence of synchronous and metachronous cancers. Current guidelines for colorectal cancer in Crohn's Disease recommend pan-proctocolectomy. Aim of this study was to evaluate oncologic outcomes of a less invasive surgical approach.

Method: Retrospective database analysis of Crohn's disease patients with colorectal cancer undergoing surgery at selected European and U.S. tertiary centres. Outcomes of segmental colectomy were compared with those of extended colectomy: total colectomy and pan-proctocolectomy. Primary outcome was progression-free survival. Secondary outcomes included overall survival, synchronous and metachronous colorectal cancer and major postoperative complications.

Results: Ninety-nine patients were included: 66 patients underwent segmental colectomy and 33 extended colectomy. Segmental colectomy patients were older ($p = 0.0429$), had less extensive colitis ($p = 0.0002$) and no pre-operatively identified synchronous lesions ($p = 0.0109$).Median follow up was 43 (31–62) months. There was no difference in unadjusted progression-free survival ($p = 0.2570$) nor in overall survival ($p = 0.4191$) between segmental and extended colectomy. Multivariate analysis adjusting for age, sex, ASA score and AJCC staging, confirmed no difference for progression-free survival (HR 1.00 $p = 0.9993$) or overall survival (HR 0.77 $p = 0.6654$). Synchronous and metachronous cancers incidence was 9% and 1.5% respectively. Perioperative mortality was nil and major complications were comparable (7.58% vs. 6.06% $p = 0.9998$).

Conclusion: Segmental colectomy seems to offer similar long-term outcomes to more extensive surgery. Incidence of synchronous and metachronous cancers appears much lower than previously described. Further prospective studies are warranted to confirm these results.

Disclosure of Interest: None declared.

P452 | Management of low rectal cancer complicating ulcerative colitis: Proposal of a treatment algorithm

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Aim: Low rectal carcinoma arising at the background of ulcerative colitis poses significant management challenges to the clinicians. We reviewed treatment protocols and operative strategies, with the aim of providing a practical framework for management of low rectal cancer complicating UC.

Method: A systematic literature search was conducted according to the Preferred Reporting
Items for Systematic Reviews and Meta-Analyses (PRISMA) statement

Results: Literature search initially identified 1455 studies. Only eight studies fulfilled all criteria and were included in the review. Only two studies specifically addressed low rectal cancer. A practical treatment algorithm is proposed.

Conclusion: Low rectal cancers developing in UC present a clinical challenge. The scarcity of literature makes decision-making particularly difficult. Neo-adjuvant treatment should be considered when appropriate, but it may jeopardize restorative surgery, which should be offered only to highly motivated patients. Sphincter-saving surgery followed by IPAA reconstruction is a viable option in most other instances, especially when the cancer is >2 cm from the dentate line. For very low-lying tumours in highly motivated patients, intersphincteric resection and IPAA could be considered. For T1 sm1 (or even sm2) lesions, a staged approach consisting of local excision, followed by bad TME proctocolectomy and double-stapled IPAA is a strategic option that seems to offer some advantages, including maintaining continence and minimizing morbidity from TME- and mucosectomy-related complications. Pan-proctocolectomy and end ileostomy remain a curative option at the price of loss of faecal continence.
Disclosure of Interest: None declared.

P453 | Comparative study of postoperative outcomes from elective surgery using robotics and laparoscopic approaches in chronic diverticular disease

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Aim: A surgical procedure for chronic diverticulitis is technically complex and carries a high morbidity rate (up to 36%), a high stoma rate (up to 10%), and a high conversion rate (up to 22%). In this study, we are aiming to compare the perioperative results of the robotic approach (ROB) to that of the laparoscopic approach (LAP) used to treat chronic diverticular diseases during elective surgery.
Method: Retrospective unicentric observational study of 5 years between March 2017 and January 2022. Data were analysed using SPSS 22.0.
Results: The study involved 50 patients: 36 with a robot-assisted approach and 14 with a laparoscopic approach. There was no significant difference in age, gender, or Charlson comorbidity index (CCI) between the two groups. The robotic group showed statistically significant differences in the complexity of the intervention, with subgroups describing this as the presence of inflammatory plaques, abscesses, or colovesical/colovaginal fistulas (ROB: 24 patients (66.7%) vs. LAP: 3 patients (21.4%), respectively; $p = 0.004$. The mean operative time was longer in the robotic group (ROB, 222±54 minutes vs. LAP, 182±35 minutes; $p = 0.016$), however there was no statistically significant difference in conversion to open surgery (ROB, 3 patients (8.3%) vs. LAP, 1 patient (7.1%); $p = 0.889$). The recovery time to oral intake, the time to first flatus, mobilisation, and the resumption of daily living activities was not significantly different between the study groups. Neither complication developed after surgery. According to the data, in the robotic group the mean hospital stay was 4.3±1.3 days while in the laparoscopic group it was 5.4±3.5 days ($p = 0.832$).
Conclusion: The use of a robotic approach in the treatment of complicated chronic diverticular disease has proven to be a safe procedure. Postoperative complications or hospital stay were not different compared to laparoscopic surgery. Prospective studies would be needed to corroborate the perioperative results observed in our centre.
Disclosure of Interest: None declared.

P454 | Analysis of the morbidity and mortality in bowel reconstruction of patients with an end colostomy by robotic approach

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Aim: Laparoscopic bowel reconstruction in patients with an end colostomy has potential advantages. However, its high technical complexity leads to high conversion rates (17–64%), and therefore the open approach remains the usual technique. Robotic surgery could potentially overcome the limitations of conventional laparoscopy, thus reducing the conversion rate. This study aimed to analyse the conversion rate, morbidity, and mortality of end colostomy patients who underwent elective bowel reconstruction using a robotic-assisted laparoscopic approach.
Method: Retrospective unicentric observational study of patients undergoing robotic bowel reconstruction between 2017 and 2022. Data were analysed with the SPSS version 22.0 program. This study aimed to analyse the conversion rate, 30 days morbidity, and 90 days mortality.
Results: A total of five patients (3 women) with a mean age of 67±6.5 years, a BMI of 27±3.6 kg/m2, and a Charlson comorbidity index of 3±1.4 were operated on. All initial interventions were performed as an emergency and by open approach due to acute complicated diverticulitis in 3 patients (60%) and complicated rectal neoplasia in 2 patients (40%) respectively. The average time to complete reconstruction was 20±6.6 months (range 15–29). The average operating time was 315±38 minutes. The series did not result in any conversions to open surgery. At the 30-day follow-up, there was no evidence of surgical wound infection. Only one patient presented with substantial complications, Clavien-Dindo IIIb, due to anastomotic dehiscence that required reoperation. The transanal dehiscence was repaired without the need to make a new stoma. Taking this case out of consideration, the mean hospital stay was 6±2.6 days. There was no postoperative mortality at 90 days.
Conclusion: In centers with experience in robotic surgery, Hartman reversal can be performed by robotic approach safely and technically. However, prospective studies as well as long series of patient cases are needed.
Disclosure of Interest: None declared.

P455 | Lymph node ratio as a predictor for outcome in rectal cancer: A retrospective cohort

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Aim: Lymph node ratio has been considered as a key prognosticator. This study evaluates the role of lymph node ratio as a prognostic indicator of recurrence and survival in rectal cancer.

Method: A retrospective review of prospectively collected data of patients with rectal cancer of TNM-stage I-III and underwent radical resection with curative intent (2008–2017). The primary endpoint was the predictive power of lymph node ratio in prediction of local, distant recurrence, and survival.

Results: This study included 206 patients. The positive lymph node ratio had a weak insignificant positive correlation with local recurrence (r = 0.04, p = 0.58) and a weak significant positive correlation with distant recurrence (r = 0.14, p = 0.04). A cut-off point for lymph node ratio was chosen based on ROC curve analysis, patients with ratio >0.5 had higher distant recurrence rate (27.8% vs. 9.2%) and lower disease-free survival rate (74.4% vs. 86.8%) than patients with ratio ≤0.5. Patients with positive lymph node ratio >0.5 had significantly higher odds to develop distant recurrence as compared to patients with lymph node ratio ≤0.5 (OR:3.79, 95%CI:1.68–8.53, p = 0.001). Multivariable analysis showed that mucinous histology and higher nodal stage were the significant independent predictors for lymph node ratio >0.5.

Conclusion: A positive lymph node ratio greater than 0.5 was associated with significantly higher rates of distant but not the local recurrence and lower disease-free survival rates. Younger age, mucinous histology, advanced nodal stage, higher TNM-stage, and lymphovascular invasion were the significant risk factors associated with lymph node ratio >0.5.

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Emile SH, Elfeki H, Shalaby M, Elbalka S, Metwally IH, Abdelkhalek M. Patients with early-onset rectal cancer aged 40 year or less have similar oncologic outcomes to older patients despite presenting in more advanced stage; A retrospective cohort study. International journal of surgery (London, England). 2020;83:161–8.

Disclosure of Interest: None declared.

P456 | Posterior component separation with transversus abdominis muscle release versus mesh-only repair in the treatment of complex ventral-wall hernia: A randomized controlled trial

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Aim: Complex ventral hernias (VHs) represent a real challenge to both general and plastic surgeons. This study is a randomized controlled intervention with two groups; mesh-only repair and PCS with TAR in the treatment of complex VHs. The primary outcome is the one-year's recurrence rate.

Method: This a randomized, controlled, intervention, including two parallel groups: A; Sublay Mesh-Only Repair and Group B; Posterior Component Separation "PCS" with Transversus Abdominis Release "TAR". Consecutive patients of both genders aged between 18 and 65 years old with complex ventral-wall hernias (VHs) presented at Mansoura University Hospitals including large-sized abdominal-wall hernia ≥10cm in width, loss of domain ≥20%, multiple hernial defects, or recurrent hernias. Immuno-compromised patients, patients with liver impairment, or severe heart failure were considered an exclusion criterion.
The primary outcome is the recurrence rate after 12-months following the procedure.

Results: Fifty-six patients were recruited in this study. There was no significant difference between both groups regarding recurrence. However, there was significant differences between both groups regarding seroma favoring mesh-only repair.

Conclusion: Although TAR may be associated with longer operative times and more blood losses, these were not found to be statistically significant. Postoperative complication, except for seroma, and recurrence rates were comparable in both groups.

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Disclosure of Interest: None declared.

P457 | Non-operable, advanced cancer of the colon- so, how long do I have doc?

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Aim: Surgery is the mainstay for treatment of early-stage colorectal cancer with excellent long-term outcomes. However, 33% of UK cases are advanced and a majority are deemed non-operable at diagnosis. The inevitable question of "how long have I got," posed by many patients, is difficult to answer and depends on patient and tumour factors. The aim of this study was to generate realistic local estimations to address a key patient question.

Method: A retrospectively review of the cancer registry ,for the Glasgow South Sector, was undertaken from 2013–2020 to identify all non-operative cases of malignant neoplasms of the colon. Patient demographics, lifespan, tumour factors, use of palliative chemotherapy and other data were analysed to highlight the important factors that negatively impacted on patient lifespan.

Results: A total of 576 (23%) of patients received non-operative care over the study period. The greatest non-operative caseload was observed in 2020 (46%) despite an overall decline in clinical cases (16%). Across the study period the mean age at diagnosis was 78 years with the duration between diagnosis and death being 169.5 days (range 2–1746). The most common site at diagnosis was the ascending colon. Cancer location negatively impacting on prognosis with those in the descending colon presenting at younger age and with a lower mean survival that those of right sided and sigmoid cancers (72 vs. 76 vs. 80yrs and 186 vs. 277 vs. 220 days). The longest time between diagnosis and death was 3007 days (range 420–3007). Chemotherapy was accepted by 19% of patients but only 12% receiving treatment. This afforded an additional survival of 100 days (range 25–197).

Conclusion: Non-operative colon cancer case load is increasing with clear evidence of factors that result in a shorter lifespan. Clinicians need a better understanding of these so that open and accurate discussions can be held with every patient in order to maximise what time they have my have left.

Disclosure of Interest: None declared.

P458 | The outcomes from non-operable rectal cancer

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Aim: Rectal neoplasms are a leading cause of cancer related deaths. Surgery is the mainstay of treatment in early cancers, with chemoradiotherapy being used for margin threatening disease. However, what transpires when frailty, disease burden, patient choice or unsuccessful down staging chemoradiotherapy precludes operative intervention. This study outlines the progression of non-operable rectal cancer in order to generate more accurate data of expected lifespan to be used in patient discussions.

Method: A retrospectively review of the cancer registry for the Glasgow South Sector was undertaken from 2013–2020. All non-operative cases of malignant neoplasms of the rectum at diagnosis were identified. Patient demographics, lifespan, tumour factors, multi-disciplinary discussions and other data were analysed.

Results: A total of 153 patients (20%) received non-operative care during this time, with 38% having widespread disease, 33% being too co-morbid or frail to receive treatment and 14% being insufficiently down-staged to allow progression to surgery. A total of 11% (16 patients) declined surgical or oncological intervention which resulted in a mean lifespan of 300 days form diagnosis to death.The overall mean age at diagnosis was 76yrs (range 25–92) without gender difference (51% male). The mean duration between diagnosis and death was 340 days (range 11–1278) . A total of 24 patients (15.6%) are still alive with 21 having receivied chemoradiotherapy initially aimed at downstaging the disease. These patients were younger (mean age 67yrs), with a male preponderance (67%) and expressed less advanced disease. The mean duration since diagnosis was 60 months (range 40– 85).

Conclusion: Different non-operative pathways exist for the treatment of rectal cancer. Those deemed to have failed downstaging have survive benefits as do those who decline all treatments. Consideration must be given to adapting our approaches to the treatment of advanced rectal cancers to improve patient longevity.

Disclosure of Interest: None declared.

P459 | Inter-observer agreement in landmark and flexure identification in colon capsule endoscopy

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Aim: Identification of landmarks is important in colon capsule endoscopy (CCE) as guidance for a subsequent conventional colonoscopy (CC), but also as a quality indicator in the evaluation of bowel preparation per segment and complete CCE. When a CC is carried out, a Scope Guide can assist the endoscopist in determining the localization. In CCE this support is not available. The aim of this study was to investigate the inter-observer agreement in landmark and flexure identification in CCE.

Method: The landmarks for CCE are first cecal image, hepatic flexure, splenic flexure and last rectal image. An inter-observer study was carried out comparing the landmarks in CCE investigations between four CCE readers. The group of CCE readers was composed of three medical doctors with different levels of experience in CCE and the the external company who by routine performs CCE reading in our hospital. All CCE investigations analyzed in this study were carried out as a part of the Danish screening program for colorectal cancer. A random sample of 20 CCE investigations was taken from the total sample of 856 videos.

Results: We found an overall inter-observer agreement on all landmarks of 51%. Inter-observer agreement on first cecal image, hepatic flexure, splenic flexure and last rectal image was 72%, 29%, 22% and 83%, respectively. In a sensitivity analysis, the overall inter-observer agreement including only examinations with adequate bowel preparations (n = 16) was 54% and for individual landmarks 73%, 32%, 24% and 85%.

Conclusion: We found a poor overall inter-observer agreement (51%) on landmarks from CCE. The lowest inter-observer agreement was found for the splenic flexure (22%) and hepatic flexure (28%). Measures are needed to improve the landmark identification from CCE videos. Artificial intelligence could be a possible solution.

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P460 | A comparison of pulse lavage vs. standard closure in the prevention of surgical site infection in elective colorectal surgery – a retrospective cohort study

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Aim: Surgical site infection (SSI) in colorectal surgery is associated with significant cost and increased length of hospital stay. Recently, there has been interest in the use of pulsed-lavage to reduce the risk of SSI in wounds. In orthopaedic surgery, pulsed-lavage and has been shown to reduce concentration of debris in the surgical field, and reduce bacterial load. However, it's effectiveness in colorectal surgery has been poorly documented. The aim of this study was to investigate the incidence of SSI within 30 days of elective colorectal surgery in patients who underwent wound irrigation with pulse lavage vs. standard closure.

Method: A retrospective study was conducted at a University Hospital over a two-year period between January 2020 and December 2021. All patients who underwent elective colorectal surgery were included. Standard closure was defined as fascial closure followed by skin clips. The intervention group underwent pulse lavage and closure with 2–0 vicryl and 4–0 monocryl.

Results: 222 patients were analysed. 39 SSIs were reported (17.6%). 76 patients underwent pulse-lavage while 146 underwent standard closure. Infection rates in the pulse-lavage group were lower at 13% compared to 20% in the standard closure group, however on statistical analysis using the Chi-sqaure test, the difference in infection rates did not reach significance (p = 0.213).

Conclusion: These data demonstrated a reduction in the incidence of SSI in patients who underwent pulse-lavage. Although it did not reach statistical significance, it warrants further investigation in the setting of colorectal surgery. Observed infection rates were in keeping with the literature.

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Disclosure of Interest: None declared.

P461 | The optimal pain management for enhanced recovery program for 23hours stay after colon cancer surgery

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Aim: The Enhanced Recovery After Surgery (ERAS) program has radically improved postoperative outcomes. Interest is rising to optimize and accelerate the enhanced recovery pathway (ERP). Optimal pain management is a crucial factor to enhance recovery. Spinal anesthesia has been introduced to decrease postoperative pain and need for analgesia, and to facilitate mobility. The aim of this study was to investigate the effects of spinal anesthesia with prilocaine versus bupivacaine (Marcain) prior to surgery for colon carcinoma in an accelerated enhanced recovery pathway (ERP).

Method: This single-center, non-randomized, prospective study was carried out in one large teaching hospital in the Netherlands. The study was conducted among patients included in the CHASE study, which included patients (≥ 18 years ≤ 80) undergoing elective laparoscopic surgical resection for colon carcinoma. The 23-hour accelerated ERAS protocol consisted of a multidisciplinary and multifaceted protocol adjusting the pre-, peri- and postoperative care. Optimal pain management was one of the key elements. Based on inclusion number, patients received spinal anesthesia with prilocaine or Marcain. The primary endpoint of this study was the Visual Analogue Score (VAS) for pain postoperatively. Secondary endpoints are reported pain scores at the surgical ward and administration of analgesia, complication rates and Length of hospital Stay (LOS).

Results: To date 120 patients were eligible for inclusion, of whom 70 patients were included in this study, with >80% success rate for 23-hour stay after surgery. Six patients were excluded; one patients due to conversion to an open procedure, four patients due to deviation from the anesthesia protocol, and one patient due to difference in surgical procedure. Thirty patients from the prilocaine group will be compared to 30 patients in the Marcain group.

Conclusion: We expect to have results ready within two months from now in order to present the results on the conference.

Disclosure of Interest: None declared.

P462 | Participation and compliance in prehabilitation

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Aim: Interest in prehabilitation is rising in the surgical field, in particular for elderly patients with colorectal cancer. Challenging factors appear to be patients' motivation to participate in and their compliance to prehabilitation programs. Most of the conducted studies, have reported difficulties in recruiting patients or compliance. This study aimed to explore how patient participation and compliance can be improved in prehabilitation programs.

Method: This qualitative study used a phenomenological approach. Patients who had participated in the BEFORE feasibility study were recruited. They participated in semi-structured, individual, in-depth interviews from November to December 2021. Interviews were transcribed verbatim and thematically analyzed in the following seven themes: information, motivation for participation, physical exercise, nutrition, psychological guidance, surgery and recovery. The BEFORE prehabilitation program consisted of a 4-week supervised in-hospital, personalized exercise program and nutritional intervention with fresh, protein-rich food.

Results: Six patients were interviewed. The seven main themes were discussed during the interviews. Results of this qualitative study emphasize the importance of adequate patient education, in-hospital exercising with supervision of physiotherapists and a patient-centered program. Most often, logistical problems, physical condition and impact of cancer diagnosis were reported as barriers for participation.

Conclusion: Suggestions in every main theme emerged on how patient participation and compliance rates in multimodal prehabilitation programs can be improved. Several barriers to participation can be resolved by providing adequate information and by solving logistical issues. Patient-centeredness of all three interventions of the program is an important feature in improving compliance rates. The effectiveness of the proposed modifications to improve participation and compliance has to be evaluated in future studies.

Disclosure of Interest: None declared.

P463 | Lipidomics for IBD diagnostics

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Aim: Lipidomics, as a part of metabolomics, provides opportunities for studying the spectrum of lipids potentially involved in pathological processes. It is known that dyslipidemia underlies socially significant diseases, such as cardiovascular pathology, oncology, and other multifactorial diseases [1]. The lipids level measurement can contribute to the formation of a markers panel for gastrointestinal diseases verification, as well as the differential diagnosis of Crohn's disease and ulcerative colitis [2].

Method: Serum samples were collected from patients with Crohn's disease (n = 35), ulcerative colitis (n = 24) and healthy controls(n = 50). For analysis, a Sciex 6600QTOF time-of-flight mass spectrometer with a calibrant delivery system (CDS) with an Exion 30AD liquid chromatograph was used. Chromatographic separation of the test sample components was carried out in RPLC mode using a Waters ACQUITY C8 2.1x100 mm 1.7um chromatographic column. The results were processed using the SCIEX MasterView software; To look for lipids differentially present between IBD and healthy controls, a non-parametric Mann-Whitney U-test adjusted for Benjamini-Hochberg FDR multiple comparison was used.

Results: According to the data obtained, the spectra of 720 lipidome components were annotated, including representatives of such classes as: NAE, CER, LPC, DG, SM, LPE, TG, PC, HEX, PI, VAE, PE. Statistically significant differences at the level of individual compounds were obtained for: Cer37:0;3O| Cer20:0;2O/17:0;O_Unk, PEP-46:7|PEP-24:1_22:6, PC 40:8|PC 18:2_22:6 and HBMP54:8|HBMP16:2_19:2_19:4. Cer37:0;3O| Cer20:0;2O/17:0;O_Unk was significantly elevated in the Crohn's disease group. PC 40:8|PC 18:2_22:6 was reduced in the UC group. PEP-46:7|PEP-24:1_22:6 and HBMP54:8|HBMP16:2_19:2_19:4 was reduced in both groups.

Conclusion: Combining with over omics data lipidomics can be a sorce of new markers for IBD diagnostics.

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Disclosure of Interest: None declared.

P464 | Surgery improves short and long-term disability in IBD: A 5-year prospective assessment of the surgical patient with IBD disk

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Aim: Disability is an endpoint for disease-modification studies (SPIRIT consensus). IBD Disk is a visual tool to measure disability that has been applied cross-sectionally or after medical treatment, whilst it has not been used to evaluate pre-and post-surgery disability. We aimed to assess disability modification in the short and long-term in the IBD surgical patient.

Method: A prospective cohort study including adult IBD patients operated due to IBD (2017–2021) was conducted. Perianal disease related surgeries were not included. IBD Disk was applied before (PRE), 1 month (P1) and 6 months (P6) after surgery, using a translated version obtained after IBD-expert discussion and cognitive debriefing from a 3-patient sample. Clinical variables were sought from charts. Disease activity (P1, P6) was based on biomarkers for UC and CD, and the Harvey-Bradshaw index for CD. Statistics: chi-square, Wilcoxon test, Spearman correlation.

Results: We included 51 patients (mean age 46.9±15.6 years-old; 39.2% male; 70.6% CD; median IBD duration 15.4 [IQR 7–24] years) submitted to: ileal (CD: 36.1%) or ileocecal resection (CD: 30.6%), strictureplasty (CD: 16.7%), hemicolectomy (CD: 16.7%), total colectomy with ileostomy (UC: 53.3%) or proctocolectomy with ileal pouch (UC: 46.7%). Through IBD Disk evaluation, prior to surgery, 72.5% of patients reported moderate to severe disability. Surgery improved disability both in the short and long-term (PRE vs. P1: 27.9 vs. 19.7, $p < 0.001$; PRE vs. P6: 25.5 vs. 13.5, $p < 0.001$), irrespective of disease activity. Severe disability post-surgery was still reported by 31.4% (P1) and 13.7% (P6), but was mostly driven by 'emotions' (P1: $r = 0.835$, P6: $r = 0.856$; $p < 0.001$), rather than 'abdominal pain' or 'regulating defecation'. Expectedly, having a stoma was a differentiator of 'body image'.

Conclusion: IBD-related disability significantly improved after surgery and was sustained, irrespective of disease activity, after 6 months. After surgery, disability was mostly driven by emotional domain.

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Disclosure of Interest: None declared.

P465 | A systematic review and network meta-analysis comparing clinical outcomes and effectiveness of neoadjuvant treatment strategies for stage II and III rectal cancer

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Aim: To assess neoadjuvant therapies for stage II/III rectal cancer.

Method: Systematic review and network meta-analysis.

Results: Included 36 randomized controlled trials, reporting on 11242 participants and 14 neoadjuvant regimens. Straight to surgery (STS) ranked as best treatment (97%) for preoperative toxicity but ranked worst treatment for positive resection margins (96%). No significant difference was identified between other treatments for major toxicity or positive resection margins. Short-course radiotherapy with immediate surgery (SCRT-IS) was significantly less likely to have pathological complete response compared to short-course radiotherapy followed by consolidation chemotherapy with short wait to surgery (SCRT-CT-SW) or long-course chemoradiotherapy followed by consolidation chemotherapy followed by surgery (LCCRT-CT-S). No significant difference was found between treatments for sphincter saving surgery, anastomotic leak, total or major postoperative complications. Induction chemotherapy with monoclonal antibody therapy followed by long-course chemoradiotherapy with monoclonal antibody therapy followed by surgery (CT+MAB-LCCRT+MAB-S) had improved 2-year overall survival compared to STS, short-course radiotherapy with short wait to surgery (SCRT-SW), and long-course radiotherapy with short wait to surgery (LCRT-SW). LCCRT-CT-S had improved 3-year overall survival compared to STS and SCRT-SW. STS led to worse disease-free survival at 2 years compared to SCRT-IS, SCRT-SW, SCRT-CT-SW, LCRT-SW, CT+MAB-LCCRT+MAB-S, long-course chemoradiotherapy with

short wait to surgery (LCCRT-SW), long-course chemoradiotherapy with long wait to surgery (LCCRT-LW), and induction chemotherapy followed by long-course chemoradiotherapy followed by surgery (CT-LCCRT-S).

Conclusion: Long-course neoadjuvant therapy, radiotherapy combined with chemotherapy and possibly monoclonal antibodies, and long-wait to surgery, may improve oncological outcomes without increased preoperative toxicity and postoperative morbidity.

Disclosure of Interest: None declared.

P466 | Transanal tube versus defunctioning stoma after low anterior resection for rectal cancer: A systematic review and network meta-analysis of randomised controlled trials

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Aim: A systematic review and network meta-analysis was conducted to compare no intervention (NI), diverting stoma (DS), and transanal tube (TT) after low anterior resection (LAR) for rectal cancer.

Method: PubMed, EMBASE and Cochrane were searched from inception to 16thOctober 2021 for randomized controlled trials comparing NI, DS, or TT after LAR for rectal cancer. Outcomes of interest were anastomotic leak (AL) and re-operation due to AL. Sensitivity analysis was conducted by excluding trials that included patients with concurrent DS and TT.

Results: A total of 13 eligible randomized controlled trials comprising of 2277 patients were included. DS resulted in significantly fewer AL [Odds Ratio (OR) 3.20, 95% CI 1.92 – 5.33, $p < 0.001$ and OR 2.67, 95% CI 1.35 – 5.28, $p = 0.005$ respectively] and fewer re-operations (OR 12.24, 95% CI 4.83 – 30.98, $p < 0.001$ and OR 3.66, 95% CI 1.15 – 11.67, $p = 0.028$ respectively) compared to NI and TT. TT resulted in significantly fewer re-operations (OR 0.30, 95% CI 0.13 – 0.69, $p = 0.005$) but no significant difference in AL (OR 0.84, 95% CI 0.51 – 1.36, $p = 0.465$) compared to NI. In the sensitivity analysis, TT resulted in significantly fewer AL compared to NI (OR 0.39, 95% CI 0.18 – 0.85, $p = 0.018$).

Conclusion: Although DS and TT were both effective in preventing AL and re-operation in patients receiving LAR for rectal cancer compared to NI, DS was found to be superior to TT. The decision to employ each strategy should be individualised to the patient.

Disclosure of Interest: None declared.

P467 | A systematic review and meta-analysis assessing the impact of body mass index on long-term survival outcomes after surgery for colorectal cancer

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Aim: To assess the impact of body mass index (BMI) on long-term survival outcomes after colorectal cancer surgery.

Method: A systematic literature review and meta-analysis was performed to compare long-term survival outcomes of patients of different BMI categories after colorectal cancer surgery.

Results: Of the 2588 articles screened, 56 articles met the inclusion criteria, reporting on 72,582 participants. Patients with BMI < 18.5 had significantly worse overall survival [hazard ratio (HR) 1.91; $p < 0.0001$], cancer-specific survival (HR = 1.91; $p < 0.0001$), disease-free survival (HR = 1.50; $p < 0.0001$), and recurrence-free survival (HR = 1.13; $p = 0.007$) compared to patients with BMI 18.5–25. There was no significant difference between those with BMI 25–30 and 18.5–25 in overall survival, cancer-specific survival, disease-free survival, and recurrence-free survival, except for the subgroup of patients with colon cancer where patients with BMI 25–30 had significantly improved overall survival (HR = 0.90; $p = 0.05$) and disease-free survival (HR = 0.90; $p = 0.04$). Patients with BMI>30 had significantly worse disease-free survival (HR = 1.05; $p = 0.03$) compared to patients with BMI 18.5–25, but no significant difference in overall survival, cancer-specific survival, and recurrence-free survival. Patients with BMI>35 compared to 18.5–25 had significantly worse overall survival (HR = 1.24; $p = 0.02$), cancer-specific survival (HR = 1.36; $p = 0.01$), disease-free survival (HR = 1.15; $p = 0.03$), and recurrence-free survival for colon (HR = 1.11; $p = 0.04$) and rectal (HR = 4.10; $p = 0.04$) cancer.

Conclusion: Being underweight (BMI < 18.5) or class II/III obese (BMI>35) at the time of colorectal cancer surgery may result in worse long-term survival outcomes, whereas being overweight (BMI 25–30) may improve survival in a subgroup of patients with colon cancer. Optimising BMI preoperatively may improve long-term survival after surgery for colorectal cancer.

Disclosure of Interest: None declared.

P468 | Is ventral mesh rectopexy a good option for patients with rectocele? A regional centre experience

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Aim: Management of rectocele remains a challenge. Various surgical techniques have been described with limited success. Selection of

patient who may benefit from surgery remains difficult. We sought to look at outcomes of our patients who underwent Ventral mesh rectopexy (VMR) for primary indication of rectocele and assess factors which may be indicative of better outcome and improved function.

Method: All patients who underwent minimal access VMR from January 2017 to January 2021 at our institute. This study was a retrospective analysis of prospectively collected data and details of presentation, investigations and procedure were retrieved. Wexner scores and physiological assessment were performed before and after the procedure.

Results: 71 patients were included (66 females, 5 males). Main presenting symptom was obstructive defecation for 34, faecal incontinence 31 and constipation for 16. Rectocele was the primary pathology and indication for surgery for 41. 18 had robotic VMR, 53 had laparoscopic VMR. Median length of stay was 3 days with median follow-up of 22 months. Within the rectocele group, 2 had recurrence of rectocele, however, resolution of presenting symptoms was seen in 68% (28/41) of patients, with recurrence of symptoms in 3 and no improvement in 5. This was more evident for those with OD as main presenting symptom, where 75% had complete resolution of symptoms as opposed to FI or constipation (15%). Wexner scores were significantly improved post VMR (p = 0.001). Interestingly, one third of patients had history of hysterectomy before the procedure (13/41) and had complete resolution of symptoms post VMR.

Conclusion: VMR is a safe and clinically effective option for patients with rectocele where it has improved functional outcomes. This is particularly true for patients presenting and obstructive defecation and those who have had a history of hysterectomy before undergoing the procedure. Further large prospective studies are needed to confirm these findings.

Disclosure of Interest: None declared.

P469 | Defaecating proctography misses full-thickness external rectal prolapse in more than 1/3 of cases

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Aim: External rectal prolapse is a condition for which the only treatment is surgery. Diagnosis is limited by the anxiety and embarrassment of prolapse reproduction in clinic. Defaecating proctography (DPG) is used as a diagnostic adjunct but suffers from similar limitations. These can be overcome by examination under anaesthesia (EUA) but at more cost and inconvenience. The aim of this study was to examine the detection rate of DPG for external rectal prolapse, where proven in the same patient by gold standard clinical examination or EUA.

Method: Data were gathered from a prospectively collected pelvic floor database from a tertiary referral pelvic floor service. Patients were included if they had undergone both DPG and proven external rectal prolapse on clinical examination or EUA. Anorectal physiology parameters were compared in those in whom prolapse was demonstrated versus missed on DPG.

Results: Of 190 patients in whom a diagnosis was ultimately made of external rectal prolapse, 83 underwent DPG having proven external rectal prolapse at clinical examination or EUA. Of these 83 patients, in 52 external prolapse was demonstrated but in 31 (37%) it was missed on DPG. There was a trend towards higher resting pressure, higher threshold volume, and maximum tolerated volume in patients in whom external rectal prolapse was missed.

Conclusion: This study highlights major limitations of DPG to diagnose rectal prolapse, especially in those with higher resting pressures. Accordingly, caution should be exercised in excluding external rectal prolapse in patients with a normal DPG before an EUA is undertaken.

Disclosure of Interest: None declared.

P470 | Repeat defaecating proctography for recurrent symptoms after ventral mesh rectopexy; A failure of correction or selection?

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Aim: To determine whether failure to improve symptoms after ventral mesh rectopexy (VMR) is more commonly a selection (pathophysiology) or correction (anatomy) issue?

Method: All the patients who had a pre and post-VMR defaecating proctogram (DPG) for recurrence of symptoms between 2004 and 2017 were identified from a prospectively maintained database to assess post-VMR changes in pelvic floor anatomy. Assessment of rectal intussusception (RI) was based on Oxford Grading system(Grade (G)1-5) with G5 representing external rectal prolapse (ERP).

Results: After VMR, 74 patients had repeat DPG. Median time between VMR and a repeat DPG was 9 months (IQR 5–124). Mean age was 54 years (SD 12.2) and 91% of the patients were female. The symptoms for which primary VMR was indicated were obstructed defaecation syndrome (ODS) in 37% patients, faecal incontinence (FI) 19% and mixture of both ODS/FI 31%.

The main indication for repeat DPG were "sense" of persistent rectal prolapse (RP) in 37% patients, ODS 32%, FI 15%, mixture of ODS/FI 12% and others 4%. Repeat DPG showed a significant improvement in grade 3 or above RP from pre-VMR 64% to post-VMR 16% (p = <0.05). Overall, 85% patients had improvement in their RI grading at least by 2 grade and 73% of them had complete resolution after VMR. Concomitant Pelvic floor descent (PFD) improved in 36% patients as well, compared to 20% improvement in rectocele and 14% enterocele. In addition, 51% (38/74) of patients went on to have further surgery after VMR and 61% (23/38) of them were satisfied with their outcome.

Conclusion: Repeat DPG for recurrence of symptoms after VMR showed correction of RI in 85% of patients, suggesting that anatomical failure was not the main cause of symptom recurrence and better tools are needed to identify poor prognostic factors and improve patient selection.

Disclosure of Interest: None declared.

P471 | Towards a better understanding of pelvic pain and ventral mesh rectopexy: Pelvic pain is common in prolapse, and improvement is twice as likely as worsening or de-novo pain

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Aim: To assess the relationship between pelvic pain and rectal prolapse both before prolapse surgery and long-term after ventral mesh rectopexy (VMR).

Method: Patients undergoing VMR between 2004 and 2017 were contacted. Likert scores were used to assess patient symptoms and pelvic pain severity was recorded using the Numeric Rating Scale. The study population was divided into two groups. Group A included all the patients with pre-existing pelvic pain prior to VMR. Group B consisted of all the patients without pre-VMR pelvic pain.

Results: Of 478 patients who were contacted, 39% reported pelvic pain pre-VMR (Group A) and 61% denied it (Group B). Median follow-up time was 8.0 years (IQR 5.0–10.0 years).

The mean age of the patients at the time of VMR was lower in Group A (pre-op pelvic pain) (56 ± 16 years) compared to Group B (no pre-op pelvic pain) (59 ± 15 years, $p = 0.04$).

Significantly more Group A (91/187, 49%) than Group B (101/291, 35%) patients had predominantly obstructed defaecation symptoms ($p = 0.002$). In contrast, faecal incontinence was more common ($p = 0.007$) in Group B (75/291, 26%) compared to Group A patients (29/187, 15%).

In Group A, 76% showed improvement in pelvic pain after VMR; 61% of whom had complete, and 39% partial improvement in pre-VMR pelvic pain. Patients with persistent pelvic pain were younger ($p = 0.01$) and were more likely to have revisional surgery after VMR ($p = 0.0003$), but there was no relation to the indication for surgery ($p = 0.59$).

In Group B, 15% reported de-novo pelvic pain after VMR, and this was more common in women under 50 years old ($p = 0.001$), when obstructed defaecation was the indication ($p = 0.03$), in mesh erosion ($p = <0.05$) and associated with revisional surgery ($p = 0.005$).

Conclusion: Pelvic pain is common (39%) in patients undergoing prolapse surgery and VMR improves this pain in most (76%) patients. However, a significant minority fail to improve (12%), experience worsening of pelvic pain (12%) or develop de novo pain (15%).

Disclosure of Interest: None declared.

P472 | Ventral mesh rectopexy for prolapse is safe and effective in male patients

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Aim: We aimed to describe the profile and report outcomes in male patients undergoing ventral mesh rectopexy (VMR).

Method: The medical records of all male patients who underwent VMR between 2004 and 2017 were analyzed for demographic factors, indication for VMR, further surgery (FS) for persistent/recurrent symptoms. Those identified were contacted by telephone to record their outcomes using a standardized questionnaire.

Results: There were 33 patients identified (mean age 56 years, s.d 15.2) at median follow-up of 8 years. The indication for VMR was obstructed defaecation (49%), faecal incontinence (15%), mixed (12%), and external prolapse (24%). Oxford grade 4 or 5 prolapse was present in 88% (on DPG or EUA) and 12% had grade 3 prolapse. After VMR, 39% underwent reintervention for persistent/recurrent symptoms: of which 39% were "completion" perineal procedures, 46% redo-VMR, and 15% "sequential" procedures (stoma/SNS). There were no mesh complications. Bowel function symptoms improved in 85%, remained static in 12% and worsened in 3%. When present pre-op, pelvic pain resolved in 54%, but de-novo pain appeared in 25%. At VMR, 55% were sexually active and 94% had same or better sexual activity. Overall, 76% of patients were satisfied with their outcome and 88% would recommend VMR to others.

Conclusion: The majority of carefully selected male patients report long-term improvement in their bowel function and high satisfaction following VMR. There were no mesh complications, but 39% required further surgery and 25% developed de-novo pain.

Disclosure of Interest: None declared.

P473 | Post-rectopexy long-term outcome of significant rectal prolapse, established on pre-operative clinical assessment at clinic or examination under anaesthetic without defaecating proctography

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Aim: To assess long-term outcome of ventral mesh rectopexy (VMR) in patients with rectal prolapse, established at clinic or preoperative examination under anaesthetic (EUA), without defaecating proctography (DPG).

Method: Patients who underwent VMR between 2004–2017 without pre-VMR DPG were included in this study.

Results: Number of patients who underwent VMR without pre-VMR DPG and instead had EUA or clinical examination at a clinic was 84. Of those patients, grade 4–5 rectal prolapse was reported by 82% (69/84) patients and remaining 18% (15/84) had unclear documentation of their rectal prolapse.

Main symptoms for this cohort were ODS in 38% (32/84) patients, FI 20% (17/84), combination of both ODS/FI 19% (16/84), rectal prolapse with or without pain 15% (12/84) and other 8% (7/84).

After VMR, 72% (60/84) patients reported their function as better compared to 14% (12/84) worse and another 14% with no change in their function. At the time of our FU, 73% (21/29) patients had improvement in their pain and 81% of them had complete resolution, however 11% (6/55) developed de-novo pain. In addition, 23% (19/84) patients underwent further surgery after primary VMR; 58% (11/19) of them had revisional surgery (re-do VMR) and remaining 42% (8/19) completion procedure (Delorme's/STARR/HALO). There was no reported case of mesh related complication, major bowel resection or de-functioning stoma in this cohort.

Overall, 66% (55/84) patients were satisfied and 25% (21/84) unsatisfied with their outcome. However, 75% patients would recommend this procedure to a friend or family member with similar symptoms.

Conclusion: This study shows that more than 70% of the patients who underwent VMR based on clinical or EUA findings and without pre-VMR DPG, had satisfactory functional and pain outcome at long-term FU, which is similar to those get selected based on DPG findings. However, careful patient selection is still the key to provide the best outcome for patients with rectal prolapse.

Disclosure of Interest: None declared.

P474 | Long-term functional outcome after reintervention following primary laparoscopic ventral mesh rectopexy

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Aim: Ventral mesh rectopexy (VMR) improves bowel function in about 70%, but 20% have persistent symptoms and some have recurrent symptoms after initially improvement. Selective reintervention can help such patients. We aimed to analyze the long-term benefit of re-intervention in patients with persistent/recurrent symptoms after VMR.

Method: Patients undergoing re-intervention after primary VMR at our institution between January 2004 and August 2020 on a prospective pelvic floor database were analysed. Reintervention was classified as "completion", "re-do" and "sequential".

Results: Of 478 patients with VMR, 136 (28%) underwent reintervention (mean age 52 years, 54% 1, 32% 2 or 3 and 14% Ñ4 re-interventions, median interval to re-intervention 17 months). Type of re-intervention was "completion" (anterior Delorme's and posterior STARR) in 67 (49%), "re-do" VMR in 55 (40%) and "sequential" SNS/stoma surgery in 52 (38%) and "other" 17 (13%). Indications were feeling of prolapse (19%), obstructed defaecation (14%), faecal incontinence (12%), mixed (40%), mesh erosion (8%) and other (7%). Reintervention patients reported less improvement than primary VMR patients (56% vs. 74%, $p < 0.05$). After 1, 2–3 and ≥4 reinterventions, improved function was reported in 56%, 51% and 40%, respectively ($p = 0.43$); "Re-do' VMR patients reported better improvement in function than "completion" patients (70% vs. 50%).

Conclusion: After primary VMR, 1/4 of patients required re-intervention. A single selected redo-VMR achieved similar benefit to primary VMR. Patients undergoing >1 re-intervention had less benefit but was still seen in 1/2 of patients.

Disclosure of Interest: None declared.

P475 | Towards less and better surgery for internal rectal prolapse: The oxford causal classification and rectal biomechanical model

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Aim: The emergence of ventral suspension broadened the possibilities for correction of anatomical causation in chronic constipation and faecal incontinence. Yet a stubborn unpredictable 25% fail to respond. We conceived the Oxford Causal Classification and Rectal Biomechanical Model as an conceptual framework for collection of data and generation of prognostic factors to reduce the volume and increase success of surgery.

Method: A classification and model were conceived based on clinical and research experience. A Bayesian, inverse probabilistic, effect-to-cause relationship (symptoms to causation) mediated via diagnostics, is allied to a deterministic, intervention/intervention-to-outcome relationship, adding a "therapeutic diagnostic" element to the model. The model is iterative, flexible and sensitive to new data, and generates a binary "Selection" and "Correction" score ("Reduction" x "Direction").

Results: The classification and model generate 3 metrics, each scoring between 0 and 1 on a siding scale: "Patient Selection" (causal classification metric 0 = purely physiological/psychological, 1 = purely structural/anatomical, 0>/<1 = mixed, based on diagnostic findings). "Correction" (biomechanical metric with 2 dimensions: "Reduction" (of rectal prolapse and/or rectocoele), and "Direction" (axis of reduction). Outcomes are measured as a product of 3 metrics and score between 0 and 1 (symptom resolution = 1; amelioration = >0/<1; continuation = 0 and deterioration <0/>-1).

Conclusion: We propose The Oxford Causal Classification and Rectal Biomechanical Model to quantify outcomes, explore causation, and develop and weigh prognostic factors in a clinical research

registry. This conception of pelvic floor disorders and treatments should improve patient selection and prolapse correction.

Disclosure of Interest: None declared.

P476 | Are the long-term functional benefits of ventral mesh rectopexy in high-grade prolapse established at eua versus defaecating proctography equivalent?

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Aim: The benefits of selected ventral mesh rectopexy (VMR) in rectal prolapse are well-established. Yet in some, defaecating proctography (DPG) is non-diagnostic, with diagnosis made at examination under anaesthetic (EUA). We aimed to determine if the long-term functional outcomes are equivalent for this subgroup.

Method: Patients investigated by DPG +/- EUA, undergoing VMR between 2004–2017 were contacted by telephone. The study population was divided into a DPG Group (grade 4/5 rectal prolapse on DPG) and an EUA Group (no grade 4/5 prolapse on DPG but at EUA).

Results: Number of patients who underwent DPG prior to VMR was 393. Grade 4–5 prolapse was demonstrated in 43% patients at DPG. When not, EUA demonstarted it in 83%. Number of patients who fitted the inclusion criteria of the study was 328 (DPG group = 68 and EUA grouP = 160).

No significant difference in long-term functional improvement was apparent between the EUA and DPG groups when evaluated by prolapse grade (grade 4 prolapse 61% vs. 70%, respectively, $p = 0.2$; grade 5 prolapse 80% vs. 81%, respectively $p = 0.93$). More patients with grade 4 prolapse had pre-operative pain in EUA group than the DPG (48% vs. 30%, $p = 0.01$), but no significant difference was seen for grade 5 prolapse (45% vs. 33%, $p = 0.29$). There was no significant difference in the number with persistent pain after surgery between both EUA and DPG groups for either grade 4 (54% vs. 42%, $p = 0.33$) or grade 5 (67% vs. 59%, $p = 0.66$) prolapse.

De-novo pain was similar in both groups with grade 4 prolapse (17% vs. 11%, $p = 0.33$), but greater in the DPG group with grade 5 prolapse (10% v 0%). Satisfaction in both groups was similar with grade 5 prolapse (70% vs. 71%, 0.94) but there was a non-significant trend to better satisfaction in the DPG group with grade 4 prolapse (55% vs. 68%, $p = 0.05$).

Conclusion: The long-term functional benefits of ventral mesh rectopexy (VMR) in high-grade prolapse demonstrated DPG or EUA are broadly similar.

Disclosure of Interest: None declared.

P477 | Coronal CT-guided incision mapping for extraction/stapling to minimise incision length in laparoscopic right hemicolectomy

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Aim: Laparoscopic surgery aims to minimise incision length. In right hemicolectomy, frequently the umbilical incision is extended superiorly for extraction and stapled anastomosis. However, the transverse colon varies considerably and is sometimes high, requiring incision extension. This anatomical variation can be mapped on CT to plan a separate extraction/stapling incision immediately over the transverse colon in the midline. We aimed to determine this variation on CT and the advantages of CT-guided incision-mapping.

Method: Coronal view of staging CT scans in patients undergoing right hemicolectomy from May 2007 to December 2008 were analysed. The vertical distance between the umbilicus and upper border of the transverse colon in the midline (UMTC distance, in cm) was measured. We assumed 1) a 10mm optical umbilical port, 2) a "separate" vertical 5cm extraction incision and 3) ≥7cm the UMTC distance where incision extension was greater length than 1) and 2) combined.

Results: There were 100 patients (48 female / 52 male, median age 75 v 71y). The UMTC distance in females was significantly less than in males (median 5 vs. 12cm, IQ range 2–8 vs. 6–16cm). There were more males in the upper (88%) and more women in the lower quartile (68%) of UMTC distance; 75% of males vs. 35% of females had an UMTC distance ≥7cm.

Conclusion: Coronal CT-guided incision mapping for extraction/stapling could minimise incision length in laparoscopic right hemicolectomy in most males and more than a third of females.

Disclosure of Interest: None declared.

P478 | Outcomes of ambulatory laparoscopic colectomies: Systematic review and pooled analysis

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Aim: To determine patient selection criteria, postoperative outcomes and follow-up methods for laparoscopic ambulatory colectomy (discharge>24h).

Method: A systematic review and pooled analysis was performed according to PRISMA methodology. PUBMED, Scopus, Cochrane Library, MEDLINE, EMBASE, Web of Science registry were searched. Demographics and preoperative data were evaluated. Main outcome were acceptance and success rate of ambulatory colectomy,

complication and mortality rate including surgical site infection, anastomotic leak, ileus and bleeding, unscheduled consultation, re-admission and reoperation rate. Inclusion, exclusion and discharge criteria, pre-, intra-, post-operative management and home follow-up were noted.

Results: Ten studies were included (1268 patients). Acceptance rate was 87.2% with a success rate of 48%. Complication rate was 14.6% with 1.9% of surgical-site infection, 1.7% rate of ileus, 0.9% of bleeding and 0.7% of anastomotic leakage. In 12%of cases there were unscheduled consultations; readmission and reoperation rate were respectively 4.8% and 1.3%. No mortality was recorded.

Conclusion: Ambulatory laparoscopic colectomies appear safe and feasible in selected cases. Inclusion and exclusion criteria should be validated by further studies as well as post-operative surgical follow-up that should be standardized and adapted to local centres practice.

Disclosure of Interest: None declared.

P479 | Ileo-rectal or ileo-anal anastomosis after total colectomy in ulcerative colitis patients and liver transplant: What is the best choice?

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Aim: liver transplantation (LT) is the only curative treatment for patients with end stage liver disease due to primary sclerosing cholangitis (PSC); up to 60%-80% of these patients have simultaneously ulcerative colitis (UC). The risk of colorectal cancer (CRC) in this cases is higher than general population, due both the underlying disease and the exposure to immunosuppressive therapy. this study aims to evaluate the best surgical option in these rare patients.

Method: literature review of surgical treatment of CRC in PSC treated with LT and integration with the Tor Vergata experience.

Results: there are no guidelines for the surgical treatment of the colorectal cancer in patient with liver transplantation affected by PSC and concomitant UC. Ileal pouch anal anastomosis (IPAA) seems to be the preferred choice, but this is based on limited clinical experience. Ileo-rectal anastomosis (IRA) seems to provide a better quality of life and a lower infective risk (especially in the presence of immunosuppression), at the cost of persistent metachronous rectal cancer risk.

Conclusion: we suggest to include in the next guidelines best surgical option for this population and, hopefully, the management of the immunosuppressive therapy after the diagnosis of cancer, in light of new immunosuppressive drugs.

Disclosure of Interest: None declared.

P480 | Colorectal cancer management during the covid-19 pandemic: Management and outcomes from a single tertiary referral centre

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Aim: to investigate whether the COVID-19 pandemic and related measures impacted on colorectal cancer (CRC) presentation, management and outcomes.

Method: Retrospective monocentric study. Patients undergoing surgery for CRC during the covid pandemic (11 March 2021-31st January 2022) were compared with patients operated on for CRC in an equivalent pre-covid time frame (1st May 2018-10th March 2022). Primary outcome was pTNM staging. Secondary outcomes included emergency presentation and postoperative complications.

Results: Two-hundred and twenty-nine patients were operated during the study period, 110 during the covid pandemic and 119 in the pre-covid era. Groups were comparable in all pre-operative characteristics except for emergency presentation which was more common in the pandemic group. Pandemic patients underwent longer operations and were significantly more likely to undergo stoma fashioning. For left colon CRC lolisation, there were significant staging differences, with very few early-stage CRCs in the pandemic group. There were no differences in peri-operative complications.

Conclusion: During the covid-19 pandemic CRC patients tended to present in emergency and left CRCs were unlikely to be diagnosed at an early stage. Operations were probably technically more difficult resulting in longer operative times and higher stoma rates. Nonetheless postoperative outcomes were similar to the pre-covid era. Highly specialized colorectal units appear to be able to deliver high quality, optimal treatment and outcomes even under high-pressure external conditions.

Disclosure of Interest: None declared.

P481 | Is the increase in emergency colorectal cancer presentation directly related to the after effects of the pandemic?

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Aim: Bowel cancer audit (NBOCAP) data has identified significant increase in the emergency presentation of colorectal cases to our trust over the last two years. We conducted a study to evaluate if the pandemic played any role in this recent development.

Method: Retrospective analysis of colorectal cancer database to identify patients operated as an emergency from April 2018 to

March 2021 were checked for previous MDT discussion, two week wait referrals or any other correspondence from primary care to the surgical directorate.

Results: Totally 40 patients underwent emergency colorectal cancer resections during this three year period. During the first year (2018–19) when the pandemic did not have any influence on the health care 0% of the emergency colorectal cancer resections were previously known to the team. Whereas in the next year (2019–20) 50% of the emergency resections and in the last year (2020–21) 43% of the emergency resections were already in the colorectal cancer pathway.

Conclusion: This study demonstrates the adverse effects of the pandemic in the management of suspected colorectal cancer patients referred to the secondary care . The delay in re -establishing the level of pre pandemic elective care due to various factors is likely to continue for a significant period of time. Added time and resources should be allocated in managing cases referred as suspected colorectal cancer in the immediate post pandemic period to maintain optimal standard of care for such patients.

Reference: National Bowelcancer audit.
GEh cancer database.

Disclosure of Interest: None declared.

P482 | Factors related to impaired quality of life after colorectal cancer treatment in a Swedish population

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Aim: A proportion of patients treated for colorectal cancer have impaired quality of life (QoL). This population-based cohort study aimed to evaluate patient reported symptoms and functions related to impaired QoL in colorectal cancer patients, compared to QoL in a Swedish reference population.

Method: Patients who underwent surgery for colorectal cancer stages I–III in the Stockholm–Gotland region in 2013–2015 received the EORTC QLQ-C30, the QLQ-CR29 questionnaires and the LARS score, oneyear after surgery. Patient- and tumour data were collected from the Swedish ColoRectal Cancer Registry. The cohort was matched to a Swedish reference population regarding EORTC QLQ-C30. Global QoL was compared to the reference population and a patient group with impaired QoL was defined. Detailed patient-reported outcomes were analyzed in relation to global QoL in the patient cohort.

Results: A total of 925 patients returned the questionnaires and 358 patients (38.70%) reported a clinically relevant impaired global QoL compared to the reference population. Patients with impaired QoL reported clinically relevant and statistically significantly more complaints regarding bowel habits, pain, and anxiety. After adjustment for sex, age and stoma, anxiety was the strongest predictor for impaired QoL, with OR 6.797 (95% CI 4.677–9.879).

Conclusion: A substantial proportion of patients treated for colorectal cancer has impaired global QoL. This impairment is strongly associated with several physical symptoms and anxiety.

Disclosure of Interest: None declared.

P483 | Anal abscesses - can development of fistulas be predicted?

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Aim: Anal abscesses are common and despite correct treatment with surgical drainage, they carry the risk of persistent fistulas and recurrent abscesses. However, evidence for identifying patients with a high risk of complications after anal abscess drainage is sparse. The present study aims to identify risk factors for developing anal fistulas after anal abscess surgery.

Method: A multicenter retrospective cohort study of patients undergoing acute surgery for an anal abscess in the Capital Region of Denmark between 2018–20 was conducted. Data on clinicopathological factors and postoperative course were extracted from patient records.

Results: In total, 487 patients (68% male) were included. Median age was 45 (IQR 33–58) years and median BMI 26.3 (23.0–30.2). Abscesses were classified as perianal: 59,6%; ischioanal: 14.5%; low intersphincteric: 12.8%; high intersphincteric: 4.0% and supralevator: 1.0%. A horse-shoe abscess was described in 5.0% of the cases, located both intersphincteric: 4,0%; ischioanal: 0.8%; and supralevator: 0.2%. Repeat surgery was performed in 16.8% of the patients. At median follow up time of 1108 days (IQR 946–1320) after surgery, 164 (33.7%) patients had developed a fistula. Risk factors for developing fistulas were low intersphincteric (OR 2.77, 95CI 1.50–5.06), ischioanal- (OR 2.48, 95CI 1.36–4.47) and horse-shoe formation (OR 6.54, 95CI 2.76–16.4), as well as having a diagnosis of Crohn's disease (OR 5.96, 95CI 2.33–17.2), and E. coli-positive abscess cultures (OR 4,06, 1.56–11.4). Gender, smoking and recurrent abscesses were not associated with developing a fistula after surgery.

Conclusion: In this present study clinical risk factors associated with development of anal fistulas after anal abscess surgery were identified. In patients with certain morphological abscess features such as Crohn's disease and E. coli-positive abscess cultures, extra attention in the post-operative phase might be warranted.

Disclosure of Interest: None declared.

P484 | A cost overview of minimally invasive total mesorectal excision in rectal cancer patients: A population based cohort in experienced centers

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Aim: The most frequently used minimally invasive techniques for surgical resection of rectal malignancies are laparoscopic, robot-assisted and transanal total mesorectal excision. As studies comparing costs of the techniques are lacking, this study aimed to provide cost overview in three minimally invasive surgical techniques in rectal cancer while accounting for the learning curve.

Method: This retrospective cohort study included patients who underwent total mesorectal resection between 2015 and 2017 at eleven dedicated centers, which completed the learning curve of the specific technique. The primary outcome was total costs of the three techniques up to 30 days after surgery including all major cost drivers, while taken into account different team approaches in transanal mesorectal excision. Secondary outcomes were length of stay and complication rates. Statistical analysis was performed using multivariable analysis.

Results: In total, 944 patients were included, consisting of 443 (47%) laparoscopic, 304 (32%) robot-assisted and 197 (21%) transanal total mesorectal excisions. Mean total costs were significantly higher for the transanal and robot-assisted technique, compared to the laparoscopic technique (Median [IQR] laparoscopic € 10,776 [8,862; 14,049] vs. robot-assisted € 13,244 [11,297; 15,838] vs. transanal € 13,138.27 [11,416; 16,443], $p < 0.001$). Length of stay and overall postoperative complications did not differ between groups. However, robot-assisted and transanal approach showed lower stoma rates compared to laparoscopic approach. Total costs differed significantly between one-team and two-team approach in transanal excision (median [IQR] one-team €13,413 [12,254; 16,672] vs. two-team €12,706 [10,788; 16,080], $p = 0.045$).

Conclusion: Robot-assisted and transanal approach show higher costs outcomes compared to laparoscopy with no clear benefit in outcomes in the first 30 days. Two team transanal approach showed lower total costs compared to one-team approach in this study.

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P485 | A new technique: Robotic intra-corporeal kono-s anastomosis in crohn, a safety and feasibility case series

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Aim: As a possible solution to high surgical recurrence rates in Crohn's disease, the Kono-S anastomosis was first introduced in 2003 (1). This technique has recently shown lower surgical recurrence and 5-year reoperation rates in Crohn's disease compared to conventional anastomosis techniques (2). This anastomosis is known to be challenging which is why it is performed in extra-corporeal hand sewn setting. The purpose of this case series was to assess safety and feasibility of robot-assisted intra-corporeal hand sewn Kono-S anastomosis in the form of conversion and complication rates.

Method: This is a single center consecutive case series of five patients. Patients were considered eligible if they were diagnosed with therapy resistant Crohn's disease with significant bowel stenosis of the ileocolic segment. Patients underwent a robot assisted Kono-S anastomosis. All proedures were performed by the same surgeon. Surgical and postoperative care were provided according to Enhanced Recovery After Surgery (ERAS) ® protocol.

Results: Intra-corporeal Kono-S anastomosis was successfully performed in all consecutive cases. Median operative time was 162 minutes [range 150;176] and median length of stay was 5 days [range 2;9]. No conversion, anastomotic leakage, 30-day mortality or surgical postoperative complications were observed, except for gastroparesis in one patient which required elongated hospitalization.

Conclusion: Performance of an intracorporeal robot assisted Kono-S anastomosis seems safe and feasible in this case series of Crohn's disease patients. Since this a first case series more research is required to confirm results in a population based cohort.

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Disclosure of Interest: B. Smalbroek: None declared, F. Poelmann: None declared, A. Smits Paid Instructor with: Intuitive Surgical inc.

P486 | Adapting application of multimodal prehabilitation across 3 tumour sites in the covid-19 era: Striving for equitable and improved cancer care.

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Aim: To adapt the theory of the Manchester model in a novel cancer service pilot across 3 tumour groups, colorectal, head and neck and lung cancer.

Method: An adaptive methodology Multimodal adaption by combining evidence from literature, in context of practice within COVID-19 and across 3 tumour sites to create a valid and reproducible methodology, a prehabilitation working group of clinicians and cancer leads as well health development team. A pilot was developed and content adapted given the mixed tumour group and multimodal delivery. The multimodal prehabilitation pilot live March 2021, with a 12 month cycle with monthly working group meetings and in real time modifications as well as data collation and interrogation as part of service delivery and evaluation.

Results: Many identified challenges common across tumour groups, some relating specifically to the delivering and capture of outcome data, in the context and restrictions of covid-19 and within pilot testing phase difficulties identified and resolved. During the pilot phase, delivery and capture difficulties were identified and resolved. Key stakeholder engagement was variable and limited by knowledge and application of prescriptive measures for patient outcome. With additional support and 'booster' sessions engagement and data capture improved with more appropriate patient screening and counselling and engagement within the programme.

Conclusion: A adaptive methodology delivery prehabilitation in cancer care, designing an equitable service was developed. A pragmatic and and tangible approach has generated important insights to overcome challenges, enhance outcome content and usability to deliver success with an iterative and organised framework . The adaptation of the Greater Manchester Model has developed an novel resource in Northern Irelands cancer care to deliver equitable cancer service and improved patient outcomes across several health outcome domains.

Reference: Moore J, Merchant Z, Rowlinson K, McEwan K, Evison M, Faulkner G, Sultan J, McPhee JS, Steele J. Implementing a system-wide cancer prehabilitation programme: The journey of Greater Manchester's 'Prehab4cancer'. Eur J Surg Oncol. 2021 Mar;47(3 Pt A):524-532. doi: 10.1016/j.ejso.2020.04.042. Epub 2020 May 1. PMID: 32439265.

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P487 | Enhanced recovery after surgery- a trainee approach to consistent perioperative colorectal care

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Aim: Re-establishing Colorectal elective surgery within COVID-19 recovery has been challenging.The publication of updated Enhanced Recovery After Surgery guidelines following colorectal resection (2018), builds on a surgical continuum of evidence-based domains for perioperative optimisation.Aiming to evaluate adherence to ERAS guidelines promoting awareness and use through educational sessions for improved patient outcomes.

Method: An audit of 24 patients were compared against ERAS recommendations with complete data sets of 14 (December 2021 – February 2022).Compliance against 24 domains encompassing pre, intra and post-operative care were assessed.An ERAS multidisciplinary focus group of clinicians and nursing staff highlighted key areas to increase adherence to ERAS recommendations.A didactic teaching intervention was introduced.Pre and post intervention questionnaire explored ERAS baseline knowledge, confidence and barriers to implementation.

Results: Eleven of 24 ERAS domains were completed after the initial audit. Following intervention compliance increased to 19 domains. Average inpatient stay was 11 days with 64% of patients undergoing a laparoscopic resection. Response rate for pre and post intervention questionnaire was 75%.Median self-reported knowledge increased from 2.8 to 4.3 out of 5 post-intervention.Eighty one percent of junior doctors reported high importance of ERAS in elective patient journey but challenge of time constraints, lack of awareness and communication were barriers to its implementation.At 3 months post intervention, 80% of doctors reported a positive impact on both their confidence and management of ERAS patients.

Conclusion: By embracing an evidence-based ERAS approach through integrated multidisciplinary working utilising educational sessions to increase stakeholder confidence and knowledge, we can deliver standardised, equitable and optimised patient care.

Disclosure of Interest: None declared.

P488 | Differences in surgical quality do not account for the higher rate of R1 margins to lymph node metastases in right-sided versus left-sided stage 3 colon cancers

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Aim: R1 margins to lymph node metastases (R1LNM) are associated with poorer oncological outcomes in patients with Stage III colon cancer (1,2). Tumour location is an independent prognostic factor for R1LNM margins, with higher rates in right- versus left-sided cancers (1). Previous studies have found differences in surgical quality between right- and left-sided cancers. We sought to investigate

whether such differences could account for the higher rate of R1LNM in right-side cancers.

Method: Patients undergoing elective surgery for Stage III colon cancer from 2016-2019 were included. Indicators of surgical quality included the proportion of patients with an intact mesocolic resection plane, median lymph node yield, and distance from the tumour to the distal colon margin. These indicators were compared according to tumour site and margin status.

Results: 1,765 patients were included, 981 (55.6%) of whom had right-sided cancers. The rate of R1LNM margins was significantly higher in right- versus left-sided cancers (14.4% vs. 6.1%, $p < 0.001$). Surgical quality appeared to be greater in patients with right-sided cancers, with higher rates of mesocolic resection planes (81.7% vs. 69.5%, $p < 0.001$), higher median lymph node yield (28 vs. 25, $p < 0.001$), and higher rates of specimens with ≥5cm from the tumour to the distal colon margin (81.2% vs. 53.6%, $p < 0.001$). When stratified according to margin status, no differences in mesocolic resection planes (76.7% vs. 75.1%) or resectate length (67.9% vs. 72.5%) were noted between patients with R0 versus R1LNM margins. However, the median lymph node yield was higher in patients with R1LNM margins (29 vs. 27, $p = 0.009$).

Conclusion: Contrary to previous reports, the quality of surgery appeared to be greater in patients with right- versus left-sided cancers. This suggests that suboptimal surgery is not a major cause of R1LNM margins but rather that these margins are a surrogate for more aggressive cancer biology.

Reference: 1. The significance of subdivisions of microscopically positive (R1) margins in colorectal cancer: a retrospective study of a national cancer registry. Smith HG, D Chiranth, CE Mortensen, NH Schlesinger. PMID 34714581.

2. The impact of subdivisions of microscopically positive (R1) margins on patterns of relapse in Stage III colorectal cancer - a retrospective cohort study. Smith HG, Skovgaards DM, D Chiranth, NH Schlesinger. PMID 35304974.

Disclosure of Interest: None declared.

P490 | A review of the 3D-printing applications in ostomy creation and complex intestinal fistula management

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Aim: This scoping review aims to provide a summary of the use of 3D printing in colorectal surgery for the management of complex intestinal fistula and ostomy creation.

Method: A systematic database search was conducted of original articles that explored the use of 3D-printing in colorectal surgery in EMBASE, MEDLINE, Cochrane database and Google Scholar, from inception to March 2022. Original articles and case reports that discussed 3D-printing in colorectal surgery relating to complex intestinal fistulae and ostomies were identified and analysed.

Results: There were 8 articles identified which discussed the use of 3D-printing in colorectal surgery, of which 2 discussed ostomy creation, 4 discussed complex fistulae management and 2 discussed patient models.

Conclusion: 3D printing has a promising role in terms of management of these conditions and can improve outcomes in terms of recovery, fluid loss and function with no increase in complications. The use of 3D printing is still in its early stages of development in colorectal surgery. Further research in the form of randomized control trials (RCTs) to improve methodological robustness will reveal its true potential.

Disclosure of Interest: None declared.

P491 | Is it always necessary to interrupt the passage or it`s suitable a primary anastomosis during resection in the conditions of acute diverticulitis of the left colon?

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Aim: Comparison of the applicability and safety of primary anastomosis to discontinuity surgery in complicated acute left diverticulitis

Method: Single center retrospective comparative study for a 5-year period of operated patients with acute complicated diverticulitis with primary anastomosis with proximal diversion (PD) - group A; without PD-group B; discontinuity operations - group C. Primary endpoints - early postoperative reoperations (EPP); dead rate in the EPP. Secondary endpoints - restoration of intestinal motility in EPP; hospital stay; complications -Clavien I-III; quality of life.

Results: From 2017 to 2022, 48 cases of complicated acute left diverticulitis - unstable patients - 5 (α) were operated; stable patients with feculent peritonitis-17 (β); stable patients with purulent peritonitis - 10 (γ); localized / microperforation - 16 (δ) - Group A - 10 - all in (γ); group B-16-all in (δ); group C-22-in (α + β). In group A reoperations related to complications and subsequent interruption of the passage were in 2, in groups B-1 and C-1 for dehiscence of an operative wound and tertiary peritonitis - treated with a vacuum system. Recovery of intestinal motility is significantly shorter in group A and insignificant in others. Mortality rate and other postoperative complications did not show significant differences in the three operative groups.

Conclusion: Surgical management of complicated acute diverticulitis of the left colon is a challenge with many debatable nuances these days. The widely accepted concept of Hartmann procedure and three-stage procedure has its negatives, in addition, in certain selected cases the formation of a primary anastomosis after resection of the affected area is fully justified.One-step operations without interruption of the intestinal passage are suitable in stable patients without generalized fecal peritonitis. In unstable patients with severe abdominal sepsis, intestinal interruption is required.

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P492 | The combination of lift and PTAF or tropis - perhaps the best modern methods for the treatment of transsphincteric and high complex perianal fistulas

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Aim: Comparison of combination of LIFT plus PTAF and TROPIS as the most suitable methods for treatment of transsphincteric and high complex perianal fistulas.
Method: Prospective non-randomized single center study of operated for the period 2018-2022 a total of 111 patients with transsphincteric and high complex fistulas. The choice of operative method is the pre- and intraoperative assessment of a single surgical team - group A - LIFT and PTAF; Group B- TROPIS. Follow-up period - 2-24 months. Primary endpoints are recurrence rates. Secondary endpoints - 1. operative time, 2. hospital stay, 3. postoperative complications.
Results: Out of a total of 111 patients - 86 have low or high transsphincteric and 25 – high complex fistulas. In 70 the combined procedure LIFT + PTAF was performed and in 41 – TROPIS. In follow-up there are a total of 11.1% relapses - 4.6% in group A and 6.5% in group B (p = 0.127). Secondary endpoints give a non-significant predominance of group A on 1 and 2 and group B on indicator 3.
Conclusion: High transsphincteric and complex fistulas are still feared by patients and surgeons alike. This is due to difficulty in understanding the pathophysiology, risk of debilitating incontinence, and high recurrence rates, especially in complex fistulas. Once diagnosed with complex and engaging EAS fistulas, care should be exercised to avoid sphincter-cutting procedures such as fistulotomy or cutting seton as the risk of incontinence. LIFT + PTAF as well as TROPIS are sphincter-sparing procedures with acceptably low recurrence levels and they are modern methods of choice.

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P493 | Surgical treatment of complex and medical intractable perianal fistulas in crohn´s disease. A retrospective study

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Aim: To assess the outcome of surgical treatment of symptomatic medical intractable complex perianal fistulas in Crohn´s disease. Primary objective was to assess clinical recurrence within a 2-years follow-up period.
Method: A retrospective study of all patients above the age of 18 years with Crohn's disease and complex (trans sphincteric or supra sphincteric) perianal fistulas treated by trans sphincteric fistulectomy with primary sphincter reconstruction or fistulotomy during the period of 1.1.2008 to 31.12.2017. Exclusion criteria were rectovaginal fistula and subcutaneous fistula.
Results: In total, 23 patients were included. Mean disease duration was 10 year and mean fistula duration 13 months. Sixteen patients with a high trans sphincteric fistula (involving more than one third of the sphincter complex) or a supra sphincteric fistula underwent a trans sphincteric fistulectomy with primary sphincter reconstruction. Seven patients with a low trans sphincteric fistula underwent an open fistulotomy. In the fistulectomy group recurrence was observed in 3 patients (19%), and one had a permanent stoma. There were no recurrences in the fistulotomy group.

Conclusion: Surgical treatment of symptomatic and medical intractable complex perianal fistulas has an acceptable recurrence rate and with a low risk of permanent stoma.

Disclosure of Interest: None declared.

P494 | Paraureteric hernia: An unusual cause of intestinal obstruction

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Aim: Internal hernias (IHs) have an incidence of less than 1% and account for up to 5% of all small bowel obstructions (SBO). The incidence of postsurgical IHs is rising owing to increased numbers of transmesenteric, transmesocolic and retroanastomotic procedures. We report a rare case of SBO secondary to IH through an iatrogenic para-ureteric space.

Method: An 85-year-old female patient presented with abdominal pain and constipation, on a background of previous partial bladder resection and robotic left distal ureterectomy with ureteric re-implantation for a high-grade transitional cell carcinoma of the ureter. Computed Tomography (CT) scan revealed a closed-loop SBO with a transition point in the left pelvis, lateral to the urinary bladder, initially raising suspicion of malignant recurrence.

Results: An exploratory laparotomy revealed an IH through an iatrogenic para-ureteric space, defined by the re-implanted left ureter postero-medially, the left common iliac vessels postero-laterally and the vescical peritoneal fold anteriorly, causing constriction of the ileum proximal to the ileocaecal valve. The bowel was viable and was reduced intact. Elimination of the above space was achieved by omentoplasty and apposition of omental flap, secured in place with absorbable sutures, in order to prevent recurrence of IH.

Conclusion: SBO secondary to para-ureteral IH is extremely rare, with only a handful of reported cases worldwide and no reports in patients treated by robotic procedures for ureteric malignancy. We recommend that clinicians consider the potential diagnosis of para-ureteral IH in patients with previous ureteric surgery presenting with SBO, with appropriate index of suspicion.

Disclosure of Interest: None declared.

P495 | Transanal transection and single-stapling techniques are associated with shorter rectal cuff and lower urgency rate after pouch surgery compared to double-stapled approach – an ideal stage 2b study

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Aim: a transanal rectal transection and a single stapled anastomosis have been introduced to overcome potential limitations of double stapling techniques: as a first step of the technique, either a transanal rectal transection (in Transanal-Ileal-pouch anal, anastomosis, ta-IPAA strategy) or an abdominal rectal dissection (in Transanal Transection and Single-Stapled-IPAA, TTSS-IPAA strategy) have been proposed as alternatives to Double-Stapled (DS)-IPAA. The purpose of this study is to explore the value of transanal transection and single-stapled anastomosis (Ta- and TTSS-IPAA) in comparison with DS-IPAA in terms functional outcomes.

Method: this is a Stage 2b study (IDEAL framework). Patients undergoing IPAA between January 2014 to August 2021 were included in the study and allocated into two groups: Group 1, including DS-IPAA, and Group 2, including both ta-IPAA and TTSS-IPAA. The primary endpoint was the difference in functional parameters.

Results: a total of 130 patients were enrolled with 46 undergoing DS-IPAA, and 84 patients receiving IPAA with a transanal rectal transection and single-stapling technique (43 Ta- and 41 TTSS-IPAA). Minimally invasive approach was used in 87%, 93% and 100% of patients in DS-, Ta- and TTSS-IPAA respectively. Rectal-cuff length was significantly shorter after ta- and TTSS- as compared to DS-IPAA (1.97 ±0.21 vs. 2.20 ±0.53 cm, $p = 0.01$). Functional parameters were overall similar except for urgency which was lower for Ta- and TTSS- as compared to DS-IPAA (7%, versus 24% respectively, $p = 0.02$).

Conclusion: in pouch surgery, techniques with a transanal transection and single-stapled anastomoses (ta-IPAA and TTSS-IPAA) were associated with shorter rectal-cuff and lower urgency compared to DS approach.

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Disclosure of Interest: None declared.

P496 | A prospective cohort study of sequential surgical management of transsphincteric fistula in ano, that seldom requires laying open to achieve healing

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Aim: The surgical management of transsphincteric anal fistula (TSF) has moderate success rates with most sphincter preserving techniques. The aim of this study is to assess the utilisation of various definitive procedures and the surgical outcomes of patients with TSF.

Method: This is a prospective cohort study assessing the clinical outcomes for definitive surgical procedures for TSF. These were fistula plug, LIFT procedure (ligation of the intersphincteric fistula tract), advancement flap, FILAC (fistula tract laser closure), snug seton, and laying open of the fistula tract. In case of non-healing, the required subsequent procedures were analysed.

Results: 108 patients with a TSF were assessed between 5/2009–10/2021. 98 patients had definitive surgical procedures and were included in the study, 4 patients opted for long term seton, and 6 await surgery. The index definitive procedures were: fistula plug in 50 patients (51%), LIFT - 26 (27%), snug seton - 9 (9%), advancement flap – 6, FILAC procedure - 3, lay open - 4. 47 patients (48%) healed after the initial definitive procedure, and the remainder needed further surgery of whom 32 subsequently healed, giving an overall final healing rate of 81% (79 patients). 16 (16%) patients are still awaiting further surgery. 60 fistula plug operations were performed as index/subsequent procedure, with a healing rate of 42%. The healing rate for 50 LIFT operations was 60%, and 69% for 13 advancement flap operations.

Conclusion: The management of the TSF represents a surgical challenge, but healing can be achieved in the majority using sequential techniques without sphincter division.

Reference: Jayne DG, Scholefield J, Tolan D, Gray R, Senapati A, Hulme CT, Sutton AJ, Handley K, Hewitt CA, Kaur M, Magill L; FIAT Trial Collaborative Group. A Multicenter Randomized Controlled Trial Comparing Safety, Efficacy, and Cost-effectiveness of the Surgisis Anal Fistula Plug Versus Surgeon's Preference for Transsphincteric Fistula-in-Ano: The FIAT Trial. Ann Surg. 2021 Mar 1;273(3):433–441. doi: 10.1097/SLA.0000000000003981. PMID: 32516229.

Disclosure of Interest: None declared.

P497 | Avoiding a diverting stoma when undertaking robotic-assisted total mesorectal excision in rectal resections, by performing the KHANS technique

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Aim: Anastomotic leak is a feared complication in rectal cancer surgery, and a proximal diverting stoma to protect the rectal anastomosis is performed to minimize its impact. The study evaluated a novel technique that uses the daVinci® robotic platform (Intuitive Surgical) to reinforce the colorectal anastomosis and rectal staple line with surgical sutures, and rectal resection and assessment of the anastomotic perfusion, using the Portsmouth protocol.

Method: During robotic rectal cancer surgery, indocyanine green was utilised to determine the level of transection and check the vascularity of the circular anastomosis. The distal transverse staple line and circular staple line of the colorectal anastomosis were reinforced with absorbable interrupted surgical sutures as per KHANS technique – Key enHancement of the Anastomosis for No Stoma. The integrity of the colorectal/anal anastomosis was also checked using the underwater air-water leak test, with concomitant flexible sigmoidoscopy to visualize the circular staple line (Portsmouth protocol).

Results: Fifty patients underwent total mesorectal excision for cancer. Using the KHANS technique, a diverting stoma was avoided in all cases. One patient had a radiological leak, leading to a pelvic abscess. In 56% of cases, the anastomosis was at less than 5 cm of the anal verge. Median length of stay was 5 (3–34) days, with two 30-day readmissions. No 90-day mortality or 30-day reoperations were recorded.

Conclusion: The KHANS technique appears feasible, successful, and safe in decreasing the incidence of using a diverting stoma in rectal resections for cancer.

Reference: Gumber A, Mykoniatis I, Waqas A, Sagias F, Naqvi S, Khan J (2017) Portsmouth protocol for triple assessment of colorectal anastomosis in robotic surgery reduces anastomotic leak & reoperation rates in rectal cancer surgery. Eur J Surg Oncol 43 (11):2211. https://doi.org/10.1016/j.ejso.2018.01.496

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Disclosure of Interest: None declared.

P498 | A prospective cohort study on the treatment of intersphincteric fistula in ano – the role of a 'snug' seton in sparing muscle

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Aim: Healing of intersphincteric fistula in ano (ISF) by dividing the internal sphincter is successful, but results in a significant sphincter defect. The 'snug' slow- cutting seton[1] may help reduce the size of the defect and preserves muscle function. The aim of this study is to assess the utilisation of this procedure for the treatment of ISF.
Method: This is a prospective cohort study in a single centre recording the surgical outcomes of patients who underwent surgery for ISF. For those having this procedure, a 4 silk 'snug' seton was used after division of the anoderm.
Results: 98 patients with a ISF were seen between July 2009 and September 2021, of which 88 have completed treatment. The remainder are awaiting follow up after treatment or did not require surgery. 31 patients had at least one MRI scan during their care to delineate anatomy and guide surgery. The remainder were diagnosed clinically. 71 of the 88 (80%) had a slow cutting 'snug' seton and 13 were laid open primarily. 4 patients had a fistula plug due to poor bowel function with a greater risk of incontinence after sphincter division. 49 of the 71 (69%) healed after the seton cut through slowly (after approximately 6 weeks). In 22 (31%) the seton did not cut through entirely, and they needed a second procedure. All then healed. All 13 patients that were laid open have healed. 3 of the 4 who had plugs have healed and one needed a 'snug seton' and then healed.
Conclusion: The management of the ISF seldom represents a surgical challenge, with excellent results and high healing rates. The 'snug' seton is likely to preserve muscle function and can be done with good outcomes. Physiology studies in the future will help demonstrate whether a 'snug' seton has the ability to preserve the integrity of the internal sphincter muscle by cutting through it slowly.
Reference: The Snug Seton: short and medium term results of slow fistulotomy for idiopathic anal fistulae. T M Hammond 1, C H Knowles, T Porrett, P J Lunniss . Colorectal Dis 2006 May;8(4):328-37.
Disclosure of Interest: None declared.

P499 | Management of recurrent external rectal prolapse: Single centre experience

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Aim: External rectal prolapse (ERP) is a complete protrusion of the rectal wall through the anal canal. The precise prevalence of recurrent external rectal prolapse is still unknown although some studies have reported 20–30% after primary surgery. The aim of this study was to assess the anatomic and functional outcomes of recurrent external rectal prolapse surgical treatment proposing a decision-making algorithm for this rare and challenging disease.
Method: This is a retrospective study conducted at Proctology and Pelvic Floor Clinical Centre. Of the 141 patients treated for external rectal prolapsed between January 2014 and December 2020, 19 (3M-16F) developed a recurrence. Anatomical recurrence was assessed and classified as complete or partial and mucosal or full-thickness. Functional outcomes were assessed using Wexner scores for constipation and incontinence. The global satisfaction rate was evaluated using a 5-point scale.
Results: The patients were stratified according to the first line surgery: 5 (26%) Delorme (Group A), 6 (32%) Altemeier (Group B), and 8 (42%) robotic ventral rectopexy (Group C). Five patients had a previous proctologic and pelvic floor surgery; Functional disorders were: 8 (42%) fecal incontinence and 4 (21%) ODS. The overall recurrence rate was 21.4%. The overall functional outcomes showed a significant improvement in the Wexner incontinence score (median value 8.7 vs. 3.1; $p < .0003$) and constipation score (10.4 vs. 4.6; $p < .001$). 78.6% patients declared to be satisfied.
Conclusion: According to the proposed flow-chart the treatment of choice for recurrent external rectal prolapse needs to be tailored according to personal surgical competence considering the first-line ERP surgery, prolapse characteristics, and patients comorbidities.
Reference: A. Hotouras *et al*., "A systematic review of the literature on the surgical management of recurrent rectal prolapse," *Color. Dis*., vol. 17, no. 8, pp. 657–664, 2015, doi: 10.1111/codi.12946.
G. Naldini, B. Fabiani, A. Sturiale, E. Russo, and T. Simoncini, "Advantages of robotic surgery in the treatment of complex pelvic organs prolapse," *Updates Surg*., no. 0123456789, 2021, doi: 10.1007/s13304-020-00913-4.
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Disclosure of Interest: None declared.

P500 | A less painful open hemorrhoidectomy using the new thunderbeat™ device

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Aim: Thunderbeat™ is a new device that has increasingly been utilized in hemorrhoid surgery. The aim of the study is to evaluate the overall outcomes focusing on postoperative pain and bleeding rates compared to thee conventional hemorrhoidectomy.
Method: A retrospective study was undertaken in a tertiary referral Proctologic and Pelvic Floor Clinical Centre (PPFCC) from January 2018 to December 2020 including all the patients treated with excisional surgery (Thunderbeat- TB and Electroscalpel – ES) for hemorrhoidal disease. All the following items were collected: patient characteristics, surgical data, postoperative outcomes focusing on pain (measured using VAS scale), bleeding within 30 days from surgery, which were managed with medical therapy or surgical reinterventions, and post-operative satisfaction rate.
Results: 264 underwent to excisional surgery for hemorrhoids (139 TB and 125 ES). The groups had no difference in demographics. The mean follow-up was 133 days. The two groups had a similar re-operation rate (0.007% vs. 1.45%; $p = 0.102$). There was not any statistically significant difference between two group about postoperative anal stenosis (5.7% vs. 7.1%; $p = 0.471$), while there was a reduction of postoperative bleeding rate at both 1 week and 4 weeks (1 week 2.9% vs. 5.7%; $p = 0.248$; 4 week 2% vs. 2.8%; $p = 0.419$) in favour of TB group even if without statistical significance. The average pain value (VAS scale 1-10) at 1 and 4 week was lower in Thunderbeat group (1 week 3 vs. 5; 4 week 1.3 vs. 3). Satisfaction rate was in favour of TB group (1 week 7 vs. 4; 4 week 8.5 vs. 5.6).
Conclusion: Open hemorrhoidectomy still remains a long-lasting painful procedure. Hemorrhoidectomy performed using the new device Thunderbeat which combines two kind of energy such as bipolar and ultrasound revealed to be associated with a less painful post-operative course with a subsequent reduction of pain-killer use and higher satisfaction rate.
Disclosure of Interest: None declared.

P501 | Comparative study of open, laparoscopic and robotic surgical approaches to Crohn´s disease

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Aim: A high percentage of patients with Crohn's disease (CD) require surgical intervention. For many patients with this pathology, minimally invasive treatment remains a technical challenge. This study compares the perioperative outcomes of different surgical approaches to CD in elective surgery.
Method: A single-centre retrospective study was performed comparing patients with a diagnosis of CD who underwent ileocecal resection, either open (ICR-O), laparoscopic (ICR-L) or robotic (ICR-Rb) between 2010 and 2021.
A comparative analysis was conducted on patient demographics, conversion rate, surgical time, and postoperative complications measured using the Clavien-Dindo scale, hospital stay, readmission rate, reoperation, and mortality.
Surgery was performed by the same group of experienced surgeons throughout the study.
Results: 96 patients were identified and assessed (36 ICR-O patients, 32 ICR-L patients, and 28 ICR-Rb patients). There are no differences in demographic characteristics or severe disease characteristics (abscesses, fistulas or stenosis) between the groups. Due to system access, the percentage of robotic surgeries has increased over time.
ICR-Rb had a conversion rate of 0%, compared with 31.3% in RIC-L ($p < 0.001$), and there was no difference in surgical time between both approaches.
There was a statistically significant difference in median hospital stays for ICR-Rb, ICR-L, and ICR-O, with 4, 5 and 6 days, respectively ($p = 0.03$).
There were no significant differences concerning postoperative complications, readmission, reoperation or mortality. However, there is a lower need for opioids in ICR-Rb compared to the other two approaches ($p = 0.002$).
Conclusion: In the surgical treatment of CD, robotic surgery has a lower conversion rate, opioid requirement, and hospital stay than laparoscopic surgery and open surgery. Further comparison with prospective studies and long-term outcomes is required.
Disclosure of Interest: None declared.

P502 | Proctalgia and constipation secondary to anal sphincter hypertrophy

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Aim: Proctalgia fugax is characterised by sudden and transient recurrent attacks of severe anorectal pain. The diagnosis is based on the exclusion of other causes of pain. Although the etiology is unclear, spasms of the anal sphincter and myopathy of the sphincter have been described. The histopathological changes seen are hypertrophy, vacuolation and the presence of ovoid acid-Schiff-positive polyglucan inclusion bodies in the smooth muscle fibres of the internal anal sphincter (IAS). Poor results have been shown with topic Diltiazem and Botox injections into the IAS.
Method: We present the cases of three women: 53-, 64- and 78-year-old Caucasian women presented with a long history of

severe anal pain and constipation. They had a history of high blood pressure, diabetes mellitus and a history of a lateral internal sphincterotomy. Endoscopy revealed no abnormal findings; however, MRI and endoanal ultrasound indicated an abnormally thick wall wider than 12-15mm. There was no relaxation of the IAS during Valsalva manoeuvre or pushing stage of defecation. In two of the cases, it was shown a significant decrease in the defecography test.

Results: The patients did not improve despite using topic Diltiazem, Botox injections in the IAS, or transcutaneous neuromodulation at the posterior tibial nerve. Anal sphincterotomy was performed on one of the patients, resulting in clinical improvement. The other two patients have been consented for anal sphincterotomy and are in the waiting list.

Conclusion: The presence of hypertrophy of the IAS should be considered in the differential diagnosis of patients who suffer from severe anorectal pain and constipation in the absence of anal fissure or other pathologies. As a first step in treating these patients, colonic surgeons should consider lateral internal anal sphincterotomies.

Disclosure of Interest: None declared.

P503 | Colonic stenting: Time for surgeons to take the lead?

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Aim: Despite advances in screening, 15–20% of colorectal cancer patients still present as an emergency. Colonic stenting (CS) has been shown to be safe and effective in the role of urgent decompression. CS is performed by a variety of clinicians. Unlike colonoscopy, the number of lifetime procedures of colonic stenting associated with proficiency is not well established. We believe that surgeons may have a short learning curve in performing CS as they possess many translational skills necessary for CS. Our study aims to assess the outcomes of all patients undergoing CS performed by a single surgeon who had set up this service from one unit in the United Kingdom.

Method: A retrospective audit of a prospectively maintained database. Relevant data on all consecutive patients who required CS using Evolution ® Colonic controlled-release stent performed by a single surgeon in the elective or emergency setting were analyzed.

Results: 26 patients (11 males) with, median age of 69 years (Range 40–93) were analyzed. 42% had an emergency stent procedure. Technical success was 100% (n = 26). 77% of patients had palliative stent insertion. The median length of stay was 2 days (0–20 days). The most common site of stent location was the Sigmoid (42%). 12% (n = 3) patients had stent migration. No patients had a stent perforation.

Conclusion: Colonic stenting is safe to be performed by surgeons with limited prior experience. This is an important skill to add to the surgical armamentarium which may reduce the need for palliative stoma formation.

Disclosure of Interest: None declared.

P504 | Audit to assess adequate venous thromboembolism prophylaxis following abdominal surgery in a single uk centre

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Aim: Patients undergoing abdominal surgery are at risk for venous thromboembolism (VTE), and NICE guideline [NG89] 2018 requires risk assessment on all admissions. Despite this, some patients do not receive adequate VTE prophylaxis post-operatively.

This audit aims to assess which group of patients that underwent abdominal surgery had VTE prophylaxis overlooked at discharge.

Method: Prospective data were collected on consecutive patients undergoing abdominal surgery from 24 January 2022 for 8 weeks. Datapoints on patient's baseline characteristics, procedure performed, 30-day VTE complications and re-admission rates were recorded. We evaluated if the minimum 7-day postop VTE prophylaxis was achieved for these patients.

Results: 139 patients were reviewed with a mean age of 57 (SD = 16.7), Female to Male ratio of 4:3 and 79.1% listed as general surgery procedures. 20.9% currently smoke and 4.3% were already on therapeutic anticoagulation on admission. 21.6% are ASA 1, 50.4% ASA 2, 24.5% ASA 3 and 3.6% ASA 4. 80 patients were identified as BMI <30 and 47 with >30.

43.9% of patients did not receive adequate VTE prophylaxis. 12 patients did not have their BMI recorded so were excluded from further analysis. 26 patients with BMI <30 did not receive adequate prophylaxis, whereas 20 did not receive it among patients with BMI ³30.

Chi-square analysis shows no association between obsess BMI and whether adequate VTE prophylaxis was provided, X^2 (1, N = 127) = 1.2953, p = 0.255. However, when the groups were separated by BMI, there appears to be an association between operative urgency and adequacy of VTE prophylaxis duration in both groups. For BMI <30 X^2 (1, N = 80) = 4.1099, p = 0.043, Fishers = < 0.00001, p < 0.05, BMI >30 X^2 (1, N = 47) = 5.1831, p = 0.023.

Conclusion: Our experience shows that despite VTE risk assessment, over 40% of patients fail to receive adequate duration of VTE prophylaxis. Moreover, it seems to be patients undergoing emergency surgery that are more often not given sufficient VTE prophylaxis on discharge.

Disclosure of Interest: None declared.

P505 | Gender-specific differences and their influence on colorectal cancer outcomes: A prospective cohort study

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Aim: There are well documented gender differences in colorectal cancer (CRC) survival. However, few studies have specifically addressed the impact of gender on lifestyle choices in CRC outcomes. The identification of gender disparities could support the implementation of targeted measures to address these differences and improve the overall outcomes.

Method: The Cambridge SEARCH Colorectal Study encompasses 4828 patients with invasive colorectal cancer from 2000 to 2013. Structured epidemiological surveys were used to collect data on demographic and lifestyle factors. The National Cancer Registry provided further information on tumour details, treatment and outcomes. Comparisons of categorical and continuous data were assessed using the $\chi 2$ test, Student's t-test or Mann-Whitney U test. Survival analysis was performed using Cox regression.

Results: Of the 4824 participants with CRC, 2748 were male (60%). Compared to men, women were younger at diagnosis (mean 58 vs. 60, $p < 0.001$) and had more proximal cancers (32% vs. 25%, $p < 0.001$). Men however experienced significantly more deaths overall (33.4% vs. 22.4 %, $p < 0.001$) and CRC-specific deaths (14.7% vs. 11.5%, $p < 0.001$). For epidemiological factors, men consistently demonstrated poorer lifestyle choices. Male smokers started younger (median 17 vs. 20, $p < 0.001$) and had higher pack years at diagnosis (median 20.0 vs. 15.5, $p < 0.001$). Men were also more likely to be overweight (81% vs. 71%, $p < 0.001$) and consume more alcohol per week (median 8 vs. 2, $p < 0.001$). Men had a worse overall and colorectal specific survival (HR 1.48, 95% CI 1.31–1.66, and HR 1.27, 95% CI 1.07–1.51).

Conclusion: Identification of gender differences is an important aspect of tackling gender inequality in cancer mortality. While estrogen may provide a protective effect, men with CRC consistently demonstrate significant differences in their lifestyle choices. Developing gender-specific guidelines in the management of CRC could enable a more equitable survival.

Disclosure of Interest: None declared.

P506 | The impact of lifestyle factors on survival after colorectal cancer diagnosis: A platform for behavioural change

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Aim: Colorectal cancer (CRC) is still one of the major causes of cancer deaths in developed countries, accounting for 11% of all new cancer cases in the UK.(1) It is therefore important to identify which factors impact survival. Most studies have predominantly examined the role of tumour characteristics on outcomes, leaving the influence of lifestyle factors on survival unclear. This study explored whether alcohol consumption, smoking and weight influenced CRC-specific and overall mortality.

Method: The Cambridge SEARCH Colorectal Study collected responses from 4828 patients with invasive colorectal cancer from 2000 to early 2013. All participants were 18–69 at time of diagnosis and completed a comprehensive epidemiological questionnaire. The patients were later flagged by the cancer registry for death notification. Adjusted hazard ratios (HR) and 95% confidence intervals (CI) were used for the association between lifestyle factors and overall and CRC-specific mortality using Cox regression.

Results: Of 4828 cases, 1383 died (636 from CRC) during follow-up (average 12.04 years, censored to a maximum of 15 years). Women had both a better overall and colorectal specific survival (HR = 0.72, 95% CI 0.61–0.85; HR = 0.65, 95% CI 0.56–070). Smoking was associated with worse overall mortality (HR = 1.22, 95% CI 1.07–1.40), with heavy smokers showing a 2-fold increased risk of death (HR = 2.09, 95% CI 1.41–3.11). Light to moderate drinking demonstrated an overall survival benefit (HR = 0.79, 95% CI 0.64–0.97 and HR = 0.71, 95% CI 0.55–0.91, respectively).

Conclusion: This is the largest UK cohort study to examine lifestyle factors and colorectal cancer. It remains an important topic to investigate because of its practical implications for patient modifiable risk factors. The results can serve as an educational tool for patient empowerment, as many may be unaware that these factors can influence prognosis.

Reference: 1. Cancer Research UK. Bowel cancer statistics 2022. [cited 2022/ 02/02]. Available from: http://info.cancerresearchuk.org.

Disclosure of Interest: None declared.

P507 | Reversal of hartmann's procedure and surgical site infections: A single Australian institution's eight-year experience

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Aim: Current evidence regarding pre-operative assessment and patient suitability for Hartmann's reversal and timing is limited. We aim to explore our experience with Hartmann's reversal and factors that may contribute to surgical site infections (SSI); superficial, deep or organ/space.
Method: This is a retrospective audit of all patients who underwent Hartmann's reversal from 2012 to 2020 within a high-volume metropolitan hospital in Melbourne, Australia. Parameters measured include patient characteristics, co-morbidities, medications, peri-operative / intra-operative factors and types of SSIs.
Results: 128 of 406 patients who underwent a Hartmann's procedure had a subsequent reversal. In-depth documentation was available for 83 of these patients. 21/83 (25%) of reversals were complicated by SSIs, with the majority being superficial (15/21) in nature. The average age was 60 years and the time taken for reversal was 14 – 14.5 months. 77/83 (93%) had a preoperative endoscopic evaluation. Gender, smoking status, diabetes, ischaemic heart disease, respiratory disease, renal disease, BMI, ASA, time to reversal or duration of surgery did not influence the incidence of SSIs. Steroid use may influence the risk of SSIs (5/21 vs. 4/62). Those with SSIs had a greater length of stay (6 days vs. 10 days, $p = 0.03$). A greater incidence of SSIs was encountered when the initial Hartmann's was performed for perforated diverticulitis (15/21) as opposed to malignant large bowel obstruction (4/21).
Conclusion: This study demonstrates an Australian experience and approach to Hartmann's reversal. We see that reversal is not without risks and complications that need to be rationalised during patient selection and counselling. Surgical site infection (SSI) rates can be up to 25% with no clear demonstratable risk factors other than steroid use. SSI results in a greater length of stay and morbidity.
Disclosure of Interest: None declared.

P508 | Life-threatening large bowel obstruction caused by methamphetamine-induced pica - a case report

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Aim: We present a 42-year-old female with a large bowel obstruction in the setting of chronic cotton swab consumption as a result of methamphetamine-induced pica.
Method: Retrospective case report with associated radiological images. Local ethical governance and consent approved.
Results: She required an emergency laparotomy, removal of sigmoid bezoar and an end-colostomy. The association between substance use and eating disorders is poorly understood and under-recognised.
Conclusion: Early screening and treatment of methamphetamine use in those with eating disorders is crucial to prevent life-threatening complications.
Disclosure of Interest: None declared.

P509 | Effect of radiotherapy on bone health in women with rectal cancer – a prospective cohort study

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Aim: Pelvic radiotherapy (RT) increases the risk of pelvic insufficiency fractures. The aim was to investigate if RT is associated with changes in serum levels of bone biomarkers in women with rectal cancer and to examine the incidence of radiation induced bone injuries and the association with bone biomarkers.
Method: Women with rectal cancer stage I–III, planned for abdominal surgery +/- preoperative (Chemo)RT, were included in a prospective cohort study. Participants were followed with blood samples before treatment, after RT, and one year postoperatively to analyse the bone biomarkers sclerostin (regulatory of bone formation), carboxy-terminal cross-linking telopeptide of type I collagen (CTX) (resorption marker), bone-specific alkaline phosphatase (BALP), and amino-terminal propeptide of type I procollagen (PINP) (formation markers). A subgroup was followed with annual pelvic magnetic resonance imaging (MRI). The association of RT with changes in biomarkers was explored in regression models.
Results: Of 134 included women, one hundred four had preoperative RT. The formation markers BALP and PINP increased until one year in the RT-exposed group ($p < 0.001$, longitudinal comparisons within groups). In the adjusted analysis, there was an increase in PINP in the RT-exposed compared with the unexposed group (estimate 17.58 (95% CI 3.64 – 31.51) µg/L, $p = 0.013$). Sclerostin and CTX neither changed significantly within groups nor differed between groups. Radiation induced injuries were detected in 16 (42%) of 38 women with available MRI. At one year, BALP was higher among women with than without bone injuries ($p = 0.018$, cross-sectional comparison).
Conclusion: Preoperative RT was associated with an increase in the formation marker PINP, which could represent a recovery phase following RT-induced bone injuries, commonly observed on follow-up MRI. The findings should be furhter explored in larger prospective studies on bone health in rectal cancer patients.
Disclosure of Interest: None declared.

P510 | Endoscopic vacuum therapy and early surgical closure for restoration of bowel continuity after anastomotic leak in colorectal surgery: A meta-analysis

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Aim: Endoscopic vacuum therapy (EVT) with or without early surgical closure (ESC) is considered an effective option in the management of pelvic anastomotic leakage (AL). This meta-analysis was conducted to analyze the effectiveness of EVT in terms of stoma reversal rate and the added value of ESC.
Method: A systematic search in PubMed, Medline and the Cochrane Library was conducted in November 2021 to identify articles on EVT in adult patients with pelvic AL. The primary outcome was restored continuity rate. Following PRISMA guidelines, a meta-analysis was performed using a random-effects model.
Results: Twenty-nine studies were included, accounting for 827 patients with leakage who underwent EVT. There was a large heterogeneity between studies in design and reported outcomes and a high risk of bias. The overall weighted mean restored continuity rate was 66.8% (95% CI, 58.8–73.9). In patients undergoing EVT with ESC, the calculated restored continuity rate was 82.0% (95% CI, 50.1–95.4) as compared to 64.7% (95% CI, 55.7–72.7) after EVT without ESC. The mean number of sponges exchanges was 3.6 (95% CI, 2.7 – 4.6) and 9.8 (95% CI, 7.3–12.3), respectively. Sensitivity analysis showed a restored continuity rate of 81.0% [95%CI, 55.8–99.5] for benign disease, 69.0% [95% CI, 57.3–78.7] for colorectal cancer and 65.5% [95% CI, 48.8–79.1] if neoadjuvant radiotherapy was given.
Conclusion: Available literature suggests that EVT is associated with a satisfactory stoma reversal rate, especially if combined with ESC. However, there is substantial heterogeneity and high risk of bias in current data sets.
Disclosure of Interest: None declared.

P511 | International expert opinion on optimal treatment of anastomotic leakage after rectal cancer resection: A case vignette study

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Aim: Little is known about optimal treatment of anastomotic leakage after low anterior resection (LAR) for rectal cancer and whether treatment strategy depends on leakage features and patient characteristics. The objective of this study was to determine which treatment principles are used by expert colorectal surgeons worldwide.
Method: In this international case vignette study, participants completed a survey on their preferred treatment for 11 clinical cases with varying leakage features and two patient scenarios depending on surgical risk (total of 22 cases).
Results: In total, 42 of 64 invited surgeons completed the survey from 18 countries worldwide. The majority worked at a university training hospital (62%) and had more than 15 years of experience performing LAR for rectal cancer (52%). Early leaks in septic patients were preferably treated by major salvage surgery, to some extent depending on patient scenario. In early leaks in non-septic patients, drainage and fecal diversion were the cornerstone of proposed treatment. Endoscopic vacuum therapy was more often proposed than percutaneous drainage. A minority proposed anastomotic reconstruction, more often for larger defects. Treatment of late leaks ranged from watchful waiting, drainage or transanal repair to major (non-)restorative salvage surgery, with minimal influence of degree of symptoms on proposed strategy. Leaks of the blind loop and rectovaginal fistulae showed high variability in proposed treatment strategy.
Conclusion: This TENTACLE-Rectum case vignette study demonstrates tailored treatment strategies depending on clinical type of leak and patient characteristics, with variable degrees of consensus and knowledge gaps which should be addressed in future studies.
Disclosure of Interest: None declared.

P512 | High resolution anoscopy in patients with anal dysplasia

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Aim: The incidence of anal squamous cell carcinoma (ASCC) is increasing, particularly in immunocompromised patients. High-risk populations – such as human papilloma virus (HPV)-infected patients, human immunodeficiency virus (HIV) patients, men who have sex with men (MSM), and transplant recipients – are especially affected by ASCC.

High Resolution Anoscopy (HRA) is one screening procedure to visualize the anal epithelium and to diagnose potential precancerous dysplasia known as anal intraepithelial neoplasia (AIN), which can progress to ASCC.

Aim of this study is to evaluate HRA in high-risk population referred to our pelvic floor center.

Method: From July 2021 to December 2021 were evaluated consecutive high-risk patients referred for coloproctological evaluation.

Anal intraepithelial neoplasia (AIN) is divided into three subcategories (Grades 1, 2, and 3) based on the severity of the condition.

Low-grade AIN (LGAIN), known as low-grade squamous intraepithelial lesions (LSIL), refers to Grade 1 disease and it is typically classified as mild dysplasia.

High-grade AIN (HGAIN), known as high-grade squamous intraepithelial lesions (HSIL), usually accounts for Grade 2 and Grade 3 disease.

Screening has been recommended as a method to monitor AIN and prevent ASCC.

HRA was performed with THD® HRA Camera 2.0, with the combined THD® Light-Scope Procto HRA and a disposable LED HRA proctoscope, complements the THD® ProctoStation HRA system Proctostation system including registration and monitoring. All lesions detected were carefully reported and recorded on file to allow future comparative evaluation.

Results: We detected a total of 20 patients with HPV lesions and according to the classification were identified 12 patients with LSIL and 14 patients with HSIL.

All suspected lesions were histologically evaluated and treated with diathermal coagulation.

Conclusion: HRA is a simple technique to evaluate patients with anal dysplasia expecially high-risk population.

Disclosure of Interest: None declared.

P513 | High-definition anorectal manometry (HD-ARM): New technique to evaluate patients with functional colorectal disorders

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Aim: Anorectal manometry (ARM) and rectal balloon expulsion tests are widely used for diagnosing defecatory disorders in constipated patients. ARM is also useful for identifying reduced anal pressures at rest and during squeeze in fecal incontinence.

High-resolution anorectal manometry (HR-ARM) and high-definition anorectal manometry (HD-ARM) are new techniques to evaluate and study patients with functional colorectal disorders.

Aim of this study is to evaluate HD-ARM in colorectal patients with functional diseases referred to our pelvic floor center.

Method: From July 2020 to March 2022 were evaluated with HD-ARM all patients with functional colorectal disorders referred for coloproctological evaluation.

HR-ARM was performed with ManoScan^{TM} AR manometry system (Medtronic; Minneapolis, Minnesota, USA) with a a rigid probe made by 256 pressures sensors arranged in a 16 ×16 grid (i.e., 16 rows spaced 4 mm apart, each containing 16 circumferentially oriented sensors 2.1 mm apart).

The examination was performed according to the protocol made by the International Anorectal Physiology Working Group (IAPWG).

London Classification for Disorders of Anorectal Function was used according to the manometric study.

Results: A total of 950 patients were examinated with the new technique.

Three- dimensional high-definition anorectal manometry (3D HD-ARM) showed records and display detailed informations simultaneously from the whole anal canal and distal rectum.

Recorded data are displayed as colour-contoured pressure topography plots, rather than overlapping line traces, with pressure magnitude indicated by changes on the colour spectrum.

Conclusion: Compared to non-high resolution techniques, HR-ARM and HD-ARM studies take less time and are easier to evaluate in patients with colorectal functional disorders.

Disclosure of Interest: None declared.

P514 | Inferior mesenteric artery preservation in sigmoid and upper rectal cancer. Short term outcomes

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Aim: Oncological surgery of sigmoid and rectal tumors traditionally involves ligation of the inferior mesenteric artery (IMA) at the origin, with or without preservation of the left colonic artery. In recent years, it has been hypothesized that preservation of the IMA may decrease anastomotic leakage incidence. The aim of the work is to evaluate the short-term outcomes of this technique in the treatment of sigmoid and rectal cancers.

Method: The technique involves the peeling of the AMI from the origin up to the point of caudal section of the bowel with relative lymphadenectomy and the ligation at the origin of sigmoid arteries. Short-term outcomes were assessed on 36 consecutive cases of elective surgery with curative intent for sigmoid and rectal cancers.

Results: 36 patients have been treated since january 2020. In 31 cases the primary tumor was in the sigmoid colon while in 5 cases it was localized in the upper rectum. All procedures were performed laparoscopically, the conversion rate was 2.8%. The median operation time was 228 (range 135–365) minutes. One patient only developed a severe postoperative surgical-related complication requiring reoperation due to hemoperitoneum. In the series we did not find any cases of anastomotic dehiscence. The median number of harvested lymph nodes was 15 (range 9–40). Postoperative length of stay was 5 days (range 4–40).

Conclusion: AMI preservation during laparoscopic sigmoid and rectal cancer surgery appears to be a safe, feasible and reproducible technique. Even if the number of lymph nodes removed appears adequate, an accurate evaluation of the long-term oncological follow-up will be necessary to compare AMI preservation to the traditional technique.

Disclosure of Interest: None declared.

P515 | A systematic review and network meta-analysis of the role of antibiotics and mechanical bowel preparation in elective colorectal surgery

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Aim: Use of intravenous (IV) antibiotics at anaesthetic induction is well known to reduce surgical site infection (SSI) rates in colorectal surgery and has long been standard of care. However, the role of mechanical bowel preparation (MBP), enemas (EN), oral antibiotics (OAB), and their effect on SSI, anastomotic leak (AL) rates and other perioperative outcomes remains controversial. The aim of this study was to determine the optimal preoperative bowel preparation strategy in elective colorectal surgery.

Method: A systematic review and network meta-analysis (NMA) of randomised controlled trials (RCTs) was performed from inception to December 2021. Primary outcomes included SSI and AL. Secondary outcomes included 30-day mortality, ileus, length of stay, return to theatre, other infections, and preparation adverse effects.

Results: Fifty-six RCTs involving 15159 patients were included in final analysis – 2941 (19.4%) had IV antibiotics, 5255 (34.7%) had IV+MBP, 1147 (7.57%) had IV+OAB, 4143 (27.3%) had IV+OAB+MBP, 262 (1.72%) had IV+EN and 1411 (9.31%) had OAB+MBP. Using the group receiving solely IV antibiotics as a baseline comparator, NMA demonstrated significant reduction in risk of SSI with IV+OAB (OR 0.45; 95%CI 0.27, 0.75) and IV+OAB+MBP (OR 0.55; 95%CI 0.38, 0.81). OAB+MBP had higher SSI rates compared to IV alone (OR 2.10; 95%CI 1.30, 3.39). AL rates were lower with IV+OAB (OR 0.56; 95%CI 0.32, 0.97) and IV+OAB+MBP (OR 0.63%; 95%CI 0.41, 0.98) compared to IV alone. There was minimal difference in outcomes with MBP in the absence of IV and OAB. There were minimal differences in secondary outcomes.

Conclusion: This NMA suggests that intestinal microbiome plays an important role in anastomotic wound healing and provides high-level evidence that combination preoperative IV+OAB reduces SSI and AL rates. Combined OAB and IV antibiotic bowel preparation should therefore represent the standard of care for elective colorectal surgery.

Disclosure of Interest: None declared.

P516 | The role of serum adipokines in predicting response to neoadjuvant therapy in patients with rectal cancer

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Aim: Neoadjuvant therapy is becoming more common place in locally advanced rectal cancers. The response to the treatment widely varies between patients; some patients go into total remission. Predictability of the response can change the order and format of the treatment. In this study, the predictive value of serum adipokines, which are known to be associated with the risk of developing colorectal cancer, is investigated in the evaluation of response to neoadjuvant therapy in patients with locally advanced rectal cancer.

Method: All patients with stage II-III rectal cancer, who were intended to undergo neoadjuvant therapy between the dates of 01.09.2020-31.12.2021 were included. Before the treatment, blood samples were collected from the patients and level of serum adipokines (adiponectin, leptin, resistin, and adipsin) were measured. Demographic features of the patients were recorded. Following surgical resection pathology reports were examined and the response to the neoadjuvant treatment regimen was evaluated according to the modified Ryan scoring system. Patients were then divided into two groups according to the response to the treatment (Group 1: modified Ryan score 0; Group 2: modified Ryan score 1, 2, 3).

Results: A total of 34 patients were included in this study. The statistical analyses showed that there was no significant difference between demographic values of the patients, clinical properties of the tumors, hemogram and other serum biochemistry parameters except serum creatinine. Mean serum creatinine level was lover in Group 1 (p = 0.037). It was shown that there was no significant difference in levels of serum adiponectin, leptin, resistin, and adipsin between patients who had a complete response to the neoadjuvant treatment and those who did not.

Conclusion: In patients with locally advanced rectal cancer, the predictive value of serum adipokines is not statistically significant.

Disclosure of Interest: None declared.

P517 | Laparoscopic modified mesh rectopexy- medium term results of a novel approach for rectal prolapse

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Aim: Mesh related complications have caused some controversy and generated significant debate on ventral mesh rectopexy for rectal prolapse. The laparoscopic modified mesh rectopexy is a novel operation for the treatment of rectal prolapse which avoids the need for synthetic mesh and suture placement of the mesh. As rectal prolapse is circumferential, the rectum is mobilised posteriorly, whilst partially preserving the lateral rectal ligaments. Posterior rectal fixation is performed with a suture rectopexy and placement of an absorbable mesh. Ventral support is provided by the placement of an absorbable mesh in the recto-vaginal space. No suture or staple fixation of the mesh is used. This operation aims to avoid the mesh related complications of the laparoscopic ventral mesh rectopexy, preserve rectal function and provide increased rectal support.
Method: Data for consecutive patients who underwent this procedure for external rectal prolapse were collected. Duration of follow up, recurrence, time to recurrence and complications were assessed. Data for patients up until the end of 2021 were collected.
Results: 82 patients underwent laparoscopic modified mesh rectopexy for external rectal prolapse. The median age was 74 (18–83) years. The majority were female (male = 2). The median follow up was 40.5 (2–95) months. 11 patients suffered a recurrence at latest follow up (13%). The median time to recurrence was 14 (4–28) months. No mesh related complications were reported. Median post op length of stay was 2 days.
Conclusion: The modified mesh rectopexy is a safe operation with no associated mesh related complications. It offers a suitable alternative to ventral mesh rectopexy.
Disclosure of Interest: None declared.

P518 | Improving patient-centred cancer care with the assessment of burden of colorectal cancer (ABCRC)-tool

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Aim: Commonly used patient-reported outcome measures (PROMs) may not be appropriate for regular use in daily clinical practice for colorectal cancer patients. They are often too long, are developed for research purposes and visual feedback is lacking. Therefore we developed the ABCRC-tool for colorectal cancer patients: a concise instrument that measures the experienced burden of disease and lifestyle parameters, visualizes the results and provides treatment advice.
Method: The ABCRC-tool was developed together with patient representatives, healthcare professionals and methodologists. Based on a literature review, focus groups with patients, patient interviews and expert opinion, the content of the questionnaire was determined. Eventually, the items were selected from existing validated PROMs and the EORTC Item library bank. The face and content validity were evaluated through interviews with patients and healthcare providers.
Results: The ABCRC-tool consists of generic oncological questions, disease specific questions and lifestyle questions. Three colorectal-specific modules were developed: colon cancer with anastomosis, rectal cancer with anastomosis and colon or rectal cancer with stoma. An algorithm with cut-off points was developed to visualize outcomes in a balloon chart and to provide treatment advice.
Conclusion: The ABCRC-tool fills a gap between current PROMs for colorectal cancer and the demands of patients and healthcare professionals in daily care and shows good face and content validity. By combining a PROM focused on the experienced burden of colorectal cancer with lifestyle assessment, visual patient feedback and treatment advice, a complete personalised follow-up tool for the colorectal cancer patient is developed.
Disclosure of Interest: None declared.

P519 | Factors affecting time to discharge from 2-week wait pathway after CT colonography

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Aim: To assess how increasing use of CT colonograpy (CTC) affects time to discharge in patients on colorectal 2-week wait (2WW) pathway.
Method: All CTC for 2WW pathway at our hospital from 01/01/2021 to 31/12/2021 were identified via the IDR system. CTC reports and clinical notes were assessed for: quality of CTC; mean time from examination to discharge (METD) from 2WW pathway (clearly documented clinical decision); main findings; and "Red Alerts".
Results: Of 262 patients 29 were excluded (already known tumour or no clear documentation). The mean age was 76. Of 233, 22% had a previous failed lower GI endoscopy. The mean time from exam to report was 3 days. The overall METD was 31 days. 45 (19%) of CTCs were reported as suboptimal (e.g., inadequate distension, motion artefact, etc). Good-quality negative CTCs (115, 49% of total) had a MEDT of 23 days. Significant GI findings were found in 48 cases, while 49 had significant extra-GI findings. In both groups the METD were significantly longer compared to the negative CTC (52 days (p = 0.002) and 42 days (p = 0.031) respectively), but there was no significant difference between the 2 groups (p = 0.455). 90 (38%) exams were red alerted. Extra-GI findings accounted for 52% of all red alerts. Despite only 12 CRC diagnoses, there were 75 Red Alerts for GI findings, 21% of which for benign polyps.
Conclusion: Almost half of cases can come off 2WW pathway on the report day, but they spent 3 more weeks on it, inevitably breaching the faster diagnosis standard. Clearly GI findings prolong the time on a pathway that is dedicated to rule out colorectal cancer, but extra-GI findings also extend this with no significant difference. The majority of Red Alerts highlight non-GI abnormalities and even benign GI lesions, competing for clinicians' attention. This calls for a more efficient and streamlined system (e.g. redevised report proformas, standardised alerts) to meet the national targets to diagnosis.
Disclosure of Interest: None declared.

P520 | Appendicitis as a manifestation of colon cancer in >40 year olds: Is routine imaging necessary?

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Aim: Appendicitis secondary to caecal/ right sided colonic malignancy or polyp is a well-known presentation in elderly age group/ population. Previous literature has recommended consideration of follow up colonoscopies or CT colon post appendicectomy. This study aims to compare and evaluate the incidence of right sided bowel cancers post appendicitis in a local district general hospital.
Method: We performed a retrospective cohort study of patients undergoing appendectomies between 2011–2017. Data analysis included MDT outcomes, pre and post operative CT scans, histology, biopsy and colonoscopy results. All cases were followed up until 2020. As part of the inclusion criteria, only acute appendicitis cases and patients >40 years old at time of operation were considered. Patients with non-acute appendicectomies, previous diagnosis of bowel cancers and no appendiceal histology data were excluded.
Results: 498 patients with histologically confirmed appendicitis were identified (males = 252, females 246). The median age was 51. 107 (21%) patients underwent further colonoscopies while 7 (1.5%) had CT colon scans. Of these, 27 (24%) had polyps while 1 (0.89%) had colorectal malignancy (Positive predictor value = 100%). Total right sided colonic malignancy incidence was found to be 0.40%
Conclusion: Colonoscopy or CT colon imaging are valuable tools in identifying malignancy in >40 year old patients with appendicitis. However data also suggests limited value in routine image screening. Other factors must be considered when considering further investigation for bowel cancer.
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Disclosure of Interest: None declared.

P521 | A novel scoring system for complex anal fistula: A single tertiary centre experience in collagen fistula plugs

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Aim: To implement a novel MRI based scoring system for complex anal fistulae in patients treated with collagen fistula plugs (CFP).

Method: All the patients who underwent anal fistula (AF) surgery between 2003 to 2021 were identified from a prospectively maintained database. The AF scoring system, designed through a multidisciplinary committee, was used to determine the complexity of each fistula.

SCORING:

Fistula Type

Subcutaneous = 1 Intersphincteric = 2 Transphincteric = 3

Sphincter Involvement

</= 50%(low) = 1 >50% (high) = 3

Number of tracks

one track = 0 two tracks = 2 three or more tracks = 4

Supralevator Extension

NO = 0 Yes = 4

Horseshoe extension extent (clockface)

None =0 <2 hours =2 2–4 hours =4 >4 hours =6

(Maximum score = 20)

Results: A total of 117 patients underwent CFP surgery during this period. We managed to retrieve data for 86% of these patients (101/117); 45 male, 56 female. Cryptoglandular disease was the underlying cause in 85% patients, IBD 10%, obstetric injuries 4%, and unknown in 3%.

Pre-operative anal fistula complexity was successfully assessed using our novel fistula scoring system for 99% (100/101) patients. 67% had MRI (68/101), 28% had EUAS (28/101).

The mean pre-op AF score of was 6.93(± 2.7) for patients whose fistulas healed, and 6.9 (± 2.9) in the non-healing group (p-value = 0.97). Interestingly, the mean AF scores improved by 0.64 (± 2.4), following failed AF plug surgery, p-value = 0.016.

In total, 61% (62/101) of patients in this cohort were cured. However, only 39% (39/101) of the AF in these patients healed as a result of CFP surgery. Of these, 31% (31/101) healed after the first plug operation, 22% (7/32) with the second and 8% (1/12) with subsequent plugs.

Conclusion: More than one third of patients with complex anal fistulae healed with CFP surgery, 98% of these required one or two fistula plugs only. Failed surgery using CFP also helped simplify the AF tracks, as shown by improvement in fistula scores.

Disclosure of Interest: None declared.

P522 | Videolaparoscopic surgical operations for colon cancer complicated by acute obstruction

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Aim: To study the possibilities of using video laparoscopic technologies in the treatment of colon cancer complicated by acute obstruction.

Method: The study included the results of treatment of 167 patients with colon cancer complicated by acute obstruction.

Results: Stage I of acute obstruction was detected in 54(32,3%) patients, stage II in 62 (37,1%) patients, and stage III in 51 (30,6%) patients. Patients with stage I of obstruction were operated for 8–12 days after correction of metabolic and cardiovascular disorders. Endoscopic recanalization of the tumor channel was performed in 9 (14,5 %) patients with stage II and 8 (15,7%) patients with stage III. The rest of the patients with II and III stage of the intestinal obstruction in the first stage was performed proximal stoma discharge through a mini access. Right-sided hemicolectomies with laparoscopic access were performed in 11 (6,6%) patients. Typical video laparoscopic approaches and technologies were used in 6 patients. In 5 patients with ileostomy was used in the original technology. An attempt to perform left-sided hemicolectomies with laparoscopic access was initiated in 74 (44,3%) patients. In 5 (3,0%) patients, due to technical difficulties, surgical interventions were continued in an open manner. The remaining 69 (41,3%) patients completed laparoscopic access. After laparoscopic operations, 2 (2,5%) patients died in the postoperative period, and inflammatory complications were detected in 7 (8,8%) patients.

Conclusion: Performing a predicted conservative or minimally invasive surgical decompression allows you to resolve the obstruction, correct cardiovascular and metabolic disorders, that is, create conditions similar to the planned ones. Applying stomas via mini-access, including using original methods for planned right-sided hemicolectomies, allows you not to change the typical location of the ports, as well as the technique of performing laparoscopic interventions, except for the original methods.

Reference: Totikov ZV, Totikov VZ. The possibilities to improve the outcomes in patients with colon cancer complicated by acute obstruction. Hirurgiya. Zhurnal im. N.I. Pirogova. 2017;№3:17–23. (In Russ.). doi: 10.17116/hirurgia2017317–23.

Disclosure of Interest: None declared.

P523 | Individualization of the choice of decompression stomas and the places of their formation in patients with colorectal cancer complicated by acute obstruction

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Aim: to reduce the number of early postoperative inflammatory complications and deaths in patients with colon cancer complicated by acute obstruction by individualizing indications for choosing the type of decompression stomas, their location, as well as improving existing methods.

Method: The article presents the results of application in 259 patients with colon cancer complicated by acute obstruction of various decompression stomas. The main group included 183 patients in whom a new individualized approach and methods of treatment were used when choosing the type of stoma. The second, control

group, included 76 patients who had unloading stomas placed without taking into account the localization of the tumor, anthropometric and topographic anatomical features, as well as the degree and type of obesity.

Results: As the results of the study showed, after the imposition of double-barreled unloading transversostomas through the mini-access significantly less often than with the imposition of ileostomas, inflammatory complications, lethal outcomes develop, less often the probability of refusal to perform them.

Conclusion: The choice of the type of ileostomy, as well as the transverse one, should be individualized taking into account the anthropometric, anatomical and topographic features of the abdominal wall and intestines, the degree of thickness of the anterior abdominal wall and the type of obesity, and using new methods and technologies developed in the clinic.

Reference: Totikov ZV, Totikov VZ. The possibilities to improve the outcomes in patients with colon cancer complicated by acute obstruction. Hirurgiya. Zhurnal im. N.I. Pirogova. 2017;№3:17–23. (In Russ.). doi: 10.17116/hirurgia2017317-23.

Disclosure of Interest: None declared.

P524 | The anastomosis formation after low anterior resections

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Aim: To develop a method that allows, without increasing the length of the operation, number of postoperative complications, to reduce material costs in the formation of low colorectal anastomoses.

Method: The study included 178 patients, while in 91 (51.1%) patients, who made up the main group, the method of anastomosis formation developed in the clinic was used. In 87 (48.9%) patients included in the control group, low colorectal anastomoses were applied using circular staplers.

Results: There were no statistically significant differences, so in the main group it was 198.4±43.8 minutes, in the control group - 183.7±51.5 minutes. There were no postoperative deaths in the two comparison groups. Anastomotic leak was noted in the main group in 6 (6.4%) patients, and in the control group in 7 (8.0%) patients. In the long-term period, anastomotic stricture was diagnosed in both groups, while in the main group in 3 (3.3%) patients, and in the control group in 6 (6.9%) patients.

Conclusion: Comparison of the proposed method of forming rectal anastomoses with circular staplers did not reveal a statistically significant increase in the duration of the operation, an increase in the frequency of anastomotic leaks and strictures, with significantly lower material costs for treatment, which allows us to consider the developed method as an alternative to stapler anastomoses.

Reference: Chaouch M.A., Kellil T, Jeddi C, Saidani A, Chebbi F, Zouari K. Howto Prevent Anastomotic Leak in Colorectal Surgery? A SystematicReview. Ann Coloproctol. 2020 Aug;36(4):213–222. https://doi.org/10.3393/ac.2020.05.14.2. Epub 2020 Aug 31.

Disclosure of Interest: None declared.

P525 | Circulating tumor DNA in stage II and III colorectal cancer patients: Quantative and qualitative characteristics

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Aim: We aimed to assess incidence, quantative characteristics and prognostic value of circulating tumor DNA (ctDNA) in stage II and III colorectal cancer (CRC) patients.

Method: Blood plasma specimens (1–2 mL) were obtained from 54 patients with stage II and III colorectal cancer prior to surgery. KRAS exon 2 somatic mutation or BRAF V600E activation mutation were present in all included patients. QIAamp MinElute cfDNA Mini Kit (Qiagen) panel was used to isolate ctDNA. KRAS screen ddPCR и BRAF V600E ddPCR (Bio-Rad) panels were used to detect KRAS/BRAF mutations in accordance with manufacturer's instructions. Circulating tumor DNA detection incidence in stage II and III colorectal cancer patients was analyzed. Comparative analysis of specimens obtained from stage III CRC patients with progression vs. progression free patients was performed.

Results: Mean DNA concentration in specimens was estimated to be 0,4 ng/mcL. With KRAS/BRAF minor allele frequency (MAF) threshold of 1%, ctDNA was detected in 21 patients (38,9%). Circulating tumor DNA was detected in 23,1% (6/26) of patients with stage II CRC and in 53,5% (15/28) of patients in stage III CRC ($p = 0.03$), with mean mutant allele frequency of 0,41 copies/mcL vs. 2,12 copies/mcL, respectively ($p < 0.05$). Disease progression was diagnosed in 9 patients with stage III CRC. Following KRAS/BRAF minor allele frequency (MAF) threshold increase to 2,5%, ctDNA was detected in 55,6% of patients (5/9) with disease progression vs. 26,3% (5/19) of progression free patients ($p = 0.14$).

Conclusion: ctDNA levels and detection incidence were significantly higher in stage III vs. stage II CRC patients. Thus, ctDNA could possibly be used to assess as a prognostic factor of disease extent and stage. Despite of higher ctDNA detection rates in stage III patients with disease progression in comparison with progression free patients differences were statistically insignificant, which could be because of insufficient sample size.

Disclosure of Interest: None declared.

P526 | Impact of age and comorbidities on short- and long-term outcomes of patients undergoing surgery for colorectal cancer

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Aim: Although curative surgery is the treatment of choice for resectable colorectal cancer (CRC), it is still debated whether elderly and frail patients should be submitted to major cancer surgery due to the increased risk of post-operative and long-term mortality. The aim of this retrospective study was to evaluate the impact of age and comorbidities on short- and long-term outcomes.

Method: All patients operated on for stage I-IV CRC (n = 1511) at our institution between January 2005 and June 2021 were analyzed. Patients were divided into 5 age categories (≤65, 66–75, 76–80, 81–85, >85 years). The independent effect of age and comorbidities on post-operative complications was assessed by a logistic model, while the effect on overall survival (OS) and cancer-related survival (CRS) was estimated by a Cox regression model.

Results: Median age in the cohort was 67.8 years. Post-operative mortality was <1% (13/1511) in the whole cohort and confined to patients with complications or older than 65 years. Cumulative incidence of post-operative complications was doubled in patients with comorbidities (32.1% vs. 15.7%, p = 0.002). With regards to OS, as expected, it exponentially decreased with advancing age. Conversely, CRS was almost similar in the different age groups, despite a higher mortality in in the first two years after surgery in patients aged 76 years and above. In multivariable analysis, the Hazard Ratio of OS and CRS was significantly higher in patients aged 80 years and above.

Conclusion: Although acceptable results of surgery in elderly patients, OS is strongly dependent on age. Decision of treating elderly patients with CRC should not be based just on chronological age, but it should take into account general performance status, frailty, and preoperative independence. The identification of clinical and pathological characteristics that may influence overall mortality in the first years after colorectal surgery may prompt adequate tailored treatment.

Disclosure of Interest: None declared.

P527 | Autologous adipose-derived stromal cells and autologous platelet concentrates for the treatment of complex perianal fistulas

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Aim: Complex perianal fistulas represent a major challenge for modern surgery since their treatment cause 10–35% of functional problems. Sphincter-saving techniques have a wide range of efficacy (10–80%). We hypothesised that autologous adipose derived stromal cells plus platelet rich plasma can offer a new strategy with enhanced cure rates and function preservation.

Method: Adult patients with complex cryptoglandular perianal fistulas were treated with injection of autologous adipose derived stromal cells plus platelet rich plasma around and inside the fistulous tract. Fistulas were confirmed by magnetic resonance. Patients completed the SF-36 score on quality of life and the Wexner and Vaizey scores on faecal incontinence and were functionally studied using a 3D-anorectal manometry. The clinical and functional follow-up was performed at 1 year and 2 years after surgery.

Results: Nine patients with high trans-sphincteric or horseshoe fistulas were treated. The average number of previous surgeries per patients being 4.8. At 1 year follow-up, 77.7% of patients were confirmed to be cured, while at two years we found one additional relapse. The variation in SF-36 score in cured patients was weakly significant (p = 0.0936). No statistically significant changes in continence were present.

Conclusion: The proposed treatment offers a therapeutic option that ensures the integrity of the sphincters and function avoiding repeated treatments as well as post-operative incontinence.

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Disclosure of Interest: None declared.

P528 | Missed tumor on ct scan in a patient with synchronous colorectal cancer – case report and review

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Aim: Synchronous colorectal cancer (CRC) represents a matter of debate among surgeons. It occurs in 4–8 % of all CRC. It is more common in right colon when compared to solitary CRC. The number of synchronous tumors varies from 2 to 6–7.
Method: We report the case of a 69 years old patient, having a medical history of hypertension, myocardial infarction, who presented in emergency with a clinical picture of bowel obstruction. Computed tomography revealed dilated bowel with an obstructive proximal rectal tumor associated with a sigmoid tumor. We performed colonic resection and colostomy. Observation of the specimen discovered a third tumor between the rectal and sigmoid tumor, which the CT scan missed. We continued exploration of the remaining colon with no tumor presence.
Results: Patient had good postoperative outcome and was discharged 5th day after surgery. Pathology showed 3 high-grade colorectal adenocarcinomas having the same pattern and microsatellite instability. 1-year prognosis was good.
Conclusion: Synchronous CRC has modified management compared to solitary CRC. The case presented is a rare case of 3 synchronous CRC in a patient with no previous abdominal surgery. We emphasize the imperious exploration of the entire colon when regarding multiple colorectal tumors on CT scan, even in emergency scenario. Also, the examination of specimen has its advantages, given the difficulties of performing an intraoperative colonoscopy in bowel obstruction. Extensive surgery has poor outcome hence we prefer 2-stage surgery. Given the situation of left colon multiple synchronous tumors, we opted for Hartmann procedure due to condition of the patient.

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Disclosure of Interest: None declared.

P529 | Do oral antibiotics associated with mechanical bowel preparation reduce anastomotic leakage in colorectal surgery?

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Aim: Anastomosis leak still being a handicap in colorectal surgery. Bowel mechanical preparation and oral antibiotics are not a practice recommended in many clinical practice guides. The aim is to analyse the decrease in frequency and severity of postoperative complications, mainly related to anastomotic leak, after the establishment of a bundle.
Method: Single-center, before-after study. Postoperative complications and the usefulness of inflammatory markers were initially monitored in a group of patients after colorectal surgery. Subsequently a bundle was implemented to reduce anastomotic leaks and their consequences. A total of 234 patients divided in 2 groups, prebundle and bundle, were compare in postoperative outcomes. A bundle was applied to the study group, which included mechanical bowel preparation, oral and intravenous antibiotics, inflammatory markers measure and early diagnosis algorithm.
Results: The bundle group shown fewer complications, especially in Clavien Dindo´s Grade IV complications (2.7% vs. 6.3% $p < 0.05$), as well as a lower rate of anastomotic leakage (14.7% vs. 2.2% $p < 0.05$). A significant decrease in reinterventions, less intensive unit care admissions, a shorter hospital stay and fewer readmissions were also observed. In multivariate analysis, the application of a bundle was an anastomotic leakage protective factor (OR 0.144, p>0.05).
Conclusion: The implementation of our bundle in colorectal surgery which include oral antibiotics, mechanical bowel preparation and inflammatory markers, significantly reduces morbidity adjusted to severity of complications, the anastomotic leakage rate, hospital stay and readmissions.

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P530 | Accuracy of endoanal ultrasound in diagnosis and classification of perianal fistula

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Aim: Perianal fistulous disease is a frequent pathology in our practice, making up one of the main indications for coloproctological surgery. Depending on several factors, simple or complex fistulas can be distinguished. It is important to have diagnostic tests that accurately classify the pathology, since the preparation of patients prior to surgery varies, as does the type of surgical procedure performed. Currently, the most valid and used test is magnetic resonance imaging (MRI), with a high concordance rate with intraoperative findings, but given its high cost and low availability, it is necessary to evaluate another available test, such as endoanal ultrasound.
Method: To evaluate the accuracy of endoanal ultrasound as a diagnostic and classificatory test for perianal fistulous disease.
Results: Retrospective study of patients diagnosed of perianal fistulous disease by endoanal ultrasonography, through 2018 and 2019 of. Ultrasound findings were classified into simple or complex fistula and the reports were compared with the intraoperative findings, considered the gold standard. For the diagnosis of complex fistulous disease, endoanal ultrasound showed sensitivity, specificity, positive and negative predictive values and positive and negative likelihood ratio of 88,2%, 73%, 76,2%, 86,3%, 3,26 and 0,16 respectively.
Conclusion: Endoanal ultrasound is a highly valid and reliable diagnostic test for the distinction of complex fistulous pathology, so it could be used for the diagnosis and classification of perianal fistulas and, therefore, to replace the study by MRI (magnetic resonance image).
Disclosure of Interest: None declared.

P531 | Feasibility of the introduction of transperineal dynamic ultrasound in coloproctology office

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Aim: Pathology related to the pelvic floor is increasingly present in coloproctology clinic. Videodefecography is the classic study with provides images of the posterior compartment, but exposes it to radiation and the rest of the compartment are not assessed. MRI (magnetic resonance imaging) avoids these drawbacks, but it is not readily available. Dynamic ultrasound, although it is operator dependent, is easy to use, radiation-free, and capable of studying all three compartments.
Method: To evaluate the feasibility of introducing dynamic ultrasound and transperineal echodefecography in the study of the pelvic floor in our area. As variables we have included: sex, age, obstetric history, anal surgery, urinary incontinence, symptoms, test length, ultrasound diagnosis and treatment.
Results: All data were retrospectively compiled from patients with obstructive defecation syndrome who underwent dynamic ultrasound and echodefecography as a complementary test from January to June 2021. 24 patients have been included, most of them women with a mean age of 51 years. Ultrasound was completed in all patients, with a mean completion time of 14 minutes (10–21). Rectocele, cystocele and anismus were the most frequent diagnosis, especially the combination of some.
Conclusion: Dynamic ultrasound and echodefecography is a feasible and safe technique, capable of diagnosing problems of the three compartments of the pelvic floor, and thus being able to have a global vision to offer the most complete treatment.
Disclosure of Interest: None declared.

P532 | Accuracy of MRI preoperative staging and pathologic correlation in rectal cancer

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Aim: Due to the different management options for rectal cancer, such as neoadyuvant treatment, local resections and, lastly, organ-preserving, magnetic resonance imaging (MRI) has become crucial in the treatment of these patients. An accurate radiological diagnosis permits an adequate treatment, so knowing the accuracy for MRI in our centre is essential. Because preoperative radiotherapy and chemotherapy could change the tumour stage, analysing patients

operated on without neoadyuvance is the only way to obtain reliable information.

Method: To evaluate the accuracy of MRI in the preoperative identification of T and N stages, as well as MRF invasion in patients operated for rectal cancer without neoadjuvant treatment and compare ours results with the literature.

Results: All data were retrospectively compiled from patients operated on for rectal cancer between January 2017 and November 2021 who were not entitled to neoadyuvant treatment. Data were collected from preoperative MRI reports and compared with data from the pathology reports after surgery. For stages T and N analysis, just as MRF invasion, patients were divided in certain groups: T0-2 y T3-4; N+ y N-; just as, clear and afected MRF, respectively.

Conclusion: Preoperative MRI is an accurate test for MRF invasion, especially predicting the absence of disease. The diagnosing of stage T and N is relatively precise. The accurancy in our centre is similar to the previously published.

Disclosure of Interest: None declared.

P533 | Fluorescence guided colorectal surgery: A systematic review of methodology, governance and outcomes

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Aim: Fluorescence-guided precision cancer surgery may improve survival and minimize patient morbidity. Efficient development of promising interventions is however hindered by a lack of common methodology. This review aims to synthesize methodology and outcome reporting in studies of fluorescence-guided colorectal cancer surgery to provide guidance for the harmonized design of future studies.

Method: A systematic search of MEDLINE, EMBASE and CENTRAL databases from 2016-2020 identified studies of all designs describing the use of fluorescence in colorectal cancer surgery. Dual screening and data extraction was conducted by two independent teams. Reporting of details of the fluorescence-guided interventions (purpose, fluorescence administration, data capture, quantitative analysis), quality assurance (surgeon proficiency) and outcome measurement were extracted.

Results: Of 13,108 screened articles, 75 were included reporting data from 8821 patients across 14 countries. Most were single centre (49, 65%), descriptive studies (50, 67%), with a median sample size of 46 (range 1-1079). Studies investigating laparoscopic or robotic techniques (70, 93%) for mixed colonic and rectal (34, 45%) resections were most common. Fluorescence was used for anastomotic vascularity assessment (29, 39%), lymph node mapping (18, 24%) and tumour identification (15, 20%). There was evidence of variation in the frequency of fluorescence administration and assessment, with infrequent reporting of the visual display used (5, 7%), storage of visual data (10, 13%) and quantitative analysis (8, 11%). Only 1 study reported surgeon proficiency. Of the 452 outcomes reported, most studies included fluorescence specific outcomes such as tumour detection (62, 83%) and adverse events (49, 65%), but few reported the patient's experience (1, 1%).

Conclusion: There was evidence of methodological heterogeneity that may hinder efficient evaluation of fluorescence surgery. Harmonisation the design of future studies may streamline innovation.

Disclosure of Interest: None declared.

P534 | Intra-operative radiotherapy and cytoreductive surgery with hyperthermic intraperitoneal chemotherapy: A safe and effective treatment option in patients with locally advanced rectal cancer and peritoneal metastases

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Aim: Peritoneal metastases (PM) from locally advanced rectal cancer (LARC) are rare and often regarded as incurable. However, by combining two intensive treatment modalities, intra-operative radiotherapy (IORT), and cytoreductive surgery and hyperthermic intraperitoneal chemotherapy (CRS-HIPEC), a potentially curative treatment can be offered. This study aimed to assess the safety and survival of this combined treatment for LARC patients with PM.

Method: Data from a Dutch tertiary referral centre for IORT and CRS-HIPEC were used. All patients who underwent IORT and a complete CRS-HIPEC procedure as treatment for LARC with PM, between January 1st 2007 and January 1st 2022, were included. Patients were included in the safety analyses if they underwent both procedures simultaneously or in two sessions within one week. The occurrence of severe postoperative complications (Clavien-Dindo grade ≥3, within 90 days after CRS-HIPEC) was graded. Patients that were alive ≥90 days after undergoing CRS-HIPEC, were included in the survival analyses. Disease free survival (DFS) was defined as time since the CRS-HIPEC procedure until first evidence of disease recurrence. Overall survival (OS) was defined as survival since the CRS-HIPEC procedure.

Results: In total, 30 patients were included in the safety analyses and 25 patients in the survival analyses. Severe postoperative complications were observed in 57% of patients. No postoperative mortality was observed. Median DFS was 10.0 months (IQR 7.1–38.7) and median OS was 31.0 months (IQR 15.9–81.3).

Conclusion: The number of postoperative complications observed in this study is comparable to that of extensive rectal surgery, but no postoperative mortality occurred. OS is comparable to that of patients undergoing CRS-HIPEC for colorectal PM. Thus, with accurate patient selection, the combination of IORT and CRS-HIPEC seems safe and may provide a prolonged survival and may thus be considered as treatment for patients with LARC and PM.

Disclosure of Interest: None declared.

P535 | Functional outcome after hartmann's reversal surgery using LARS, COREFO & QOL scores

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Aim: Functional complaints after colorectal surgery have a profound effect on quality of life. Most studies focus on the effects of low colorectal cancer resections and the prevalence of Low Anterior Resection Syndrome. There has been no study to date investigating the effects of Hartmann's reversal surgery after sigmoid resection on functional complaints. Our goal is to investigate the prevalence of functional complaints and related quality of life after Hartmann's reversal surgery.
Method: A cross-sectional study was performed where one hundred nine teen patients were included in 4 groups depending on date of stoma reversal surgery. All patients underwent a Hartmann's reversal procedure between 2007 and 2019. All patients were asked to complete 3 validated questionnaires related to bowel function in benign as well as colorectal cancer surgery and Quality of Life (Low Anterior Resection Syndrome Score, Colorectal Functional Outcome and EORTC-QLQ C30).
Results: The questionnaire response rate was 67%. Among the responders, 32.8% reported LARS like symptoms (17.2% Major LARS) whereas 25% had a significant COREFO Score (>15). Higher LARS and COREFO scores were significantly associated with worse global quality of life and several QoL domain scores ($p < 0.05$). There was no significant difference in prevalence of functional complaints (LARS, COREFO) nor global quality of life over time ($p > 0.05$), indicating definitive results. Univariate analysis showed no relation between variables and functional complaints.
Conclusion: This study highlights the prevalence of bowel dysfunction after Hartmann's reversal surgery. Patients undergoing this procedure show more functional complaints compared to those in literature whom had colon cancer resection without diverting colostomy. Even 10 years after the initial surgery these functional complaints still have a profound effect on QOL and its specific domains. This information can contribute to shared decision making on performing Hartmann's reversal procedure or not.
Disclosure of Interest: None declared.

P536 | Bladder preservation or complete cystectomy during pelvic exenteration of patients with locally advanced or recurrent rectal cancer, what should we do?

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Aim: In patients with locally (LARC) or recurrent (LRRC) rectal cancer and bladder involvement pelvic exenteration (PE) with either partial (PC) or radical (RC) cystectomy can offer curation if a R0 resection is achieved. Where PC possibly provides less post-operative morbidity, surgical margins and thus oncological outcome, might be compromised. The purpose of this study was to compare PE patients who underwent PC versus RC in our institution in terms of oncological outcome and post-operative complications.
Method: This is a retrospective cohort study of patients who underwent PE at Royal Prince Alfred Hospital (July 1998 – June 2021) for LARC or LRRC cancer with bladder involvement. Patients were divided into two groups: PC and RC. Study outcomes of interest were percentage of R0 resection, overall survival and post-operative complications.
Results: 60 patients with PC and 269 with RC were included. Overall R0 resection was achieved in 84.3% of patients. However, patients with LRRC and PC had poorest oncological outcome with 69% R0 resection, while patients with LARC and PC demonstrated highest R0 rate of 96.3% ($p = 0.008$). 10 patients in PC group had a positive margin; in 3/10 patients this was at the bladder or ureteric margin. Overall, 1-, 3- and 5-year OS were 90.8%, 68.1% and 58.6% in the PC group, and 88.7%, 62.2% and 49.5% in the RC group. Rates of urinary sepsis or urological leaks did not differ between groups, however, RC patients experienced significantly higher rates of perineal wound and flap related complications (39.8% vs. 25.0%, $p = 0.032$).
Conclusion: Partial cystectomy as part of PE can be performed safely with good oncological outcome in patients with LARC. In patients with LRRC and a partial cystectomy, radicality results are poor and consideration of a more aggressive surgical approach with en-bloc radical cystectomy seems justified. Urological complications are comparable between both techniques, however, wound related complications can be reduced by performing a partial cystectomy.
Disclosure of Interest: None declared.

P537 | Comparison in quality of life following partial cystectomy versus radical cystectomy as part of pelvic exenteration

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Aim: Bladder involvement in advanced or recurrent pelvic disease can be managed by partial (PC) or radical (RC) cystectomy as part of pelvic exenteration (PE). Patients with RC are typically burdened with a urostomy and colostomy, patients with PC may suffer from voiding dysfunction requiring self-catheterization or suprapubic catheter. The aim of this study was to compare peri-operative morbidity and quality of life (QoL) outcomes between patients with PC and RC as part of PE.
Method: All patients with PE and bladder involvement between 2008–2021were identified from a prospectively kept database. Study outcomes were morbidity and quality of life (QoL). QoL was assessed at baseline, 6, 12, 18, and 24 months. Both physical and mental health components were measured using Short Form 36

(SF36) and Functional Assessment of Cancer Therapy-Colorectal (FACT-C) questionnaires. Distress was measured using the Distress thermometer.

Results: 57 PC patients and 297 RC patients were included. Urological complications were similar between both groups, but the PC group experienced less wound related complications. Response rate at baseline, 6 and 24 months was 91%, 56% and 28%. In both groups SF36 physical health scores were similar at baseline (PC 41, RC 40) and 24 months (PC 42, RC 40), while mental health SF36 scores improved following surgery (p = 0.008 in PC patients, p = 0.001 in RC patients). Similarly, patients demonstrated significant improvement following surgery using FACT-C questionnaire (p = 0.043 in PC patients, p = 0.001 in RC patients). Distress thermometer scores, measuring psychological distress, also improved following surgery in both cohorts (Baseline to 24 months: 4.6 to 2.6 in PC patients, p = 0.025; 4.7 to 2.8 in RC patients, p < 0.0001).

Conclusion: Patients demonstrate similar QoL outcomes after PC or RC as part of a pelvic exenteration. Patients in both cohorts described significantly improved mental health and physical wellbeing postoperatively compared to baseline up to a period of 24 months.

Disclosure of Interest: None declared.

P538 | Tools for quality assessment of technical skill in laparoscopic surgery; A systematic review

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Aim: The quality of surgery has substantial impact on both short term and long term patients' outcomes. However, this quality is currently not objectively measured in clinical practice. There is a growing interest in objective assessment of surgery and for laparoscopic surgery many different video based assessment tools have been developed. We aim to provide an overview of the available video based objective surgical quality assessment tools and their validation results and give a recommendation for the best way to objectively assess surgery.

Method: PubMed, EMBASE and MEDLINE were systematically searched by two reviewers to identify all studies focusing on video based quality assessment tools of technical skill in laparoscopic surgery performed in living patients. The validity evidence was assessed by using a validation scoring system.

Results: 45 studies with a total of 30 video based quality assessment tools were identified used in 19 different procedures. These tools can be separated in 4 categories: global rating scales, procedure specific tools, error based rating scales and artificial intelligence. The studies have validated their tools using either clinical patient outcomes, experience of surgeons, comparison with another tool or expert opinions. Both global rating scales and procedure specific tools showed correlation of surgeon performance and improved patient outcomes.

Conclusion: This systematic review shows a total of 30 different quality assessment tools for surgical technical skills used in laparoscopic surgery and their different validation methods. Well validated surgical quality tools seem to be a feasible method to objectively assess technical skill of a surgeon and may improve patient outcomes. Global rating scales, like OSATS, combined with a procedure specific assessment tool appear to have the greatest potential to use in education, research and future certification.

Disclosure of Interest: None declared.

P539 | The long-term locoregional recurrence rate of transanal total mesorectal excision in rectal cancer patients: A systematic review

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Aim: Transanal total mesorectal excision (TaTME) gained interest during the last few years but its oncological results have been questioned recently. The aim of this study was to investigate the long term locoregional recurrence rate of rectal cancer patients undergoing TaTME surgery.

Method: The systematic review was registered in PROSPERO and included literature searches in PubMed, Embase, Google Scholar and Cochrane. Minimum median follow-up was set at 1 year. For each included study, patient and operation data, histological and oncological outcomes, including locoregional recurrence rate and management were recorded. Data extraction, quality (GRADE) and risk of bias (ROBINS-I) assessment were performed by two independent reviewers.

Results: 1947 records were identified and a total of 62 articles and conference abstracts describing the outcomes of 10,960 patients were included. Mean follow-up was 29 months (range 12–66). 65.5% of 10,151 patients received neo-adjuvant therapy. Overall mean local recurrence rate was 4.4% (range 0–10%). Ten articles compared TaTME patient cohorts with LapTME cohorts, with a mean locoregional recurrence rate of 4.4% in the TaTME subgroup and 6.2% (0–12.1) in the LapTME studies (OR 0.648; 95% CI 0.408–1.030). 105 patients were identified and for 68 treatment of the locoregional recurrence was reported: salvage surgery (n = 37), chemoradiotherapy (4), radiotherapy (n = 6), chemotherapy (n = 6) or palliative/no treatment (n = 15). Study quality was very low (n = 53), low (n = 7), moderate (n = 1) or quality could not be assessed (n = 1). Risk of bias was low (n = 6), moderate (n = 16), serious (n = 34) or there was insufficient information to assess risk of bias.

Conclusion: The locoregional recurrence rate after TaTME, mostly from high-volume centres, appears acceptable. Clinical outcomes of patients with local recurrences, however, are worrisome.

Disclosure of Interest: None declared.

P540 | Female quality of life after pelvic exenteration for locally advanced and recurrent colorectal cancer: A systematic review

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Aim: Pelvic exenteration offers potential cure for patients with locally advanced or recurrent colorectal cancer. This radical surgery impacts on patients' quality of life (QOL) and some studies suggest gender-based differences may exist. The aim of this systematic review was to evaluate QOL for females and males.

Method: A systematic search was performed in 4 databasesy. Studies reporting on baseline and postoperative QOL of ≥ 10 women undergoing pelvic exenteration for locally advanced or recurrent colorectal cancer (for ≥85% of the study population) from 2000 onwards, with a min. follow-up of 1 year were considered eligible. Two independent reviewers performed study selection, data extraction, quality assessment (GRADE) and risk of bias assessment (ROBINS-I).

Results: Of 861 records, 5 observational studies with 468 pelvic exenteration patients (183 women, 285 men) were included. Studies used validated questionnaires (AQoL, SF6D, FACT-C, SF-36v2, QLQ-C30, QLQ-CR38, SF-36). Scores generally decreased from baseline after surgery, and recovered by 6–12 months. Patients with higher baseline AQoL scores, no bony resection and with R0/R1 resections were likely to report higher QOL scores. An Italian study found no differences by gender (p = 0.54). An Australian study reported higher QOL at 12m in men (reduced adjusted p = 0.012). Another Australian study showed a higher complication rate for women compared to men (p = 0.006), with a borderline statistically significant difference for the FACT-C at 12m in favour of women (p = 0.058). A British study using the QLQ-C30 found no significant differences (p = 0.219) between men and women. Study quality was low-very low and all contained a serious risk of bias.

Conclusion: QOL scores drop after surgery, to restore to baseline values during follow-up. Predictors of QOL are important for shared decision making, but gender may not be a significant risk factor. Included studies used different questionnaires and failed to show consistent gender-based differences.

Disclosure of Interest: None declared.

P541 | Treatment of isolated colorectal metastases in para-aortic lymph nodes: A systematic review

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Aim: Para-aortic lymph node metastases (PALNM) are a risk factor for poor survival and occur in up to 2% of colorectal cancer (CRC) patients. Our aim was to investigate different treatment options.

Method: A systematic review was registered in PROSPERO (CRD42021270101). PubMed, Embase, Scopus and Web of Science were searched using librarian-developed strategies. Studies published between 2000–2021 including patients with isolated synchronous or metachronous CRC PALNM were considered eligible. Study selection, data extraction, assessment of quality (GRADE) and risk of bias (ROBINS-I) were conducted independently by two researchers.

Results: After evaluating 524 records, 39 articles with 1217 patients were included. Resection of PALNM (PALND) was performed in 838 patients with synchronous PALNM. Morbidity ranged between 7.8–31%, without increased morbidity due to PALNM. Five-year overall survival (OS) was 19.5–37% and 5-year disease-free survival (DFS) between 17.1–27.5%, with adjuvant chemotherapy administered in 47.3–96.3%. Recurrence rates varied between 56.3–74.1%. 33 patients underwent PALND specifically for metachronous PALNM. Median OS ranged between 34–77 months, with recurrence rates varying between 25–81.3%. 61 patients received radiotherapy for metachronous PALNM, with adjuvant chemotherapy administered in 61%. Median OS varied between 12–41.7 months, recurrence rates ranged between 29–71%. Eight articles discussed both synchronous and metachronous PALNM (n = 203). Five-year OS varied between 21.4–53.4%, while recurrence rates ranged from 31–82.1%.

Conclusion: PALND provides a survival benefit in selected patients with CRC metastases compared to data in literature with chemotherapy alone, even upon synchronous presentation. The additional morbidity of PALND compared to primary tumor resection alone is negligible.

Disclosure of Interest: None declared.

P542 | Oncological and functional outcomes after high or total sacrectomy: A systematic review

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Aim: (Colo)rectal cancer is the fourth most deadly cancer worldwide. In an advanced stage the tumour can come into direct contact or grow into the sacrum. Therefore, a sacrectomy can offer a curative solution. This procedure can cause serious consequences. The aim of this study was to investigate the oncological and functional outcomes after a high or low sacrectomy in patients with (colo)rectal cancer.

Method: A systematic review was performed according to the PRISMA and AMSTAR-2 guidelines. Several databases were used: Pubmed, Embase, Cochrane Library and Scopus. Articles were included and evaluated by two independent reviewers. Ultimately, 45 articles were included. GRADE and ROBINS-I were applied.

Results: 1631 patients were included of which 1076 were men and 489 were women. Medianfollow-up was 31,4 months. The 30-day hospital mortality was reported with a mean of 1,06% whereby the perioperative mortality rates after a high and low sacrectomy were respectively 0.44% and 0%. After an R0 resection, overall survival was achieved in 86.2%, 68% and 42,1% and disease-free survival in 75%, 51% and 43%, both after respectively 1, 3 and 5 year(s). 34% of the patients suffered from (chronic) pain or neuropathy. 96,8% were able to walk independently. However, the results suggested that more patients were dependent on walking assisting devices after performing a high versus after a low sacrectomy. Most reported bowel dysfunctions were fistula in 4,6%, bowel obstruction in 8,3% and small bowel obstruction in 14%. Bladder dysfunction was mainly reported as incontinence in 8,3% and neurogenic bladder in 23,3%. Sexual dysfunction was underreported.

Conclusion: The 30-day hospital mortality was limited. The results suggested that an R0 resection has a higher chance of survival than an R1 or R2 resection. Both short- and long-term functional outcomes had a major impact on the patient's quality of life.

Disclosure of Interest: None declared.

P543 | There is no difference in the oncological quality of complete mesocolic excision after laparoscopic versus open radical surgery for colonic tumors

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Aim: Complete mesocolic excision (CME) for colonic cancer has been advocated to improve the local control of the disease and increase the long-term survival. However, open CME is a complex technique while a laparoscopic CME (Lap-CME) is even more technically demanding. The purpose of this study is to evaluate if Lap-CME can be offered as a standard procedure for patients with colonic cancer and to compare the results with those obtained after a conventional approach.

Method: The study included 100 consecutive patients with colonic cancer operated by the same surgical team using a standardized medial-to-lateral open or laparoscopic complete mesocolic excision technique. Operations were performed between 2012 and 2020 in the 1st Surgical Clinic, Emergency County Hospital, Cluj-Napoca. The perioperative data was recorded in a database and analysed retrospectively using the Medcalc v.18.11.6 software.

Results: Most of the patients were in advanced stages of the disease, the incidence of pT3 tumors being 67% and the mean tumor size averaged 4.5cm. Laparoscopic CME was performed in 39% of cases, 41.4% being right colectomies, 42.5% left colectomies and 16.6% transverse colectomies, respectively. The only significant difference between the open and laparoscopic groups was the size of the tumor (5 cm open vs. 4 cm LAP, p = 0.005). All parameters relevant to the oncological quality of resection: total lymph node count, resection margins or completeness of resection were statistically similar between the two groups both when analysed on the entire cohort and when analyzed on specific subgroups according to tumor location(right, transverse and left colon respectively) or stage of the disease (pT3 and stage III respectively).

Conclusion: When performed on selected patients by experienced surgical teams, laparoscopic complete mesocolic excision for colonic cancer can be offered as a standard procedure and provides oncological results similar with those obtained in open surgery.

Disclosure of Interest: None declared.

P544 | Impact of the pandemic on the prognostic data of cancer of the colon-rectum

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Aim: The purpose of the present work is to evaluate how the prognosis of patients with colorectal cancer treated by the "UOC of General and Emergency Surgery" of the "AOU P. Giaccone of Palermo" changed during the pandemic from Sars-Cov-19, in consideration of the closure of the surgical and endoscopy clinics responsible for the screening of colorectal cancer and surgeries in election.

Method: Data has been collected from surgery records, histopathological reports and radiological examinations carried out before the surgeries according to two periods of reference: from the beginning of March 2019 to 8th March 2020 and in the pandemic period from 9 March 2020 to 9 March 2021. The data harvested was

then compared on the basis of the "staging of Dukes", modified according to the AIOM guidelines of 2020 and prognosis differences extrapolated.

Results: In the initial phase, a univariate analysis was carried out on the variable "age", the normality and homoschedasticità of the distribution has been verified and the "t of Student" applied. For category variables, such as sex and stage distribution between the two reference periods (Pre/Post Covid-19), the "exact Fisher test" was applied. Subsequently, a model of multivariate logistic regression was applied in order to verify the association between the two periods and a set of covariates: age, sex and stage of the tumor.

Conclusion: From the multiple logistic regression model, it is confirmed that while the patients' age and sex at the date of admission in the two periods of reference have not changed, on the other hand stage IV, in the post covid period, has significantly increased statistically with an OR = 5.08 IC 95% (1.61–18.34) and a value of $p > 0.01$.

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Disclosure of Interest: None declared.

P545 | Use of a 'rescue seton' in addition to a knot-free seton may prevent surgical reintervention after seton loss

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Aim: Loss of seton (LOS) occurs frequently in patients treated with a knot-free seton. Seton reinsertion after LOS is usually performed in the operating room (OR), necessitating daycare hospitalisation and locoregional or general anesthesia. An additonal seton made of a thin braided non-absorbable suture might enable seton reinsertion in an outpatient setting. Aim of the present study was to assess the usefulness of inserting an additional seton.

Method: Consecutive patients treated for complex perianal fistulas who underwent insertion of a knot-free seton at a single institution between January 2017 and December 2021 were included. Since 2020 a seton made of a thin braided non-absorbable suture was inserted in addition to a knot-free seton. Incidence of surgical reintervention, defined as reinsertion of a seton performed in the OR after LOS, was compared for knot-free setons with and without an additional seton.

Results: A total of 282 knot-free setons were placed in 184 patients. Of the 282 knot-free setons, 106 were placed with an additional seton. The incidence of LOS was 33% for knot-free setons without an additional seton and 24% for knot-free setons with an additional seton ($p = 0.10$). Forty-eight percent of all lost knot-free setons were reinserted ($p = 1.00$). Surgical reintervention was significantly lower for knot-free setons with an additional seton ($p < 0.01$).

Conclusion: This study confirms frequent LOS in patients with knot-free setons. Placement of an additional seton results in less surgical reinterventions.

Disclosure of Interest: None declared.

P546 | Implementation of a multimodal pre-rehabilitation programme in old patients undergoing colorrectal cancer surgery

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Aim: The aim of this this study is to analyze the results before and after the implementation of a multimodal pre-rehabilitation program in the elderly people undergoing colorectal cancer surgery.

Method: A retrospective review of patients over 80 years of age who underwent colorectal surgery between 2017–2019 and 2019–2021 was conducted.

Variables related to the patient themselves were analyzed: comorbidities, frailty, preoperative variables (nutritional, anemia, respiratory and motor optimization). The rate of postoperative complications, onset of transit and tolerance to diet and hospital stay were compared.

Results: We reviewed 51 patients in the first period and 45 in the second. Patients over 80 years of age account for 18% of the patients operated on. There were no statistically significant differences between the characteristics of both groups. In the second period, a greater optimization of anemia (p 0.373), nutritional, respiratory and motor situation ($p < 0.001$) was observed.

The time to intervention decreased from 42 to 25 days (p 0.09). Most of the interventions were performed laparoscopically (68% in the first group; 86.6% in the second).

The time of onset of intestinal transit decreased from 4.9 to 3.6 days (p 0.017) and dietary tolerance from 4.3 to 3 days (p 0.084). During the second period, the rate of anastomotic fistula decreased from 7.8% to 5%. The stay in the intensive care unit did not exceed 24 hours in either group and the hospital stay decreased from 8.15 to 5.69 days in a statistically significant way (p 0.013).

Conclusion: Society is increasing its hope and quality of life with a consequent increase in elderly patients undergoing surgical interventions. They are patients at greater risk of complications, due to the surgery itself and the decompensation of their diseases. Multimodal prehablitation contributes, along with other factors, to a better and earlier postoperative recovery.

Disclosure of Interest: None declared.

P547 | Cea dynamics in recurrent signet cell colorectal adenocarcinomas

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Aim: CEA is a biomarker used for diagnosis, treatment response and surveillance in colorectal cancer. The role of CEA in the surveillance of signet cell colorectal carcinoma is not well established. The aim was to study the CEA dynamics in recurrent cases of signet cell colorectal adenocarcinoma.

Method: A retrospective study of signet cell colorectal adenocarcinoma patients, treated with curative intent at presentation, was conducted. Baseline CEA level, recurrence, CEA level at recurrence and site of recurrence were studied. CEA secretory status transformation rate was studied at recurrence and correlated with site of recurrence.

Results: 747 signet cell colorectal adenocarcinoma patients who presented to our tertiary care centre from June 2011-October 2021 were screened. 337 patients treated with curative intent were studied. 263 patients who completed treatment were included in the final analysis. The median age was 36 years and 29.7% of the study population were women. The median baseline CEA was 3.35 ng/mL. 32.3% (85 out of 263) patients were secretors at baseline (CEA >5 ng/ml). 44.86% (118 out of 263) patients recurred during a median follow up of 21 months. CEA dynamics were studied and correlated with the site of recurrence. 94.3% of baseline secretors presented with elevated CEA at recurrence. 70.76% of baseline non-secretors transformed to secretors at the time of recurrence. An equal proportion of patients presented with CEA elevation irrespective of recurrence site.

Conclusion: CEA elevation occurs in a majority of recurrences, irrespective of baseline secretor status. Over a third of non-secretors present with elevated CEA at recurrence, which justifies the use of CEA in surveillance irrespective of baseline secretor status in signet cell colorectal cancer. Normal CEA at recurrence in baseline secretors has a high negative predictive value. CEA elevation is likely non-site specific.

Disclosure of Interest: None declared.

P548 | Ileoanal pouch cancers in ulcerative colitis and familial adenomatous polyposis: A systematic review and meta-analysis

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Aim: Restorative proctocolectomy results in the formation of a pouch that adapts to a more colonic phenotype. The incidence of cancer of the pouch is thought to be low with most societal guidelines differing on their recommendations for surveillance. We conducted a systematic review with meta-analysis to report the incidence of cancer in all pouch patients.

Method: The Embase, Embase classic and PubMed databases were searched between June 1979– June 2021. A random effects model was performed to find the pooled incidence of pouch cancer. In addition, we also looked for risk factors for pouch cancers.

Results: Forty-six studies were included. In 19,964 patients with Ulcerative Colitis (UC) the pooled incidence of pouch cancer was 0.0030 (95% CI: 0.0016–0.0055). In 3741 patients with Familial Adenomatous Polyposis (FAP) the pooled incidence of pouch cancer was 0.01 (95% CI: 0.01 – 0.02). In UC most pouch cancers were found to occur in the pouch body (0.59 (95% CI: 0.29–0.84)).

Conclusion: The findings suggest that the pooled incidence of pouch cancer in UC is similar to that which was previously published, and this is the first meta-analysis to report a pooled indicence for pouch cancer in FAP.

Disclosure of Interest: None declared.

P549 | Safe transition from laparoscopic right colectomy with extracorporeal anastomosis to robotic suprapubic right complete mesocolic excision with intracorporeal anastomosis for colon cancer

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Aim: The robotic platform can reduce technical difficulties associated with laparoscopic surgery for colon cancer. The aim of this study was firstly to determine the learning curve associated with transitioning from laparoscopic right colectomy with extracorporeal anastomosis (ECA) to robotic right colectomy with intracorporeal anastomosis (ICA), secondly to evaluate the safety of this transition,

and thirdly to perform a safety analysis of a stepwise implementation of robotic complete mesocolic excision (CME).

Method: A retrospective analysis of all laparoscopic (n = 38) and robotic (n = 133) right colectomies for (pre)malignant lesions performed between January 2014 and December 2020 was conducted. Cases were categorized into four groups: laparoscopic standard right colectomy with ECA, robotic standard right colectomy with ECA or ICA, robotic CME-D2 and robotic CME-D3. CUSUM-plot analysis of total procedure time was used for learning curve determination of standard robotic colectomies. Non-parametric tests were used for statistical analysis with statistical significance assumed at $p < 0.05$.

Results: Learning curve for robotic right colectomy was 43 cases. Compared to laparoscopy, learning phase robotic right colectomies had longer procedure times ($p < 0.001$) without any difference in anastomotic leakage rate, length of stay or 30-day morbidity. Conversion rate was significantly lower in the robotic group (p = 0.047). Procedure time of robotic CME (D2/D3) was longer than robotic standard right colectomy in the experienced phase ($p < 0.001$), without any difference in 30-day morbidity, 90-day mortality, conversion rate or anastomotic leakage rate. Lymph node yield was significantly higher in the CME-D3 group (p = 0.004).

Conclusion: Robotic right colectomy with ICA can be safely implemented without increasing patient morbidity. The robotic platform can be of aid to implement CME in a safe and more standardized manner, resulting in higher lymph node yields.

Disclosure of Interest: S. Violon: None declared, E. Van Eetvelde Grant / Research support with: Performs proctoring and consulting activities for Intuitive Surgical, Inc.; received a research grant , N. Poortmans: None declared, J. Stijns: None declared, M. Duinslaeger: None declared, M. Vanhoeij: None declared, R. Buyl: None declared, D. Jacobs-Tulleneers-Thevissen: None declared.

P550 | Outcomes of extended total mesorectal excision (e-TME) in locally advanced rectal cancer

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Aim: Extended total mesorectal resection (e- TME) is a complex procedure involving the enlboc resection of surrounding structures in locally advanced rectal cancer (LARC). Although associated with a high morbidity and R1 resection rates, it is a potential option with oncological equivalence. The study aims to assess the clinical outcome of patients requiring e-TME for LARC.

Method: The study is a retrospective review of all patients with LARC requiring e-TME (2013 to 2021). The database includes demographic profile, Neoadjuvant therapy received, adjacent structures resected, operative details, resection margin status, histopathological features, morbidity, and the survival outcomes.

Results: 163 patients who underwent e-TME for LARC were analysed after a median follow up of 28 months. The overall postoperative complications rate was 61.3%, majority being < Clavien dindo grade II (38.4%).The anterior quadrant structures were among the most frequently resected (68.5%) and the overall R1 resection rate was 10.4 %. There were 51 events in the study (31.2 % recurrence rate), and the overall survival rate was 80.4% at 3 years.

Conclusion: E-TME with curative intent, though a complex procedure, is associated with improved survival benefit despite its comparable R1 resection rates and complications.

Disclosure of Interest: None declared.

P551 | Cystograms following colorectal resection for colo-vesical fistula: The environmental cost for what clinical benefit?

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Aim: As climate change rapidly becomes the defining crisis of our time, the healthcare sector must continually challenge it's contribution to managing net C02 emissions. Considering the environmental impact of potentially outdated scans is gaining relevance. With this in mind, we aimed to review the potentially unnecessary use of routine cystograms following colorectal resection for colo-vesical fistula in order to assess their clinical benefit given the increasing pressure on resources.

Method: We conducted a retrospective audit of patients within NHS Tayside who had a cystogram following colorectal resection for CVF between 2010 and 2020. Data was collated using operation notes, imaging requests and electronic discharge summaries. Patient characteristics, operative procedures, cystogram indications and outcomes were considered.

Results: 68 patients were found to have CVF, from which we selected a study population of 37 after the exclusion criteria was applied. The indications for surgery included diverticular disease (81%), malignancy (15%) and Crohn's disease (5%). The operations were varied (sigmoid colectomy, abdominoperineal resection, Hartmann's procedure, anterior resection) and 36 were done laparoscopically. All patient's underwent a post-operative cystogram and 7 were found to have a leak (19%). Only 3 of them showed persistent CVF secondary to diverticular disease (8%) which required a prolonged catheterisation time and a repeat cystogram; however, no further surgical intervention was necessary.

Conclusion: Our results suggest that the overwhelming majority of cystograms in CVF secondary to diverticular disease are negative, requiring no further surgical follow up. Going forward, more selective indications for cystograms are necessary (for example, extensive bladder involvement) given the risk of contrast and radiation exposure, inconvenience to both patient and practitioner and significant financial and environmental cost.

Disclosure of Interest: None declared.

P552 | Predicting complicated appendicitis based on clinical findings: The role of alvarado and appendicitis inflammatory response scores

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Aim: The pre-interventional differentiation between complicated and uncomplicated appendicitis is decisive for treatment. In the context of conservative therapy, the definitive diagnosis of uncomplicated appendicitis is mandatory. This study investigates the ability of clinical scoring systems and imaging to differentiate between the two entities.
Method: This is a retrospective analysis of two cohorts from two tertiary referral centers in Switzerland and Germany. All consecutive patients underwent appendectomy between 2008 and 2019. Exclusion criteria did not apply. Diagnostic testing and calculation of a receiver operating curve were performed to identify a cut-off for clinical scores that resulted in a minimum sensitivity of 90% to detect complicated appendicitis. The cut-off was combined with additional diagnostic imaging criteria to see if diagnostic properties could be improved.
Results: 956 patients were included in the analysis. 220 patients had complicated appendicitis, and 736 patients had uncomplicated appendicitis or no inflammation. The complicated appendicitis cohort had a mean Alvarado score of 7.03 and a mean AIR of 5.21. This compared to a mean Alvarado of 6.53 and a mean AIR of 4.07 for the uncomplicated appendicitis cohort. The highest Alvarado score with a sensitivity of >90% to detect complicated appendicitis was ≧5. The highest AIR score with a sensitivity of >90% to detect complicated appendicitis was ≧3. The analysis showed that additional CT information did not improve the sensitivity of the proposed cut-offs.
Conclusion: AIR and Alvarado Scores showed limited capability to distinguish between complicated and uncomplicated appendicitis even with additional imaging in this retrospective cohort. As conservative management of appendicitis needs to exclude patients with complicated disease reliably, appendectomy seems until now to remain the safest option to prevent undertreatment of this mostly benign disease.
Disclosure of Interest: None declared.

P553 | Concomitant parastomal hernia repair and abdominoplasty for complex hernias

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Aim: To assess the long-term outcomes of parastomal hernia repairs with concomitant abdominoplasty.
Method: A retrospective analysis performed on the long-term outcomes of patients undergoing concurrent parastomal hernia repair and abdominoplasty using data from a single, tertiary referral centre for complex abdominal wall reconstruction.
Results: In the ten-year period between March 2009–2019, 40 (25F) patients underwent parastomal hernia repair with concurrent abdominal wall reconstruction, 15 (37%) of whom also had incisional hernia repairs. The mean age was 63 years (range 26–84), mean pre-operative BMI was 31 (range 25–41) and positive smoking status 5.1%. 28/40 (70%) had a ventral hernia working group (VHWG) classification of 3 or 4. 37/40 (92.5%) had a Permacol mesh inserted either as an onlay (4/37, 10.8%), retro-muscular (31/37, 83.7%), sublay (1/37, 2.7%) or combined onlay and retro-rectus (1/37, 2.7%) approach. Long-term follow up data was collected at a median post-op duration of 4.9 years (range 3 weeks-11 years). 5/40 (12.5%) had a clinical or radiological recurrence of their hernia. 60% of patients with a recurrence had evidence of a surgical site occurrence (SSO) in their initial post-operative period, compared to 20.5% in those without a recurrence.
Conclusion: The long-term outcomes from this retrospective case series suggests that parastomal hernia with concomitant abdominoplasty and/or incisional hernia repair is a good option for patients requiring complex abdominal wall reconstruction, with a low hernia recurrence rate of 12.5% at 5 years. This data also supports a strong correlation between post-operative SSO and hernia recurrence.
Disclosure of Interest: None declared.

P554 | A new, non-urgent suspected colorectal cancer pathway and the faecal immunochemical test: Do we fit the bill?

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Aim: In England, the Faecal Immunochemical Test (FIT) is a useful triage tool for patients with symptoms suspicious for colorectal cancer (CRC). A 'positive' FIT result (≥10g/g faeces) in these patients should trigger an urgent referral. Patients with a 'negative' FIT are considered low, but not zero, risk. In North Central London (NCL) a non-urgent FIT<10 pathway was introduced to provide a safety net for such patients. The aim of this audit is to determine adherence to these guidelines.
Method: We audited suspected CRC referrals to our hospital (May-August 2021). Referral pathway, FIT result, symptoms, and outcome were recorded. Ability of FIT to identify significant bowel pathology was assessed by Chi-squared statistics.
Results: 536 referrals were analysed. 42 patients (8%) met criteria for the FIT<10 pathway but none were referred via this route. 35% (n = 138) of those with high-risk symptoms (>3% risk of CRC) did not include a FIT result, 88% (n = 38) of referrals not meeting the criteria did. Of those patients who were referred with a FIT: 85% (n = 71) of significant polyps (size ≥10mm or ≥3 adenomas) and 100% of CRCs had a positive result (range = 15–689). Success of FIT to identify CRC or significant polyps was not significant (p > 0.05).

Conclusion: A larger proportion of FIT are sent in those who do not meet symptomatic criteria compared to those who do (88% vs. 65%), indicating that FIT is being used to justify an otherwise inappropriate urgent referral. No CRCs were identified in the 42 patients that qualified for the non-urgent FIT<10 pathway. On this pathway, the patient is reviewed by a senior clinician 6–8 weeks after referral with a repeat FIT and full blood count. These patients could avoid invasive investigation, concurrently reducing pressure on endoscopy services. We encourage referrers to have confidence that those with a negative FIT result have a very low risk of significant colorectal pathology.

Disclosure of Interest: None declared.

P556 | Intestinal failure – chyme reinfusion in patients with double-barrelled stoma using the inside system

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Aim: To assess the efficacy of The Insides System for chyme reinfusion in reducing total parenteral nutrition (TPN) requirements.

Method: A patient with type two intestinal failure with intestinal failure related liver disease (IFALD) who requires 3.5L TPN every night was chosen. The patient and the treating team were trained to use the device and the progress was assessed by daily bloods, fistula output, patient weight and TPN requirements.

Results: Within 3 days of starting chyme reinfusion, patient's TPN requirements reduced by 1l every night. Over the course of a month, TPN requirements were gradually decreasing, and oral intake of normal diet was increased. Interestingly, loperamide requirements diminished soon after starting chyme reinfusion. Liver functions improved significantly. 6 weeks after commencing chyme reinfusion, patient underwent reversal of loop stoma and was completely weaned off TPN within 14 days.

Conclusion: Chyme reinfusion using The Inside System provides a practical and user-friendly method for intestinal tropic effects prior to reconstructive surgery.

Reference: https://www.nice.org.uk/advice/mib286

Disclosure of Interest: None declared.

P557 | Novel approach for the development of a patient decision aid in pelvic exenteration

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Aim: Patient Decision Aids (PtDA) help patients make specific and deliberated choices about healthcare options as they present accurate and unbiased information on options and relevant outcomes. The International Patient Decision Aid Standards (IPDAS) collaboration has established a shared evidence-informed framework with a set of criteria for improving the content, development, implementation, and evaluation of PtDAs. Agile developmental methodology (ADM) focuses on collaborations between developers and stakeholders, flexible methodology, and the ability to respond quickly to change through multiple iterations. We utilised ADM to develop a prototype PtDA for patients considering pelvic exenteration.

Method: The development of the PtDA was grounded in the Ottawa Decision Support Framework (ODSF) and practically guided by International Patient Decision Aid Standards (IPDAS) guidance. A core-steering group was established of patients and healthcare professionals to reflect those participating in the multi-disciplinary team meeting. An inductive and deductive approach, based upon a review of the online literature, online forums and qualitative interviews, was utilised to inform the content and design of preliminary PtDA.

Results: The preliminary PtDA was developed over 5 sprints over 10 weeks between March and May 2021. Changes were established within 5 domains; structure, content, acceptability, comprehensibility and desirability. Upfront content development using ADM resulted in significant early changes with subsequent cycles identifying fewer improvements. The efficiency of the development using ADM encouraged stakeholder engagement ensuring all subspeciality and patient representation throughout the process.

Conclusion: This study highlights the design of a paper based PtDA using the novel ADM principles. This streamlined co-designed process resulted in a comprehensive and acceptable document ready for further testing in a shortened period of time.

Disclosure of Interest: None declared.

P558 | Factors affecting decision making for patients undergoing pelvic exenteration: A qualitative study

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Aim: Patients with locally advanced rectal cancer (LARC) or locally recurrent rectal cancer (LRRC) eligible for pelvic exenteration (PE) report being unprepared for surgery. To date there is limited understanding of the decision-making process when considering pelvic exenteration. The aim of this study was to identify factors affecting decision making for patients undergoing pelvic exenteration for LARC and LRRC.

Method: In-depth qualitative interviews were conducted with patients and healthcare professionals between January 2019 and October 2020. Patients were identified from five different UK based centres (Swansea, Leeds, Newcastle, London, and Edinburgh). A multi-centre

approach was adopted to ensure the generalisability of our results. Ethical approval was gained prior to the commencement of this study by North of Scotland Research Ethics Committee 19/NS/0056.

Results: The factors important to patients, from both their own perspective and the perceived perspective of clinicians, during the decision-making process were clustered into six themes: 1) communication, 2) recovery, 3) psychological impact, 4) relationships, 5) lifestyle and 6) support. Twenty-five patients and eight healthcare workers were recruited and informed the findings of this study. Individual telephone interviews were undertaken over a 5-month period. Patients median age was 59 years. Median time elapsed between operation and the interview date was 7 months. Median length of interviews was 57 minutes (range 22–80 minutes). Three surgeons, 2 oncologists and 3 CNS' participated. Median interview time was 36 minutes (range 22–48 minutes).

Conclusion: Patient decision making is complex. This study identified several domains that were important to patients in the decision-making and the recovery periods that are not currently being addressed in clinical practice. Further efforts to address these factors within the counselling process is crucial to improve patient reported outcomes.

Disclosure of Interest: None declared.

P559 | Development and pilot testing of a patient decision aid for locally advanced and locally recurrent rectal cancer

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Aim: In the development of a written Patient Decision Aid (PtDA). the quality, usability, comprehensibility and acceptability for patients should be evaluated by alpha testing. Alpha testing is described as a quality criterion for the development of a PtDA. The content of the PtDA was informed by systematic reviews together with qualitative interviews. Stakeholders including patients and clinicians representative of the multidisciplinary meeting developed the PtDA using agile methodology development. The aim of this study was to reach a consensus regarding the format, structure, and content of the pretest PtDA to measure its face validity.

Method: Cognitive interviews were performed with patients and healthcare professionals representing the multidisciplinary team. The interview recordings were transcribed verbatim. The transcripts were imported into NVIVO 12 and coded line by line. Patients were also invited to complete the QQ-10 to assess face validity. An iterative process of mapping comments using thematic content analysis was incorporated into a data saturation table.

Results: Nineteen patients and nine healthcare professionals participated in this study between October 2021 and December 2021. Median time elapsed between surgery and interview was 20 months. A total of 9 clinicians (4 surgeons, 3 oncologists and 2 CNS) participated. The response rate for the QQ-10 was 100%. Mean scores for value and burden were 89% and 7%, respectively, indicating high value and low burden. The PtDA was acceptable and relevant to both patients and clinicians. Minor changes were completed in five domains (1) content; (2) layout and design; (3) missing items; and (4) readability and (5) usability.

Conclusion: This is the first PtDA systematically developed and validated for patients with LARC or LRRC. This study outlines a distinct, patient and clinician orientated development using a standardised methodological approach following International Patient Decision Aids Standards (IPDAS) guidelines.

Disclosure of Interest: None declared.

P560 | The role of pro-inflammatory cytokines in perianal cryptolandular fistula

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Aim: This prospective study aimed at evaluating the role of hormonal activity of adipose tissue in the pathogenesis and treatment of cryptolandular perianal fistulas.

Method: In the study 80 patients who underwent surgery due to cryptoglandular perianal fistula(46 male, 34 female) have been enrolled. Levels of adipokines: adiponectin, leptin, resistin, IL-1β, IL-8, IL-12 and TNF-α in perianal tissue and in serum were determined using an enzyme-linked immunosorbent assay (ELISA). The peri- and post-operative course were assessed in terms of healing of the perianal fistula and the appearance of complications such as bleeding, wound infection or abscess was performed.

Results: The tissue levels of adiponectin, leptin and resistin positively corelated with BMI. "Complex" fistula (defined as fistula with >30% of external sphincter involvement, or anterior fistulas in female patients, as well as recurrent fistulas, and those associated with preexisting fecal incontinence) was found in 41% of obese patients vs. 11% in non-obese patients (p = 0.008). Complex, in compare to simple fistulas, was related with signifcantly decreased levels of adiponectin (4998±241 vs. 6998±341 ng/mL, p = 0.012) and eleveted levels of resistin, IL-1β and TNF-a (respectively, 16.1±2.1 vs. 13.6±0.9 ng/mL, p = 0.032; 1.91±0.13 vs. 1.63±0.18 pg/mL, p = 0.041; 15.5±3.9 vs. 19.8±4.3pg/mL, p = 0.036). Obese patitents (BMI >30) had significantly higher rate of complications in the peri- and post-operative course (9.2% vs. 1.3%) and longer hospitalization time (4.8±1.1 vs. 2.9±1.4 days; p = 0.42) than non-obese patients.

Conclusion: Reduced levels of adiponectin and elevated levels of proinflammatory adipokines and cytokines (resitin, IL-1β and TNF-a) may be used as markers of complexity of perianal fistulas. Also those patients have a higher rate of complication during the peri- and post-operative course. Obesity has strong impact on the adipokines and cytokines serum levels and is linked poor outcomes of fistula treatment.

Disclosure of Interest: None declared.

P561 | Should hospital readmissions be a key performance indicator in assessing a colorectal unit?

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Aim: Hospital readmission rates are increasingly used as a general indicator of quality of care [1]. Ensuring a lowered rate not only alleviates the financial burden of the National Health Service, but also leads to improved patient outcomes. Our primary aim was to establish the rates of colorectal emergency hospital readmissions within 30 days of discharge in our colorectal surgical department at the district general hospital, and how to reduce the rates of avoidable readmissions.

Method: We looked into all colorectal emergency readmissions in our department within 30 days of discharge across a three month period, from August to October 2021. We determined which ones were deemed possibly avoidable. Finally, we made an action plan with recommendations on how to reduce these rates in future.

Results: A total of 11 out of 374 admissions (3%) were patients readmitted with problems of a colorectal nature. The main reasons were pain, surgical site infections, abdominal collections and recurrences of the initial problem, especially diverticulitis. 9 out of the 11 readmissions (2%) were deemed possibly avoidable, which amounted to a total of 42 extra hospital days collectively.

Conclusion: We found a 2% readmission rate within 30 days of discharge across a 3-month period were due to problems of a colorectal nature. Post-colorectal surgery infections, recurrences of diverticulitis, and pain appeared to be a recurring theme. To help reduce these rates even further in future, we proposed recommendations of senior-led discharge planning, patient education, as well as making more efficient use of the Surgical Assessment Unit and early outpatient follow-up.

Reference: [1] Fischer C, Lingsma HF, Marang-van de Mheen PJ, Kringos DS, Klazinga NS, Steyerberg EW (2014) Is the Readmission Rate a Valid Quality Indicator? A Review of the Evidence. PLoS ONE 9(11): e112282. https://doi.org/10.1371/journal.pone.0112282

Disclosure of Interest: None declared.

P562 | Robotic-assisted vs. laparoscopic colorectal cancer resections in high-risk patients– a systematic review and meta-analysis

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Aim: This review aims to perform a comparative analysis between robotic-assisted and laparoscopic surgical techniques in high-risks patients undergoing resectional surgery for colorectal cancer.

Method: A systematic search was performed using the Pubmed, Embase and Cochrane library databases from inception till May 2022. Randomised and non-randomised studies reporting on any outcome of robotic-assisted or laparoscopic resectional surgery for colorectal cancer in high-risk patients were included. High-risk surgery categories were obesity, male gender, age >65 years, low rectal tumours, preceding chemoradiotherapy or previous abdominal surgery. Comparative meta-analyses for all sufficiently reported outcomes were completed.

Results: Forty-four studies including a total of 12,363 patients were eligible for inclusion and 24 studies were utilised in the meta-analyses. The conversion-to-open rate was significantly lower for robotic-assisted surgery in obese and male patients (Obese OR = 3.18, CI 2.50–4.05, $p < 0.00001$; Males OR = 3.69, CI 3.00–4.54, $p < 0.00001$) but operative time was longer was significantly longer in five of six high-risk groups (Obesity SMD = -0.52, CI -0.81–0.22, $p = 0.0007$; Males SMD = -0.78, CI -1.37—0.18, $p = 0.01$; Elderly SMD = -0.64, CI -0.99–0.28, $p = 0.0004$; Low rectal tumours SMD = -0.55, CI -1.00–0.11, $p = 0.01$; NACR SMD = -0.82, CI -1.20—0.44, $p < 0.0001$). When meta-analysis was possible, blood loss, length of stay, complication rate and lymph node yield was comparable for all groups.

Conclusion: This review provides further evidence of noninferiority in robotic-assisted surgery for colorectal cancer and confirms conversion rates are improved in specific, technically-challenging operations.

Disclosure of Interest: None declared.

P563 | Evaluation of stomia-free survival interval in locally-advanced rectal cancer patients with long-course chemo-radiotherapy versus short-course chemo-radiotherapy: Do rapido trial results have impact in changes in clinical practice?

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Aim: Although the current standard treatment for patients with locally advanced rectal cancer is neoadjuvant CRT followed by low anterior resection(TME-LAR),current evidence support superiority of total neoadjuvant CRT(TNT) in certain group of patients.The purpose of this ongoing study is to evaluate the stomia free survival interval in T3/T4 rectal cancer patients receiving TNT,in comparison to those submitted to formalCRT.

Method: Between September2019 and December2021,thirty-five rectal cancer patients randomly assigned to treatment,have been so far consecutively enrolled in a retrospective study.Inclusion criteria were age of 18years or above,T3/4 or node positive or/and MRF(+) or/and EMVI(+)rectal cancer,absence of contraindications for preop CRT and surgical resection,no contraindication to MRI(pacemaker,claustrophobia),gross visible disease on MRI,no previous RT to

pelvis,ability to understand/sign a written informed consent document.Patients have been divided into two groups.Group A(*n* = 17)received total neoadjuvant CRT with long course RT (TNT)and Group B(*n* = 18)received short course CRT preoperatively.

Results: Three patients from Group A(17.6%)and five patients from Group B(27.7%),underwent abdominoperineal ressection,thus remaining with a permanent stoma.Six patients from Group A(35.2%) and ten patients from Group B(55.5%)underwent TME-LAR with construction of a colorectal anastomosis and temporal protective ileostomy.On the other, eight patients from Group A(47.2%)and three patients from Group B(16.8%)underwent TME-LAR with colorectal anastomosis alone.Moreover, patients from Group A appear to have better oncologic outcomes and quality of life, although the follow-up period is currently too short.

Conclusion: Despite the very small number of patients,this study suggests that patients receiving TNT may avoid ileostomy and have better quality of life.The present study illustrates the change in clinical practice after the publishment of the RapidoTrial results for locally advanced rectal cancer.

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Disclosure of Interest: None declared.

P564 | Characterising nationwide reasons for hospital readmission after colorectal cancer surgery

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Aim: Readmissions after colorectal cancer surgery are common, despite advancements in surgical care, and have significant impact on both individual patients and overall healthcare costs. The aim of this study was to define the 30-and 90-day readmission rate after colorectal cancer surgery, and investigate the risk factors and clinical reasons for unplanned readmissions.

Method: A national population-based study was completed investigating patients discharged from hospital after index colorectal cancer resection from 2010 to 2020 in Aotearoa New Zealand. Rates of readmission were calculated. Mixed-effect logistic regression models were built to investigate factors associated with unplanned readmission. Reasons for readmission were described.

Results: Overall, 16,885 patients were included. Unplanned 30-day and 90-day hospital readmission rates were 15.1% and 23.7% respectively. The main readmission risk factors were comorbidities, advanced disease, and postoperative complications. Hospital level variation was not present. Despite risk adjustment, R2 value of models was low (30-day:4.3%, 90-day:5.2%). The most common reasons for readmissions were gastrointestinal causes (32.1%) and wound complications (14.4%). Rates of readmission did not improve over the 11-year study period ($p = 0.876$).

Conclusion: Readmissions following colorectal resections in New Zealand are higher than other comparable healthcare systems and rates have remained constant over time. While patient comorbidities and postoperative complications are associated with readmission, the explanatory value of these variables is poor. In order to reduce unplanned readmissions, efforts should be focused on prevention and early detection of post-discharge complications.

Disclosure of Interest: None declared.

P565 | Impact of delay to definitive surgical management in colorectal cancer patients during the covid pandemic: A single unit experience

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Aim: The Covid-19 pandemic has caused significant strain on the UK national healthcare system. Consequently, there has been a delay in elective colorectal cancer (CRC) resections performed across the UK. We aim to assess how a delay in surgical resection of CRC patients due to covid influences may influence tumour histology and post-operative outcomes compared to pre-pandemic period

Method: Retrospective review of timing of CRC resection since diagnosis, tumour histology and post-surgical outcomes of all patients undergoing elective non-metastatic CRC resection during March to June 2020 (covid group) with that during March to June 2019 (pre-covid group)

Results: 82 new CRCs were diagnosed in covid group compared to 73 in pre-covid group.

In pre-covid group, 61.5% patients underwent resection <4 weeks since diagnosis, 20.2% in 4 to <8 weeks, and 13.7% in ≥8 weeks. Comparatively, in covid group, 17.7% patients underwent resection

<4 weeks (p = 0.019), 24.4% in 4 to <8 weeks, and 53.3% in ≥8 weeks (p = 0.034). Rectal cancer resection had more notable delay ≥8 weeks in covid group compared to pre-covid.

25.6% patients had confirmed T4 histology in covid group, compared to 12.3% (p = 0.035) in pre-covid.

14.9% patients received adjuvant therapy following CRC resection in pre-covid group, compared to 29.8% in covid group (p = 0.042).

Surgical delays >8 weeks during pandemic were significantly associated with high tumour grade (p = 0.032). Surgical delays, however, were not statistically significantly associated with need for adjuvant therapy post-resection, 1 year disease free survival rates, or palliation rates (p > 0.1).

Conclusion: Covid pandemic has led to significant delays in elective CRC resections. Delayed CRC resections due to covid influence were associated with advanced tumour histology, but not with worsening short-term oncological outcomes. A longer study period is required to assess whether advanced tumour histology during pandemic leads to higher rates of localised or distant recurrence.

Disclosure of Interest: None declared.

P566 | Management and outcomes of colorectal cancer during the covid-19 era: A single unit experience

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Aim: Covid-19 pandemic has caused significant disruption of investigations and management of colorectal cancers (CRC) across the UK. We aim to assess the management and outcomes of new CRCs diagnosed during the covid first wave at our unit.

Method: Retrospective study comparing management and outcomes of all patients newly diagnosed with CRC during March to June 2020 (covid group) with that during March to June 2019 (pre-covid group).

Results: 82 new CRCs were diagnosed in covid group compared to 73 in pre-covid group. Median age at referral was 75 and 72 years in covid and pre-covid groups respectively. 28/82(34.1%) presented as an emergency in covid group, compared to 20/73(27.4%) in pre-covid (p = 0.061).

29/82(35.4%) received neo-adjuvant chemotherapy in covid group, compared to 9/73(12.5%) in pre-covid (p = 0.022).

55/82(67%) proceeded to CRC resection in covid group, compared to 51/73(69.8%) in pre-covid (p = 0.087). Difference in R0 resections were not statistically significant (p = 0.076). 41.5% resections were laparoscopic in covid group, compared to 39.7% in pre-covid.

32/82(39%) patients in covid group had stoma formation during surgical resection, 44% of these were unplanned. Comparatively, 21/73(28.7%) in pre-covid group had stoma formation (p = 0.043), 42% were unplanned. No patients had stoma reversal in covid group, compared to 19% in pre-covid group.

33% were palliated and died within 3 years following CRC diagnosis in covid group, compared to 36.6% in pre-covid (p = 0.081).

Conclusion: There was no statistically significant difference in emergency presentations of new CRC, in total number of R0 resections performed, as well as in CRC palliation rates during the covid first-wave. It is important that we protect and maintain our services to minimise impact of the ongoing pandemic on CRC patient care, and to consolidate benefits of earlier diagnosis to our patients.

Disclosure of Interest: None declared.

P567 | Complicated colorectal cancer - aspects of surgical tactics

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Aim: Different aspects of surgical tactics at treating complicated colorectal cancer in advanced and senile age is determined by the manifestation of clinical symptoms; the difficulties in diagnostic workup and high postoperative mortality.

Method: When choosing surgical tactics and methods, some rules have to be followed: first, the basic principle of emergency surgery (to perform a minimal operation with the aim to safe patient`s life); and second, the basic principle of oncosurgery (radical surgery in combination with aduvant chemotherapy nad radiotherapy).

Results: 1270 patients with colorectal cancer are analyzed during the study period 2000–2020. 433 (34.1%) of them are advanced and senile age. Complicated forms of colorectal cancer are present in 57% from all analyzed patients. Complicated forms are present in 46% (195 patients) if the patients younger than 60, and in 53.8% (234 patients) of the ones older than 70. The most common complicated forms are: obturation (46.8%); tumor perforation (7.8%); paratumor abscess or infiltration (7.4%); fistulas (1,4%); diastatic bleeding from thje rectum (4,4%); locally advenced colorectal cancer with ileus (32.2%).

Conclusion: Colorectal cancer is one of the most common cancer diseases of the GI tract in Bulgaria. Morbidity and mortality rates rise annually.

Disclosure of Interest: None declared.

P568 | Dietary amendment combined with oral venoactive drugs on cardinal symptoms of internal hemorrhoids

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Aim: Hemorrhoidal disease is one of the most common benign anorectal pathologies overall, including internal hemorrhoids consists

almost half of the cases be effected. Optimal treatment options and management modalities still remain a challenge (1-3). In this study we aimed to investigate the effect of dietary modulations alone and combined with calcium dobesilate or flavonoid treatment on cardinal symptoms of internal hemorrhoids.

Method: This retrospective study enrolled 421 patients treated with Grade I-II internal hemorrhoids which diagnosed in proctologic endoscopy unit with rectoscopy/rectosigmoidoscopy. Patients has assessed in 3 groups: Group A(124), dietary modulations only; Group B(139), dietary modulations in combined with oral Calcium Dobesilate (Modet 1 grâ, Santa Farma Ilac San, Istanbul/Turkey) 2*1 gr. per day, Group C(158), dietary modulations in combined with oral Flavonoids (Daflon 500 mgâ , Loboratoires Servier, France) 2*1 gr per day. Six cardinal symptoms have assesed after 30 days of therapy in respect of bleeding, prolapse, pruritus, pain, soiling, anal discomfort.

Results: Group A had significantly lower improvement in all symptom groups($p < 0.05$) in comparison with Group B and Group C. While Group B and Group C showed a statistically significant improvement in respect of Grup A in all 6 cardinal symptoms, there wasn't any statistically significant difference between Group B and Group C in respect of improvement in bleeding, prolapse, pain and soiling ($p > 0.0.5$). The improvement of pruritus and anal discomfort was significantly higher in Group B in respect of Group C($p < 0.05$).

Conclusion: In conclusion our results showed that both calcium dobesilate and flavonoids are very effective treatment options and superior to dietary modifications on internal hemorrhoidal disease. We think the superiority ofcalcium dobesilate on 2 specific symptoms is due additional anti-oxidant and anti-inflammory effect.

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Disclosure of Interest: None declared.

P569 | Dietary modifications on management of internal hemorrhoids: With or without oral treatment

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Aim: Hemorrhoidal disease is a common condition seen by all clinicians. The disease has manytreatment alternatives including surgery for the clinician to choose from. Conservative treatment consists of diet,lifestyle changes, and hydrotherapy which is bonded with a very effective patient participation on treatment to be successful. If dietary and lifestyle changes fail, oral drugs and/or surgery can be assessed(1–4). In thisstudy we compared diet/lifestyle changes with additional calcium dobesilate treatment.

Method: A total of 221 patients with Grade-I-II internal hemorrhoids enrolled this study with 2 groups; Group-1: 84 patients on dietary Modifications, lifestyle changes and hydrotherapy alone Group-2: 137 patients on oral calcium dobesilate (Modet 1 gr, Santa Farma Ilac San, Istanbul/Turkey) 2*1 grtreatment combined with dietary modifications, lifestyle changes and hydrotherapy. Groups compared in respect of improvement of bleeding, prolapse, anal pain, pruritus and anal discomfort symptoms.

Results: In all 5 groups of symptoms in respect of Group-1, Group-2 showed statistically significant improvement (55.9%-84.6% / 60.7%-86.8% / 63%-81% / 64.2%-80.2% / 58.3%-78.1%) ($p < 0.0.5$).

Conclusion: Calcium dobesilate have been proven to heal microcirculation, capillary flow, and vascular tone with antioxidant and anti-inflammatory impact on anal mucosa(2–4). Oral drug therapy with calcium dobesilate along with lifestyle and diaetary changes and hydrotherapy showed increased effiacy of management and cost-effective outcomes.

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Disclosure of Interest: None declared.

P570 | Exfoliate cancer cell analysis in rectal cancer surgery: Comparison of laparoscopic and transanal total mesorectal excision, a pilot study

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Aim: Minimally invasive surgery (MIS) is currently the standard treatment for rectal cancer surgery. However, complications and

incomplete total mesorectal resection (TME) are limitations due to the anatomical features and technical difficulties. Transanal TME (TaTME) has been tried since 2010 to improve this, but the risk of local recurrence and intraabdominal contamination has been reported. We designed a study to analyze samples obtained through lavage to compare laparoscopic TME (LapTME) and TaTME.

Method: From June 2020 to January 2021, patients diagnosed with rectal cancer and undergoing MIS were consecutively and prospectively recruited. Samples were collected over three steps: at the start of surgery, immediately after TME, and after sufficient irrigation. The obtained samples were quantitatively analyzed for carcinoembryonic antigen (CEA) and cytokeratin 20 (CK20) through quantitative real-time polymerase chain reaction (qRT-PCR). The primary outcome was to compare the detected amounts of CEA and CK20 immediately after completion of TME according to the surgical method.

Results: Twenty patients were included, LapTME was 13, and TaTME was 7. Tumor location was lower in the TaTME group (AV 7.3 vs. 4.6 cm, p = 0.012), and the mesorectal fascia (MRF) negative in image study was more in LapTME (76.9 vs. 28.6%, p = 0.044). The operation time was longer in TaTME (283 vs. 366 min, p = 0.047). CEA and CK20 detection levels were near zero in all 13 patients in LapTME, but these expression levels were highly detected in 3 out of 7 patients (42.9%) in TaTME. There was one case of T4 with incomplete purse-string suture and one case of MRF positive with dissection failure.

Conclusion: CEA and CK20 were highly detected only in TaTME patients and were related to tumor factors or intraoperative events. However, it is still unclear whether the detection amount is clinically related to local recurrence, and follow-up studies are needed.

Disclosure of Interest: None declared.

P571 | Managing high output stoma: early detection and comprehensive treatment is the key

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Aim: Aim: To assess the pertinent practice of management of high output stoma (HOS) in a gastrointestinal unit in the United Kingdom.

Method: Methods: A retrospective review was undertaken of a prospectively compiled database of all consecutive patients who had a small bowel stoma created over a 2-year period (2020–2021). Patient-related data were extracted from electronic patient records and included demographics (age, gender), indication for stoma, urgency and type of operation, including residual bowel length. Primary outcomes included the assessment of compliance of management of HOS against national guidelines, Hospital Length of Stay (HLOS).

Results: A total of 51 patients were identified with HOS (Median age 65 years, range 21–71, 35% female). 76% had an emergency stoma (ileostomy 92%, jenunostomy 4%, colostomy 4%). Oral fluid restriction (OFR) was recorded in 33% of patients (median time to onset of OFR 4 days); Low fiber diet (LFD) in 29%, (median time to LFD 2 days); IV fluids in 47% patients (time to IVF median 0 day); Oral Rehydration Solution (ORS) in 33% patients (time to ORS median 2 days); Loperamide in 68% patients (median time to loperamide (median 1 day); codeine in 31% patients (time to codeine median 2 days), Proton Pump Inhibitor (PPI) in 45% patients (median time 0 days). Total Parenteral Nutrition was required in 11% of patients. HLOS was median 20 days (range 4–227). Non-significant trends of longer HLOS were noted in patients with delayed treatment for HOS.

Conclusion: There is scope for improvement in our current practice of managing HOS. Ongoing education of clinicians, staff and patients in early recognition and timely management of HOS is paramount and underway in our unit, aiming to re-audit the practice to observe improvement.

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Disclosure of Interest: None declared.

P572 | Clinical and demographic characteristics of young patients requiring surgery for diverticulitis: Results from a single center and nsqip

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Aim: To characterize clinical and demographic features associated with patients ≤40 years undergoing surgery for diverticulitis. We validated our findings from a single tertiary care center in a larger patient population by querying the American College of Surgeons National Surgical Quality Improvement Program (ACS NSQIP) database which is a national, validated, and risk-adjusted patient registry in the US.

Method: Retrospective review of patients undergoing surgery for diverticulitis from 2015 to 2021 at a single center and those included in the 2012–2019 ACS NSQIP database. Patients ≤40 years were compared with a control group consisting of patients >40 year old (yo).

Results: The analysis included 62 patients; 21 patients ≤40 yo and 41 controls >40 yo. Younger patients were more likely to be male (71% vs. 34%, p = 0.005), Hispanic (67% vs. 34%, p = 0.019), and obese (71% vs. 29%, p = 0.017) with a greater mean BMI (33 vs. 28, p = 0.002). ≤40 yo were more likely to undergo surgery for recurrent disease (57%) while the most common indication in the >40 group was fistula development (32%); p = 0.043. When NSQIP was queried, 924 patients aged ≤40 and 8828 patients >40 yo underwent surgery for diverticular disease. These patients had a similar demographic and clinical profile to patients from our center. The younger cohort was more likely to be male (72.1%), obese (63.5%) and 3 times

more likely to be Hispanic (24.1% vs. 7.9%) when compared to the elderly; p = <0.001. There was no difference in overall post-surgical complications or readmissions.

Conclusion: Recently, there has been added interest in studying diverticulitis in young patients since several population-based studies during last few years have shown a disproportionately greater rise in disease incidence in the younger subgroup. Our study demonstrates that the characteristics of this group differs from older patients. Further work to elucidate potential social, environmental, and biological etiologies of these findings is warranted.

Disclosure of Interest: None declared.

P573 | The value of CA125 in predicting acute complicated colonic diverticulitis

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Aim: To determine if serum CA125 levels can predict disease severity in patients presenting with acute diverticulitis.

Method: We conducted a prospective observational study, analyzing CA125 serum level in patients who presented to the emergency department (ED) with acute colonic diverticulitis. CA125 levels were correlated with the severity of diverticulitis and clinical outcomes.

Results: Between 1/2018–7/2020, 151 patients were enrolled (66.9% females, median age 61 years). Twenty-five patients (16.5%) presented with complicated diverticulitis. Median CA125 levels were significantly higher among patients with complicated (16 (7–159) u/ml) vs. uncomplicated (8 (3–39) u/ml) diverticulitis ($p < 0.001$) and also correlated with the Hinchey severity class ($p < 0.001$). Higher CA125 levels upon admission were associated with a longer hospital stay and a greater chance to undergo invasive procedure during the hospitalization. In patients with a measurable intra-abdominal abscess (n = 22), CA125 levels were correlated with the size of the abscess (Spearman's r = 0.46, p = 0.02). On receiver operating characteristic analysis to predict complicated diverticulitis, the area under the curve (AUC) for CA125 (AUC = 0.82) was bigger than for the leukocyte count (AUC = 0.53), body temperature (AUC = 0.59), and neutrophil-lymphocyte ratio (AUC = 0.70) – all p values<0.05. On multivariate analysis of factors available at presentation, CA125 was found to be the only independent predictor of complicated diverticulitis (OR 1.12 (95% CI 1.06–1.19), $p < 0.001$).

Conclusion: The results from this pilot study suggest that CA125 may accurately discriminate between simple and complicated diverticulitis, meriting further prospective investigation.

Disclosure of Interest: None declared.

P574 | Functional outcomes after low anterior rectal resection with coloanal anastomosis

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Aim: Aim was to show functional outcomes related to fecal incontinence after low anterior resection with coloanal anastomosis for rectal cancer.

Method: In modern surgical practice, low rectal cancer can be adequately treated with curative intent. What can still presents a challenge is preforming curative surgery while keeping the integrity of continence apparatus and functionality of sex life, especially with locally advanced tumors. Neoadjuvant radiotherapy can also worsen preexisting continence degree. LARS score questionnaire presents a tool to quickly establish the degree of fecal incontinence after these type of surgeries, but still no comprehensive method for qualitative evaluation of all components of pelvic floor dysfunction exists. From February 2019 to March 2021 all patients who underwent low anterior resection for rectal cancer at Department of digestive surgery, University hospital Rijeka, were given LARS questionnaire to rate their degree of bowel disfunction. Overall, 103 patients participated in this study.

Results: Of 103 patients who were given the questionnaires, 10 were lost to follow-up, so ultimately results of 93 patients were analyzed. Of these 12 patients or 12,9% had no LARS, 42 patient or 45,1% had minor LARS and 39 patients or 41,9% had major LARS. To our knowledge this was the first implementation of LARS score in Croatian hospitals.

Conclusion: Our results were comparable with results found in other publications involving LARS score. LARS still remains a significant postoperative morbidity and care should be taken to preserve pelvic nerve system whenever possible. Score validation in Croatian language should be undertaken.

Disclosure of Interest: None declared.

P575 | TUSC3 gene identified by dna methylation profiling as a prognostic molecular marker in human colon adenocarcinoma

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Aim: To assess the DNA methylation status of selected genes in colon cancer tissue samples and evaluate the prognostic importance of these genes.

Method: We 36 included patients diagnosed with colon adenocarcinoma who underwent colon resection. Cancer tissues and

adjacent healthy colon mucosa were taken from the surgical specimen. Genomic DNA was extracted from 25 to 40 mg of frozen tissues using "All Prep DNA/RNA Kit" manufacturer's recommendation. After literature review, we selected *HOXA11*, *TUSC3*, *SEZ6L* genes involved in cellular pathways which may be considered as potential tumor suppressor genes. Specific primers for methylated and unmethylated DNA sequences were designed using "MethPrimer". The methylation-specific polymerase chain reaction (PCR) was performed in 25 ml of total volume. The presence of a PCR product signal of the correct molecular weight indicates the presence of either unmethylated or methylated alleles.

Results: Methylated *TUSC3* gene promoter was significantly more frequently identified in both colon cancer and adjacent healthy colon tissue compared to unmethylated TUSC3 gene promoter ($p = 0.009$). Multivariate Cox analysis revealed the *TUSC3* methylation is significantly associated with colon cancer patients' survival (B = -8.478, SE 3.993, $p = 0.034$). Moreover, T stage (T3, T4) and distant metastasis significantly predicts worse survival of colon cancer patients (B = -8.645, SE 2.841, $p = 0.002$; B = -6.820, SE 2.710, $p = 0.012$; B = -10.998, SE 4.948, $p = 0.026$, respectively).

Conclusion: Methylation of *TUSC3* gene might be prognostic molecular marker in patients with colon cancer. T3, T4 and distant metastasis are associated with colon cancer patients' survival as independent predictors.

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Disclosure of Interest: None declared.

P576 | Complete response in a patient with stage III rectal cancer 20 weeks after neoadjuvant chemoradiation therapy who presented acute polyradiculoneuritis 08 weeks afterwards treated with immunoglobulin therapy: A case report

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Aim: Improve the patient survival.

Maximize the number of patients achieving complete response.

Method: A 70 year old male patient, with prior history of diabetes and ECOG performance status of 0 was admitted to the hospital due to increased fecal blood volume. The colonoscopy revealed an ulcero-budding tumor in rectum, whereas the pathological biopsy indicated a well differentiated rectal adenocarcinoma. The clinical stage was defined as T3N2M0 according to the TNM classification. In addition, a CT Scan showed regional lymph node metastasis (mesorectal, inguinal bilateral). Our patient with primary rectal cancer and pelvic lymph node metastasis was treated with radiotherapy (dose:50.4 GY/30Fr) and chemotherapy (Oral : 1.5 g capecitabine twice a day from day 1–14 for a total of 5 cycles).

Results: 08 weeks later, reduction of the tumor size was noted upon reassessment (yT2N1M0) and the surgical indicaton was decided at the multidisciplinary consultation meeting. In the meantime, the patient presented an acute polyradiculoneuritis resulting in symmetrical ascending weakness, dimished deep tendon reflexes and nonspecific sensory symptoms, the patient was treated with immunoglobulin therapy delaying the surgical procedure at 20 weeks after Chemoradiation. Radiological reevaluation of the lesions at 20 weeks revealed a complete regression of the tumor. Therefore a Total Mesorectal Excision was done and the postoperative pathological evaluation assessed a total absence of residual viable tumor.

Conclusion: Neoadjuvant Chemoradiation associated with immunoglobulin therapy showed promising findings in advanced rectal cancer and may provide a new way of treatment.

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P577 | Leiomyosarcoma of the colon originated from the muscularis mucosae: A case report and review of the literature

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Aim: This article aims to report a case of colon leiomyosarcoma, an infrequent colon tumor, and review the literature on earlier described cases to search for similarities and contrasts in the diagnosis, treatment, and follow-up.

Method: We present the case of an asymptomatic 51-year-old woman with a family history of colorectal adenocarcinoma. A transverse colon mass was discovered during a screening colonoscopy. Biopsies suggested a stromal tumor like intestinal leiomyosarcoma. Due to the unclear origin of the lesion, the patient rejected the observational management and opted for surgery. The thoracoabdominal CT scan showed no signs of metastasis. The histopathology confirmed a FNCLCC grade 1 (low grade) 1.2 cm leiomyosarcoma of the transverse colon, involving the mucosa and submucosa layers, most likely arising from the muscularis mucosae. There was no regional lymph node metastasis. A follow-up plan was set up in a multidisciplinary oncological team meeting: a CT scan every 6 months for the first 2 years, a colonoscopy after 1 year from the surgery; no radio-chemotherapy.Considering the discovery in 1998 of the role of immunohistochemistry, specifically the role of c-kit, to differentiate GIST from leiomyosarcomas, we decided to give consideration only to literature reporting cases of the post-GIST era.

Results: Leiomyosarcoma of the colon is a rare tumor arising from the muscular layers of the colon wall, which are the muscularis mucosae and the muscularis propria. Due to its rarity, there is no well-defined protocol for treatment and follow-up.

Conclusion: We report the first Swiss case of colon leiomyosarcoma and one of the rare asymptomatic cases described. Moreover, it is one of the few samples specifically reported to arise from the muscularis mucosae. Like all the other reports, the diagnosis is made through immunohistochemistry on the resected piece. Even though a treatment protocol has not been established, surgery is the treatment of choice, together with an extended follow-up.

Disclosure of Interest: None declared.

P578 | The measured distance between tumor cells and the peritoneal surface predicts the risk of peritoneal metastases and offers an objective means to differentiate between pt3 and pt4a colon cancer.

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Aim: Substantial variability exists in what pathologists consider as pT4a in colorectal cancer when tumor cells are within 1 mm from the free peritoneal surface. This study aimed to determine if the measured sub-millimeter distance between tumor cells and the free peritoneal surface would offer an objective means of stratifying patients according to the risk of developing peritoneal metastases.

Method: Histological slides of patients included in the COLOPEC trial, with resectable primary c/pT4N0-2M0 colon cancer, were centrally reassessed. Specific tumor morphological variables were collected, including distance from tumor to free peritoneal surface, measured in micrometers (µm). The primary outcome, 3-year peritoneal metastasis rate, was compared between four groups of patients stratified for relation of tumor cells to the peritoneum: 1) Full peritoneal penetration with tumor cells on the peritoneal surface, 2) 0–99 µm distance to the peritoneum, 3) 100–999 µm to the peritoneum, and 4) ≥1000 µm to the peritoneum, by using Kaplan-Meier analysis.

Results: In total, 189 cases were included in the present analysis. Cases with full peritoneal penetration (n = 89), 0–99 µm distance to the peritoneal surface (n = 34), 100–999 µm distance (n = 33), and ≥1000 µm distance (n = 33), showed significantly different 3-year peritoneal metastases rates of 25% vs. 29% vs. 6% vs. 12%, respectively (Log Rank, p = 0.044). N-category did not influence the risk of peritoneal metastases in patients with a tumor distance beyond 100 µm, while only the N2 category seemed to result in an additive risk in patients with a distance of 0–99 µm.

Conclusion: The findings of this study suggest that the measured shortest distance between tumor cells and the free peritoneal surface is useful as an objective means of stratifying patients according to the risk of developing peritoneal metastases. This simple measurement is practical and may help in providing a precise definition of pT4a.

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