

E-POSTERS ABSTRACT

PO-001 | PREDICTING LIFE WITH A PERMANENT END COLOSTOMY-A PROSPECTIVE STUDY ON FUNCTION, BOTHER AND ACCEPTANCE

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Aim: The factors that influence a patient's experience of a colostomy are not known. The aim of this study was to characterise stoma function, stoma-related bother and acceptance among patients operated for rectal cancer and to investigate if there were any preoperative personal factors with predictive impact on long-term stoma-related bother.

Method: The QoLiRECT (Quality of Life in RECTal cancer) study is a prospective multicentre study of patients with newly rectal cancer. This was a subgroup analysis of patients operated with a permanent colostomy with a 2-year follow-up. Penalised regression models with shrinkage estimation were used to predict the 1-and 2-year stoma-related bother using baseline data. The predictive value and the importance of the included variables were evaluated using bootstrap resampling techniques.

Results: Within the QoLiRECT cohort of 1248 patients, 472 patients had an elective abdominoperineal excision or Hartmann's procedure with the formation of a permanent colostomy. The response rate was 80% (379 included patients).

Overall stoma acceptance was high and a majority of patients were not bothered by their stoma; 77% and 83% at 1 and 2 years, respectively. The subgroup of patients with stoma-related bother had a high prevalence of difficulties, especially fear of leakage, and a low stoma acceptance in daily life. Both clinical and personal factors were associated with stoma-related bother. The most important factors were quality of life and physical health, but the prediction accuracy was low.

Conclusion: Stoma-related bother was associated with overall stoma dysfunction. As stoma-related bother is a multifactorial problem, it was not possible to predict which patients will experience stoma-related bother. With an increasing number of rectal cancer survivors with a permanent stoma and potential life-long functional impairments it is therefore of importance to prevent stoma-related symptoms and optimise stoma function to reduce bother and increase stoma acceptance.

Disclosure of Interest: None declared.

PO-002 | BIOFEEDBACK THERAPY AND TIBIAL NEUROMODULATION REDUCE LOW ANTERIOR RESECTION SYNDROME

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Aim: to evaluate effectiveness of biofeedback therapy and tibial neuromodulation in patients with severe low anterior resection syndrome (LARS).

Method: Sixty patients after low anterior resection with major LARS were included into the study and allocated into in the main ($n = 30$) and control groups ($n = 30$) patients. Patients from main group had 10 sessions of biofeedback therapy and tibial neuromodulation at 3 months after the stoma closure. Functional results were evaluated by the validated LARS score questionnaire between 3–6 month after preventive stoma closure, after completion of the treatment in main group and at 12 months after the stoma closure in both groups.

Results: The median (lower : upper quartile) LARS score obtained between 3–6 month after preventive stoma closure was 40.5 (38:41) in the main group vs. 39.5 (38:41) in controls ($P = 0.9$ Mann-Whitney test). The median LARS score in the main group decreased to 19 (12.5:24.0) after the treatment ($P = 0.0003$ Wilcoxon test). Twelve months after the stoma closure the median LARS score in the main group was 24 (18:27) comparing to 34 (30:36) in control group without therapy ($P = 0.0001$).

Conclusion: Biofeedback therapy and tibial neuromodulation significantly reduced LARS score.

Disclosure of Interest: None declared.



PO-003 | IMPACT OF LAPAROSCOPIC VENTRAL MESH RECTOPEXY ON PRE-EXISTING PELVIC PAIN

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Aim: To assess the impact of laparoscopic ventral mesh rectopexy (LVMR) on pre-existing pelvic pain (PP) prior to surgery.

Method: We contacted all patients who underwent a LVMR between 2004 and 2017 at our unit by telephone to record their PP evolution and outcome using a standardised questionnaire. Numeric Rating Scale was used to assess PP severity.

Results: Total 478 patients who underwent LVMR were contacted successfully and 187 (39%) of them reported pre-LVLR PP. Mean age was 56 years. Median follow-up (FU) time was 7 years. Of the patients presenting with obstructed defaecation syndrome (ODS) as main indication for LVMR, 47% (91/192) reported pre-LVLR PP compared to 28% (29/104) for those with faecal incontinence (FI) and 41% (41/101) mixed ODS/FI ($P = 0.005$).

Improvement in PP after LVMR was observed in 76% (142/187) patients, with 47% (87/187) of them being completely pain free and 29% (55/187) stated improvement in their PP severity at FU. LVMR was as effective in achieving improvement in PP for ODS as for FI group and mixture of ODS/FI ($P = 0.59$).

Functional outcome and satisfaction were better in pain free group ($P < 0.00001$). Being pain-free after LVMR was unrelated to FU time ($P = 0.28$). Patients with persistent PP at FU were younger and had more further surgeries (FS) after LVMR compared to pain-free group ($P = 0.01$, $P = 0.0003$) but this seemed unrelated to mesh erosion ($P = 0.48$).

Conclusion: LVMR significantly improves PP in 76% of patients with pre-existing PP, though younger patients and those who undergo FS after LVMR are at higher risk of developing chronic PP

Disclosure of Interest: None declared

PO-004 | REPEAT DEFAECATING PROCTOGRAPHY FOR RECURRENT SYMPTOMS AFTER LAPAROSCOPIC VENTRAL MESH RECTOPEXY; WHAT IS THE IMPACT OF ANATOMICAL FAILURE?

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Aim: To determine if failure of anatomical correction is responsible for recurrence of symptoms after laparoscopic ventral mesh rectopexy (LVMR).

Method: All the patients who had a pre and post-LVLR defaecating proctogram (DPG) for recurrence of symptoms between

2004 and 2017 were identified from a prospectively maintained database to assess post-LVLR 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 LVMR, 74 patients had repeat DPG. Median time between LVMR and a repeat DPG was 24 months. Mean age at the time of LVMR was 54 years. The symptoms for which primary LVMR was indicated were obstructed defaecation syndrome (ODS) in 36% patients, faecal incontinence (FI) 17% and mixture of both ODS/FI 33%.

The main indication for repeat DPG were assessment of rectal prolapse (RP) symptoms in 37% patients, ODS 32%, FI 15%, mixture of ODS/FI 12% and others 4%. Repeat DPG showed 84% of patients had improvement in their RI grading with complete resolution in 59% after LVMR. Concomitant Pelvic floor descent (PFD) improved in 36% of patients as well, compared to 20% improvement in rectocele and 14% enterocele. Overall, 51% (38/74) of patients went on to have further surgery after LVMR and 61% (23/38) of them were satisfied with their outcome.

Conclusion: Repeat DPG for symptoms after LVMR showed correction of RI in most patients, suggesting that anatomical failure was not the main cause of symptoms and further multidisciplinary approaches should be considered

Disclosure of Interest: None declared

PO-005 | SUTURE RECTOPEXY VERSUS VENTRAL MESH RECTOPEXY FOR COMPLETE FULL-THICKNESS RECTAL PROLAPSE AND INTUSSUSCEPTION: A SYSTEMATIC REVIEW AND META-ANALYSIS

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Aim: Fixing the rectum to the sacrum has been a mainstay for rectal prolapse treatment, however the use of synthetic mesh has been under scrutiny. This systematic review and meta-analysis aimed to compare recurrence rates for suture rectopexy (SR) with ventral mesh rectopexy (VMR) for complete rectal prolapse (CRP) or intussusception (IS).

Method: MEDLINE, Embase, and the Cochrane Library were searched for studies reporting on the recurrence rates of complete rectal prolapse (CRP) or intussusception (IS) after SR and VMR. Results were pooled and procedures compared; a subgroup analysis was performed comparing patients with CRP and IS who underwent VMR using biological versus synthetic meshes. A meta-analysis of studies comparing SR and VMR was undertaken. The Methodological Items for Non-Randomized Studies score, the Newcastle-Ottawa Scale, and the Cochrane Collaboration tool were used to assess the quality of studies.

Results: Twenty-two studies with 976 patients were included in the SR group and 31 studies with 1605 patients in the VMR group; among these studies, five were eligible for meta-analysis. Overall, in patients with CRP, the recurrence rate was 8.6 per cent after SR and 3.7 per cent after VMR ($P < 0.001$). However, in patients with IS treated using VMR, the recurrence rate was 9.7 per cent. Recurrence rates after VMR did not differ with use of biological or synthetic mesh in patients treated for CRP (4.1 versus 3.6 per cent; $P = 0.789$) and or IS (11.4 versus 11.0 per cent; $P = 0.902$). Results from the meta-analysis showed high heterogeneity, and the difference in recurrence rates between SR and VMR groups was not statistically significant ($P = 0.76$).

Conclusion: Although the systematic review showed a higher recurrence rate after SR than VMR for treatment of CRP, this result was not confirmed by meta-analysis. Therefore, robust RCTs comparing SR and biological VMR are required.

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PO-006 | EFFECT OF SOFT COMPUTED MICROBIOME TREATMENT IN CHRONIC CONSTIPATION: RANDOMIZED CONTROLLED TRIAL

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Aim: Current medications and behavioral modifications have limited success in the treatment of chronic constipation (CC). Individualized diet based on microbiome analysis may improve symptoms in CC.

Method: Between December 2020–March 2021 42 patients fulfilling Rome IV criteria for functional constipation were randomized into 2 groups. Control group received traditional treatments

(laxatives, enemas, increased fiber and fluid intake eg.). Study group underwent microbiome analysis and received an individualized diet prescribed by a soft computing system (Enbiosis Biotechnology®, Sariyer, Istanbul). Differences in Patient Assessment Constipation–Quality of Life (PAC-QoL) score and complete bowel movements per week (CBMpW) were compared between groups after 6 week-treatment.

Results: Thirty-eight (20 in control and 18 in study groups) patients were included. Mean age and BMI were 31.5±10.8 years and 26.1±5.2 kg/m². Mean duration of constipation was 89.8±72 months. Mean PAC-QoL score decreased from 52±18.5 to 14.4±4.1 in study group ($P < 0.001$) and remained similar (59.5±10.4 to 55.1±8.5) in control group ($P = 0.125$). Mean pre-treatment CBMpW was 2.1±2.2 and 1.8±1.9 in control and study groups and increased to 2.8±2 ($P = 0.542$) and 4.6±2.1 ($P = 0.010$) after treatment.

Conclusion: Soft computed microbiome treatment may improve QoL and CBMpW in CC when compared with conventional medications and diets.

Disclosure of Interest: None declared

PO-007 | OBESITY AND LAPAROSCOPIC VENTRAL RECTOPEXY FOR PELVIC FLOOR DISORDERS: IS THERE ANY IMPACT?

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Aim: To compare postoperative and long-term results of laparoscopic ventral rectopexy for pelvic floor disorders in women according to the body mass index (BMI).

Method: All the women who underwent laparoscopic ventral rectopexy for pelvic floor disorders between 2005 and 2019 were retrospectively included. 3 groups were defined according to the BMI : normal weight (BMI < 25kg/m²), overweight (IMC = 25–29.9kg/m²), obesity (IMC≥30kg/m²).

Results: 174 patients were included (mean age 55 ±15 years) and divided in normal weight ($n = 109$, 63%), overweight ($n = 44$, 25%) and obesity ($n = 21$, 12%). Patients with normal weight complained more frequently of clinical (50 vs 32%, $P = 0.01$) and radiological (38 vs 23%, $P = 0.04$) rectal prolapse than patients with overweight or obesity.

No significant difference was observed between groups for the other pelvic floor disorders, except for internal sphincter defect which was more frequently observed in normal weight than obesity (55 vs 24%, $P = 0.005$). Conversion was not significantly different between the 3 groups (14 vs 18 vs 24%, $P = 0.5$). Postoperative outcomes were similar, except wound abscess which occurred less frequently in normal or overweight than obesity (1 vs 0 vs 10%, $P = 0.01$).

Patients with normal weight were significantly associated to lower recurrence (16 vs 28%, $P = 0.03$) than patients with overweight or obesity. Patients with normal weight required significantly less



additional surgery for pelvic floor disorders than patients with overweight or obesity (10 vs 23%, $P = 0.02$).

Late complications (i.e mesh migration or incisional hernia) were similar between the 3 groups.

After multivariate analysis, obesity was not yet significantly associated with recurrence, but it was with additional surgery (Odd Ratio = 2.5, 95% CI 1.2–4.8, $P = 0.01$).

Conclusion: Obesity is not associated with altered postoperative outcomes, but it seems to expose to an insufficient surgical correction of pelvic floor disorders.

Disclosure of Interest: None declared

PO-008 | RELIABILITY OF CLINICAL ASSESSMENT OF OBSTETRIC ANAL SPHINCTER INJURIES (OASIS). A COMPARATIVE STUDY WITH 3D-ENDOANAL ULTRASONOGRAPHY

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Aim: Obstetric anal sphincter injuries (OASIS) are the major causes of anal incontinence (AI) in women. After primary repair, AI can occur at a mean rate of 39%. Endoanal ultrasonography (EAUS) is the gold standard technique to assess AS integrity. Aim of our research was to assess the reliability of clinical evaluation of OASIS at the delivery in comparison with three-dimensional (3D) EAUS.

Method: A prospective study was designed. Between 2015 and 2021, consecutive females with clinical diagnosis of OASIS and primary repair after vaginal delivery were enrolled. Cases were blindly assessed by 3D-EAUS 2 months after the delivery. EAUS was performed by using a rotating mechanical probe at frequency of 12 MHz. Measurements included degrees of IAS/EAS defects and EAS anterior thickness (normal range: 12–15mm). Reliability of clinical diagnosis of OASIS was compared with 3D-EAUS. Symptoms of AI were investigated with Wexner questionnaire.

Results: 99 females, median age 33.8 years, number of vaginal delivery 1 (72.7%), 2 (23.3%) and ≥ 3 (4%), were enrolled. Clinical assessment found: OASIS 2 (4%), OASIS 3A (43.4%), OASIS 3B (27.3%), OASIS 3C (9.1%), OASIS 4 (16.2%). Perfect agreement 3D-EAUS/clinical classification was reported in 83% of cases. 3D-EAUS detected lower grades in 13% and higher grades in 4% of OASIS. Sensibility and specificity of clinical assessment were: OASIS 3A (0.879/0.843), OASIS 3B (0.742/0.939), OASIS 3C (0.844/1), OASIS 4 (1/1). Average EAS thickness was 10.7mm and was correlated to AI and severity of OASIS.

Conclusion: Clinical assessment of OASIS after delivery is reliable and has very good agreement with ultrasound evaluation. Surgical repair of anal sphincters damage can result in a shorter anterior

thickness of EAS as detected by 3D-EAUS. This is likely to occur mainly in higher degrees of OASIS. The reduced thickness can be due to a shorter repair of the muscle in the delivery suite or to a partial failure of the repair.

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Disclosure of Interest: None declared.

PO-009 | LONG-TERM FUNCTIONAL OUTCOME AFTER FURTHER SURGERY FOLLOWING PRIMARY LAPAROSCOPIC VENTRAL MESH RECTOPEXY

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Aim: To analyse the impact of further surgery (FS) on patients with recurrence of symptoms after laparoscopic ventral mesh rectopexy (LVMR).

Method: All patients who underwent FS after primary LVMR at our institution between January 2004 and August 2020 were selected from a prospectively maintained database.

Results: After primary LVMR, 28% (136/478) patients underwent FS; with 15% (71/478) of them had 1 FS, 9% (45/478) 2–3 FS and 4% (20/478) ≥ 4 FS. The mean age was 52 years. The median time from primary LVMR to FS was 17 months. The type of FS performed was redo LVMR in 40% (55/136) patients, STARR 23% (31/136), Delorme's 27% (36/136), SNS 21% (29/136), de-functioning stoma 10% (14/136) and bowel resection 7% (9/136).

The main indications for FS were persistent feeling of prolapse in 19% (26/136) patients, obstructed defaecation syndrome 14% (19/136), faecal incontinence 12% (16/136), a combination of these 40% (54/136) and mesh erosion 8% (11/136).

After FS, 56% (76/136) patients reported better function at FU compared to 74% (252/342) without FS after primary LVMR ($P < 0.05$). After 1 FS, 56% (40/71) patients reported better function compared to 51% (23/45) after 2–3 FS and 40% (8/20) ≥ 4 FS ($P = 0.43$). In those with 1 FS, 70% patients who had redo-LVMR reported better function compared to 50% after Delorme's and STARR.

Conclusion: After primary LVMR, 28% patients needed FS, with a single redo-LVMR achieving comparable long-term functional outcome as primary LVMR in a selected group of patients. A trend of diminishing long-term benefit was observed for patients undergoing multiple FS.

Disclosure of Interest: None declared

PO-010 | RISK FACTORS FOR ANORECTAL DYSFUNCTION AFTER ANTERIOR RESECTION

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Aim: To our knowledge it is not known if the functional outcome is affected whether sigmoid or descending colon is anastomosed to the ano-rectum when performing low anterior resection.

The primary aim was to explore if rectal cancer patients operated with AR will have poorer bowel function when the sigmoid colon is used for anastomoses compared with the descending colon. Secondary, we aimed to identify other possible risk factors for bowel dysfunction after AR.

Method: This is a retrospective study based on prospectively registered data from a regional registry at the surgical department in Västmanland 1996–2019. Bowel function was registered at one year after AR and stoma reversal. In total 470 stage I-III rectal cancer patients had AR whereof 412 were included in this study.

Results: Clustering was seen in 57%, incontinence 29%, urgency 22% and evacuatory dysfunction 16%. Part of colon used for anastomosis, level of vascular tie and gender were not significantly associated with defecatory dysfunction. The higher anastomotic level the lower the risk of incontinence (OR 0.75; CI 0.63–0.90; $P < 0.001$) and clustering (OR 0.78; CI 0.67–0.90; $P < 0.001$). Compared with patients without a loop-ileostomy an increased risk of clustering (OR 1.89; 1.08–3.31; $P = 0.03$), incontinence (OR 2.48; 1.29–4.77; $P < 0.01$) and urgency (OR 4.61; CI 2.02–10.60; $P < 0.001$) was seen after loop-ileostomy closure. Pre-operative RT had a negative impact on continence and clustering seen mainly in the unadjusted analysis.

Conclusion: Part of colon for anastomosis was not significantly associated functional outcome after anterior resection. Low anastomotic level and having had a diverting ileostomy were independent risk factors associated with negative functional outcomes.

Disclosure of Interest: None declared

PO-011 | ACCELERATED 23-HOUR ERAS CARE FOR COLORECTAL SURGERY (CHASE)

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Aim: Introduction of the Enhanced Recovery After Surgery (ERAS) program has improved postoperative outcomes. The aim of this study is to investigate the feasibility and safety of a 23-hour accelerated ERAS protocol for patients undergoing colorectal surgery compared to a retrospective cohort of patients who received the standard ERAS care.

Method: This single-center, non-randomized, prospective study is carried out in one large teaching hospital in the Netherlands. Patients (≥ 18 years ≤ 80) undergoing elective laparoscopic surgical resection, will be invited to participate in this study if they meet the following criteria: BMI ≤ 35 kg/m², WHO performance status 0, available ambulant care and available by phone. The 23-hour accelerated ERAS protocol consists of a multidisciplinary and multifaceted protocol adjusting the preoperative, perioperative and postoperative care as previously reported by Levy et al. If patients meet the discharge criteria, they will be discharged within 23-hours after surgery. Primary outcome is the rate of the successful and safe application of the 23-hour accelerated ERAS protocol for patients undergoing elective colorectal surgery.

Results: To date 63 patients were eligible for inclusion, of whom 40 patients were included in this study. Two patients were excluded; one due to conversion to an open procedure and another because of incorrect anesthesia protocol. The preliminary results show that 30 out of 37 patients (81%) were discharged within 23 hours after surgery.

Nine patients (27%) had a complication, of which 2 patients (6%) had a serious complication (Clavien Dindo III) requiring reoperation. Forty patients will be included in this study. The final results will be expected soon.

Conclusion: This study is the first study in the Netherlands assessing the feasibility and safety of a 23-hour accelerated ERAS protocol for colorectal surgery. So far it is considered feasible and safe and expected to reduce length of hospital stay even further.

Disclosure of Interest: None declared



PO-012 | SACRAL NERVE STIMULATION FOR FAECAL INCONTINENCE AND CONSTIPATION IN SPINAL-CORD INJURED PATIENTS

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Aim: Spinal cord injuries (SCI) may affect gastrointestinal, urinary and/or sexual systems and can cause impaired colorectal motility, anomalies in anorectal sensation and anal sphincter function resulting in neurogenic constipation or faecal incontinence (FI). Constipation has been reported in 68% of cases, with digital assistance and enemas required in 20% and 28% of cases, respectively. Incontinence has been reported in 62% of cases, severely affecting quality of life. Aim of our research was to assess the efficacy of Sacral Nerve Stimulation (SNS) in patient with SCI and neurogenic bowel symptoms.

Method: A retrospective study was performed. Data were collected from three HUB Italian Centre from March 2006 to March 2013. Consecutive patients affected by SCI and defecatory disorders unresponsive to conservative therapies underwent temporary SNS. Preoperative investigation included endoanal ultrasound, anal-rectal manometry, anal sphincters electromyography and pudendal nerve terminal motor latency. Efficacy was evaluated by using the Wexner questionnaire score for constipation or FI. Patients who reported an improvement $\geq 50\%$ underwent definitive implant.

Results: 10 cases were enrolled (6M, 4F): median age 58 years. FI was reported in 6 cases: 1 with Schwannoma, 2 with postsurgical neuropathy and 3 with post-traumatic SCI. Constipation was referred by 4 patients: 2 with spina bifida, 1 with cauda equina and 1 with viral myelitis. Symptoms persisted for a median of 4 years. All FI cases underwent definitive SNS at a median setting: pulse width 210 μ s, frequency 40Hz, amplitude 6V. Wexner score was 13.8 \pm 5.2 preop. vs. 2.3 \pm 1.7 at a median follow up of 3.94 years (P value < 0.02). None of constipation patients underwent second stage of SNS.

Conclusion: SNS seems to be an effective treatment at long-term in patients with FI due to spinal cord injuries (SCI) unresponsiveness to conservative therapies. In neurogenic constipation, SNS doesn't show the same efficacy.

Disclosure of Interest: None declared

PO-013 | IMPACT OF DIVERTING STOMA ON CLINICAL AND FUNCTIONAL OUTCOMES AFTER TOTAL MESORECTAL EXCISION FOR RECTAL CANCER

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Aim: Low anterior resection with Total Mesorectal Excision (TME) is the current surgical gold standard for mid and low rectal cancer. Even if a defunctioning stoma mitigates the serious consequences of anastomotic leakage, the presence of a temporary stoma may also be a determining factor for further morbidities and poorer bowel function. The aim of this study is to evaluate the impact of diverting stoma (DS) on functional outcomes after TME

Method: All the consecutive patients that underwent TME for rectal cancer between March 2017 and March 2020 in 2 Italian referral centers were prospectively enrolled and retrospectively evaluated. In every patients sex, age, stage of the tumor, neoadjuvant therapy, surgical technique (open, laparoscopic, robotic), anastomotic technique, the presence of DS and perioperative complications were recorded. Considering ileostomy (IS), colostomy (CS), length of time before closure, stoma related complications were evaluated. Between 30 and 60 days after surgery (if no stoma) or after the stoma closure all patients underwent a functional evaluation with LARS score

Results: 356 consecutive patients (male 63%) were included. Preoperative neoadjuvant therapy was performed in 256 patients (72%). A minimally invasive approach was performed in > 95% of patients (Robotic 48%, laparoscopic 48%). Temporary stoma were performed in 303 patients (85%: IS 87%, CS 13%). Stoma was closed in 87% of patients. The median time from surgery to stoma closure was 145 days: 143 days for IS and 151 days for CS. No difference was found between IS and CS in overall morbidity. Moreover, increased postoperative functional disturbance seemed to be proportional to the attending time for closure, in particular for IS

Conclusion: The presence of a defunctioning stoma seems to have a negative impact on functional bowel activity, especially for delayed closure, in particular for IS. This should be considered when the kind of stoma (IS vs CS) was selected for each patient

Disclosure of Interest: None declared

PO-014 | CASE-CONTROL STUDY OF THE OUTCOME PREDICTORS OF RECTOCELE REPAIR

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Aim: Anterior rectocele is a common condition that can be associated with obstructed defecation syndrome (ODS). This study aimed to compare different approaches of rectocele repair and identify the predictors of failure of improvement in defecatory symptoms after surgical treatment of rectocele.

Method: This was a retrospective, case-control study on adult female patients with anterior rectocele who were treated surgically by transperineal repair (TPR), transvaginal repair (TVR), or laparoscopic ventral mesh rectopexy (LVMR). Patients were assessed with Wexner constipation score, anal manometry, and defecography before and after repair. The Main outcome measures were the rate of improvement in ODS symptoms after repair and the independent predictors of failure of symptom improvement.

Results: The present study included 136 female patients of a mean age of 41.7 years. TPR was performed in 61 (44.8%) patients, TVR in 32 (23.5%), and LVMR in 43 (31.6%). Significant improvement in symptoms was noted in 111 (81.6%) patients. LVMR was associated with longer operation time, lower postoperative Wexner score, and higher improvement in symptoms than TPR and TVR. The significant independent predictors of failure of symptom improvement were TPR (OR: 4.74, $P = 0.02$), higher preoperative Wexner score (OR: 2.56, $P = 0.02$), and larger residual rectocele after surgery (OR = 5.21, $P = 0.033$).

Conclusion: LVMR is followed by better improvement in rectocele symptoms than TPR and TVR. Higher preoperative symptom scores, larger residual rectocele size in follow-up defecography, and TPR repair were the independent predictors for failure of symptom improvement after repair.

Disclosure of Interest: None declared

PO-015 | IATROGENIC GENITOURINARY INJURY DURING SALVAGES PROCEDURES FOR CHRONIC PELVIC SEPSIS – A 10-YEAR EXPERIENCE OF A NATIONAL REFERRAL CENTRE

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Aim: To determine the incidence of iatrogenic genitourinary injury in salvage procedures for chronic pelvic sepsis in a national referral centre.

Method: Patients with chronic pelvic sepsis after low anterior resection or Hartmann's procedure for rectal cancer undergoing a salvage procedure in the period between 2010 and 2020 were included. The primary endpoint was the incidence of iatrogenic genitourinary injury. Secondary endpoints were moment of diagnosis

(intra- versus postoperative), Clavien Dindo (CD) score and (surgical, endoscopic and radiological) reinterventions related to the genitourinary injury.

Results: In total 129 patients were included, iatrogenic genitourinary injuries occurred in 12 patients (9.3%); a ureteric injury in seven patients, bladder injury in four patients and a urethral injury in one patient. The injury was diagnosed postoperatively in eight (66.7%) and intraoperatively in four patients (33.3%). Seven out of eight patients (87.5%) with a postoperative diagnosis had a CD score > 2, compared to two out of four patients (50%) diagnosed intraoperatively and the median amount of overall reinterventions was 5 (range 1–31) and one (range 0–1) respectively. Four patients required a surgical reintervention related to the genitourinary injury, all concerning injuries diagnosed postoperatively.

Conclusion: Iatrogenic genitourinary injuries are not uncommon in salvage procedures for chronic pelvic sepsis, even in an experienced tertiary referral centre. Most injuries were diagnosed postoperatively and this affects the severity of these complications, emphasizing the need for better intra-operative diagnostic modalities.

Disclosure of Interest: None declared

PO-016 | THE DELOYERS PROCEDURE, THE CLUE TO SUCCESSFUL LOW COLORECTAL ANASTOMOSIS IN SELECTED CASES: A CASE SERIES

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Aim: Many surgical interventions of the left colon may leave a remaining colonic segment with questionable vascularity or not sufficient to achieve tension-free low colorectal or lower anastomoses. The Deloyers procedure entails using a right colonic segment based on the ileocolic vessels as a sole blood supply with intact marginal artery. Such anastomosis is achieved after rotating the right colon around the axis of the ileocolic vessels. The aim of this work is to study the implication of this technique in selected cases on postoperative defecation habits and quality of Life.

Method: The records of patients who underwent left or extended left colonic surgery and have been offered Deloyers procedures were retrospectively investigated. The whole circumstances necessitated the use of such procedure, preoperative investigations, and postoperative effect on the bowel functions and the quality of life.

Results: Five patients were identified. The reasons for use of Deloyers procedure were reported. Two patients (40%) were performed laparoscopically, two patients (40%) required transanal pull through, and three patients (60%) required a diverting ileostomy. Six months after the procedure, there was a significant improvement in the Cleveland Clinic constipation score ($P < 0.001$), and Patient-Assessment of constipation quality of life score ($P < 0.001$ in both satisfaction and dissatisfaction). No patients experienced anastomotic leakage or stricture.



Conclusion: In the experienced hands and in selected cases, the Deloyers procedure represents an alternate solution in case of a short colonic segment or questionable vascularity to achieve successful low colorectal anastomoses with a colonic reservoir.

Disclosure of Interest: None declared

PO-017 | RESULTS OF THE IMPLEMENTATION OF A COMPLEX SURGICAL PATIENT CARE AREA (CSPCA) FOR FRAGILE PATIENTS WITH COLORECTAL CANCER

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Aim: Elderly age, comorbidity and fragility affect the postoperative morbidity and mortality of surgical patients with colorectal cancer. The aim of this study is to assess the effect of integrated care, multidisciplinary and individualized treatment of these patients through implementation of a Complex Surgical Patient Care Area (CSPCA).

Method: Prospective, observational and comparative study that reviews the results of 162 consecutive patients undergoing colorectal surgery with curative intention between 2015 and 2019, 82 of them considered ASA III fragile patients or IV and included in the CSPCA (Group I) and 80 non-fragile patients operated during the same period (Group II).

Comparison of surgical results, complications, hospital stay and influence of the degree of frailty in postoperative evolution by statistical and regression analysis with Stata 13.0.

Results: No differences were found in terms of mean stay (10.1 +/- 5.3 Group I vs 9.8 +/- 7.3 Group II, $P = 0.08$), Clavien-Dindo III-IV complications, re-interventions or mortality ($P > 0.05$).

Within Group I, the degree of fragility (assessed with the Barthel scale) is correlated with the appearance of more postoperative complications ($P < 0.05$). No correlation was found between age and degree of fragility or complications ($P > 0.05$).

Conclusion: Implementation of a CSPCA for fragile patients who have to undergo a Colorectal Cancer intervention allows for comprehensive, individualized and multidisciplinary management.

Meaning, although they are more vulnerable patients, do not present more morbidity and mortality or prolongation of average stays. The degree of fragility isolated is a good predictor of postoperative morbidity, to prioritize before age. It is a factor that we must take into account before submitting a patient to a complex surgical intervention and that allows us to anticipate possible postoperative adverse events.

Disclosure of Interest: None declared

PO-018 | RECURRENCE OF DIVERTICULITIS AFTER PROPHYLACTIC SIGMOIDECTOMY: AN UNDERESTIMATED PROBLEM?

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Aim: To assess possible risk factors for postoperative recurrence of diverticulitis (PRD) after prophylactic laparoscopic sigmoidectomy.

Method: All consecutive patients who underwent prophylactic laparoscopic sigmoidectomy for one or more diverticulitis episodes between 2005 and 2019 were retrospectively included. Patients operated through an open approach and those operated in emergency were excluded from this study.

Results: 19/365 patients (5%) presented 1 to 4 episodes of PRD after a mean delay of 57 ± 40 (range 11–136) months after prophylactic sigmoidectomy. Patients with PRD were younger (48 ± 11 vs 55 ± 14 years, $P = 0.04$), with more frequently uncomplicated episodes of diverticulitis (12/19, 61% vs 101/356, 28%; $P = 0.008$), pancolonic diverticulosis (3/19, 16% vs 15/346, 4%; $P = 0.05$) and more episodes of diverticulitis (3 ± 1 vs 2.5 ± 1 , $P = 0.05$) before prophylactic sigmoidectomy, than patients without PRD. After multivariate analysis, 2 risk factors for PRD were identified: pancolonic diverticulosis (OR = 5; 95% CI = 1.2–20.8, $P = 0.003$) and uncomplicated episodes of diverticulitis as an indication for surgery (OR = 3.9, 95% CI = 1.4–10.5, $P = 0.008$). PRD was noted in 3/6 (50%) with both factors vs 8/118 (7%) with 1 factor vs 8/241 (3%) without factor ($P < 0.0001$). PRD was noted in 3/7 (43%) if age < 50 and pancolonic diverticulosis vs 9/144 (6%) with 1 factor vs 7/214 (3%) without factor ($P < 0.0001$). PRD was noted in 7/54 (13%) if age < 50 and uncomplicated episodes of diverticulitis vs 9/144 (6%) if 1 factor versus 3/167 (3%) without factor (3%; $P = 0.004$).

Conclusion: Recurrence is rare (5%) after PS for diverticulitis. However, this risk of recurrence is up to 50% in some patients (i.e. with pancolonic diverticulosis, uncomplicated episodes of diverticulitis and/or age < 50) for whom indication of prophylactic sigmoidectomy should be questioned.

Disclosure of Interest: None declared

PO-019 | SILODOSIN FOR THE PREVENTION OF LOWER URINARY TRACT SYMPTOMS IN PATIENTS UNDERGOING LOW ANTERIOR RESECTION WITH EARLY URINARY CATHETER REMOVAL

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Aim: Our aim was to evaluate the incidence of urinary tract symptoms in early urinary catheter removal following rectal surgery in patients receiving alpha-1 adrenergic receptor antagonist – Silodosin (Recordati, It).

Method: This was a prospective clinical trial of 100 patients with rectal cancer who underwent radical surgery from 2019 to 2021 at National Cancer Institute. On the first postoperative day, all patients had their urinary catheter removed and prophylactic Silodosin was administered. The incidence of postoperative urinary retention, urinary tract infection, other complications were recorded and possible risk factors of urinary retention were analyzed.

Results: Of 100 patients 58 were males and 42 females, with a median age of 66 (28–94) years old and the average BMI of 26,09. Distance from the tumor lower margin to anal verge ≤ 5 cm were in 34 patients, > 5 cm to 10 cm in 31 patients, > 10 cm to 15 cm in 35 patients. Stage 0 was recorded in six patients, stage I - 21, IIA - 33, stage III - 31 and stage IV - 9 patients. 39 patients received neo-adjuvant treatment: 29 - chemoradiotherapy, eight - short course radiotherapy and two - chemotherapy. 28 patients underwent abdominoperineal resection (APR), 32 - partial mesorectal excision (PME), 40 - total mesorectal excision (TME). Laparoscopic approach was performed in 32 patients and for rest 68 patients - open. The median postoperative hospital stay was 9 days (range: 2 -51 days). One patient had urinary retention (1%), urinary tract infection in two patients (2%) and dysuria - three patients (3%). 35 patients had complications: 26 - Clavien-Dindo I and II, nine - Clavien-Dindo III and IV.

Conclusion: Our prospective clinical trial showed that early urinary catheter removal in combination with prophylactic Silodosin following rectal cancer surgery reduces the incidence of urinary tract symptoms. It requires larger-scale, and high-quality randomized controlled clinical trials with comparator groups.

Disclosure of Interest: None declared

PO-020 | LAPAROSCOPIC VENTRAL MESH RECTOPEXY IN THE MANAGEMENT OF EXTERNAL RECTAL PROLAPSE IN MALE PATIENTS: A CASE SERIES

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Aim: Laparoscopic ventral mesh rectopexy (LVMR) is a successful procedure in management of both internal and external rectal prolapse. Only few series were reported about the pros and cons of this procedure in male patients. This small series represent another step in the evaluation of the effectiveness of this procedure in male patients.

Method: We reported three cases of male patients with external rectal prolapse who were manifested with obstructed defecation syndrome rather than fecal incontinence. LVMR were offered to those patients and the effects on defecation habits, sexual function and the quality of life were reported.

Results: After one year, LVMR offered a successful management of external rectal prolapse with a favorable outcomes regarding defecation and sexual functions ($P < 0.001$). One case complained of residual prolapse and required further management.

Conclusion: LVMR is a safe and effective procedure in management of external rectal prolapse in male patients. Yet, large series and randomized clinical trials are required for better assessment and optimization of the procedure.

Disclosure of Interest: None declared

PO-021 | A SYSTEMATIC REVIEW OF THE IMPACT OF POST-OPERATIVE ORAL FLUID INTAKE ON ILEUS FOLLOWING ELECTIVE COLORECTAL SURGERY

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Aim: Ileus (delayed return of bowel function after surgery) is one of the highest priority research questions in modern day colorectal practice. Current Enhanced Recovery After Surgery (ERAS) guidance either does not include a specific recommendation for volume of post-operative oral fluids/foodstuffs or suggests ad-lib fluids. It is unclear if the volume of intake affects ileus rates. This systematic review aimed to determine the optimal fluid volume for patients to consume day one after elective colorectal surgery

Method: The literature was searched across seven databases. Randomised controlled trials of adults undergoing elective colorectal surgery, comparing oral intake post-operatively were eligible for inclusion. Two blinded reviewers assessed papers with disagreements resolved by a third independent reviewer. Main outcomes were resolution of post-operative ileus and length of hospital stay. Secondary outcomes included vomiting, mortality and complications.

Results: Of 2175 screened papers, eight were eligible for inclusion. All studies gave a clear liquid diet post-operatively. The comparison groups followed a traditional nil-by-mouth approach. All studies showed a minor reduction in post-operative ileus and hospital stay in the intervention group, but we are unable to determine the optimal post-operative oral fluid volume. The low number and poor quality of studies was a significant limitation. None of the trials were conducted within an ERAS protocol: only 883 patients were included in total

Conclusion: From the current literature it is unclear how post-operative oral fluid volume intake affects gastrointestinal function and ileus in elective colorectal surgical patients. This remains an important area for further research.

Disclosure of Interest: None declared



PO-022 | VENTRAL PROSTHESIS RESTOPEXY (VPR) OFFERS SUSTAINABLE GOOD RESULTS FOR 5 YEARS IN PATIENTS WITH OBSTRUCTED DEFECACTION SYNDROME (ODS)

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Aim: Obstructed Defecation Syndrome (ODS) is a rather complex entity concerning mainly females causing primarily constipation. Ventral Prosthesis Rectopexy (VPR) has been proposed and seems to have the best outcomes. However, the reported outcomes of studies concern a relatively short follow-up period. This study presents a series of patients with a long follow-up period.

Method: A prospective series of patients from 2008 to 2019 with ODS underwent VPR to manage their symptoms by one surgeon. All patients were evaluated with history, clinical examination, and proctogram. Outcomes of interest were postoperative morbidity, satisfaction and symptoms of constipation or incontinence.

Results: Fifty-four patients (51 females, 3 males) were included in the study. Fifty-one had a mesh inserted. Median follow-up was 83.5 months. The immediate postoperative morbidity rate was 7.4%. There was one mesh-erosion (1.9%). A significant continuous improvement in constipation symptoms, incontinence, satisfaction and pain was observed up to 20 months and remained stable up to sixty months.

Conclusion: In this series of patients VPR offered symptomatic relief to the majority of patients with ODS, improving both constipation and incontinence for at least two years postoperatively. The longer follow-up showed that these good effects are sustainable up to 60 months.

Disclosure of Interest: None declared

PO-023 | THE TREATMENT OF COMPLICATED FORMS OF PTOSIS AND PROLAPSE OF INNER GENITAL ORGANS

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Aim: working out the treatment of complicated forms of ptosis of pelvic ground with the use of polypropilene net.

Method: 86 patients were made vaginal extirpation of the uterus without adnexa(1 group), 19 was made on operation due to the method carried out in the clinic with the use of Prolene Soft material (2 group).

Results: The distant results of the treatment were studied in 49 (59%) of the 1 group patients and 16 (84,2%) of the 2 group patients.

Excellent results were received in 14,2% of the 1 group patients and in 88,2% in the 2 group. Good results were pointed out in 62,3% in the 1 group and in 62,5% in the 2 group. Satisfactory results were received in 22,4% in the 1 group and in 12,5% in the 2 group. In 12,3% of the 1 group patients the signs of difficult defecation was marked. In 8,2% in 1 group was marked the relapse of rectocele of the 1-2 degree. In 8,2% was marked the prolaboration of the uterus stump. In 6,1% of the 1 group patients were marked the symptoms of imperative urge incontinence due to stress and in 8,2% of imperative urge incontinence. Unsatisfactory results was found out in 14,3% of cases in the 1 group. There wasn't found out any unsatisfactory results and relapses in the 2 group.

Conclusion: In complicated forms of the lowering of the pelvic ground atrophy it is necessary to use additional means of fixing.

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Disclosure of Interest: None declared

PO-024 | INCREASED INCIDENCE OF COLORECTAL CANCER IN PATIENTS WITH ULCERATIVE COLITIS: A NATIONWIDE COHORT STUDY BETWEEN 1990-2020

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Aim: Studies on the incidence of high-grade dysplasia (HGD) and colorectal cancer (CRC) in patients with ulcerative colitis (UC) show conflicting results. The aim of this study is to identify a time trend in increasing disease duration before colectomy, accompanied by a shift in colectomy indication (from refractory disease to malignant degeneration) over the last three decades.

Method: From the nationwide Dutch Pathology Registry (PALGA), pathology excerpts from all patients with UC or indeterminate colitis (IC) who underwent a colorectal resection for all indications between January 1st, 1990 and November 12th, 2020 were included. The primary outcome was the incidence of HGD/CRC in the colon specimens.

Results: Overall, 6,528 patients were included of which 5,366 (82.2%) underwent a (procto)colectomy and 1,162 (17.8%) a segmental resection. In 1,163 (17.8%) patients, pathological examination demonstrated HGD ($n = 91$, 1.4%) or CRC ($n = 1,072$, 16.4%) after a median disease duration of 10 years [IQR 3.0-18.3]. The incidence of HGD/CRC increased from 11.5% between 1990-1999, to 18.0% between 2000-2009, to 23.8% between 2010-2020 ($P < 0.001$). Disease duration increased from 4 years [IQR 0.0-8.0] between 1990-1999, to 9 years [IQR 2.0-15.0] between 2000-2009, to 16

years [IQR 7.0–23.0] between 2010–2020 ($P < 0.001$). Compared to patients operated between 1990–1999, patients operated between 2000–2009 and 2010–2020 were more often diagnosed with advanced disease (pT3/T4 = 60.9% vs 66.1% vs 63.1% respectively, $P = 0.01$) and lymph node metastasis (31.2% vs 42.0% vs 38.3% respectively, $P < 0.05$).

Conclusion: This unique nationwide pathology study demonstrated an increased incidence of HGD/CRC over time. We hypothesize that the expanding therapeutic armamentarium for UC likely leads to exhausting medical options and hence postponed colectomy. This however, might be at the expense of increased risk of HGD/CRC in the long term. Despite surveillance programs, the incidence of advanced colon carcinoma is still high.

Disclosure of Interest: None declared

PO-025 | DEFINING ILEOANAL POUCH SYNDROME: THE PATIENT REPORTED OUTCOMES AFTER POUCH SURGERY (PROPS) DELPHI CONSENSUS STUDY

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Aim: The aim of this Delphi consensus study was to create a patient-centered definition of core bowel function symptoms that should be included in future studies of ileoanal pouch function.

Method: Three panels of expert stakeholders were chosen to correlate with the clinical scenario of the multidisciplinary team that cares for pouch patients: (A) patients, (B) colorectal surgeons, (C) gastroenterologists/other clinicians. A starting list of items was generated by systematic literature review. Three rounds of Delphi surveys were employed to select high priority items based on an *a priori* threshold. Participants had the opportunity to suggest additional symptoms not included in the starting list. A final online consensus meeting with representation from all three expert panels was held to finalize a consensus statement.

Results: After three rounds of voting, 195 patients, 62 colorectal surgeons, and 48 gastroenterologists/other specialists completed all three rounds. In the patient group, 95% had UC and J-pouch anatomy. Of note, when asked about general satisfaction with their pouch, one quarter of patients were somewhat or very dissatisfied with their decision to have surgery. Finally, 161 stakeholders participated in the final consensus meeting (73% patients, 18% surgeons, 9% GIs). At the conclusion of the final consensus meeting, participants elected to include seven bowel symptoms and seven consequences of these symptoms into the final consensus statement defining core domains to be included in future studies of pouch function.

Conclusion: This is the first study to identify key functional outcomes after pouch surgery with direct input from a large panel of IPAA patients. The inclusion of patients in all stages of the consensus process allowed for a true patient-centered approach in defining

the core domains that should be focused on in future studies of pouch function.

Disclosure of Interest: P. Cavallaro Conflict with: Crohn's and Colitis Foundation Surgical Research Network, L. Bordeianou Conflict with: Crohn's and Colitis Foundation Surgical Research Network

PO-026 | DOES ILEAL POUCH ANAL ANASTOMOSIS DECREASE THE RATE OF DELIVERY COMPARED TO ILEO-RECTAL ANASTOMOSIS? A NATIONAL STUDY ON 1491 PATIENTS

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Aim: Previous studies of limited sample size demonstrated a lower fecundity rate after ileal pouch-anal anastomosis (IPAA) compared to ileorectal anastomosis (IRA). The aim of this study was to compare the rate of delivery between IRA and IPAA for women with inflammatory bowel disease (IBD) or familial adenomatous polyposis (FAP).

Method: A retrospective study (2010–2020) was performed on a prospective national cohort (PMSI). All female (12–45 years) operated with an IRA or IPAA for IBD or FAP were included. The main outcome was the rate of delivery. The groups (IRA/IPAA) were compared using a survival analysis with log rank test and multivariate analysis with cox-models.

Results: A total of 1491 patients were included (IBD = 888, 60%). Mean age at time of surgery was 30±9 years and 9% ($n = 135$) had had a delivery history.

872 IPAA (IBD = 571 (38%); FAP = 301 (20%)) and 619 IRA (IBD = 317(21%), FAP = 302 (20%)) were performed. Laparoscopic approach was used for 78% of patients ($n = 1164$). Anastomosis were performed after a sub-total colectomy for 407 IPAA (47%) for and 148 IRA (24%).

5-year delivery rate was 12% ($n = 179$) and increased to 15% ($n = 22$) after a median follow-up of 70 IQR = (40–100) months. Median delivery delay was 32 months (22–50), not different between IPAA or IRA (35 (23–57) vs. 29 (20–48), $P = 0.15$).

The 5 years rate of postoperative delivery was not significantly different between IPAA (11%) and IRA (14%) ($P = 0.14$) as between IBD (12%) and FAP (12%) patients ($P = 1$). Patients operated by laparoscopy had a 5-years delivery rate of 14% (vs. 6% after open procedure), $P = 0.001$.

After multivariable analysis, IPAA was not associated with a lower risk of delivery (HR = 0.79, (0.59,1.05); $P = 0.10$). Age, delivery history and laparoscopic approach were strongly associated with higher probability of delivery.

Conclusion: This national study of large sample size did not report any significant difference on the rate of delivery after IRA or IPAA for IBD or FAP but confirmed the major benefit of the laparoscopic approach.

Disclosure of Interest: None declared



PO-027 | COULD SNM BE A SOLUTION FOR POUCH RESCUE BEFORE DEFINITIVE STOMA FOR UC PATIENTS?

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Aim: Panproctocolectomy with ileo-pouch anal anastomosis (IPAA) is the treatment of choice for ulcerative colitis (UC) drug-resistant. Near 21% of the patients report a significant fecal incontinence. In cases resistant to conservative treatment, a definitive ileostomy has to be proposed (10 to 20% of the patients). Sacral neuromodulation (SNM) has been presented in recent studies as a possible treatment option for IPAA-related incontinence. This retrospective study aims to examine functional outcomes in patients undergoing SNM after IPAA.

Method: From October 2007 to March 2021, patients with poor functional outcomes after total proctocolectomy and IPAA despite optimized bowel management including retraining, diet and medics, were proposed a two-steps SNM implantation procedure: the first being the percutaneous stimulation test, the second being the definitive stimulator implantation. Failure was defined by the absence or insufficient improvement (< 50%) of FI episodes or improvement of fragmentation or urgencies by 50% after the first step (SNM test).

Results: 14 patients suffering from severe pouch dysfunction after IPAA surgery for UC were submitted to SNM test. UC was diagnosed 11 years before pouch surgery. SNM test was proposed after a mean 55 months after pouch surgery. 12 patients were implanted after the test-phase (86%). Subsequently 2 patients were explanted (failure after 1 y; and 1 with perineal cancer that required pouch excision). Ten patients (71.6%) remain implanted and under continuous stimulation with a mean 36.5 months of FU. In these cases, the Wexner score improved on average by 47.9% (14.2 to 9.6; $P:0.004$) during the follow-up. The FIQL questionnaire showed an average score improvement of 27.9% (1.91 to 2.41; $P:0.009$). The pre SNM LARS score decreased on average 27.5% (1.91 to 2.41; $P:0.04$).

Conclusion: SNM can improve the functional results in patients with disabling situation after pouch surgery for UC. It could represent a viable alternative to definitive stoma.

Disclosure of Interest: None declared

PO-028 | C-REACTIVE PROTEIN MONITORING AFTER ILEOCECAL RESECTION AND STOMA CLOSURE REDUCES LENGTH OF HOSPITAL STAY: A PROSPECTIVE CASE-MATCHED STUDY IN 410 PATIENTS WITH CROHN'S DISEASE

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Aim: The aim of this study was to evaluate a CRP monitoring-driven discharge strategy for patients with Crohn's disease (CD) undergoing

ileocecal resection (ICR) and in some patients, elective stoma closure (SC).

Method: CRP monitoring was on postoperative day (POD) 3. Patients were discharged on POD 4 if CRP was ≤ 100 mg/L. 153 patients with CRP monitoring who underwent ICR were matched (age, gender, body mass index, type of Crohn disease and temporary stoma or not) to 257 control patients without CRP monitoring. For SC, 79 patients with CRP were matched (age, gender, BMI) with 88 control patients.

Results: For ICR without temporary stoma, mean length of hospital stay was significantly shorter in CRP than control group (6.9 ± 2 days vs 8.3 ± 6 , $P = 0.017$). Discharge occurred on POD 7 in 74% of patients with CRP monitoring vs 60% ($P = 0.027$) for controls. For ICR with temporary stoma, mean length of hospital stay was similar between both groups (8 days). For SC, mean length of hospital stay was also significantly shorter in CRP than control group (5.5 ± 3 days vs 7.1 ± 4 , $P = 0.002$). Discharge occurred on POD 4 in 62% with CRP monitoring vs 30% without ($P = 0.003$). CRP level on POD 3 < 100mg/L was associated with a low risk of surgical site infection. Postoperative 3-month overall, severe morbidity, rehospitalization rates were similar between groups.

Conclusion: In patients with Crohn's disease, CRP monitoring decreases significantly length of hospital stay without increasing morbidity, mortality or rehospitalisation rates not only after ileocecal resection with immediate anastomosis but also after temporary stoma closure.

Disclosure of Interest: None declared

PO-029 | ILEAL POUCH-ANAL ANASTOMOSIS; EXPERIENCE AND OUTCOMES ACROSS TWO GENERATIONS OF SURGEONS AT A TERTIARY CENTER IN SWEDEN

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Aim: The standard procedure after colectomy in patients with Ulcerative Colitis (UC) and Familial Adenomatous Polyposis (FAP) is reconstructive surgery with ileal pouch-anal anastomosis (IPAA) (1). It is of interest to understand how a generation shift of the surgeons performing IPAA has affected patients' outcomes.

Method: In the period 1999–2016, all patients who underwent IPAA at Sahlgrenska University Hospital/Östra, Gothenburg, Sweden, were included. Surgeons from two different generations performed the IPAA procedures during this period; experienced surgeons (1999–2004; Period 1), the new generation of surgeons undergoing training (2005–2010; Period 2) and the new generation of experienced surgeons (2011–2016; Period 3). The primary endpoint was postoperative complications (Clavien-Dindo $\geq 3b$ (2)), and the secondary endpoints were functional outcome, failure of the pouch, and mortality. Logistic analyses of the results were performed.

Results: Overall, 281 patients were included in the study. The rate of postoperative severe complications was lower in Period 1 and 2, with the more experienced generation of surgeons [Odds Ratio (OR) 0.137; $P = 0.01$ and 0.303 ; $P = 0.026$, respectively]. Regarding functional outcome there was no significant difference between the three time periods. The risk of failure of the pouch was a higher in Period 1 (OR 5.6; $P = 0.014$), probably due to longer follow-up time.

Conclusion: This study shows that the risk of severe postoperative complications after IPAA is lower when the surgery is performed or instructed by more experienced surgeons, as compared to surgeons who are probably still in their learning curve. There are few previous studies of the learning curve for IPAA surgery. It appears that surgical units that have a high throughput of patients provide better outcomes.

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Disclosure of Interest: None declared

PO-030 | SYSTEMATIC CRP MONITORING REDUCES HOSPITAL STAY AFTER LAPAROSCOPIC ILEAL POUCH-ANAL ANASTOMOSIS. A COMPARATIVE STUDY IN 158 CONSECUTIVE PATIENTS WITH ULCERATIVE COLITIS

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Aim: C-reactive protein (CRP) is a common biomarker of inflammation which has been largely used to predict the risk of postoperative septic complications after colorectal surgery. However, no data exists concerning its potential benefit after ileal pouch anal anastomosis (IPAA) for ulcerative colitis (UC). The aim of this study was to evaluate a CRP-driven monitoring discharge strategy after laparoscopic IPAA for UC.

Method: Since 2012, 158 patients undergoing a laparoscopic IPAA for UC were included: 66 patients (CRP group) operated since 2016 had a CRP-driven monitoring discharge on post-operative day 5 (POD 5) and were discharged on POD 6 if CRP < 100mg/L; these patients were matched (according to age, gender, BMI, IPAA in 2 or 3 steps) to 92 patients operated between 2012 and 2016, without any CRP monitoring (Control group).

Results: Median length of hospital stay (LHS) was shorter in the CRP group than control group (7 vs 9 days; $P < 0.001$) and discharge on POD 6 occurred more frequently in the CRP group (47% vs 7%, $P < 0.001$). No difference was observed between the two groups concerning: overall morbidity ($P = 0.980$), Clavien-Dindo \geq IIIa morbidity ($P = 0.523$), surgical site infection ($P = 0.554$), unplanned rehospitalization ($P = 0.734$) and 30-day reoperation ($P = 0.240$).

Conclusion: CRP-driven monitoring discharge strategy after laparoscopic IPAA for UC is associated with a significant reduction of length of hospital stay, without increasing neither morbidity, reoperation nor rehospitalisation rates.

Disclosure of Interest: None declared

PO-031 | METABOLOMICS AND GENETICS FOR DIFFERENTIAL DIAGNOSTIC OF CROHN'S DISEASE AND ULCERATIVE COLITIS

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Aim: Differential diagnosis of Crohn's disease and ulcerative colitis at early stage is mostly impossible due to the absence of characteristic symptoms of the disease. In this regard, molecular diagnostic can provide prognostic information long before the symptoms arise and contribute to correct treatment strategy. HS GC-MS for the analysis of broad spectrum of volatile compounds, as well as genes polymorphisms by the real-time detection, make it possible to assess the complex risks and provide differential diagnostics of Crohn's disease and ulcerative colitis.

Method: Fecal and blood samples were obtained from 26 patients with IBD (8 CD and 18 UC), and 23 patients from healthy group. Fecal samples have been analyzed on a Shimadzu QP2010 Ultra GC / MS with a Shimadzu HS-20 headspace extractor. Compounds were identified using AMDIS (version 2.62). QIAamp® DNA Mini Kit was used for DNA extraction. Quantitative real-time PCR endpoint analysis was performed by CFX96™ Real-Time PCR Detection System (Bio-Rad).

Results: HS-GC-MS analysis demonstrated a wide range of highly volatile compounds which were significantly differ in control and inflammatory bowel diseases groups. Coefficients of diagnostic significance of metabolomic profiling calculated by Bayesian naive classifier were obtained for IBD verification. As a result of SNP (rs2066844, rs2066845, rs17221417, rs2201841, rs11362) genotyping, group of IBD has been divided into Crohn's disease and ulcerative colitis patients. In 85% of IBD cases, the initially instrumental diagnosis was confirmed by HS GC-MC and genotyping. For several patients with a preliminary diagnosed ulcerative colitis, in complex with genotyping data, ulcerative colitis diagnosis has been changed to Crohn's disease, and therefore a modification of patient therapy was carried out.

Conclusion: HS-GC/MS based method supplemented by SNP genotyping used in this study is a promising tool for early non-invasive verification and differential diagnosis of IBD.

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Disclosure of Interest: None declared

PO-032 | ASSESSING THE FATE OF THE RECTAL STUMP IN INFLAMMATORY BOWEL DISEASE SUBTOTAL COLECTOMY PATIENTS

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Aim: Inflammatory Bowel Diseases (IBD) have varied clinical courses. However, all have an associated increased risk of bowel malignancy. Although colectomy reduces the risk of colorectal cancer, the risk of inflammation and subsequent development of cancer in the rectal remnant remains. Despite the existence of surveillance guidelines for IBD patients with intact colons, guidelines on rectal stump surveillance for subtotal colectomy patients are lacking. This study looks at the fate of rectal stump in IBD patients following subtotal colectomy in terms of malignancy risk and patient choice of further management.

Method: This is a single centre retrospective observational study. Patients were identified from the NHS Grampian surgical IBD database. Patients that had subtotal colectomy between 01/01/2010 to 31/12/2017 were included in this study with the follow-up end date 1/4/2021. Socio-demographics, diagnosis, medical and surgical management data were collected from electronic records. Statistical analysis was performed using SPSS (v27).

Results: One hundred and thirty-four patients with rectal stump had a median follow-up of 8 years. Seven patients died, 6 moved away, and 4 patients were lost to follow-up. Of all patients, 108 had Ulcerative Colitis and 26 had Crohn's disease. A total of 84 patients had 133 surveillance endoscopy of the rectal stump (range 3 - 4.5 years after colectomy). No dysplasia or malignancy was detected. Excision of the rectal stump was performed in 74 patients. Persistent rectal discharge was indication in 50% of patients. One patient (0.75) with Ulcerative Colitis had rectal cancer that was detected during subtotal colectomy and abnormally looking rectum.

Conclusion: This work demonstrates a low risk of malignancy in rectal stumps after IBD subtotal colectomy. The optimal follow-up and risk assessment strategies remains unclear but perhaps requires a registry of cases to establish the true rectal stump cancer risk.

Disclosure of Interest: None declared

PO-033 | SHORT AND LONG-TERM OUTCOMES FOLLOWING SURGERY IN ULCERATIVE COLITIS: A RETROSPECTIVE COHORT ANALYSIS OF 20 YEARS EXPERIENCE

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Aim: Despite availability of biologic therapies, colectomy rate in Ulcerative Colitis (UC) is still 15-35%. This study aims to analyse the surgical burden of UC care in the last two decades, focusing on the characteristics of the patients, surgical indications, and techniques along with the short and long-term results.

Method: Single-center retrospective cohort analysis of UC patients undergoing abdominal and anorectal surgery between January 2000 and December 2020. The care burden, clinical data and surgical outcomes were analyzed according to distribution by decades.

Results: 128 patients, 47 (37%) female, underwent 376 surgical interventions (296 intestinal procedures and 80 anorectal). Mean follow-up for the cohort was 106+/-64 months. Timing from diagnosis to first surgery was under 5 years in 53,3%. In the second decade of the study a notable decrease in patients requiring surgical interventions (73 vs. 48) as well as the total number of interventions per patient (2.7 vs. 2.0) was observed. The proportion between elective and urgent surgery was also reversed in the second decade, observing an increase in laparoscopic approach (70% vs. 8%) together with a parallel decrease in major postoperative morbidity (Clavien-Dindo \geq IIIa) (20% vs 8.4%). 80 patients underwent a restorative proctocolectomy with ileoanal pouch (IPAA), most frequently in 3-stage surgery (53,7%). Failure rate at 1-year follow-up was 5%, however increasing up to 23.7% in the long-term. Chronic reservoiritis and cuffitis were found to be the leading cause of pouch failure.

Conclusion: Despite a decrease in colectomy rate in the last decade, need for sequential surgeries and long-term active surveillance constitutes a considerable burden among UC patients. Improvements were found in surgical approach, leading a decrease in operative morbidity. Factors such as cumulative experience, cuff length or a controlled rectal transection along with single-stapled anastomosis could determine IPAA survival.

Disclosure of Interest: I. Aguirre-Allende Conflict with: Government of the Basque Country - Department of Health, Conflict with: Coloplast A/S, J. M. Enriquez-Navascues: None declared, G. Elorza-Echaniz: None declared, N. Borda-Arrizabalaga: None declared, A. Echeveste-Varela: None declared, A. Etxart-Lopetegi: None declared, C. Placer-Galan: None declared, Y. Saralegui-Ansorena: None declared, J. L. Elosegui-Aguirrezabala: None declared

PO-034 | LONG-TERM OUTCOMES, FUNCTIONAL RESULTS, AND QUALITY-OF-LIFE ISSUES FOLLOWING ILEAL POUCH-ANAL ANASTOMOSIS FOR ULCERATIVE COLITIS: MULTICENTRIC COHORT STUDY FROM TURKEY

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Aim: This study aimed to investigate the causes of failure after ileal pouch-anal anastomosis (IPAA) in Turkish patients with ulcerative colitis and to determine the factors affecting the quality of their life.

Method: This multicenter retrospective cohort study included all consecutive patients who underwent IPAA construction for UC between 2010 and 2018 from nine specialized colorectal surgery centers across the Turkey. Long-term functional outcomes and quality-of-life were evaluated through Oresland score and Cleveland Global Quality of Life (CGQL) scales, respectively. Logistic regression analysis was performed in search of risk factors for IPAA failure and to identify variables influencing long-term quality-of-life.

Results: Of 310 patients included in the study, pouches were constructed in 172 (55%) patients as a two-staged and in 138(45%) patients as a three-staged procedure. In regards to pouch-related complications, the rates of stricture, fistula, outlet obstruction, pouchitis, anastomotic separation, and hemorrhage were 7.4%,6.8%,4.8%,4.8%,2.9% and 1.6%, respectively. The pouch failure rate at the end of median follow-up of 66 months was 5.5%. The following risk factors were found to be independently associated with pouch failure based on multiple regression analysis: biological agents($P = 0.009$), pelvic sepsis($P = 0.004$), chronic pouchitis($P = 0.02$), postoperative blood transfusion ($P = 0.032$). Overall CGQL score was 7.1. Based on the multiple linear regression model, IPAA stricture, low-volume centers, chronic pouchitis, increase in daytime bowel movements, social and sexual restrictions negatively affected QOL (all P values < 0.05). Surgical expertise(> 10 /per year IPAA surgery) was associated with lower postoperative complications and pouch failure (2%vs.8.6%) rates.

Conclusion: IPAA surgery presents acceptable postoperative complications, functional outcomes, and quality of life in long-term. Increased surgical expertise positively affects postoperative outcomes and QoL.
Disclosure of Interest: None declared

PO-035 | EMERGENCY SUBTOTAL COLECTOMY RATES IN RELATION TO BIOLOGICAL THERAPY (ANTI-TNF-ALPHA) IN INFLAMMATORY BOWEL DISEASE PATIENTS: COMPARISON OF RETROSPECTIVE COHORTS

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Aim: The introduction of biological therapy (anti-TNF-alpha) has changed the treatment and management of inflammatory bowel disease (IBD). This study aimed to investigate the impact of biological therapy on emergency subtotal colectomy rates in IBD patients during two different time periods.

Method: This retrospective comparative study was carried out at Skåne University Hospital Sweden during 2020–2021. Two 5-year windows were chosen for the study cohort, 2004–2009 and 2012–2017. Period 1 (2004–2009) was the pre- and introductory anti-TNF-alpha period and Period 2 (2012–2017) served as the post introduction of anti-TNF-alpha period.

Results: Forty-two and 49 patients were included, 2004–2009 and 2012–2017 respectively. We found a total increase in administered biological therapy, from 64.3% (2004–2009) to 83.7% (2012–2017); $P = 0.034$. No significant difference was found in the subtotal colectomy rates between the time periods; 1.44/1000 person years and 1.37/1000 person years respectively; $P = 0.833$. An increase in IBD prevalence was noted for the latter period.

Conclusion: Our study found an increased administration of biological therapy without any significant decrease in emergency subtotal colectomy rates for patients not responding to rescue treatment. Further research is warranted, and a prospective study design would facilitate a better causal understanding.

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Disclosure of Interest: None declared

PO-036 | INTESTINAL TUBERCULOSIS: A DIAGNOSTIC CHALLENGE

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Aim: Intestinal tuberculosis (IT) which mimicking Crohn's disease (CD) is more common in people living in low socioeconomic income countries. Make a differentiation between CD and incidentally detected IT is very important.

The aim of this study is to reveal the clinical and demographic characteristics of patients diagnosed with incidental IT.

Method: This retrospective cohort study analyzed patients operated for acute abdomen in the department of general surgery of a tertiary hospital in Turkey between 2010 and 2020. > 18 age patients who underwent emergency surgery without any suspicion of IT and whose postoperative histopathological examination supported IT were included in the study. Patients with a preoperative history of pulmonary tuberculosis were excluded.

Results: 19 patients who met the study criteria were analyzed. There were 10 females (52.6%) and 9 males (47.4%). The median age of the patients was 29 (minimum 23-maximum 56). The most common presentation in cases was acute and subacute bowel obstruction 14 (73.6%), followed by intestinal perforation (26.4%). Enlarged lymph nodes in the mesentery, ileocecal strictures, suspected enlarged mass/malignancy in the ileum, or perforation suspected of inflammatory bowel disease were most common during laparotomy. Resection with anastomosis or resection with stoma were mostly performed surgical procedures. The definitive diagnosis was made by histopathological examination in all patients. Postoperative all patients undergone medical treatment for intestinal tuberculosis

Conclusion: Although there is no history or suspicion of pulmonary tuberculosis, it should be kept in mind that young patients who have not undergone abdominal surgery and present with mechanical bowel obstruction may have intestinal tuberculosis.

Before starting medical treatment, the distinction between intestinal tuberculosis and Crohn's disease whose macroscopic examination similar to each other should be made well.

Disclosure of Interest: None declared

PO-037 | MAPPING OF AETIOLOGIES AND CLINICAL PRESENTATION OF ACUTE COLITIS: RESULTS FROM A PROSPECTIVE COHORT STUDY IN A TERTIARY CENTRE

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Aim: Our objective was to describe the aetiologies of acute colitis and to identify patients who require diagnostic endoscopy to exclude IBD.

Method: Patients with symptoms of gastrointestinal infection and colonic inflammation on CT were prospectively included. Those immunosuppressed, with history of colorectal cancer or inflammatory bowel disease (IBD) were excluded. Microbiological analysis of the stools was performed using PCR assays BD-Max and FilmArray GI panel, faecal calprotectin was determined. Patients with negative BD-Max underwent colonoscopy.

Results: One hundred and seventy-nine patients were included. Patients with infectious colitis ($n = 103$, 57.5%) were positive for *Campylobacter spp* ($n = 57$, 55.3%), *Escherichia coli spp* ($n = 8$, 7.8%), *Clostridium difficile* ($n = 23$, 22.3%), *Salmonella spp* ($n = 9$, 8.7%), viruses ($n = 7$, 6.8%), *Shigella spp* ($n = 6$, 5.8%), *Entamoeba histolytica* ($n = 2$, 1.9%) and others ($n = 4$, 3.9%). Eighty-six patients underwent colonoscopy, which was compatible with ischaemic colitis in 18 patients (10.1%) and IBD in 4 patients (2.2%). Faecal calprotectin was elevated in all patients, with a mean concentration of $1922.1 \pm 2895.6 \mu\text{g/g}$, and was the highest in patients with IBD ($8511 \pm 9438.4 \mu\text{g/g}$, $P < 0.001$). After exclusion of patients with infectious aetiology, a faecal calprotectin $> 625 \mu\text{g/g}$ allowed identifying patients with IBD with an area under ROC curve of 85.1%.

Conclusion: Computed tomography-proven colitis was infectious aetiology in 57.5% of patients. Ischaemic colitis (10.1%) and IBD (2.2%) were seldom represented. No colorectal cancer was found.

Disclosure of Interest: None declared

PO-038 | SELECTING THE RIGHT DESIGN FOR ILEO-ANAL POUCHES-IS IT TIME FOR RENAISSANCE?

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Aim: Various anatomical ileo-anal pouch designs have passed by since the introduction of pouch surgery. Recently, there has been renewed interest in creating larger pouches to reduce defecation frequency after pouch surgery. The aim of this study is to specify long-term complications causing pouch failure per anatomical design and elaborate on outcomes of classical pouches with a design other than common J or B pouches.



Method: This retrospective cohort study included patients that underwent pouch construction for UC and FAP between 1975 and 2000. Pouch designs were subdivided in common (J/B) and classical designs (S, W, pouches with septa). Outcomes of this study were pouch survival after 20 years of follow-up, and cause of pouch failure per anatomical design. Pouch failure was defined as need for redo pouch procedure, pouch excision or creation of a definite ileostomy.

Results: Out of 201 created pouches, 101 completed 20-year post-operative follow-up, of which 82 were constructed with a common pouch design and 19 with a classical design. After 20 years of follow-up, 28.0% of pouches with a common design developed pouch failure, compared to 42.1% for pouches with a classical design ($P = 0.2$). Outlet problems of the pouch eventually occurred in 1.1% of common pouches and 40.0% of classical pouches ($P < 0.01$). Outlet problems in the classical designs were predominantly caused by excessive volume of the pouch, kinking of the efferent loop and intussusception of pouch tissue or pouch septa.

Conclusion: Pouch surgery knows a wide range of long-term complications causing chronic failure. In this cohort, the incidence of outlet issues in classical pouch designs was higher than in common designs. To overcome mechanical outlet complications requiring redo surgery or permanent defunction of the pouch, results of this study must be taken into account when rebirth of classical pouches is considered.

Disclosure of Interest: None declared

PO-039 | POUCH PEXY IN COMPLETE PROLAPSE

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Aim: Ulcerative Colitis is part of the IBD spectrum with curative treatment through Total Proctocolectomy and J-Pouch. It is not exempt from complications such as: bleeding, fistulas and abscesses, pouchitis or prolapse of the pouch.

Method:

We present the case of a 56-year-old man with UC who underwent Total Proctocolectomy and J-Pouch in 1987, and with pouchitis with a good response to treatment. He comes for a transanal drip with perineal eczema and 8 stools a day with a sensation of transanal prolapse. On examination, he presented sphincter hypotonia with complete prolapse of the J-pouch with defecatory effort. MR was performed with the result of protrusion and descent of the mucosa at rest in relation to pouch prolapse, rectoscopy with normal appearance of the pouch mucosa and a cuff ulcer affecting the pectineal line. Manometry confirmed the moderate hypotonia of the IAS. A median supraumbilical laparotomy was performed with identification of the pouch and release to the level of the levator muscles. Checking the indemnity of the pouch with methylene blue. Fixation of the meso of the pouch to the sacral promontory with 3/0 Ethibond points and closure by planes.

Results: After 5 days of hospital stay with a favorable evolution, the patient was discharged home. Two months after surgery, the patient continues to be free of symptoms and has been referred to the Pelvic Floor Rehabilitation Unit.

Conclusion: J-pouch prolapse is a rare condition that occurs more frequently in the two years after pouch surgery. Few cases have been reported and the question lies in the surgical treatment of prolapse. Some authors defend the fixation of the pouch with biological mesh. Others, on the other hand, opt for the direct fixation of the meso of the pouch to the sacrum with non-absorbable stitches. Both techniques are potential treatment options for patients with this rare complication.

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PO-040 | INFLUENCE OF THE CONFIGURATION OF THE ANASTOMOSE IN THE POST-OPERATIVE RECURRENCE OF CROHN DISEASE

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Aim: The study aims to understand the influence of different anastomosis configuration in endoscopic and clinical recurrence rates for patients with Crohn disease (CD).

Method: Retrospective data analysis from patients submitted to ileo-colic resection with anastomose due to CD complications between January 2012 and December 2019. The recurrence rate and the mean time until recurrence were compared between the different anastomosis configurations.

Results: A total of 44 patients were included in this study with a mean follow-up of 4,95 years. About 28 endoscopic and 19 clinical recurrences were recorded. Most of the patients (64%) had an end-to-end (EE) anastomose and 88% of them were manually. The assessment showed that 63%, 37,5% and 85,7% of the EE, End-to-Side (ES) and Side-to-Side (SS) anastomoses, respectively, had endoscopic recurrence. On the other hand, 44,4%, 50,0% and 28,6% of the EE, ES and SS anastomoses had clinical recurrence. None of the cases had a statistical significant difference. The mean time to clinical recurrence was 24,76 months with no significant difference between the groups.

Conclusion: Many factors influence the post-operative recurrence of CD. Recently, studies have shown that the anastomosis type, particularly its configuration, had an impact in the endoscopic, clinical and surgical recurrence. SS anastomose and Kono-S demonstrated better results. Our study did not allow us to corroborate this hypothesis. The size of the sample was one of the main limitations.

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- Disclosure of Interest:** None declared

PO-041 | ULCERATIVE COLITIS REFRACTORY TO MEDICAL TREATMENT: TIMELY INTERVENTION IS KEY

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Aim: Acute Ulcerative Colitis (AUC) refractory to medical management has potentially dismal outcomes. We aimed to evaluate our current practice in a district general hospital.

Method: A retrospective review was conducted of consecutive patients undergoing emergency surgery for AUC over a four year period. Patient demographics, performance status, co-morbidity, disease-modifying factors and disease severity (ascertained by clinical, endoscopic, radiological and haematological indicators) were recorded. Patient journey timings, surgical approach and clinical outcomes were analysed, including post-operative length of stay (LOS), morbidity and mortality.

Results: 22 patients were included (median age 53 years, range 26–87), all were on intravenous steroids and 16 were on anti-TNF agents for a median of 2 weeks (range 16–6 months). Referral to surgery was timed at median 5 days from admission (range 0–36) and surgery was performed at median 2.5 days from referral (range 0–27). All patients had moderate/severe clinical colitis, (endoscopic Mayo classification 2/3), with median WBC 11.0 /mcl (4.2–21.9), median CRP 67 mg/l (3–346) and median serum albumin 27g/dl (19–47), 13 patients had laparoscopic surgery. 86% of operations were performed by colorectal surgeons, one-third commenced out of hours. 11 patients had complications (clavien-dindo > 2) and the median LOS was 14 days (range 3–159). Two patients died within 30 days, both of whom had

presented with colonic perforation and established multi-organ failure on arrival.

Conclusion: Emergency surgery for AUC refractory to medical treatment is challenging. Early engagement of the surgical team is crucial to timely colectomy is key to favourable outcomes. A minimally invasive approach is feasible and safe.

Disclosure of Interest: None declared

PO-042 | EVALUATION OF MESH CLOSURE OF MIDLINE LAPAROTOMY OR EXTRACTION INCISION IN OPEN AND LAPAROSCOPIC COLORECTAL RESECTIONS: SYSTEMATIC REVIEW AND META-ANALYSIS

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Aim: Incisional hernia (IH) incidence after midline laparotomy has been reported between 10% and 40%, and higher in emergency situations. In colorectal surgeries, risk of postoperative evisceration varies from 2 to 3.5%, while IH at extraction incision (EI), used in laparoscopic resections, ranges between 2–8% in transverse incisions and up to 20% with midline incisions. This systematic review investigates efficacy and safety of using prophylactic mesh on closure of laparotomy or EI in colorectal resections.

Method: Literature databases, including PubMed, Cochrane, Science Direct and Google Scholar, were searched for studies comparing the use of prophylactic mesh to conventional suture closure in colorectal operations, either in laparotomy closure in open surgery or EI closure in laparoscopic approach. Primary endpoints were identified as postoperative evisceration and IH. Other outcomes included surgical site infection (SSI), seroma formation and length of hospital stay (LOS).

Results: Four studies fulfilled the inclusion criteria and studies 397 patients. Occurrence of IH was significantly reduced on using mesh closure compared to suture closure (OR 0.23, $P = 0.0004$), while there was no statistically significant difference in evisceration rate (OR 0.53, $P = 0.31$). Additionally, no notable difference was identified between both groups in terms of SSI (OR 0.76, $P = 0.41$), post-operative seroma (OR 1.19, $P = 0.63$), and LOS (MD -0.54, $P = 0.63$).

Conclusion: The use of prophylactic mesh on closing laparotomy incision or EI for open and laparoscopic colorectal resections reduces the risk of developing IH. There were no significant safety concerns; however, further randomised trials may provide more credible results.

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Disclosure of Interest: None declared

PO-043 | EMERGENCY COLORECTAL RESECTIONS: DO COLORECTAL SURGEONS ACHIEVE BETTER OUTCOMES THAN NON-COLORECTAL SURGEONS

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Aim: In our centre, patients requiring emergency colorectal surgery are managed by general surgeons who may or may not have subspecialist training in colorectal surgery. We investigated whether surgeon subspecialisation influences outcomes after emergency colorectal resections.

Method: All patients undergoing emergency colorectal resections between 01/01/14 - 31/10/20 were included. Data were collected from hospital electronic records. The primary outcome was 30-day post-operative mortality. Adjusted mortality was calculated using logistic regression. Secondary outcomes included rates of laparoscopic surgery, stomas, complications, readmissions and length of hospital stay. Categorical data were compared by chi-squared tests and non-parametric data by Wilcoxon tests.

Results: Of the 177 operations performed, 104 (58.8%) were performed by colorectal surgeons. Overall 30-day mortality was 5.1%, which was significantly lower for colorectal versus non-colorectal surgeons (1.0% vs 11.0%, $P = 0.003$), this remained significant after multivariate adjustment (OR 0.09, 95% CI 0.01–0.83, $P = 0.034$). The proportion of laparoscopic cases was significantly higher for colorectal compared with non-colorectal surgeons (54.8% vs 4.1%, $P < 0.0001$). There were no significant differences in stoma rates (76.0% vs 63.0%, $P = 0.063$), further procedures (5.8% vs 8.2%, $P = 0.523$), anastomotic leaks (1.9% vs 4.1%, $P = 0.387$), readmission within 30 days (12.5% vs 13.7%, $P = 0.815$) or median length of hospital stay (16 vs 18 days, $P = 0.375$). In a subgroup including only cancer resections ($n = 66$), 30-day mortality was lower for colorectal versus non-colorectal surgeons (0.0% vs 16.7%, $P = 0.019$) but this lost significance after multivariate adjustment ($P = 0.781$) and there was no difference in any secondary outcomes or number of lymph nodes resected.

Conclusion: Patients treated by colorectal surgeons have significantly lower 30-day mortality after emergency colorectal surgery. This provides a strong argument for a subspecialist on-call rota.

Disclosure of Interest: None declared

PO-044 | LAPAROSCOPIC PERITONEAL LAVAGE VERSUS SIGMOIDECTOMY FOR PERFORATED DIVERTICULITIS WITH PURULENT PERITONITIS: THREE-YEAR FOLLOW-UP OF THE RANDOMISED LOLA TRIAL

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Aim: This study aimed to compare laparoscopic lavage and sigmoidectomy as treatment for perforated diverticulitis with purulent peritonitis during a 36-month follow-up of the LOLA arm of the randomised LADIES trial.

Method: Within the LOLA arm of the international, multicentre LADIES trial, patients with perforated diverticulitis with purulent peritonitis were randomised between laparoscopic lavage and sigmoidectomy (Hartmann's procedure or primary anastomosis). Outcomes were retrospectively collected up to 36 months after randomisation. The primary outcome was the number of patients undergoing a reoperation (including stoma reversals). Secondary outcomes included stoma rates, sigmoidectomy rates after initial treatment with lavage, sigmoid carcinomas, overall morbidity, and mortality.

Results: Long-term follow up was recorded in 77 of the 88 originally included patients, 38 were randomised to laparoscopic lavage(49%) and 39 to sigmoidectomy(51%). After 36 months, the reoperation

rate was significantly lower for lavage compared to sigmoidectomy (sigmoidectomy 27/39(69%) versus lavage 17/38(45%), RR 0.646, 95% CI 0.429–0.974, $P = 0.039$). Stoma percentages did not significantly differ (sigmoidectomy 11/39(28%) versus lavage 4/38(11%) versus, $P = 0.083$). Overall cumulative morbidity (sigmoidectomy 28/39(72%) versus lavage 32/38(84%), $P = 0.272$) and mortality (sigmoidectomy 7/39(18%) versus lavage 6/38(16%), $P = 1.000$) did not differ between groups. Eventually, 21 of 38(45%) patients treated with lavage did not undergo sigmoidectomy of whom four patients passed away within 36 months after surgery. 2/39(5%) patients in the sigmoidectomy group and 4/38(11%) patients in the lavage group were diagnosed with sigmoid carcinoma ($P = 0.431$).

Conclusion: Long-term results showed that laparoscopic lavage leads to fewer reoperations compared to sigmoidectomy as treatment for perforated diverticulitis with purulent peritonitis. No differences were found in terms of morbidity, stoma rates or mortality.

Disclosure of Interest: None declared

PO-045 | DIAGNOSIS OF RETRORECTAL TUMORS: WHICH PREOPERATIVE EXAM IS THE MOST APPROPRIATE?

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Aim: To analyse the efficacy of magnetic resonance imaging (MRI) and biopsy in the diagnosis of retrorectal tumors (RRT), and the distinction of malignant and benign RRT.

Method: Patients operated for RRT in 18 academic French centers were retrospectively included (2000–2019). Intrinsic characteristics of preoperative MRI and biopsy were analyzing using Receiving Operator Characteristics curve and calculation of the Area Under Curve (AUC).

Results: 270 patients with RRT were included. The diagnosis of RRT was evocated because of clinical symptoms in 56% ($n = 151/270$) patients. Regarding preoperative examinations, MRI, Computed Tomography (CT) scan and endorectal ultrasound were performed in 90, 46 and 34% of the patients respectively. A preoperative tumor biopsy was performed in 13% ($n = 36/270$).

The AUC for preoperative MRI in prediction of cystic RRT was 0.74 (Sensitivity = 71%, Specificity = 78%; $P < 0.001$).

Among the 22 malignant tumors, only 7/22 (32%) were diagnosed preoperatively, 5/22 on biopsy sample and 2/22 on MRI data. However, 15 patients with a preoperative diagnosis of benign RRT, had a malignant RRT on definitive pathological analysis (15/22, 68%). The AUC for preoperative MRI in prediction of malignant RRT was insufficient (AUC = 0.7, Sensitivity = 85%, Specificity = 57%; $P = 0.06$). Looking at the 33 patients who underwent the both preoperative exams, the AUC to predict malignancy was 0.6 (Sensitivity = 89%, Specificity = 20%; $P = 0.5$) for MRI, and 1 (Sensitivity = 100%, Specificity = 100%; $P < 0.001$) for biopsy.

Conclusion: The diagnosis of RRT is challenging, because of the rarity and the heterogeneous histological features. These lesions should be systematically explored by MRI preoperatively. A preoperative biopsy of the lesion could be useful to distinguish benign and malignant in selected RRT with inconclusive MRI or non-cystic RRT.

Disclosure of Interest: None declared

PO-046 | THE EFFECT OF INTRAPERITONEAL DRAIN PLACEMENT ON POSTOPERATIVE OUTCOMES AFTER EMERGENCY COLORECTAL SURGERY: A PROPENSITY-SCORE MATCHED ANALYSIS

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Aim: The use of intraperitoneal drain placement after emergency colorectal surgery is controversial. While the general consensus recommends against their routine use, there remains a paucity of evidence supporting this in the setting of emergency colorectal surgery. This study aimed to describe the efficacy and safety of intraperitoneal drain placement.

Method: This prospective, international, multicentre, cohort study enrolled consecutive adult patients undergoing emergency colorectal surgery (February–March 2020). Outcomes included: rate of diagnosis of intra-abdominal postoperative collections; time to discharge; rate of drain-related complications; and 30-day major postoperative complications (Clavien–Dindo grade ≥ 3). After propensity-score matching, multivariable logistic and Cox proportional hazards regressions were used to estimate the independent association of the outcomes with drain placement.

Results: Overall, 727 patients from 21 countries were included (353 [48.6%] female; median age 68.5 years). The drain placement rate was 53.8% (391/727). After matching, drains were associated with greater postoperative collection rates (OR 5.87 95% CI: 1.79–19.31, $P = 0.004$) and a shorter length of stay (HR 1.33, 95% CI: 1.08–1.64, $P = 0.008$). Although not associated with worse major postoperative complications (OR 0.82, 95% CI: 0.49–1.39, $P = 0.470$), drains carried an increased risk of surgical site infections (SSIs) (OR 2.72, 95% CI: 1.48–4.99, $P = 0.001$).

Conclusion: This is the first study on the role of intraperitoneal drains in emergency colorectal surgery. Their efficacy and safety appear unclear. Further trial evidence is needed to establish their net overall benefit or harm.

Disclosure of Interest: None declared



PO-047 | INTERNATIONAL DEVELOPMENT OF A CORE OUTCOME SET FOR POST-OPERATIVE ILEUS

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Aim: Post-operative ileus (POI) is a highly disruptive complication after gastrointestinal surgery, with evaluation of new treatments hindered by a lack of standardised outcomes. This study aimed to develop an agreed core outcome set through international stakeholder consensus.

Method: A steering group consisting of patient and clinician representatives from Europe, Asia, and Australasia was convened. The study was registered with the COMET Initiative. A longlist of candidate outcomes was compiled through a systematic review of previous literature (MEDLINE/EMBASE 1990–2017) and a series of international focus groups. A three-round Delphi process was undertaken using a 9-point Likert scale to rate the importance of each identified outcome. An international, multi-stakeholder, consensus meeting was convened to ratify the final core outcome set for use in future clinical trials.

Results: A total of 92 outcomes were identified, which were rationalised to 73. One hundred and twelve participants completed all three rounds of the Delphi process (Patients $n = 29$; Surgeons: $n = 71$; Nurses/Dietitians: $n = 12$), leading to 29 prioritised outcomes. The final consensus meeting involved 15 participants (Patients $n = 5$; Surgeons $n = 8$; Nurses $n = 2$). Twenty-four outcomes across the following domains were agreed and finalised:

- Incidence and duration of ileus
- Vomiting and gastric decompression
- Severity of abdominal pain
- Nutritional factors
- Return of gut function
- Patient-reported perception of ileus
- Complications arising from ileus
- Pre-disposing factors for ileus.

Conclusion: A core outcome set for POI after gastrointestinal surgery has been agreed by international stakeholders. Uptake in future research is strongly encouraged. This will standardise outcome

reporting and will facilitate meaningful evaluations of new treatments for patient benefit.

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Disclosure of Interest: None declared

PO-048 | ARTIFICIAL INTELLIGENCE FOR AUTOMATIC DETECTION OF COLONIC LUMINAL BLOOD IN COLON CAPSULE ENDOSCOPY USING A CONVOLUTIONAL NEURAL NETWORK: A MULTICENTRIC STUDY

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Aim: Conventional colonoscopy (CC) is the *gold standard* for the study of colon diseases. However, it is often associated with discomfort and has risk of complications. Colon capsule endoscopy (CCE) is a non-invasive alternative for those who refuse CC or for whom it is contraindicated. However, reading CCE exams is a time-consuming process, with high risk of missing lesions. The application of artificial intelligence (AI) to medicine is growing and results are promising. However, their application to the capsule endoscopy, particularly to CCE, has been poorly studied. We aimed to develop an AI algorithm based on a convolutional neural network (CNN) for automatic detection of blood and hematic residues in the lumen of the colon using CCE images.

Method: We included 124 patients who had a CCE exam (*PillCam COLON 2[®]*) performed between 2010–2020 at two centers. A total of 31715 images were extracted: 3075 contained blood and 28640 normal mucosa. The images were introduced into a CNN model with transfer learning. A training dataset was designed using 99 patients, corresponding to 80% of the total number of images. Subsequently, the performance of the network was assessed using an independent set of 25 patients, comprising 20% of the total number of images. We measured sensitivity, specificity, positive and negative

predictive values (PPV and NPV, respectively), accuracy and area under the curve (AUC).

Results: Our model was able to detect blood in the colon lumen with a sensitivity of 99.3%, a specificity of 99.8%, a PPV and NPV of 97.9% and 99.9%, respectively, as well as an accuracy of 99.7%. The AUC was 1.00.

Conclusion: Our group developed a highly accurate AI algorithm for detection of blood and hematic residues based on CCE images. These results are extremely important, since they pave the way for the development of automatic tools for the detection of findings with significant clinical relevance, which should allow to reduce the diagnostic error and the time spent in the evaluation of these exams.

Disclosure of Interest: None declared

PO-049 | SARCOPENIA MAY PREDICT POST-OPERATIVE COMPLICATIONS IN FEMALE PATIENTS UNDERGOING COLECTOMY FOR DIVERTICULITIS

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Aim: Colonic diverticulitis is a frequent cause of acute abdomen. Its surgical management has quite changed over the years. It has been shown that severe muscle mass depletion, sarcopenia, is associated with poor operative outcomes. Psoas muscle areas (PMA) is a marker of sarcopenia that can be easily measured on CT/MRI. The aim of this study was to evaluate the prognostic value of PMA in terms of post-operative outcomes in patients undergoing colectomy for diverticulitis.

Method: A single center retrospective cross-sectional study including all patients who underwent colectomy for diverticulitis between August 2008 to March 2020. Patients' demographics, clinical and surgical data were recorded and analyzed. For each patient PMA measured with CT was calculated.

Results: Fifty-five patients were included in the study, with an average age of 63.34 ± 15.41 , and female gender of 35 (61.4%). Thirty-two (56.1%) patients underwent elective operation as a secondary prevention of recurrent diverticulitis. Primary anastomosis was done in thirty-two patients (56.1%). Post-operative complications rate was 31.6% and major post-operative complication based on Calvein-Dindo score > 2 incidence was 4 (7%). Mortality rate was 3 (5.3%). Comparing mean PMA among male to female is statistically significant with $P = 0.01$. Therefore, further analysis was made with subdivision by gender. ROC analysis showed that among female patients PMA was associated with major post-operation complications (area = 0.939, $P = 0.039$), re-operation (area = 0.939, $P = 0.039$) and Mortality (Area = 0.015, $P = 0.023$).

Conclusion: PMA evaluation pre-operatively, in female patient before under-going a colectomy due to diverticulitis, is associated to major post-operation complications, re-operation and mortality.

Disclosure of Interest: None declared

PO-050 | INSULIN-LIKE GROWTH FACTOR-I AND WOUND HEALING, AFTER LAY-OPEN TECHNIQUE FOR SACROCOCCYGEAL PILONIDAL DISEASE

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Aim: To evaluate the variations in expression IGF-1 isoforms (IGF1-Ea, IGF1-Eb, IGF1-EC) as well as its binding protein and receptor (IGF-BP3, IGF1-R) during wound healing

Method: The study population comprised of 21 patients presenting with 1st episode of sacroccocygeal pilonidal disease. After informed consent, samples were obtained during operation as well as at 2,7,14 days postoperatively. The expression of IGF-1 isoforms as well as its binding protein and receptor was evaluated with real time PCR. Statistical analyses were performed using GraphPad Prism software. Kruskal-Wallis test, one-way ANOVA and Dunn's post hoc tests were utilized to compare the fluctuation in expression of the aforementioned proteins.

Results: A Kruskal-Wallis test showed that there was a statistically significant difference in expression of IGF1-BP3 and IGF1-R during wound healing, $P = 0.014$ and $P = 0.018$ respectively. Regarding the expression of IGF1-BP3, a pairwise post-hoc Dunn test indicated that it is significantly increased between surgery and the second postoperative day. On the other hand, using the same test, expression of IGF1-R seems to be significantly increased between surgery and 14th postoperative day ($P = 0.02$). The expression of the rest IGF-1 isoforms did not change significantly during wound healing.

Conclusion: IGF1-BP3 and IGF1-R seem to play an important role during wound healing, especially in patients with large open wounds after pilonidal disease treatment. Further studies are needed in order to evaluate the exact role as well as possible use of these proteins as enhancers in wound healing.

Disclosure of Interest: None declared

PO-051 | EMERGENCY COLORECTAL SURGERY IN PATIENTS WITH CIRRHOSIS: A POPULATION-BASED DESCRIPTIVE STUDY

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Aim: Individuals with cirrhosis have significant post-operative risks following major abdominal surgery. Many risk prediction models and previously reported results do not reflect current practices and experience due to better medical management and better perioperative practices in this high risk group. The objective of this study



was to assess short term outcomes in cirrhotic patients undergoing emergency major colorectal surgery.

Method: This retrospective cohort study included individuals in Ontario (population 14 million) with a diagnosis of cirrhosis. Individuals who underwent emergent major colorectal surgery between 2009 and 2017 were included. Baseline characteristics, cirrhosis specific characteristics, and outcomes were identified using linked administrative databases available through ICES. Univariate and multivariate analysis was completed.

Results: 927 unique individuals (56% male) with cirrhosis who underwent emergency colorectal surgery were included. The mean Model for End-Stage Liver Disease-Na (MELD-Na) score was 14 (8% had a history of hepatic decompensation); non-alcoholic fatty liver disease was the most common cause of cirrhosis (50%), followed by alcohol (32%). The most common surgical diagnoses were perforation/sepsis (22%), cancer (21%), and diverticulitis (11%). The most frequent surgical procedures received were colon resection with (40%) or without (23%) anastomosis, Hartmann's procedure (17%), and ileostomy/colostomy alone (17%). The 30-day and 90-day overall mortality was 24% and 32%.

Conclusion: In this large contemporary population-based study of individuals with cirrhosis receiving emergent colorectal surgery, almost one quarter died within 30-days post-operatively. This data should be helpful for joint clinical decision making and ongoing refinement of surgical risk prediction models for patients with cirrhosis undergoing emergency surgery.

Disclosure of Interest: None declared

PO-052 | DOES FLUORESCENCE ANGIOGRAPHY REDUCE THE INCIDENCE OF ANASTOMOTIC LEAK IN COLORECTAL SURGERY: A SYSTEMATIC REVIEW AND META-ANALYSIS OF RANDOMIZED CONTROLLED TRIALS

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Aim: Observational studies have shown that fluorescence angiography (FA) decreases the incidence of anastomotic leak (AL) in colorectal surgery, but pooled high-quality evidence is lacking.

Method: MEDLINE, Embase and CENTRAL were searched for RCTs assessing the effect of intra-operative FA versus standard assessment of bowel perfusion on the incidence of AL of colorectal anastomosis. Pooled relative risk (RR) and pooled risk difference (RD) were obtained using models with random effects.

Results: Two-hundred forty-eight articles were screened, 245 were excluded and 3 were kept for inclusion. The three included RCTs compared assessment of the perfusion of the bowel during confocal of a colorectal anastomosis using FA versus standard practice. In meta-analysis, FA was significantly protective against anastomotic leak (3 RCTs, 964 patients, RR: 0.67, 95%CI: 0.46 to 0.99, I²: 0%, P = 0.04). The incidence of AL was non-significantly decreased by 4

percentage points (95%CI: -0.08 to 0, I²: 8%, P = 0.06) when using FA.

Conclusion: The effect of FA on prevention of AL in colorectal surgery is supported by high-quality evidence, but is potentially of small magnitude.

Disclosure of Interest: None declared

PO-053 | META-ANALYSIS OF HIGH QUALITY RANDOMISED CONTROLLED TRIALS TESTING ALCOHOLIC CHLORHEXIDINE OR TRICLOSAN COATED SUTURES TO REDUCE SURGICAL SITE INFECTION

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Aim: Both the World Health Organisation and the UK's National Institute of Clinical Excellence recommend alcoholic chlorhexidine skin preparation and triclosan coated sutures to prevent surgical site infections. However, the evidence bases supporting these recommendations include low and moderate quality trials. FALCON is the largest trial including these interventions to date, and justifies an updated meta-analysis that includes only high quality RCTs.

Method: A systematic review identified randomised trials (RCTs) testing either alcoholic chlorhexidine skin preparation and triclosan coated sutures. Only trials at low risk of bias, according to Cochrane Risk of Bias tool, were included, until April 2021. The primary outcome was SSI. Stratified analysis was performed by degree of contamination (clean/contaminated versus contaminated/dirty surgery).

Results: Five RCTs were included testing triclosan coated sutures, with no significant differences in rates of SSI between coated and uncoated sutures (OR: 0.81, 95% CI: 0.62 - 1.06, P = 0.128). Stratified analyses by clean-contaminated and contaminated/dirty surgery demonstrated consistent results. Five studies were included testing alcoholic chlorhexidine, with no significant difference in SSI rates between alcohol chlorhexidine and aqueous povidone-iodine (OR: 0.81, 95% CI: 0.61 - 1.06, P = 0.127). Stratified analysis by clean-contaminated (n = 2 studies) demonstrated consistent results. However, only the FALCON RCT was available in the contaminated/dirty group.

Conclusion: This meta-analysis of high quality trials, that includes the FALCON study, suggests the effects of triclosan coated sutures and alcoholic skin preparation may not be as pronounced as previously thought.

Disclosure of Interest: None declared

PO-054 | VISIBLE BLEEDING ON PRESENTATION PREDICTS POSITIVE CT MESENTERIC ANGIOGRAM BLUSH IN LOWER GI BLEED

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Aim: Computed tomography angiography (CTA) is a first line investigation in acute lower gastrointestinal bleed (LGIB). Accurate location of a bleeding vessel allows invasive angiography and angioembolisation. This study aims to predict factors that are predictive of a positive CTA result in patients with LGIB.

Method: This study retrospectively analysed 526 patients who underwent CTA for investigation of LGIB. Summative data analysis was performed. A comparison of quantitative variables was performed using the paired t-test. The paired-Z test was used for categorical data. Potential predictive factors for positive CTA result analysed with univariable analysis, and then *P* values < 0.1 included in multivariable analysis.

Results: 192 patients (37%) had a positive CTA result. Multivariate analysis showed patients with visible bleeding on presentation are 8.65 times (95% CI 1.93 – 38.67 times) more likely (*P* < 0.01), Patients who have a history of NSAID use are 0.31 times more likely (95% CI 0.10 – 0.89 times; or 0.69 times less likely, *P* < 0.01) and patients who have been transfused packed red cells on admission are 1.17 times (95% CI 1.07 – 1.27 times, *P* 0.03) more likely to have a positive CTA result. There is little to no evidence (*P* > 0.05) to suggest that patients who were haemodynamically unstable (deranged shock index) or with lower serum haemoglobin, deranged INR, taking anticoagulants, history of previous LGIB were more likely to have a positive CTA result.

Conclusion: The majority of CTA performed for LGIB return negative results, with no bleeding point identified. Judicious investigation of patients who are unlikely to have a positive CTA result allows for a more efficient use of healthcare resources, and can prevent patient exposure to an unnecessary contrast and radiation load. Patients with visible bleeding and a greater number of transfused packed red blood cells on admission should be considered as higher priority for CTA.

Disclosure of Interest: None declared

PO-055 | USE OF QUANTITATIVE FAECAL IMMUNOCHEMICAL TEST (QFIT) AS A PRIORITIZATION TOOL IN INVESTIGATION OF COLORECTAL-CANCER SUSPECTED REFERRALS DURING COVID-19 PANDEMIC IN NHS AYRSHIRE AND ARRAN HOSPITALS

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Aim: British Society of Gastroenterology advised reduced level of endoscopic services due to COVID-19 pandemic. This resulted in a

significant rise in number of cancer suspected patients waiting for colonoscopy. Quantitative Faecal Immunochemical Test(QFIT)is designed to detect occult blood in stool(0 to 400 ug/g). The value of QFIT is proportional to cancer risk. Therefore, it can be utilised to prioritize cancer suspected referrals prior to colonoscopy. In this audit of service we investigated:1)The reliability of QFIT as prioritization tool for colorectal cancer referrals.2)To investigate the impact of QFIT on colonoscopy burden.

Method: QFIT was applied to all colorectal cancer suspected referrals to NHS Ayrshire & Arran in September 2020. An interim audit of the outcome was performed focusing on four months' worth of data. QFIT values recorded and subsequent management steps analysed in following categories. QFIT less than 10,10 to 400, and over 400. The highest risk of cancer is within over 400.

Results: 1258 test kits were dispatched,823(65%)results obtained. QFIT values were as following:631 samples with < 10(77%)of returned samples;of these 490 patients were discharged,27 patients' tests was repeated, and 114 patients were planned for further endoscopic or imaging investigations.143 patients had levels between 10 to 400. The main finding was that 49(6%)patients had QFIT more than 400, and were booked for colonoscopy. Nine patients had a confirmed cancer diagnosis.

Conclusion: In our cohort,9 patients with QFIT more than 400 were diagnosed with cancer at colonoscopy. This is in concordance with published data reporting similar values. This would re-affirm reliability of QFIT as a prioritisation tool in predicting colorectal cancer. Majority of QFIT less than 10 were discharged following clinic consultation. This resulted in significant reduction of colonoscopy numbers that would have otherwise been performed. Longer term review of all QFIT categories is necessary to advise on its usefulness, out width the pandemic.

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Disclosure of Interest: None declared



PO-056 | THE ROLE OF GHOST ILEOSTOMY: A SYSTEMATIC REVIEW OF THE LITERATURE

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Aim: To evaluate the safety and efficacy of ghost ileostomy.

Method: A systematic review of the literature up to June 2021 was performed according to PRISMA guidelines. The total study pool comprised of 5 case series, 3 comparative cohort studies and 1 randomized controlled trial incorporating a total of 517 patients. Ghost ileostomy was reserved for those considered medium/low risk for anastomotic leak.

Results: All patients were operated for rectal cancer, except for 4 IBD patients and eight that underwent prophylactic IPAA for FAP. Only 10% (54/517) of the study population was subjected to conversion of ghost to defunctioning ileostomy. No 30-day morbidity, related to ghost ileostomy, was recorded, except for one case of twisting of the ileal loop around its mesenteric attachment resulting in bowel occlusion that necessitated reoperation. Two mortalities (0.4%) were reported (due to pulmonary embolism and the other one due to myocardial infarction). Regarding the length of hospital stay (LOS), 3 comparative studies concluded that the LOS was similar between the ghost ileostomy and the defunctioning ileostomy group.

Conclusion: Available algorithms and literature derived data render difficult to perform a safe prediction as to whether anastomotic leakage will occur. Ghost ileostomy poses an efficient alternative in concordance with patients' safety and reduces morbidity associated with prophylactic ileostomy

Disclosure of Interest: None declared

PO-057 | EFFECT OF HYALURONATE-BASED BIORESORBABLE MEMBRANE (SEPRAFILM) ON OUTCOMES OF ABDOMINAL SURGERY: A META-ANALYSIS AND TRIAL SEQUENTIAL ANALYSIS OF RANDOMISED CONTROLLED TRIALS

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Aim: We aimed to evaluate comparative outcomes of abdominal surgery with and without hyaluronate-based bioresorbable membrane (Seprafilm).

Method: We conducted a systematic search of electronic databases and bibliographic reference lists with application of a combination of free text and controlled vocabulary search adapted to thesaurus headings, search operators and limits. Small bowel obstruction, anastomotic leak, surgical site infections, ileus, and severity of adhesions were the evaluated outcome measures.

Results: Thirteen randomised controlled trials reporting a total of 3665 patients evaluating outcomes of abdominal surgeries with ($n = 1800$) or without ($n = 1865$) use of Seprafilm were identified. Use of Seprafilm was associated with significantly lower risk of small bowel obstruction (RR 0.53, 95% CI 0.38–0.73, $P = 0.0001$) but significantly higher rate of anastomotic leak (RR 1.85, 95% CI 1.15–3.00 $P = 0.01$). Moreover, while Seprafilm resulted in significantly more adhesions-free patients (RR 5.57, 95% CI 3.37–9.19, $P < 0.0001$) compared to no Seprafilm, its use was associated with significantly lower grade 2 (RR 0.57, 95% CI 0.35–0.95, $P = 0.003$) or 3 (RR 0.31, 95% CI 0.17–0.55, $P < 0.0001$) adhesions. There was no significant difference in surgical site infection (RR: 1.21, 95 CI 0.86–1.70, $P = 0.28$), intra-abdominal abscess (RR 1.46, 95 CI 0.92–2.32, $P = 0.11$) or paralytic ileus (RR 0.97, 95 CI 0.68–1.38, $P = 0.87$) between two groups. The trial sequential analysis demonstrated that the meta-analysis findings are conclusive.

Conclusion: Our meta-analysis demonstrated that Seprafilm reduces the risk of small bowel obstruction and severity of adhesions after abdominal surgery. However, it may increase the risk of anastomotic leak. We recommend use of Seprafilm in any abdominal surgery which does not involve an anastomosis.

Disclosure of Interest: None declared

PO-058 | DEEP LEARNING AND COLON CAPSULE ENDOSCOPY: AUTOMATIC DETECTION OF BLOOD AND COLONIC MUCOSAL LESIONS USING A CONVOLUTIONAL NEURAL NETWORK - A MULTICENTRIC STUDY

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Aim: Colon capsule endoscopy (CCE) is a minimally invasive alternative for patients refusing conventional colonoscopy or for whom the latter is contraindicated. However, reading CCE images is a time-consuming task and prone to diagnostic error. Our aim was to develop an Artificial Intelligence (AI) algorithm, based on a multilayer Convolutional Neural Network (CNN), for automatic detection of blood and significant lesions (polyps/protruding lesions, angiectasias, ulcers/erosions) in the colonic lumen in CCE exams.

Method: A retrospective study including 124 CCE exams (PillCam COLON 2[®]) from two centers was conducted. From these exams, 9005 images (3075 normal mucosa, 3115 blood and 2815 mucosal lesions) were ultimately extracted. Two image datasets were created for CNN training and testing. These images were inserted in a CNN

model with transfer of learning. The output provided by the CNN was compared to the classification provided by a consensus of 3 specialists. Performance marks included sensitivity, specificity, positive and negative predictive values (PPV and NPV, respectively), accuracy and area under the receiving operator characteristics curve (AUROC).

Results: Overall, the mean sensitivity and specificity were 96.3% and 98.2%, respectively. The network had an overall accuracy of 97.6%. The PPV and NPV were, respectively 96.4% and 98.2%. Specifically, blood was detected with a sensitivity and specificity of 97.2% and 99.9%, respectively. The AUROC for detection of blood was 1.00. Detection of mucosal lesions had a sensitivity and specificity of 93.7% and 96.7%, respectively. The AUROC was 0.99. The overall accuracy of the CNN was of 95.4%.

Conclusion: Our group developed a pioneer CNN for CCE which demonstrated high levels of efficiency for the automatic detection of blood and lesions with high clinical significance. The development of AI tools for automatic detection of these lesions may allow for minimization of diagnostic error and the time spent evaluating these exams.

Disclosure of Interest: None declared

PO-059 | TIME TRENDS IN THE INCIDENCE RATES OF VENOUS THROMBOEMBOLISM FOLLOWING COLORECTAL RESECTION

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Aim: It is critical for patient safety to assess if international venous thromboembolism prophylaxis guidance has reduced the high post colectomy risk of venous thromboembolism rates previously reported. We examine changes in venous thromboembolism rates over time following colorectal resection in relation to these interventions by admission type and surgical indication.

Method: Population-based cohort study of patients undergoing colectomy in England using linked national primary (Clinical Practice Research Datalink) and secondary (Hospital Episode Statistics) care data between 2000 to 2019. Main outcomes were absolute rates and adjusted incidence rate ratios using Poisson regression calculated for the per year change in venous thromboembolism risk within 30-days following colectomy.

Results: Of 183,791 patients, 1,337 (0.73%) developed 30-day post-operative venous thromboembolism. Overall, absolute venous thromboembolism rates reduced over the study period following elective operations but not following emergency surgery. Similarly, venous thromboembolism rates reduced following minimally invasive

colectomy (elective benign, 0.93, 95%CI 0.90–0.97, elective malignant, 0.94, 95%CI 0.91–0.98 and emergency benign, 0.96, 95%CI 0.92–1.00), but not following open colectomy. In particular there was a significant per year increase in venous thromboembolism risk following open emergency malignant colectomy (1.02, 95%CI 1.00–1.04). The timing of the introduction of extended prophylaxis guidelines did not significantly alter the underlying trends.

Conclusion: Venous thromboembolism risk reduced following minimally invasive surgery in the elective setting, but this reduction was not temporally related to guideline publication. The enhanced peri-operative care might have reduced thromboembolism risks while overshadowing the protective effects of extended prophylaxis. Future efforts are required to implement these advances in surgical care within emergency surgery and those having open surgery.

Disclosure of Interest: None declared

PO-060 | REDO-SURGERY AFTER FAILED COLORECTAL OR COLOANAL ANASTOMOSIS: A HIGH RATE OF SUCCESS RELYING ON A STRICT PRE-OPERATIVE SELECTION OF THE PATIENTS. A RETROSPECTIVE STUDY OF 200 ELIGIBLE PATIENTS

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Aim: In case of anastomotic failure after CRA or CAA, revision of the anastomosis is an ambitious surgical option that can be proposed in order to maintain bowel continuity. The aim was to assess post-operative morbidity, risk of failure and risk factor for failure in patients after redo colorectal (CRA) or coloanal anastomosis (CAA).

Method: All consecutive patients who underwent redo-CRA/CAA in our institution between 2007–2018 were retrospectively included. The success of redo-CRA/CAA was defined by the restoration of bowel continuity 12 months after the surgery. Multivariate analysis using only pre-operative factors was performed.

Results: Two hundred patients (114 male: 57%) were analyzed. The indication for redo-CRA/CAA was chronic pelvic infection in 74 patients (37%), recto-vaginal or urinary fistula in 59 patients (30%), anastomotic stenosis in 36 patients (18%) and reversal of a Hartmann's procedure in 31 patients (15%).

Twenty-three percent of the patients developed a post-operative severe complication. Anastomotic leakage was diagnosed in 39 patients (20%). Median length of stay was 12 IQR(9–19) days.

One-year-success of the redo-CRA/CAA was obtained in 80% of patients. In multivariate analysis, only obesity was associated with redo-CRA/CAA failure ($P = 0.042$). We elaborated a pre-operative predictive score of success using the 4 variables: male sex, age > 60 years, obesity and history of pelvic radiotherapy. The success of



redo-CRA/CAA was 92%, 86%, 80% and 62% for a pre-operative predictive score value of 0, 1, 2 and ≥ 3 , respectively ($P = 0.010$).

Conclusion: In case of failure of primary CRA/CAA, bowel continuity can be saved in 4 out of 5 patients by redo-CRA/CAA despite 23% suffering severe post-operative morbidity.

Disclosure of Interest: None declared

PO-061 | SARS-COV-2 INFECTION AND VENOUS THROMBOEMBOLISM AFTER SURGERY: AN INTERNATIONAL PROSPECTIVE COHORT STUDY

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Aim: SARS-CoV-2 has been associated with an increased rate of venous thromboembolism (VTE) in critically ill patients (1–4). Since surgical patients are already at higher risk of VTE than general populations, this study aimed to determine if patients with perioperative or previous SARS-CoV-2 were at further risk of VTE.

Method: International, multicentre, prospective cohort study of elective and emergency patients undergoing surgery during October 2020. Patient from all surgical specialties were included. The primary outcome measure was VTE (pulmonary embolism or deep vein thrombosis) within 30 days of surgery. SARS-CoV-2 diagnosis was defined as perioperative (7-days before to 30-days after surgery), recent (1–6 weeks before surgery), and previous (≥ 7 weeks before surgery).

Results: The postoperative VTE rate was 0.5% (666/123,591) in patients without SARS-CoV-2 diagnosis, 2.2% (50/2,317) in patients with perioperative SARS-CoV-2, 1.6% (15/953) in patients with recent SARS-CoV-2, and 1.0% (11/1,148) in patients with previous SARS-CoV-2. After adjustment for confounding factors, patients with perioperative (adjusted odds ratio 1.48, 95% confidence interval 1.08–2.03) and recent SARS-CoV-2 (OR 1.94, 1.15–3.29) remained at higher risk of VTE, with a borderline finding in previous SARS-CoV-2 (OR 1.65, 0.90–3.02). Overall, VTE was independently associated with 30-day mortality (OR 5.39, 4.33–6.70). In SARS-CoV-2 infected patients, mortality without VTE was 7.4% (319/4,342) and with VTE was 40.8% (31/76).

Conclusion: Patients undergoing surgery with a perioperative or recent SARS-CoV-2 diagnosis are at increased risk of VTE compared to non-infected surgical patients.

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Disclosure of Interest: None declared

PO-062 | OLDER PATIENTS PRESENTING WITH LOWER GASTROINTESTINAL BLEED REQUIRE MORE AGGRESSIVE MEDICAL MANAGEMENT

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Aim: Lower gastrointestinal bleeding (LGIB) is a common presentation to hospital, and incidence increases with age. This study aims to show that older patients should receive aggressive medical management, as they are unlikely to undergo arterial embolisation.

Method: This study retrospectively analysed 526 patients. Summative data analysis was performed. Quantitative variables were compared using the paired t-test, and paired-Z test. Potential predictive factors for positive CTA result were initially assessed by using univariable analysis, and then P values < 0.1 included as part of multivariable analysis with logistic regression.

Results: The mean age of this cohort of 526 patients was 74.7 years (\pm SD 15.1 years). With increased age, patients are more haemodynamically unstable; with a higher shock index ($\beta = 0.91$, $P < 0.01$), a higher INR ($\beta = 1.1$, $P < 0.01$), higher heart rate ($\beta = 99.3$, $P = 0.05$) and higher respiratory rate ($\beta = 18.7$, $P = 0.01$) on presentation. There is strong evidence that older patients require greater volume of transfused blood products packed red blood cells ($\beta = 2.1$, $P < 0.01$), FFP ($\beta = 1.0$, $P < 0.01$) and cryoprecipitate ($\beta = 1.3$, $P < 0.01$). Older patients are also more likely to have comorbidities (all with $P < 0.01$). Older patients have greater requirement for anticoagulation reversal agents (mean age of 77.4 years vs 73.3 years those not requiring, $P = 0.03$). Older patients are more likely to have a positive CTA (mean age of patients with positive CTA of 75.6 vs 72.6, $P = 0.01$). Significantly however, the frequency of patients undergoing embolisation does not increase with age (mean age 74.9 vs 73.9, $P = 0.31$).

Conclusion: Older patients with LGIB are more haemodynamically unstable on presentation, and have multiple comorbidities. Although they are more likely to have a positive CTA result, they are not more likely to undergo embolisation, instead being managed medically or conservatively. Therefore, these patients should receive aggressive medical management from the outset.

Disclosure of Interest: None declared

PO-063 | PRE#x02010;OPERATIVE IRON ALLOWS CORRECTION OF ANAEMIA BEFORE ABDOMINAL SURGERY: A SYSTEMATIC REVIEW AND META-ANALYSIS OF RANDOMIZED CONTROLLED TRIALS

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Aim: Our aim was to determine if pre-operative iron allows correction of haemoglobin concentration and decreased incidence of peri-operative blood transfusion in patients undergoing major abdominal surgery.

Method: MEDLINE, Embase and CENTRAL were searched for RCTs written in English and assessing the effect of pre-operative iron on the incidence of peri-operative allogeneic blood transfusion in patients undergoing major abdominal surgery. Pooled relative risk (RR), risk difference (RD) and mean difference (MD) were obtained using models with random effects. Heterogeneity was assessed using the Q-test and quantified using the I² value.

Results: Four RCTs were retained for analysis out of 285 eligible articles. MD in haemoglobin concentration between patients with pre-operative iron and patients without pre-operative iron was 0.81 g/dl (3 RCTs, 95% CI: 0.30 to 1.33, I²: 60%, P = 0.002). Pre-operative iron did not lead to reduction in the incidence of peri-operative blood transfusion in terms of RD (4 RCTs, RD: -0.13, 95% CI: -0.27 to 0.01, I²: 65%, P = 0.07) or RR (4 RCTs, RR: 0.57, 95% CI: 0.30 to 1.09, I²: 64%, P = 0.09).

Conclusion: Pre-operative iron significantly increases haemoglobin concentration by 0.81 g/dl before abdominal surgery but does not reduce the need for peri-operative blood transfusion. Important heterogeneity exists between existing RCTs in terms of populations and interventions. Future trials should target patients suffering from iron-deficiency anaemia and assess the effect of intervention on anaemia-related complications.

Disclosure of Interest: None declared

PO-064 | IMPROVING PSYCHOLOGICAL DISTRESS SCREENING IN COLORECTAL CANCER PATIENTS: A MENTAL HEALTH QUALITY IMPROVEMENT PROJECT

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Aim: The psychosocial aspects of the colorectal cancer patients are not screened & addressed. No structured identification&referral protocol for patients with psychosocial distress is available. The project aims at implementing psychosocial screening for all newly diagnosed colorectal cancer patients&refer those screened positive to clinical psychologist(CP)&medical social worker(MSW)for

assessment&support. It also aims as incorporating screening into the routine workflow.

Method: A Quality Improvement Team consisting of colorectal surgeons, nurses, CP&MSW was formed. A retrospective review of patients to see if any psychological distress screening was done prior to this project was performed. All newly diagnosed colorectal cancer patients were screened by a structured and validated Depression Anxiety Stress Scale(DASS21)questionnaire. Those screened extremely severe/severe in depressive and anxiety score were referred to CP&MSW for support and assessment. DASS21 was repeated 3 months after the diagnosis. Patients' demographics, disease status, number screened positive and referred, treatment received and follow-up DASS21 score were collected and analysed.2 PDSA cycle were implemented for continuous assessment and improvement throughout the project.

Results: Retrospective review of 115 patients prior to this project showed no psychosocial distress screening. This project included 115patients with23(20%)&65(57%)patients screened positive with depression score > 20&anxiety score > 14 respectively.13%&43.5%were referred to both CP+MSW&MSW only respectively. There is reduction of mean depression score from 25- > 6 and mean anxiety score from 22- > 5 in follow-up DASS21. Screening rate raised from 80- > 100% after 2 PDSA cycle.100% screened positive patients were referred to CP&MSW for assessment.

Conclusion: This is a pilot&milestone project involving multidisciplinary team in which psychosocial aspect of colorectal cancer patients are addressed and screened. It is now incorporated into our routine workflow.

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Disclosure of Interest: None declared

PO-065 | OPEN VS LAPAROSCOPIC RESTORATIVE PROCTECTOMY WITH ILEAL POUCH-ANAL ANASTOMOSIS AFTER TOTAL COLECTOMY FOR ULCERATIVE COLITIS OR FAMILIAL ADENOMATOUS POLYPOSIS

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Aim: Randomized controlled trials (RCTs) showed that laparoscopic approach provides short-term benefits such as reduced blood loss and a shorter hospital stay in patients who undergo rectal surgery. On the other hand, only a few RCTs were conducted investigating open versus laparoscopic total proctocolectomy with ileal pouch-anal anastomosis (IPAA) for ulcerative colitis (UC) or familial adenomatous polyposis (FAP). A substantial proportion of patients with UC or FAP may undergo two- or three-staged operations with IPAA, but there is no study comparing the two approaches for proctectomy with IPAA after total colectomy.

Method: We examined 54 consecutive patients with UC or FAP who underwent proctectomy with IPAA after total colectomy between 2001 and 2020. Patients were divided into the Lap group ($n = 31$) or the Op group ($n = 23$) according to surgical approach. Patient background and short-term outcomes such as operative time, blood loss, and postoperative complications graded according to the Clavien-Dindo Classification were compared between the two groups.

Results: Four patients (13%) required conversion to open surgery in the Lap group. The mean operative time was 398 min for the Lap group and 380 min for the Op group ($P = 0.42$). The median blood loss was 70 ml for the Lap group and 650 ml for the Op group ($P <$

0.001). Overall complications of grade 2 or higher occurred in 65% of the Lap group and 57% of the Op group ($P = 0.55$). Of note, nine patients (30%) of the Lap group who underwent loop ileostomy creation ($n = 30$) developed stoma outlet obstruction (SOO), whereas all six patients who underwent open IPAA with diverting stoma were free from SOO.

Conclusion: Laparoscopic surgery was beneficial to patients who received restorative proctectomy with IPAA in terms of blood loss despite of potential intra-abdominal adhesions and sub-optimal trocar positions. However, it remains to be solved how to reduce the incidence of postoperative SOO in this surgical procedure.

Disclosure of Interest: None declared

PO-066 | VARIATION IN RESULTS BETWEEN REPEATED QUANTITATIVE FAECAL IMMUNOCHEMICAL TESTING (qFIT)

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Aim: To investigate discordance at the clinical investigation threshold between repeated qFIT, and the effect on time between samples on this

Method: From March 2020 to April 2021, patients referred with lower GI symptoms were asked to complete two qFIT. The clinical investigation threshold used was faecal haemoglobin (f-Hb) 10 μ g Hb/g or greater. Discordance occurred when one test was above and the other below this level, or vice versa. The percentage of discordant results compared to concordant was assessed when the time between tests was less than 7 days, between 7 and 14 days, 15 to 29 days and over 30 days

Results: Of 2874 patients included, 3014 repeated qFIT had been performed. Overall, the level of discordance was 17.0%. Within this group were 12.2% (7/57) of the colorectal cancer, 26.4% (23/87) advanced adenomas and 6.3% (2/32) cases of inflammatory bowel disease (IBD). The second test being equal or greater than 10 μ g Hb/g, and the first less occurred in 7.5% of the tests. These would not have met the investigation threshold in a single test strategy and included one colorectal cancer, eight advanced adenoma and two cases of IBD. The median time between tests was the same for both the discordant and concordant groups at 14 days (IQR 9–20). The proportion of discordant results was greater when tests were 30 days apart compared to less than 7 days (21.1% v 15.6%, $P < 0.05$). There was no difference between the other time frames. Between tests less than 7 days apart and those 30 days and over, there was no difference in the proportion of first tests below 10 μ g Hb/g, second test 10 μ g Hb/g or greater (7.1% v 9.8%, $P = 0.9$)

Conclusion: There is a substantial degree of discordance between repeated qFIT. This is an important consideration when deciding the optimum use of qFIT in symptomatic patients as these patients would risk missing out on investigations if a single test, 'rule-out'

method is used. The level of discordant results seen is similar when the time between tests is less than one month

Disclosure of Interest: None declared

PO-067 | EXTRAPERITONEAL END COLOSTOMY: REASSESSING ITS ROLE IN PARASTOMAL HERNIA PREVENTION. RETROSPECTIVE UNICENTRIC, OBSERVATIONAL, DESCRIPTIVE AND COMPARATIVE STUDY

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Aim: The aims of this work is comparing the results of the transperitoneal (PT) and extraperitoneal (PE) techniques in the preparation of terminal colostomy, local complications of stoma, and postoperative recovery.

Method: It is a retrospective, observational, descriptive and comparative unicentric study with a sample of 67 patients who underwent elective surgery for rectal neoplasia between 2010 and 2017. Low anterior resection with preparation of a terminal colostomy via the PT or EP route. Demographic data are described, as well as the postoperative ileus rate and complications. The incidence of PH and postoperative ileus are compared, among other parameters of recovery of transit. The possible relationship between different pre-existing risk factors and the appearance of PH or other complications is analyzed. All data were analyzed with the statistical program Stata 13.1

Results: We report results of 44 (65.7%) men and 23 (34.3%) women, with a mean age of 73 years (+/- 9.5), ASA II-III (65.7% and 34, 3%, respectively) and an average BMI of 27.4 (+/- 4.2).

Demographic data in both groups were analyzed without finding statistically significant differences between them, an exception of the alcohol habit, more frequent in the EP group, as well as in respect of preoperative optimization. A statistically significant difference was observed between the incidence of PH between the two groups ($P = 0.0002$), being more frequent in PD. In the same way, a statistically significant difference was observed in terms of the time of appearance ($P = 0.025$), being earlier in the LT. No differences were observed in terms of complications or recovery from the transit. In the regression analysis, no other risk factors for the appearance of PH were observed except the technique.

Conclusion: The EP colostomy is a useful technique for the prevention of PH compared to the classical technique, with no differences in terms of local complications or postoperative recovery.

Disclosure of Interest: None declared

PO-068 | READMISSION WITHIN 30 DAYS OF DISCHARGE IN STOMA PATIENTS

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Aim: Patients who have a stoma surgery are at higher risk for re-admission following discharge. Some may benefit from closer post-discharge surveillance to detect complications earlier and provide timely treatment to avoid readmission. However, there are a paucity of contemporary tools to identify those at higher risk of readmission following discharge after stoma surgery. Here, we determine the association between pre-operative risks factors and readmissions within 30 days of discharge.

Method: Retrospective review of all patients who underwent stoma formation at a single tertiary colorectal service (2019–2021).

Results: 405 patients underwent 211 ileostomy and 194 colostomy formation surgery. Overall, 87 (21.5%) patients were readmitted within 30 days of discharge. The rate of readmission in those with IBD ($n = 82$) was 19.5%, cancer ($n = 201$) 21.4%, diverticular disease ($n = 40$) 20.0% and vascular disease ($n = 21$) was 33.3%. There was no association between readmission and gender, aetiology, smoking, weight or discharge to social care. There was an increased incidence of readmission with those who had post-operative stoma-specific complications (bleeding $P = 0.04$; high-output stoma $P = 0.04$) and in patients who received a loop ileostomy compared to an end ileostomy (35.3% versus 20.6%; $P = 0.04$). There was a protective effect in those given nutritional supplements post-operatively ($P = 0.02$). Further multivariate analysis to identify independent factors to inform modelling was undertaken.

Conclusion: The outcomes of stoma formation are related to variables that potentially provide a means to triage, risk score and predict readmission. Here we present a potential model for identifying those at high risk of readmission. Further work is being undertaken to prospectively validate this model.

Disclosure of Interest: None declared

PO-069 | EFFECT OF ANASTOMOTIC LEAK ON MAINTENANCE OF FUNCTIONAL COLORECTAL OR COLOANAL ANASTOMOSIS

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Aim: Anastomotic leakage (AL) is associated with poor prognosis after colorectal or coloanal anastomosis. The impact according to severity grade of AL is not well documented. The aim of this study was to assess in a large consecutive series of patients with AL the factors associated with maintenance of a functional anastomosis.



Method: All consecutive patients presenting with AL after colorectal or coloanal anastomosis (2012–2019) were analyzed. Preoperative and perioperative data were collected. Primary endpoint was successful treatment with functional initial anastomosis without a stoma at one year of follow up.

Results: 156 patients were included, mean interval to diagnosis of asymptomatic AL was 8.0 (IQR = 4.5–13.5) days. AL was initially treated by antibiotics (38%), drainage (43%) or urgent surgery (19%). Initial treatment of AL was not adequate in 24.3% of patients and the final grade of AL severity was A ($n = 54$; 35%), B ($n = 63$; 40%) or C ($n = 39$; 25%). 61% of patients had a functional anastomosis without stoma 1 year after surgery with significant differences among the AL grade: Grade A (89%, $n = 48$), Grade B (62%, $n = 39$), Grade C (36%, $n = 14$) ($P < 0.001$).

42 patients had a redo-surgery and at the end of follow-up, 40 patients (26%) had a definitive stoma, (Grade A: 19%, Grade B: 24%, Grade C 39%, ($P = 0.086$)).

After multivariable analysis, factors associated with anastomotic failure were: diabetes (OR = 4.24(1.4–14.2) $P = 0.014$), neoadjuvant chemoradiotherapy (OR = 3.03(1.1–8.6) $P = 0.03$) and grade B (OR = 6.5 (2.2–21.7) $P = 0.001$) or grade C leakage (OR = 35.35 (9.4–168.2) $P < 0.001$). Among patients treated firstly by a drainage, side-to-end or J-pouch anastomosis were associated with more anastomotic failure (OR = 12.90, $P = 0.04$).

Conclusion: The present study provides a large series of patients treated for acute AL after coloanal or colorectal anastomosis. 61% of patients had a functional anastomosis without a stoma at one year of follow up. Type of treatment of AL influenced the risk of anastomotic failure.

Disclosure of Interest: None declared

PO-070 | EVALUATION OF PROGNOSTIC RISK MODELS FOR POSTOPERATIVE PULMONARY COMPLICATIONS IN ADULT PATIENTS UNDERGOING MAJOR ABDOMINAL SURGERY: A SYSTEMATIC REVIEW AND INTERNATIONAL EXTERNAL VALIDATION COHORT STUDY

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Aim: Stratifying patients' risk of postoperative pulmonary complications (PPCs) after major abdominal surgery allows clinicians to modify risk through targeted interventions and enhanced monitoring. This study aimed to identify and externally validate prognostic models for PPCs in an international, prospective cohort study.

Method: A systematic review was conducted in accordance with PRISMA guidelines (registered on Open Science Framework: <https://osf.io/ceypm>) to identify risk prediction models for PPC following abdominal surgery published before 1st March 2020. External validation of existing models was performed within a prospective cohort study of adult patients undergoing major abdominal surgery.

Data were collected between 1 January and 30 April 2019 in the UK, Ireland and Australia. Discriminative ability and prognostic accuracy summary statistics were compared between models for the 30-day PPC rate (Standardised Endpoints in Perioperative Medicine Core Outcome Measures in Perioperative and Anaesthetic Care (StEP-COMPAC) definition).

Results: Twenty-nine unique prognostic models were identified from 121 full-text reports. Only 4 models (13.8%) had been externally validated. Data to validate six eligible models were collected in the cohort study. Data from 11,591 patients was available, with an overall PPC rate of 7.8% ($n = 903$). The Assess Respiratory Risk in Surgical Patients in Catalonia (ARISCAT) score demonstrated the best discrimination (AUC: 0.700 (95% CI: 0.683 to 0.717), with none displaying good discrimination (AUC > 0.7).

Conclusion: In pre-pandemic data, variability in risk of pulmonary complications following major surgery was poorly described by existing prognostication tools. To improve surgical safety during pandemic recovery and beyond, novel risk stratification tools are required.

Disclosure of Interest: None declared

PO-071 | EFFICACY OF TRANSCATHETER ANGIOEMBOLISATION IN THE SETTING OF LOWER GASTROINTESTINAL BLEED

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Aim: Mesenteric embolisation is less invasive than surgery, has greater bleeding localisation than colonoscopy, and thus has become a common treatment method for patients with lower gastrointestinal bleed (LGIB). Rates of bowel ischaemia and infarction, and bleeding from adjacent collaterals have reduced with the development of microcatheter technology and techniques. The aim is to prove that mesenteric embolisation is efficacious as a first line management in the setting of LGIB.

Method: A total of 95 patients who underwent angioembolisation for LGIB were retrospectively analysed amongst a cohort of 526 patients with a positive CT angiogram. Qualitative and quantitative data was collected and summative data analysis was performed. Statistical analysis was performed using RStudio software.

Results: Of the total 95 embolisations, 93 were technically successful, resulting in cessation of bleeding. Microcoils alone (26) and a combination of microcoils and gelfoam (20) were the most commonly used materials. A total of 19 patients rebled within 72 hours of embolisation, of whom 16 were managed conservatively or with medical management. There were a total of 6 minor complications and 9 major complications, of which a total of 3 required surgery, and 2 died. Multivariate logistic regression was performed to assess for predictors of embolisation amongst patients who underwent CTA for LGIB. Patients with a history of previous LGIB are 0.43 times

(95% CI 0.22 – 0.87 times, $P = 0.02$) more likely (57% less likely) to undergo embolisation.

Conclusion: Arterial embolisation has a technical success rate and complication rate comparable to that of therapeutic colonoscopy, and is effective first line in managing LGB. Further randomised data is needed to compare various therapeutic methods.

Disclosure of Interest: None declared

PO-072 | TRANSITION OF CARE IN COLORECTAL SURGERY. THE NEED TO ESTABLISH REFERRAL DEPARTMENTS

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Aim: Transition of care units in colorectal surgery provides young patients with a congenital or acquired colorectal disorder a progressive change from the pediatric to the adult setting. A close patient/family-doctor relationship frequently delays this transition.

We designed a pathway of transition of care for patients with colorectal disorders in our institution.

Method: Patients evaluated from January 2018 to June 2021 are described.

Patients' medical records were discussed in clinic meetings and a close collaboration was established between both surgical teams, evaluating patients sequentially in the pediatric and adult colorectal clinic, and also in the OR performing surgeries together. We also sought collaboration with patients' associations.

Results: Twenty-five patients were revised. Nine patients had IBD, 5 chronic constipation and 2 fecal incontinence. Long term symptoms due to congenital anorectal malformations (ARM) were treated in eight 8 patients. One patient with neurogenin deficit presented an enteral fistula on the site of a previous colostomy.

Surgeries performed were: 3 IBD patients underwent an ileostomy, one of them with a rectal stump excision, 3 had seton placement followed in 1 case by rectal advancement flap and 1 fistulotomy. Seven adult patients were treated with sacral nerve stimulation. Two patients with ARM were operated for rectal prolapse (one Delorme procedure and one laparoscopic ventral rectopexy), one underwent bulking agents injection and one rectovaginal fistula excision. Mean age of patients with ARM was 37 years.

Conclusion: We identify two type of patients who may benefit of these multidisciplinary teams. One group of patients are children in the transition to adulthood in whom decisions and surgeries are made on a shared basis among pediatric and general surgeons. The other group are adult patients previously treated for pediatric colorectal disorders who sought treatment in a specialized unit.

Disclosure of Interest: None declared

PO-073 | CLEFT CLOSURE (LIFT) -TREATMENT OF CHOICE FOR COMPLEX AND RECURRENT PILONIDAL DISEASE

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Aim: Pilonidal disease is a benign condition that affects mainly the young population. In available literature there is no achieved consensus for best treatment, with multiple operative techniques described, some complex, resulting in high proportion of failure and morbidity. Midline excision has poor outcomes, yet is still frequently performed. The cleft closure (or cleft lift) described by Bascom et al (2002) in comparison is a simple operation, resulting in better outcomes as well as cosmesis.

Method: We examined consecutive patients that underwent cleft closure surgery at 2 centres (St Marks' Hospital, London and Queen Alexandra Hospital, Portsmouth) between 1995 to 2020 for either extensive, complex or recurrent pilonidal disease. Patients were prospectively followed up for at least 6 months. Most procedures were performed as a day case unless social circumstances did not permit otherwise. The majority were under local anaesthesia.

Results: 621 patients underwent cleft closure surgery and had documented follow up. An initial 57.3% of pts healed primarily with no wound opening ($n = 356$). 85% of patients had minor breakdown and healed by 12 weeks ($n = 527$) post-op and 88% had healed by 16 weeks. The remaining patients healed over the following weeks with only 20 patients failing to heal completely (3.2%) and required further surgery to achieve healing. 5.2% of the cohort were found to have recurrent pilonidal disease (recurrence was defined as pilonidal infection after previously having healed).

Conclusion: Cleft closure is an effective operative management for pilonidal disease. 97% of patients heal. We observed a 3% failure rate and 5% recurrence rate. This technique should be widely taught as an alternative to midline or wide excision operations and instead of complex flaps.

Disclosure of Interest: None declared

PO-074 | IMPACT OF COVID-19 ON THE MODE OF PRESENTATION AND STAGE AT DIAGNOSIS OF COLORECTAL CANCER

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Aim: This study compares stage at presentation for patients with colorectal cancer (CRC) before and after the introduction of COVID-19 restrictions as well as mode of presentation.

Method: This is a retrospective cohort study comparing the incidence of CRC, TNM stage and mode of presentation in the pre Covid and Covid cohorts at a single UK Trust. All Patients discussed at the



CRC MDT from March 2017 to March 2021 were included and split into two cohorts; pre-Covid group from 01/03/2017 to 29/02/2020 and Covid group from 01/03/2020 to 28/02/2021. Percentages used for descriptive statistics. T-test was used for demographic analysis. Chi-squared test was used for the difference analysis for the categorical data such as TNM and mode of presentation. P value ≤ 0.05 was considered significant.

Results: In total, 1373 patients were diagnosed with CRC during the period from March 2017 to March 2021. The pre-Covid group (2017–2020) included 1104 CRC patients, compared to 269 patients in the Covid one (2020–2021). Mean age was higher in the pre-Covid group ($P = 0.001$). There was a statistically significant increase in proportion of cases presenting with T4 disease ($P = 0.023$) and with metastatic disease ($P = 0.032$) in the Covid group compared to the pre-Covid group. There was also a significant increase in the rate of emergency presentations ($P < 0.0001$).

Conclusion: We observed a statistically significant increase in rates of locally advanced (T4) and metastatic (distant) CRC in patients presenting after the introduction of the CoVID-19 lockdown, as well as an increase in emergency presentations. There was no observed difference in nodal status. This may reflect disruption to cancer diagnostic services and reluctance of patients to access medical care during a pandemic, particularly the elderly.

Disclosure of Interest: None declared

PO-075 | COULD REFINING THE DESIGN OF THE COLOSTOMY REDUCE PARASTOMAL HERNIATION? A FINITE ELEMENT ANALYSIS STUDY

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Aim: Stoma complications remain a significant source of morbidity after colorectal surgery. Prophylactic mesh reinforcement of the permanent stoma has shown some improvements but has also introduced a new set of complications⁽¹⁾. A return to the drawing board maybe required to address the problem of parastomal hernia. The aim of this study was to examine the stress forces experienced by the anterior abdominal wall after stoma formation and compare novel and traditional stoma designs that could mitigate hernia formation.

Method: This study examined the effects of stoma design on parastomal hernia formation using an experimental simulation technique. A finite element analysis was performed on a 3D abdominal wall model reconstructed from cross-sectional imaging. The traditional cruciate stoma incision was compared to a circular stoma incision in two experiments. The experiments measured fascia tearing pressures and aperture dilatation over time. The simulations were performed using the FEBIO software suite⁽²⁾ and a custom finite element solution.

Results: The cruciate design demonstrated fascia tearing at lower abdominal pressures compared to the circular incision. Also there

was a strong linear relationship between slit length and decreasing tear pressures in the cruciate design ($R^2 = 0.98$). Moreover the cruciate design demonstrated rapid aperture dilatation with increasing abdominal pressure compared to the circular design.

Conclusion: This study has demonstrated using a novel finite element analysis method that the shape of the fascia incision has a significant impact on parastomal hernia formation. The circular stoma incision was superior to the cruciate incision at with regards high tearing pressures, lower aperture dilatation over time and less mesh displacement. The circular stoma design is a promising avenue for future research based on sound bio-mechanical principles.

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Disclosure of Interest: None declared

PO-076 | INCREASED ACCURACY IN DIAGNOSING DIVERTICULITIS WITH PREDICTIVE CLINICAL FACTORS

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Aim: Clinical diagnosis of diverticulitis has low accuracy. There are a few scoring systems developed for diverticulitis diagnosis but none in frequent clinical use. The aim was to identify diagnostic factors that increase the clinical accuracy in diagnosing diverticulitis.

Method: This study was based on a prospective computed tomography (CT) verified diverticulitis cohort from two hospitals in Sweden (Västeras and Mora) between January 9th - October 31st 2017. Patients with a clinical suspicion of diverticulitis were included. Symptoms, comorbidities and laboratory results were documented.

Results: 146 patients were included, 73% women. The median age was 68 (range 50–94 years). Diverticulitis was found in 106 of 143 patients with a clinical diagnostic accuracy of 72%. After diverticulitis, the three most common final diagnoses were; no diagnosis found on CT or at discharge (12%), colitis (6%) and acute appendicitis (5%). A history of previous diverticulitis was found in 41 patients of 146. The most common symptoms were left sided abdominal pain (88%), fever (49%) and nausea (31%). In the multiple analysis gender (female OR: 2,65), age (OR:0,52), fever (OR: 2,18) and absence of vomiting (OR: 9,58) were associated with the diagnosis of CT verified diverticulitis.

Conclusion: Although the cohort included only patients with clinical suspicion of diverticulitis, previously described diagnostic factors were prognostic for CT-verified acute diverticulitis. The diagnosis

may be improved by taking into account a presence of left sided abdominal pain, gender, age, fever and absence of vomiting. A scoring system is to be developed.

Disclosure of Interest: None declared

PO-077 | POST-OPERATIVE ANTIMICROBIAL TREATMENT DOES NOT IMPROVE WOUND HEALING IN CLEFT CLOSURE SURGERY FOR PILONIDAL DISEASE

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Aim: Pilonidal disease is a common pathology in the younger population. Patients can present with simple pits to recurrent abscess formation and extensive local sepsis in the natal cleft. We retrospectively evaluated a series of patients who underwent a cleft closure (or cleft lift) as described by Bascom et. al in 2002 and examined the effect of a course of post-operative antibiotics on outcomes.

Method: Consecutive patients with extensive, complex or recurrent pilonidal disease underwent cleft closure surgery between 1995 and 2020 at 2 centres (St Marks' Hospital, London and Queen Alexandra Hospital, Portsmouth) and were prospectively followed up for at least 6 months. All patients received pre-operative antibiotic prophylaxis. 152 patients received post-operative antibiotics for 5 days and 469 patients received no routine post-op antimicrobial therapy. Most procedures were performed as a day case unless social circumstances did not permit otherwise. Primary outcome measured was number of patients who achieved primary healing.

Results: 621 patients underwent cleft closure surgery and had documented follow up. Mean follow up time was 13.8 months. No significant difference was found in rates of primary healing between both groups; 55.7% ($n = 83$) patients receiving antibiotics healed primarily, vs. 57.8 in patients without antibiotics ($X^2 P = 0.646$). Observed recurrence rates however were lower in the cohort who received antibiotics ($X^2 2\%$ vs 6.2% , $P = 0.045$)

Conclusion: We conclude there is no benefit for the use of post-operative antimicrobial therapy in improving the rate of primary healing, but it may play a role in reducing recurrence of pilonidal disease.

Disclosure of Interest: None declared

PO-078 | URETERAL INJURY DURING COLORECTAL SURGERY : IS-IT A REAL NIGHTMARE?

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Aim: To describe ureteral injuries occurring during colorectal surgery through a French multicentric experience

Method: All the patients who presented with ureteral injury during colorectal surgery between 2010 and 2019 were retrospectively included. Patients with ureteral involvement needing *en-bloc* resection, delayed ureteral stenosis or non-colorectal surgery were not considered.

Results: 176 patients (84 men, mean age 63 ± 13 years) were identified in 25 centers, corresponding to 0.3% of colorectal surgeries. Ureteral injury occurred during scheduled colorectal surgery in 86% of cases. The concerned colorectal surgeries were: carcinologic surgery ($n = 120$, 68%), diverticulitis ($n = 16$, 9%), IBD ($n = 6$, 3.5%), Hartmann reversal ($n = 6$, 3.5%), ischemia ($n = 5$, 3%), endometriosis ($n = 4$, 2%), and various ($n = 19$, 11%). Carcinologic surgery included 19 peritoneal carcinomatosis and 25 locoregional recurrence. Index colorectal surgery was performed through open ($n = 125$, 71%), laparoscopic ($n = 48$, 27%) or robotic approach ($n = 3$, 2%). Left ureter was the most frequently injured ($n = 119$, 68%), and bilateral injury was observed in 8 patients (4.5%).

A preoperative ureteral tube was placed in 8 patients (4.5%). The ureteral injury was diagnosed intraoperatively in 69 patients (39%), and postoperatively in 107 patients (61%), after a mean delay of 12 days (± 9 days). In case of intraoperative diagnosis, uretero-ureteral anastomosis was the most frequently performed ($n = 47/69$, 68%). In case of postoperative diagnosis, unplanned surgery was necessary in 59 patients (/107, 55%).



At the end of the follow-up, after a mean delay of 3 years (± 2.3 years [1 months – 12 years]), 59 patients presented with urologic sequelae (33.5%). 6 patients have required nephrectomy (3.5%).

Conclusion: Ureteral injury during colorectal surgery is rare. It occurs most frequently during carcinologic colorectal surgery. Most of the patients with ureteral injury are fully recovered at the end of the follow-up.

Disclosure of Interest: None declared

PO-079 | A PROSPECTIVE INTERNATIONAL COLLABORATIVE RESEARCH PROJECT INVESTIGATING UNSOLICITED PREDATORY EMAIL INVITATIONS IN COLORECTAL SURGERY – INITIAL RESULTS OF THE CAPTCHA STUDY

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Aim: Predatory publishers are a growing problem. They lack proper peer review, exploit open access models for profit, employ deceptive marketing tactics and prey upon researchers through unsolicited email communications. These practices harm individuals and diminish trust in scientific publishing. We aimed to obtain a snapshot of unsolicited predatory emails and their content.

Method: Colorectal consultants and trainees were recruited through specialist societies and social media. Collaborators prospectively forwarded all unsolicited emails received over a set 30-day period to the study group. Half the dataset was randomly selected for detailed content analysis. Statistical analysis was performed using Spearman's rank coefficient.

Results: 92 collaborators contributed a total of 8578 unsolicited emails. Collaborators received a median of 79 emails (range 3–479). The number of emails received by individuals correlated with their number of publications ($r_s = 0.65$, $P < 0.001$), first author citations ($r_s = 0.68$, $P < 0.001$) and corresponding author citations ($r_s = 0.64$, $P < 0.001$).

4379 emails were analysed. 467 (10.7%) non-predatory emails were excluded. 3912 (89.3%) predatory emails requested contributions to 988 journals, 37 textbooks, and 105 conferences on behalf of 234 publishing companies. 84.0% sought an article for publication. Others invited the recipient to join the editorial board (6.4%), review a manuscript (1.3%), contribute to a book (3.5%) or speak at a conference (7.9%).

Email content was notable for basic text format (95.1%), poor grammar/syntax (88.2%), flattery (56.5%), deadlines (51.3%), fake impact factors (18.7%), exclamation marks (48.6%) and key words “greetings” (37.1%), “eminent” (14.6%), “global” (24.7%) and “international” (20.0%).

Conclusion: The predatory publishing industry is a considerable burden for academic surgeons. Researchers must learn how to recognise materials from predatory sources. Future work will develop screening tools and investigate the publishers captured by the study.

Disclosure of Interest: None declared

PO-080 | MANAGEMENT OF SIGNIFICANT POLYP AND EARLY COLORECTAL CANCERS OVER THE LAST 10 YEARS AT A LARGE DISTRICT GENERAL HOSPITAL

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Aim: In 2015, the significant polyps and early colorectal cancers (SPECC) national development programme was introduced to standardise the assessment and management of these lesions. Our aim was to investigate the variations in the management and outcomes at our institution.

Method: We conducted a retrospective review of all SPECC lesions from 2010 to 2020. The study was undertaken at a District General Hospital in the South East of England. Data was collected using electronic patient records. The cases were divided into two groups: the ‘control group’ comprised of cases before 2015 and the ‘intervention group’ comprised of cases from 2016.

Results: 273 cases (median age 72 years (IQR 64 – 78 years), M:F = 1:1) were included and divided into the ‘control group ($n = 145$)’ and the ‘intervention group ($n = 124$)’. Regarding reporting: polyp pictures were taken in 67.6% versus 81.3% ($P 0.003$), chromoendoscopy was used in 0.7% versus 64.2% ($P < 0.001$), polyp size was documented in 96.4% versus 100% ($P < 0.001$), polyp morphology (Paris) was documented in 72.3% versus 50% ($P < 0.001$), polyp surface characteristics (Kudo) was documented in 26.2% versus 47.5% ($P < 0.001$), polyp access documentation was 81.2% versus 9.1% ($P < 0.001$). In the intervention group, there was significant increase in the MRI assessment of polyp 23.1% versus 29.8% ($P < 0.001$), complex multi-disciplinary team (MDT) discussion 0.7% versus 11.3% ($P < 0.001$), EMR 0.7% versus 13.9% ($P < 0.002$).

No differences were observed between the groups for CT assessment, surgical resection rates, contact radiotherapy, recurrence, salvage treatment, overall and disease-free survival.

Conclusion: There is significant improvement in the reporting and MDT discussion of complex polyps since the introduction of the SPECC national development programme. There was no impact in the management and long-term outcome of these lesions. Assessment and management standardisation of SPECC lesions may help to select appropriate treatment strategies and improve outcomes.

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Disclosure of Interest: None declared

PO-081 | AN UPDATE ON THE CLINICAL AND ECONOMIC BURDEN OF ANASTOMOTIC LEAKAGE IN LOWER GASTROINTESTINAL SURGERY

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Aim: Anastomotic leakage is one of the most severe complications after colorectal surgery. In this abstract, recent data on the development of anastomotic leakage regarding the incidence, risk factors, clinical management and associated societal costs using DRG (Diagnosis-related group) data will be presented.

Method: A data query of DRG data of all hospital cases from 2013 - 2018 in Germany with the ICD code K91.83/anastomotic leakage (which was introduced in 2013) in connection with partial colon resection and sphincter-preserving rectal resection as well as the underlying diseases, secondary diagnoses, management, hospital reimbursement volume and length of stay was performed.

Results: The number of partial colon resections averaged 85,000/year and sphincter-preserving rectal resections 28,000/year. Anastomotic leakage rates for partial colon resections were 5.1% in 2013 and 6.7% in 2018 and for rectal resections 7.7% in 2013 and 9.2% in 2018. Patients with diabetes, hypertension, cachexia, obesity, and chronic kidney disease showed significantly higher leakage rates. Treatment of anastomotic leakage after colon and rectal resections showed an increase in the use of endorectal vacuum therapy (2013: 3%/18%, 2018: 7%/30%), whereas rates of relaparotomy, abdominal vacuum therapy and terminal enterostomy remained the same. There was a significant difference in the average DRG-based hospital reimbursement sum for resections without and with anastomotic leakage.

Conclusion: Despite technical developments and rising awareness on the issue of anastomotic leakage, our data shows no decrease of anastomotic leakage rates following lower gastrointestinal surgery. Interestingly, endoscopic treatment for anastomotic leakage is performed more frequently over time without lowering the rate of reoperation. Thus, the data show the continuing need for research in the field of anastomotic leakage after colorectal surgery.

Disclosure of Interest: None declared

PO-082 | LOWER GASTROINTESTINAL BLEEDING MANAGEMENT AS PER BRITISH SOCIETY GASTROENTEROLOGY GUIDELINES: A DEPARTMENTAL AUDIT, PILGRIM HOSPITAL

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Aim: In 2019, the British Society of Gastroenterology (BSG) published the first United Kingdom national guidelines for acute lower gastrointestinal bleeding (LGIB),⁽¹⁾ following inadequacies in LGIB emergency service provision.^(1,2)

Method: We performed a retrospective cohort study (January 2019 to September 2020), using paper and electronic notes through coded data, for all LGIB emergency surgical admissions for LGIB. Paper and electronic notes were used, in retrieving data.

Primary outcome end-points: evaluate our standards as per BSG guidelines.

Results: 48 patients were identified as matching the inclusion criteria, with a median age of 64.75 and diverticular diseases accounting for the majority of cases. None of the patients were categorised in the group of being stable/unstable or had their Oakland scores calculated. 62.5% of patients were offered outpatient investigations versus 6.25% for inpatient investigations. 0% of unstable patients were offered a CT angiogram (as no patients were stratified as unstable). 75% of patients achieved haemoglobin target levels post-transfusion. 100% of patients taking warfarin and dual antiplatelets followed guidelines versus 50% on clopidogrel, 80% on dual antiplatelet therapy and 63.6% on aspirin alone.

Conclusion: This study found that our department did not adhere to the BSG guidelines. This can be improved through the routine calculation of the Oakland score and shock index, which will stratify clinical risk. Additionally creating an agreed trust management pathway and assigning a gastrointestinal bleed lead will allow for earlier detection and encourage better clinical practice. Whilst there were limitations due to restricted data collection, as a result of the coronavirus, further research will identify how these implementations can be amended and if the changes are effective in local practice.

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Disclosure of Interest: None declared



PO-083 | STOMA REVERSAL AFTER HARTMANN'S PROCEDURE FOR ACUTE DIVERTICULITIS

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Aim: The aim was to report the mortality and stoma reversal rate after Hartmann's procedure for acute diverticulitis and to investigate factors predicting nonreversal of Hartmann's and reversal complications.

Method: In this retrospective cohort study, all patients treated in the Helsinki University Hospital for acute colonic diverticulitis between the years 2006–2017 were identified and assessed.

Results: Out of 218 patients operated with Hartmann's procedure 157 (72%) had purulent or fecal peritonitis. Median age of these patients at the time of Hartmann's procedure was 77.8 and 40% required assistance in daily routines before the Hartmann's procedure. Altogether 101 patients underwent stoma reversal attempt and stomas were successfully reversed in 98 patients. Median time from Hartmann to reversal was 216 days. Only 42 (19.3%) patients were alive 2 years from Hartmann's procedure and had not undergone reversal operation. Risk factors for nonreversal were old age, high ASA classification, need for outside assistance, long hospital stay, and chemotherapy. Most common reasons for nonreversal were patients wish not to operate 18 (41%), dementia 10 (23%), and heart or lung disease 4 (9%). A total of 33 (33%) reversal operations were laparoscopic. Altogether 12 (12%)

patients had a major complication after reversal (Clavien-Dindo IIIb-IV) and 9 required re-operation. 90-day mortality after reversal was 0%. Preoperative anemia correlated with reversal complications.

Conclusion: Over 80% of the patients surviving over 2 years after Hartmann's procedure will undergo reversal surgery, while the remaining patients either do not wish or are not fit for reversal operation.

Disclosure of Interest: None declared

PO-084 | CRITICAL APPRAISAL OF IMAGING TEST RATE AND CONSEQUENCES FOR SUSPECTED APPENDICITIS

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Aim: To evaluate clinical compared to imaging diagnostic in acute appendicitis (AA), and whether the request for imaging tests was based on clinical-analytical assessment scales, improving medical practice.

Method: Single center, retrospective and observational analysis of three cohorts (year 2008, 2017 and 2020) of patients admitted with the diagnosis of AA. Patients were stratified using the Alvarado scale (AS).

Results: 294 patients were included. Clinical diagnosis of AA diminished along our observational study: i.e. 58% (38 of 72 patients) in 2008, 29.8% (25 of 91) in 2017 and 9.7% (11 of 131) in 2020. Consequently, a significant increase of imaging tests between 2008 and 2017–2020, but also between 2017 and 2020 ($P < 0.000$) was assessed.

In the group of patients operated without imaging ($n = 74$), stratification by AS, resulted in 7 (9.4%) being low, 18 (24.3%) intermediate and 49 (66.2%) high. In the low-risk group, C-reactive protein (CRP) was significantly higher ($P < 0.026$).

Clinical diagnosis, stratified with AS, revealed intraoperative AA in all patients; significantly more men (37.2%) than women (20%) were operated without any imaging test ($P < 0.032$).

In patients younger than 30 years, significantly more imaging tests were requested in women than in men ($P < 0.022$) and the most requested test was, radiologist performed, ultrasound (US) ($P < 0.000$). Performing imaging tests delay time to surgery ($P < 0.000$). The group of patients operated on with imaging tests, presented significantly more complicated appendicitis upon surgery ($P < 0.046$).

Conclusion: Diagnosis of AA in our emergency center is mainly and increasingly based on imaging tests. In all patients who underwent surgery without any imaging test, the diagnosis of AA was correct. Imaging tests should be linked to risk stratification using clinical-analytics scales and timely assessment by a surgical specialist to optimize its indications and avoid surgical delays.

Disclosure of Interest: None declared

PO-085 | GASTROINTESTINAL SYMPTOMS IN COVID-19 PATIENTS

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Aim: Gastrointestinal (GI) symptoms have been reported with coronavirus disease (COVID-19), but our understanding of their clinical significance is limited and this can be a safety concern for surgeons as patients might present with GI symptoms only.

Method: A prospectively maintained database of emergency patients was reviewed between 20/03/2020 and 20/04/2020 (Cohort A) and 05/01/2021–26/01/2021. (Cohort B) All of them had a positive Polymerase Chain Reaction (PCR) COVID-19 test. We evaluated the prevalence of GI symptoms and their association with the severity of COVID-19 and looked at the prevalence of symptoms in different ethnicities.

Chi-squared test in R software environment was used to analyse the data.

Results: Cohort A consisted of 189 patients (100 male) 14 had nausea, 18 vomiting, 39 diarrhoea and 9 abdominal pain. 17 had ITU admissions and 68 died.

Cohort B consisted of 348 patients (185 male) 50 had nausea, 46 vomiting, diarrhoea 84 and 23 had abdominal pain. 30 had ITU

admissions and 75 died. In this cohort the COVID-19 Alpha Variant was making up nearly 100% of cases.

Nausea was more common in Cohort B 50/348 ($P = 0.01641$) There was no difference in vomiting (18/189 Cohort A $P = 0.198898$), diarrhoea (39/189 Cohort A, $P = 0.3385$) and abdominal pain (9/189 Cohort A $P = 0.379$).

There was no difference in GI symptoms for the severe and non-severe cases in Cohort A ($P = 0.150813$) but they were more prevalent in the non-severe group of Cohort B ($P = 0.008$).

There was no difference between ethnic groups in terms of GI symptoms (Cohort A 35 Black patients, 17 Asian, 102 White and 35 Other Ethnicities, Cohort B 40 Black, 33 Asian, 174 White and 101 Other Ethnicities).

Conclusion: Acute GI symptoms associated with COVID-19 are highly prevalent and were seen more often in non-severe cases of Cohort B. The SARS-CoV-2 Alpha Variant was endemic in our region and the UK vaccination programme was being rolled out at the time of our study. More research is required to establish the significance of these factors.

Disclosure of Interest: None declared

PO-086 | OCCURENCE OF SEVERE COMPLICATON AFTER SCHEDULED SIGMOIDECTOMY FOR SIGMOID VOLVULUS COMPARED WITH SIGMOIDECTOMY FOR DIVERTICULITIS

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Aim: The prophylactic sigmoidectomy remains controversial in the management of patients suffering from sigmoid volvulus. The aim of this study was to compare post-operative major morbidity following prophylactic sigmoidectomy for volvulus and diverticulitis.

Method: In this retrospective multicenter study, all patients who underwent elective sigmoidectomy with primary anastomosis for volvulus or diverticulitis between 2008 and 2018 were included. Epidemiologic data, comorbidity, operative data and post-operative complications were collected. The main outcome measure was severe morbidity rate (Dindo-Clavien ≥ 3)

Results: Of 340 patients included, 53 had sigmoid volvulus and 287 diverticulitis. Patients of the volvulus group had lower BMI ($P = 0.0001$) and presented with more severe comorbidities ($P = 0.005$) than those with diverticulitis. A severe complication was reported in 16 (30,2%) and 21 (7,3%) patients of the volvulus and diverticulitis groups respectively ($P < 0.001$). Anastomotic leak was more frequent in the volvulus group [8 (15,1%) patients vs 13 (4,5%) ; ($P = 0.009$)]. A Hartmann surgery was required in 7 patients following anastomotic leak (5 vs 2 ; $P = 0.0003$).

Conclusion: Elective prophylactic sigmoidectomy for sigmoid volvulus is associated with a significantly higher risk of severe complication. Patients and surgeons should be aware of the 30% severe morbidity rate before choosing the prophylactic surgery option following sigmoid volvulus.

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Disclosure of Interest: None declared

PO-087 | VIRTUAL STOMA SITE MARKING

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Aim: Although ostomies, are lifesaving, they could cause physical, social, and psychological burden (1). Preoperative ostomy site marking and informing the patients; increases the compatibility of the patients with the stoma in the postoperative period while decreasing possible complications. These markings are performed by specialized "Wound Ostomy Continence Nurses" (WOCN). The scarcity of stoma therapy units and WOCNs lead to unmarked patients undergoing elective and emergent surgeries. Improperly positioned stomas could result in complications, affecting patients' quality of life, increasing readmission rates, eventually possible re-operations. Thus, increasing the load on the healthcare systems.

Method: Gridlines were drawn on a transparent sheet with 1 cm spaces. Healthy volunteers who did not undergo any surgery were used as subjects. Two experienced WOCNs marked the stoma sides of the same volunteer. The first WOCN marked the volunteer in real time while the second WOCN marked the photo of the patient with the gridline in place. Photographs were taken with smart phones at three different angles: sitting, lying and bent. Each WOCN was blind to the mark placed by the latter. They were instructed to mark four stoma sites, however when they considered a site to be inappropriate for marking, they choose to mark only two sites. Their markings were compared and analyzed in terms of distance from each other, as measured on the gridline.

Results: 36 different stoma site markings were performed both in virtual and real time. 80% of the mark sites were within 2 cm distance



between the groups. Marking was the same in 7 instances (19.4%), within 1 cm in 14 (38.9%), within 1–2 cm in 8 (22.2%) instances.

Conclusion: In this preliminary study we found that virtual marking and real time marking were found to be similar. The results of this study could be expanded into a larger population, helping better stoma site marking in underprivileged and rural areas.

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Disclosure of Interest: None declared

PO-088 | COLORECTAL CANCER CARE IN THE COVID-19 ERA; OUTCOMES FROM A “MIXED SITE” MODEL

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Aim: The COVID-19 pandemic has presented many challenges to colorectal cancer (CRC) care. Many organisations opted to perform CRC resections in “cold” sites. Infrastructure in Northumbria Healthcare NHS Foundation Trust (NHCT) necessitated co-locating CRC care with “hot” COVID streams but with additional precautions. This study aimed to evaluate that approach for a consecutive series of CRC cases, diagnosed before and during the COVID-19 pandemic.

Method: A prospectively populated dataset of CRC patients diagnosed between 01/04/2019 and 30/09/2020 was used. Patients presenting before 01/04/2020 were considered “Pre-COVID” and those subsequently “COVID era”.

Results: Three hundred and forty-four cases were diagnosed in the 12 months “Pre-COVID” and 166 in the 6 months of the “COVID era”. The median days from referral to diagnosis (21 vs 20, $P = 0.373$) and operation (63 vs 61, $P = 0.208$) were unchanged. The “COVID era” saw an increase in the proportion of radiological diagnoses (39.5% vs 53.0% $P = 0.004$) with an associated decrease in endoscopic diagnoses (56.7% vs 45.8%, $P = 0.021$). Rates of inoperable (1.5% vs 1.2%, $P = 0.821$), obstructing (11.0% vs 16.2%, $P = 0.272$) and perforated tumours (0.6% vs 1.5%, $P = 0.492$) remained the same.

One patient developed COVID-19 peri-operatively. Rates of laparoscopic operation (59.5% vs 61.8%, $P = 0.751$), anastomotic leak (6.4% vs 5.9%, $P = 0.891$), re-operative surgery (10.4% vs 4.4%, $P = 0.138$),

primary stoma (40.5% vs 32.4%, $P = 0.244$) and 90-day mortality (0.6% vs 1.5%, $P = 0.492$) did not change.

Conclusion: With appropriate infection control measures, it may be safe to continue providing standard elective and urgent CRC care without access to a “COVID clean” site.

Disclosure of Interest: None declared

PO-089 | TRIALS AND TRIBULATIONS: EDUCATIONAL IMPACT FROM STUDENT-LED RECRUITMENT IN A SURGICAL TRIAL

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Aim: To understand the effect of and derive recommendations for the involvement of medical students in clinical trial recruitment.

Method: Tracking wound infection with smartphone technology (TWIST) was a randomised controlled trial enrolling adult emergency abdominal surgery patients across two university teaching hospitals. All recruiters underwent pre-recruitment training based on “Generating Student Recruiters for Randomised Trials” (GRANULE) principals, and completed pre- and post-recruitment surveys. Respondent agreement with statements were assessed using 5-point Likert scales (from 1 [“strongly disagree”] to 5 [“strongly agree”]). Data were summarised using mean and standard deviation (SD), with paired t-tests used to compare differences pre- and post-involvement.

Results: Of 492 patients recruited to TWIST from 2016 to 2020, 86.0% ($n = 423$) were recruited by medical students. Following student involvement, the monthly rate of recruitment tripled (4.8 to 15.7 patients/month). 96.8% of student recruiters ($n = 30/31$) completed both surveys, reporting significant improvement in clinical and academic competencies following involvement. This included increased confidence in gaining (mean difference: +1.10, 95%CI 0.70–1.50, $P < 0.001$) and documenting consent (mean difference: +1.20, 95%CI 0.76–1.64, $P < 0.001$), as well as interest in pursuing a clinical-academic career (mean difference: +0.47, 95% CI: 0.10–0.83, $P = 0.014$). Importantly, a majority felt the undergraduate curriculum had not prepared them for involvement in clinical trials (mean: 2.47, SD: 0.94).

Conclusion: Student involvement in surgical trials is feasible and provides a route to developing a research-active surgical workforce. It also accelerates recruitment to surgical trials, as well as benefiting students through development of clinical competencies and provision of additional exposure to research. Adequate training, support and selection of suitable trials are essential for successful student engagement.

Disclosure of Interest: None declared

PO-090 | SURGICAL TRAINING DURING THE COVID-19 PANDEMIC AT A DESIGNATED "COLD" SITE: ARE WE MEETING THE CHALLENGE?

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Aim: There has been a marked reduction in surgical operative training opportunities during the COVID-19 pandemic. This may be improved by the establishment of "cold" sites for NHS elective surgery. We investigated the training opportunities at a newly designated elective surgery cold site in the West Midlands, UK.

Method: An observational retrospective study was undertaken to include all gastrointestinal and urological elective surgery at a single "cold" site during the first peak of the pandemic. Patient demographics, details of surgery, and data relating to surgical training such as primary surgeon and portfolio index procedure were collected. Factors affecting the likelihood of trainees being the primary surgeon were analysed using logistic regression models.

Results: There were 880 patients, with a median age of 62 (IQR 48–74). 658 (74.8%) procedures were defined as "index procedures" for ST4 level (409/509 (80.4%) for Urology; 155/235 (66%) for Colorectal; and 94/136 (69.1%) for Upper GI). Only 253/880 (28.8%) procedures were performed by a trainee as the primary surgeon (201/509 (39.4%) for Urology; 21/235 (8.9%) for Colorectal; and 31/136 (22.8%) for Upper GI). The likelihood of a trainee being the primary surgeon was reduced for major surgery ($P < 0.001$) and for gastrointestinal surgery when compared to urology ($P < 0.001$).

Conclusion: Surgical training was facilitated at an elective surgery "cold" site during the COVID-19 pandemic, but at lower levels than anticipated. Type of surgery influenced trainee participation. Surgical training should be incorporated into "cold" site elective surgical services if trainees are to be prepared for the future.

Disclosure of Interest: None declared

PO-091 | AMBULATORY APPENDECTOMY FOR ACUTE APPENDICITIS, IS IT POSSIBLE TO TREAT MORE PATIENTS?

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Aim: report the results of ambulatory appendectomy for acute appendicitis (AA) in a large consecutive cohort and improve the selection criteria to extend the indications of ambulatory appendectomy for AA

Method: All appendectomy for AA (03/2013–06/2020) were included retrospectively. Criteria to propose ambulatory appendectomy was a St-Antoine's score ≥ 4 (body mass index $< 28\text{kg/m}^2$ (BMI), white cell count $< 15\ 000/\text{mL}$ (WC), C-reactive protein (CRP) < 30

mg/L, no radiological sign of perforation, and appendix diameter of 10 mm or smaller, each criteria = 1 point).

Results: During the study period 1906 consecutive patients had an appendectomy for AA: 1415 (74%) in conventional settings (group Conv) and 491 (26%) in ambulatory settings (group Amb). In the Conv group, 354 (25%) patients had a surgery reported to the next morning, whereas in the group Amb, 346 patients (70%) were reconvened the next morning ($P < 0.0001$). In the Amb group, 378 (83%) patients satisfied the criteria (score ≥ 4) and 79% had a discharge at POD0. The rate of unplanned consultation and readmission was statistically higher in the group Conv (7.2% vs. 4.5% $P = 0.035$). The rate of post-operative abscess was 3.8% in the all cohort with no statistical difference between the two groups.

The multivariate analysis of the all cohort confirmed the 5 predictive factors of early discharge. Based on this analysis, we created a new score (0–7 points), based on the same 5 variables with 3 points for absence of radiological sign of perforation. With this new score, 578 additional patients would have been candidate for ambulatory management (new score ≥ 4) with a predictable rate of success of 91%

Conclusion: Ambulatory strategy for AA based on St-Antoine score is a safe. With a minor modification of the score, we propose to extend indications with a safe predictable rate of success.

Disclosure of Interest: None declared

PO-092 | FACTORS ASSOCIATED WITH INCOMPLETE COLONOSCOPY IN SYMPTOMATIC PATIENTS SCHEDULED FOR ELECTIVE COLONOSCOPY

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Aim: For endoscopists, the caecal intubation rate (CIR) is an important quality standard¹. However, previous studies have shown that patients who had a colonoscopy due to symptoms had a lower CIR than those who had a screening colonoscopy; additionally, symptoms were found to be one of the predictors of incomplete colonoscopy². There is a scarcity of information on the factors associated with incomplete colonoscopies in patients who have symptoms. The purpose of this study was to look at the factors that were linked to incomplete colonoscopies in patients who had symptoms.

Method: A single-center, prospective, observational study was conducted, and all symptomatic patients undergoing colonoscopy between November 2019 and March 2021 were included. The significant risk factors for incomplete colonoscopy were evaluated by using a multiple logistic regression model.

Results: Two hundred and seven patients (59% male) with mean age of 63 ± 21 years. Indications include bleeding (45%), bowel habit change (30%), pain (21%), and miscellaneous (4%). The rate of caecal intubation was 77%. The results of a multivariate logistic regression analysis revealed three factors that were significantly associated



with an increased risk of incomplete colonoscopy: previous abdominal or pelvic surgery (odds ratio [OR] 2.99; confidence interval [CI] 1.07 to 8.35, $P = 0.036$), severe pain score during the procedure (odds ratio [OR] 19.56; confidence interval [CI] 6.06 to 63.13, $P < 0.001$) and poor bowel cleansing (odds ratio [OR] 7.94; confidence interval [CI] 2.82 to 22.38, $P < 0.001$).

Conclusion: In this study, Colonoscopy in symptomatic patients results in lower cecal intubation rates. The only two modifiable patient-related predictors influencing cecal intubation were the quality of bowel preparation and severe pain during the procedure.

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Disclosure of Interest: None declared

PO-093 | THE IMPACT OF SUB-SPECIALISATION ON OUTCOMES FOLLOWING EMERGENCY HARTMANN'S PROCEDURE: A RETROSPECTIVE COHORT STUDY

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Aim: In 1921 Henri Albert Hartmann described the 'Hartmann's procedure' for the management of left sided colorectal pathology to reduce morbidity and mortality associated with alternative procedures at the time.

We looked to review outcomes from emergency Hartmann's procedures between sub-specialty surgeons (Upper Gastrointestinal (UGI) and Lower Gastrointestinal (LGI)) over a 5 year period.

Method: This was a retrospective cohort analysis over 5 years (Jan 2014 - Dec 2019) in a single institution with both upper and lower gastrointestinal surgical specialty services providing an emergency surgical rota.

All cases undergoing a Hartmann's procedure for a left sided colonic emergency were identified. A retrospective case note analysis was performed. The primary end point was stoma reversal. Secondary endpoints were overall / 30-day mortality, 30 day morbidity (Clavien-Dindo Index), length of stay (LoS) and return to theatre. Data was compared between the two groups.

All statistical analysis was carried out in R-Studio Version 1.1.463. Descriptive statistics were calculated for all data.

Results: In total 110 patients were identified for inclusion over the 5-year period. Nine patients were excluded due to incomplete records. Of the 101 patients analysed, 88 were performed by a LGI surgeon. Age and Sex was comparable between the UGI and LGI cohorts. 57% percent of the included patients had complicated diverticulitis. 68%

of the total patients were identified as high risk (ASA ≥ 3) at the time of operation. Median LOS 20 days [3 - 167].

Sub-specialty interest did not appear to significantly influence stoma reversal rate (UGI 3 (23%) vs LGI 18 (20%) $P = 1.00$). There were no significant differences in secondary endpoints between the UGI and LGI groups.

Conclusion: 100 years on and 'Hartmann's procedure' remains an important strategy in emergency general surgery. Sub-specialty interest does not appear to be a barrier to restoration of GI continuity or significantly influence morbidity and mortality in our study.

Disclosure of Interest: None declared

PO-094 | CLINICAL AND ENDOSCOPIC FINDINGS IN COLON AMYLOIDOSIS

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Aim: To describe the main clinical and endoscopic characteristics of colonic amyloidosis.

Method: Retrospective consecutive case series that included all patients with histological diagnosis of colon amyloidosis between January 2010 and December 2019.

Results: A total of 3 patients with colon involvement by systemic amyloidosis were identified, with a mean age of 57.67 years and female predominance (2/3). The first patient reported diarrhea associated with non-specific upper gastrointestinal symptoms (anorexia and nausea). Colonoscopy was normal and random biopsies from cecum revealed AL amyloidosis that was found to be secondary to multiple myeloma; chemotherapy was started with symptomatic improvement. Upper digestive endoscopy revealed erosive gastritis and duodenal lymphangiectasias and biopsies were consistent with gastric and duodenal involvement by amyloidosis; there was also involvement of peripheral nervous system. The second patient complained of diarrhea and rectal bleeding and colonoscopy revealed several red circular lesions along sigmoid and rectum. Biopsies revealed AA amyloidosis secondary to colchicine that resolved after discontinuation of therapy. The third patient was asymptomatic and performed colonoscopy as part of diagnostic work-up for iron-deficiency anemia. Colonoscopy revealed a large cecal polyp that was excised and histopathological examination revealed localized amyloidosis; the precipitating factor and specific type of amyloid were not determined and no specific therapy was started. In the second and third patients, amyloidosis was limited to colon. None of the three patients died during follow-up, which ranged between 30-96 months.

Conclusion: Colon involvement by systemic amyloidosis is a rare disease that presents unique diagnostic and therapeutic challenges. Clinical manifestations are nonspecific and endoscopic abnormalities may be variable. Therefore, a high index of clinical suspicion

is essential to obtain an early diagnosis which will improve clinical outcomes.

Disclosure of Interest: None declared

PO-095 | DIAGNOSIS OF LATE ANASTOMOTIC LEAKAGE DURING FOLLOW-UP AFTER ANTERIOR RECTAL RESECTION. OUR EXPERIENCE

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Aim: To identify late anastomotic leakage (> 30 days) after anterior rectal resection, symptomatology, therapeutic approach and possible risk factors.

Method: A retrospective analysis of patients underwent surgery for rectal cancer at our center was performed from January 2014 to December 2017. Late leakage was considered the defect in the zone of anastomosis, collection with air, bubbles or perianastomotic abscess diagnosed clinically, by imaging tests or by endoscopic 30 days after surgery. The criteria for inclusion were tumor below the peritoneal reflection, primary anastomosis with or without ileostomy and follow-up of more than 24 months.

Results: 85 patients were included with a mean age of 72.7 years. An anterior resection was performed in 4.7%, in 70.6% was low and in 24.7% was ultra-low. The mean height of the tumor with respect to the anal margin was 7.7 cm. Laparoscopic approach was done in 43.5% performing a mechanical T-T anastomosis in most cases. A protective ileostomy was performed in 81.1% (69 patients). 55.3% of the patients had received neoadjuvant chemoradiotherapy. Symptomatic late anastomotic leakage was diagnosed in 9.4% (8 patients) under study, 7 had a protective ileostomy. The diagnosis of the leak was radiological in 75.0%, with the presence of bubbles or perianastomotic collection. 37.5% of late leakages were symptomatic and 2 patients required terminal colostomy. Neither the presence of comorbidities, with the exception of arterial hypertension, nor previous abdominal surgery was related to the incidence of late leakage. No significant differences were found between the type of approach and the height of rectal resection, although there is a certain tendency in patients with ultra-low resections and previous neoadjuvant surgery.

Conclusion: Late anastomotic leakage should not be considered a rare entity. Although its diagnosis in most cases is radiological, it can have important consequences for patients so diagnosis and treatment in symptomatic cases is important.

Disclosure of Interest: None declared

PO-096 | QUALITY OF LIFE AFTER A FIRST EPISODE OF COMPLICATED ACUTE DIVERTICULITIS: A SINGLE CENTRE EXPERIENCE

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Aim: To evaluate the quality of life (QoL) of patients after one episode of complicated acute diverticulitis (CAD).

Method: Single centre, retrospective analysis of patients with CAD upon abdominal tomography (modified Neff scale). QoL was evaluated through telephone call questionnaire: (recurrent pain or abdominal complains associated with fever, frequency in a year, hospital readmissions, daily life patient related outcomes), further, surgical options were explained.

Results: Between 2016 and 2018, 40 patients with CAD were included (67.5% men, 32.5% women; mean age 55, range 18–83). Most patients (65%) showed stage 1 Neff classification (microperforated or localized abscess < 4cm). During their admission, 6 patients underwent emergent surgery (5 Hartmann, 1 surgical drain). In the follow-up (until October 2020 range 22–58 months), up to 12 patients (30%) showed recurrence of CAD, 4 (10%) of which underwent surgery (4 emergent, 1 elective). 13 (50%) of 26 patients responded our QoL questionnaire. 9, out of the 26 patients who respond (69%) presented abdominal complains, 3 (23%) of them with their QoL affected. Only 1 (7.7%) patient would undergo an elective surgery.

Conclusion: After one episode of CAD, almost 70% of patients present abdominal complains, with one third reporting QoL to be affected. Surgery should be discussed and considered in these cases. Clinical and radiological prognostic factors influencing elective/emergency surgery, after a first episode of CAD, should be further investigated.

Disclosure of Interest: None declared

PO-097 | WHAT FACTORS INFLUENCE DECISION FOR SURGICAL INTERVENTION IN PATIENTS WITH ACUTE DIVERTICULITIS?: A SYSTEMATIC REVIEW

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Aim: This systematic review aimed to examine high-risk factors in complicated acute diverticulitis (CAD) patients with the potential for mortality or morbidity significantly compromising quality of life and hence the need for emergent or expedited planned surgical intervention.

Method: A systematic literature search was performed on the electronic databases Ovid MEDLINE, Embase, Cochrane database of



systematic reviews (CDSR) and Cochrane central register of controlled trials (CENTRAL) for studies reported associations between specific patient and disease characteristics and the decision to operate as part of the management for CAD. Randomised controlled trials, systematic reviews and prospective observational studies were included.

Results: Male gender, immunosuppression, long-term corticosteroids are associated with need for surgery and severe disease. First presentation of acute diverticulitis is a risk factor of severe disease and perforation.¹⁻⁴ Presenting with symptoms of intestinal obstruction is a predictor of surgical intervention.² Persistent high temperature more than 24 hours, urinary symptoms and abdominal tenderness in > 2 quadrants are risk factors of severe disease. High WBC, neutrophils, CRP, WLR, NLR, serum creatinine, urea > 9mmol/l and left shift of immature WBC > 550 are associated with need for intervention.⁴⁻⁸

Conclusion: Not all complicated cases of diverticulitis need surgery. Patients' characteristics, clinical picture, biochemical markers, previous attacks and radiological features of the disease should be combined to help in decision making. Older age, male gender, Immunosuppression, long-term corticosteroids, inflammatory markers (e.g., CRP, NLR, WLR and WBC) and Hinchey grade can be used as predictors of surgical intervention. There is a need to develop a prediction tool to help identifying patients who will need urgent intervention and there is a plan to develop this

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Disclosure of Interest: None declared

PO-098 | A CROSS-SECTIONAL EVALUATION OF UK/ IRELAND SURGICAL ADHERENCE TO THE 2019 LOWER GASTRO-INTESTINAL BLEED MANAGEMENT GUIDELINES

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Aim: Gastrointestinal bleeding (GIB) is a common surgical problem, accounting for approximately 85,000 cases every year in the United Kingdom (UK)¹. The 1st UK Lower GI bleed management guidelines were published in 2019 by British society of Gastroenterology (BSG). These guidelines provide a basis to classify the patients who need inpatient hospital intervention and those who can be managed as outpatient. The aim of this study was to analyse the adherence of different centres across UK and Ireland to the British Society of Gastroenterology guidelines for management of acute lower GI bleeds (LGIB).

Method: A Questionnaire was designed based on LGIB BSG guidelines using Google Survey and was sent to Surgical registrars and Consultants across different centres of UK and Ireland, using social media platforms like Twitter and Whatsapp, over the period of 3 weeks (13 March to 5th April 2021). Data was analysed using SPSS statistics version 27.0 (IBM Corporations) and Google survey

Results: A total of 64 responses were recorded from 18 different centres from UK & Ireland, Ratio of consultants and registrars was almost same (34:30) (53.1%:46.9%). Majority of respondents were from Colorectal Surgery (65.6%, n = 42) followed by General surgeons n = 15 (23.4%). A total of 41 respondents (64.1%) admitted that BSG CG 2019 guidelines were practically applicable at their centre, Approximately 75% respondents do not use or are unaware of Shock index or Oakland score to stratify patients. That translated into 59% opting for admitting patients with minor bleed. 36% wanted to perform CT angiogram for stable major bleed, while 37% were unaware of Interventional Radiology(IR) referral pathway.

Conclusion: Lack of awareness for using LGIB guidelines for stratifying patients leads to unnecessary admissions, on the other hand logistic issues related to inpatient management of LGIB patients aids in noncompliance to LGIB guidelines.

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Disclosure of Interest: None declared

PO-099 | UTILITY OF AMYLASE AND BILIRUBIN LEVELS IN ABDOMINAL DRAINAGE AS PREDICTORS OF INTRA-ABDOMINAL COMPLICATIONS IN PATIENTS UNDERGOING COLORECTAL SURGERY: RESULTS PRELIMINARIES

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Aim: the impact on quality of life, and the additional healthcare costs of complications related to colorectal surgery, among which the anastomotic fistula stands out, make that the early diagnosis of these complications is very important, and thus achieve the establishment of an early treatment, reducing the impact on the patient. Quantification is proposed in the amylase and bilirubin drainage fluid as early diagnostic tools for these complications.

Method: Prospective study approved by the research and ethics committee of our center, registered in the CLINICALTRIALS.GOV platform and in which the 1st, 3rd and 5th postoperative day (DPO) of the levels of amylase and bilirubin in drainage fluid in all the surgeries in which resection and anastomosis is performed between any segment of the small intestine, the colon and/or rectum. With a sample of 220 patients, since October 2020.

Results: Preliminary results are presented, in the first 62 patients: 35% of right hemicolectomy, 20% left hemicolectomies, 30% sigmoidectomies, and 15% resections of right. An 11% anastomotic leak was observed (7 patients). In 5 of these patients (71%), in 3rd PDO an elevation of amylase in drainage of at least 3 times the higher limit of normality, that in 4 of them it was up to 10 times in 5th DPO. This elevation was only observed in 2 of the 55 patients without dehiscence, and only on the 3rd day, with normalization on the 5th PDO.

Conclusion: Despite the reduction of this preliminary sample, an apparent relationship and possible diagnostic utility of drainage amylase as a possible predictor of fistula development anastomotic, requiring more patients to corroborate these results.

Disclosure of Interest: None declared

PO-100 | SURGICAL DECISION MAKING; ARE OLD SURGEONS THE BOLD SURGEONS?

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Aim: Discharging patients is essential to keep the flow of emergency admissions manageable. The decision making about the discharge of such patients is poorly understood. We studied the discharge rates of surgical Consultants to help explain this.

Method: We collated the emergency discharge rates of all patients by surgical consultants on call over a period of five years at a single hospital. The admission rate was fairly constant at approximately ten

patients per day thus the number of patients at the end of the surgeons shift (of 4 days; Monday to Friday or 3 days; Friday to Monday) compared to the start of their shift gives an estimate of the number of discharges over these periods. These discharge differences were added for each consultant over a continuous period from 2015 to 2020.

Results: Surprisingly there was a huge difference in consultants' discharge rates. The difference between the consultant who discharged the most patients was 200 more than the consultant who discharged the least ($P < 0.05$). However there was no correlation regarding consultant sex/age/experience/subspeciality (upper versus lower GI) and discharge rates. It seemed that readmission rates were not significantly different for different consultants.

Conclusion: Although it was assumed that older surgeons are less bold in decision making, discharge rates as a surrogate marker for bold decision making revealed that other factors may be more important. Further study is needed to conclude if personality factors, previous adverse experiences or complaints play the most significant factor affecting discharge decisions.

Disclosure of Interest: None declared

PO-101 | AUDIT OF SIGMOID VOLVULUS / PSEUDO-OBSTRUCTION TREATED AT NORTHUMBRIA HEALTHCARE TRUST 2015-2020

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Aim: To evaluate the number of patients treated for sigmoid volvulus (SV) and pseudo-obstruction (PO) at Northumbria Healthcare Trust (NHCT) between 2015-20. We also evaluated the percentage of patients decompressed within 24 hours of diagnosis, as well as overall outcomes for these patients.

Method: The Endosoft database was searched using key words 'volvulus' and 'pseudo-obstruction' for the period 01/01/2015-31/12/2020. Excluded were those records not either SV or PO. In-house electronic records were interrogated, with data including: basic demographics, diagnosis, number of attendances and over how many years, decompression details - average number per admission and time from diagnosis, relevant mortality data, and documentation of discussion on definitive surgery.

Results: Of 72 patients treated for SV ($n = 45$)/PO ($n = 27$), those with SV presented almost twice as often. The mortality rate for those with SV was 22% ($n = 10$), the leading cause of which was colonic ischaemia, and for PO was 7% ($n = 2$), with cause of death being sepsis or Type 2 Respiratory Failure. 94% of patients with either SV or PO were decompressed with a flexible sigmoidoscopy within 24 hours of diagnosis. All patients with SV who died were decompressed within 24 hours. 98% of SV patients had a documented discussion about definitive surgical management, of which 18% underwent surgery, 31% declined, and 48% were not fit for surgery.



There was one post-operative death – the patient developed an intrabdominal collection and died of sepsis.

Conclusion: SV and PO are relatively frequent emergency conditions encountered at NHCT, seen in predominantly elderly and co-morbid patients. SV carries a significant mortality rate of 22%, conversely, those with PO had a mortality rate of 7%. 93% of SV / PO cases were decompressed within 24 hours of diagnosis and this did not affect mortality rates. 50% of SV patients were not fit for surgical intervention, and only 18% went on to have definitive surgical management.

Disclosure of Interest: None declared

PO-102 | CAN DEEP STOMAL FIXATION AND EXTRAPERITONEAL STOMA CREATION IMPROVE STOMA MORBIDITY? SYSTEMATIC REVIEW AND META-ANALYSIS

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Aim: Some surgical techniques, including prophylactic mesh placement and positioning stomas either through or lateral to rectus muscle, have been investigated for potential reduction of stoma complications. This systematic review evaluates efficacy and safety of two operative techniques: deep stomal fixation and extraperitoneal approach of stoma creation.

Method: PubMed, Medline, Cochrane, and Google Scholar were searched for studies comparing stoma fixation to sheath and/or peritoneum to the conventional skin-only fixation and extraperitoneal to transperitoneal approaches of stoma formation. Clinical endpoints included parastomal hernia (PSH), stoma prolapse, retraction and associated adverse effects.

Results: 2 randomised and 2 retrospective studies investigated deep stomal fixation. There was no statistically significant benefit of this technique in terms of PSH (OR 1.19, $P = 0.82$), prolapse (OR 0.62, $P = 0.53$) or retraction (OR 1.16, $P = 0.80$). Some technical difficulties on stoma reversal were reported in one of the studies.

As for extraperitoneal stoma creation, 2 randomised and 8 retrospective studies compared it to the conventional transperitoneal approach. A statistically notable reduction in PSH was identified in extraperitoneal stomas (OR 0.29, $P = 0.004$). This technique showed statistically insignificant reduction in prolapse (OR 0.74, $P = 0.53$) and retraction (OR 0.48, $P = 0.36$). There was no significant difference in operative time (MD 3.45, $P = 0.71$) or the associated risk of small bowel obstruction (OR 0.68, $P = 0.57$).

Conclusion: Stoma fixation to sheath and/or peritoneum does not lower stomal complications, and conversely it may make stoma reversal technically challenging. Extraperitoneal approach minimises PSH occurrence with no remarkable adverse effects; yet, more randomised trials are required for further evaluation.

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Disclosure of Interest: None declared

PO-103 | DESIGN OF A DEVICE FOR TRANSANAL ENDOSCOPIC SURGERY WITHOUT PNEUMORECTUM USING 3D PRINTING. PRE-IDEAL PHASE

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Aim: To analyze the evolution of the design and the mechanical and material validation of a device for transanal endoscopic surgery without pneumorectum with 3D printing.

Method: A device for transanal endoscopic surgery with 3D printing was designed to be used without pneumorectum, reusable and able to dispense with general anesthesia. First a design was made with Solidworks and then it was manufactured by FDM. Tests were performed on simulators with viscera and on cadavers following the pre-IDEAL protocol. After these tests, several modifications were made to the prototype until the final version was achieved.

Results: The final version of the prototype is an anteriorly conical piece with an opening through curved rods fixed to the device that allow a working area and a visualization of the rectum wall on which to work. The design, thickness, size, materials and expansion mechanisms of the device were varied. Above all, the thickness was modified from 1.5 mm to 3mm, from 10 to 15cm in length and from 3–6cm in diameter, the materials: ABS M30i, PC-ISO, PC, Nylon and finally steel. With fixed rods at one end and finally front and back.

Conclusion: It is proved in this pre-IDEAL phase that the device designed for transanal endoscopic surgery without pneumorectum improves with changes in design, materials and mechanics after testing on simulation elements and cadavers.

Disclosure of Interest: None declared

PO-104 | VIRTUAL COLORECTAL CLINICS: CAN PATIENT ELECTRONIC CARE RECORDS AND STRAIGHT TO TEST REDUCE DELAY IN PATIENT DIAGNOSIS AND TREATMENT?

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Aim: Straight to test (STT) is a recognised pathway for improving the two week waiting time targets for red flag referrals.¹⁻⁴ However STT relies on Telephone Assessment Clinics (TAC) by clinicians or specialist nurse practitioners when determining suitability of referred patients for investigations.²⁻⁵ Electronic patient care records (ECR) provide clinicians with a greater volume of clinical information allowing virtual triage and STT with a reduced dependence on TAC therefore improving waiting time for tests and treatment. We aimed

to assess if using electronic care records and STT can reduce the delay in patient diagnosis and treatment.

Method: A retrospective review of 300 colorectal referrals was performed. Patients awaiting an appointment were reviewed electronically, using ECR, by a single colorectal surgeon and re-triaged STT if appropriate. The delay in time from the referral to initial review was removed to create a second group for statistical comparison to demonstrate time saved if the strategy was adopted at point of original triage.

Results: 300 colorectal referrals were reviewed between February 5th 2018 and July 22nd 2019. 91.3% ($n = 274$) were red flag, 7% ($n = 21$) urgent and 1.7% ($n = 5$) routine. 94% ($n = 282$) were sent straight to test. Red flag patients processed via traditional referral and clinic had a median time to scope of 36 days (IQR = 55 days) compared with 22.5 days (IQR = 19.75 days), $P < 0.001$ if triaged straight to test via virtual clinic. Median time to management for red flag patients was 59 days (IQR = 63.5 days) for traditional and 35 days (IQR 51.5 days) for STT, $P < 0.001$. 71.7% of patients ($n = 215$) required no follow up clinic appointment.

Conclusion: Straight to test using ECR is a safe and effective means of triage and is a useful tool when incorporating straight to test access for colorectal referrals in order to reduce waiting times for tests and treatments.

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Disclosure of Interest: None declared

PO-105 | CLINICAL SAFETY AND EFFECTIVENESS OF ROBOTIC ASSISTED SURGERY IN RECTAL CANCER: A HIGH-VOLUME MULTI-INSTITUTIONAL EXPERIENCE IN TAIWAN

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Aim: In this study, we collected real world data from multiple high-volume robotic-assisted rectal surgery (RRS) institutions to overview



of the current status of RRS and its safety and clinical outcomes in rectal cancers.

Method: Patient baseline information and clinical outcomes of rectal cancer resected by RRS recorded in medical charts and operative notes will be reviewed and retrieved between Dec 8, 2011 and June 30, 2020 retrospectively. All data will be collected and recorded in a standardized CRF format by an investigator affiliated with each hospital, and then each dataset will be pooled to create a multi-institutional dataset.

Results: A total of 605 patients underwent rectal resection from 4 high-volume surgeons from 3 high-volume centers. Out of the 605 patients, 301 (49.75%), 176 (29.09%), 116 (19.17%) had lower, middle, upper rectal cancers, respectively; 12 (1.98%) had unknown tumor location. The most frequent surgical procedure was LAR (377, 62.31%), followed by ISR (200, 33.06%), and APR (28, 4.63%). The median estimated blood loss was 50 mL (IQR, 30 - 100). The readmission and 30-day readmission rate were 2.64% and 1.32%, respectively. No 30-day hospital mortality occurred. The overall complication rate was 12.23% (74/605) with the anastomotic leakage rate of 2.98% (18/605 patients). At a median follow-up duration of 47.1 months, the 5-year overall survival rate was 91.1% and the 5-year disease-free survival rate was 86.3%

Conclusion: Even if patient's comorbidity by ASA and CCI score was not as good as those of other studies, overall surgical outcomes were equivalent or superior to the estimates from other studies. Above all, conversion rate to open surgery and anastomotic leakage rate were much lower than reported outcomes performed by laparoscopic and open surgeries. Despite large number of study population with 8 years of follow-up period, we could not observe any serious safety events. Hence, we conclude that RRS is an effective and safe technique in rectal resection.

Disclosure of Interest: None declared

PO-106 | PRESENTATION OF A UNIQUE OUTCOME EVALUATION MODEL IN PATIENTS WITH SACRAL NEUROMODULATION

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Aim: The results of sacral neuromodulation (SNS) in the definitive phase are extraordinarily variable due to the heterogeneity of symptoms and fecal incontinence-causing pathologies (IF). Currently the comparison of results is complex since there is no single score and each group uses its own parameters and even several depending on the origin.

Aim: Present a unique model for evaluating long-term results after SRS that allows patients to be classified according to evolution.

Method: Ninety-two patients undergoing SNS have been evaluated by the Coloproctology Unit of the Virgen de la Arrixaca Hospital from October 2011 to January 2020. A scale (Table 1) has been

used to assess the symptoms of the patient according to multiple parameters and classify him according to his evolution: very favorable-favorable-discreet-poor.

Results: The most frequent causes of incontinence were obstetric (OI) (32.6%, $n = 30$), neurological (NI) (32.6%, $n = 30$) and postsurgical (PSI) (16.30%, $n = 15$). After applying the score, 31.52% ($n = 29$) of the patients presented a very favorable evolution, 45.65% ($n = 42$) favorable, 19.56% ($n = 18$) discreet and only 3 patients (3.26%) presented poor evolution.

Table 2 shows the results grouped by pathology, the best results appeared in the NI group (89.9% of patients ($n = 27$) favorable / very favorable evolution) followed by the OI group (83.3%, $n = 25$). The group with the worst results was the PSI group (53.2% ($n = 8$) of patients with discreet or bad results) followed by the urological incontinence (UI) group.

Conclusion: Currently there is no single score that covers the complexity of symptoms in patients with FI, so new ones must be sought that take into account the multifactorial nature of this pathology and allow the results to be compared

Disclosure of Interest: None declared

PO-107 | ANTIBIOTIC PRESCRIPTION IN SIMPLE ABSCESSSES

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Aim: Limited scientific evidence is available to guide antibiotic prescription in patients with soft tissue abscesses^{1,2}. We aimed to audit antibiotic prescribing at a busy London hospital against our existing microbiology guidelines and the published scientific evidence.

Method: A retrospective audit examined 100 consecutive patients who had undergone incision and drainage. The audit reviewed antibiotic prescribing pre-, intra-, and post-operatively.

Results: Of the 100 patients, 24% had perianal and 76% soft-tissue, non-perianal, abscesses. 21% of cases were compliant with trust guidelines receiving co-amoxiclav; the only cases compliant were perianal abscesses. 0% of cases represented the best scientific evidence. There was significant variation in individual surgeon prescribing practices.

Conclusion: Antibiotic prescription poorly complies with trust guidance or scientific literature. Furthermore, this audit identified that trust guidance is inconsistent with best scientific evidence.

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Disclosure of Interest: None declared

PO-108 | LONG-TERM PARASTOMAL HERNIA OCCURRENCE RATE FOLLOWING SMART

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Aim: Our initial publication on Stapled Mesh stomA Reinforcement Technique (SMART) for the prevention of parastomal hernias (PSH) demonstrated promising results. The aim of this study is to evaluate the long-term PSH occurrence rate with SMART and its associated complications and to radiologically measure the progression of trephine diameters.

Method: All SMART cases from Nov 2013 to July 2016 were reviewed. Demographics, peri-operative details, and long-term mesh-related complications were collected. Serial CT scans during follow-up were used to identify PSH and measure the progression of axial and sagittal trephine diameters and trephine area.

Results: 15 patients (M:F = 10:5) underwent an elective stoma formation with SMART. Nine died during the study period. Two patients died prior to any CT scan with no clinical evidence of PSH. All except one of the remaining 13 patients developed radiological PSH. There were no long-term mesh related complications. Only one patient required relocation of stoma due to incarceration of small bowel in the PSH in an emergency setting. The median follow-up was 28 months (3 - 77 months).

Conclusion: Prophylactic mesh placement by SMART did not prevent occurrence of PSH in the long-term despite only a minority of patients required surgical intervention for PSH.

Disclosure of Interest: None declared

PO-109 | LEARNING FROM COVID-19 PANDEMIC: UTILISING TELEPHONE CONSULTATION IN COLORECTAL SURGICAL PATIENTS

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Aim: This quality improvement project's aim is to see the difference in number of appointments and investigations between patients presenting via telephone or face to face (F2F) clinics.

Method: We reviewed 61 referrals to Colorectal clinic between January and February 2021, 34 were telephone appointments, 22 F2F appointments and 5 were excluded due to unidentifiable patient data or incorrect referral. We assessed 14 different parameters.

Results: The first phase data showed F2F clinic patients were older ($n = 66.91$ years vs 56.21 years), had more appointments ($n = 1.72$ vs 1.38) and a shorter RTT (Referral To Treatment) ($n = 26.65$ days vs 136 days). The shorter RTT correlates with the larger number of 2 week wait referrals that were seen in F2F clinic ($n = 11$) vs in the Telephone group ($n = 3$).

Adjusting for patients with ongoing treatment in the F2F group (O-F2F) or telephone patients that awaited a F2F appointment for further investigation (T to F2F) the data showed that the O-F2F patients had 1.76 appointments vs 2.2 average appointments in the T to F2F patient group. Investigations were higher in the O-F2F group ($n = 3$ versus $n = 0.5$) vs the T to F2F group. There was a higher rate of DNA (Did Not Attend) ($n = 11.7\%$ versus 4.5%) and discharge ($n = 20.5\%$ versus $n = 18\%$) in Telephone clinics vs F2F clinics.

The most common reason for more appointments in the Telephone group was the inability to properly assess the patient's pathology and plan accordingly especially in benign proctological disease which was seen more commonly in the Telephone group.

Conclusion: Risk stratification may be appropriate when deciding patients to attend telephone vs F2F clinics. A combination of red flag symptoms and increased age may be appropriate tools to start identifying suitable patients for F2F clinics.

Patients with chronic or complex proctological disease likely need F2F appointments to reduce overall number of appointments which will expedite investigation and treatment.

Telephone clinics may be appropriate for benign disease follow-up.

Disclosure of Interest: None declared

PO-110 | DOES THE BLOOD SODIUM LEVEL PREDICT COMPLICATED DIVERTICULITIS? A RETROSPECTIVE COHORT STUDY

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Aim: Hyponatremia has been associated with many complicated bowel diseases such as anastomotic leakage or perforated appendicitis.

The aim of this study is to investigate whether hyponatremia is associated with increased morbidity and mortality in complicated diverticulitis.

Method: Patients who presented to the emergency department with the complaint of abdominal pain between 2016–2021 were analyzed retrospectively. > 18 years patients who were hospitalized or operated on with the diagnosis of acute colon diverticulitis were included. The patients were divided into two groups as complicated and non-complicated diverticulitis according to the CT findings (by using the Hinchey classification) and surgery notes. Blood samples taken from patients preoperatively or prior to hospitalization are those that are taken after physical examination and before any infusion is administered. Complete blood count, CRP, blood creatinine and electrolyte levels were studied from samples taken before this infusion.

Results: 179 acute diverticulitis patients were included in our study. The mean age was 58.5 (SD, ± 15.414). According to the Hinchey classification, 64.8% of the patients were Type 1a and 20.7% were Type 4. Demographic and laboratory findings of the two groups



were compared. Multivariate analysis tests were performed for the factors affecting the morbidity and mortality in group 1. Hinchey type 4 diverticulitis increased the complication rate (OR 3.269, 95% CI 1.024–10.437; $P = 0.046$). A low sodium value was found to be significant in morbidity. Advanced age, low lymphocyte count, high creatinine and CRP were found to be significant in mortality.

Conclusion: A significant correlation was found between preoperative hyponatremia and the development of morbidity in patients presenting with acute complicated diverticulitis but hyponatremia was not associated with mortality.

Disclosure of Interest: None declared

PO-111 | THE ROLE OF RED CELL DISTRIBUTION WIDTH IN PREDICTING ISCHEMIA IN MECHANICAL BOWEL OBSTRUCTION

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Aim: This study aims to determine the role of red cell distribution width (RDW) in predicting ischemia in patients with mechanical bowel obstruction.

Method: The records of 252 individuals who were admitted to the emergency department with a mechanical bowel obstruction were reviewed. Due to various conditions affecting RDW, 52 participants were excluded from the study. The data of the remaining 200 patients was compared to the ischemic and non-ischemic groups.

Results: Average RDW values were respectively; 14.41 ± 1.72 in the non-ischemic group and 15.64 ± 3.30 in the ischemic group. Although the ischemia group had a higher mean RDW value, there was no significant difference in RDW values between the two groups ($P = 0.439$).

Conclusion: Despite the higher values in the ischemic group, RDW does not have an important role in predicting intestinal ischemia in patients with intestinal obstruction.

Disclosure of Interest: None declared

PO-112 | POST-OPERATIVE ORAL-FLUID INTAKE DOES NOT AFFECT RATES OF ILEUS FOLLOWING ELECTIVE RIGHT HEMICOLECTOMY: A RETROSPECTIVE, OBSERVATIONAL STUDY

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Aim: Prevention and treatment of ileus (delayed return of bowel function after surgery) is one of the highest priority research questions in modern day colorectal practice. The aetiology of ileus is thought to be multi-factorial however very few studies have looked

at the role of oral fluid intake post-operatively with previous works on early intake concentrating on anastomotic leak. This study aimed to determine whether there was any difference in oral intake immediately post-operatively between patients who developed prolonged ileus vs those who did not.

Method: 66 patients who underwent elective right hemicolectomy for colorectal cancer in a large tertiary centre (Aberdeen Royal Infirmary, 2018–19) were included. Data on patient demographic (including age, BMI, sex, co-morbid conditions), post-operative complications (particularly ileus) and oral fluid volume intake was retrospectively collected from patient medical records.

Results: 16/66 patients developed prolonged ileus (24.4%) with men more likely to be affected than women (12/16, 75%). Total oral intake in the first 24 hours post-surgery was median 1320ml (IQR 1095) ileus group vs 1290ml (IQR 913) non-ileus group ($P > 0.05$). Median intra-operative blood loss was higher for patients who developed ileus (125ml, IQR 273) compared to those who did not (50ml, IQR 125). Ileus resulted in increased patient morbidity with longer post-operative hospital stays (median 9.5 days, IQR 9.5 vs 5 days, IQR 2).

Conclusion: The volume of oral fluid consumed post-operatively was not significantly different between patients who developed a prolonged ileus and those who did not following elective right-hemicolectomy for colorectal cancer. Restricting oral fluid intake post-operatively is therefore unlikely to improve the incidence of ileus. Despite modern day surgical practice ileus continues to cause significant patient morbidity following colorectal surgery almost doubling length of stay in our cohort. It therefore remains an important area for future research.

Disclosure of Interest: None declared

PO-114 | CLOUD BASED AI-DRIVEN VIDEO ANALYTICS FOR COLORECTAL SURGERY

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Aim: To describe and compare established cloud-based AI-driven video analytics and highlight their role in laparoscopic colorectal surgery.

Method: An independent online demonstration was requested of eleven identified platforms through multiple search engines. The assessed domains were online and app-based accessibility, the ability for timely trainee feedback, compatible governance framework (NHS, HIPAA), intraoperative complication grading, secure anonymized, AI-integration for operation specific steps and critical views.

Results: Demonstrations were provided by Theator Inc., Touch Surgery™, C-SATS®. All three platforms can provide a safe and secured anonymized video clouding with hyperlinks available immediate which can be integrated in postoperative notes. Also, they provide automated steps and time stamps which helps to view

surgeries and highlight key steps in different colorectal surgeries. This can be viewed from mobile or computer-based apps. These platforms are also integrated with powerful AI and computer vision which help to provide time-based analysis of surgical steps, highlighting critical structures as well as providing a medium of communication through sharing and guidance.

Conclusion: Cloud based AI-driven video analytics is a new method of storing, analysing, and reviewing surgery videos. They also provide colorectal surgeons with a powerful AI integrated services that can help in viewing and critiquing videos. This has the potential to improve training, performance, and standardizing procedures. Also, this is a closer step into an AI and data-driven surgical practice which can lead to improved outcomes.

Disclosure of Interest: None declared

PO-115 | COOPERATION BETWEEN SPECIALTIES: A GROWING TREND

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Aim: The Newcastle Advanced Rectal Cancer (NARC) service receives referrals from across the North East region of England. These are discussed at the NARC multidisciplinary team (MDT) and then treatment initiated accordingly.

With the growing emphasis on multidisciplinary approach to surgery, we intended to assess the number of patients on average that require urology input during surgery, as well as during their post-operative period.

Method: Using our local registry, we identified all referrals discussed at NARC MDT from 2012 to early 2020. For those that had been given the decision to proceed with surgery as a form of treatment, the electronic notes were reviewed to assess if urology input was required during the operation, or post-operatively for complications.

Results: Three hundred and three referrals to NARC were identified during the selected time frame. Of these, 125 patients had surgery at Newcastle Upon Tyne Hospitals. From the available documentation (limited by transition from paper to online documentation), it was possible to identify that 22 (17.6%) operations required input from a urology surgeon during the procedure, while another 11 (8.8%) required their input during the post-operative period for complications.

There is a clear increase in requirement for urology colleagues with 6 cases between 2012 and 2016, and 16 cases between 2017 and early 2020.

Conclusion: When looking at the absolute number of procedures requiring urology input this might not seem substantial however, we

can see a growing trend over the years which shows this is becoming increasingly common.

It is important to consider the growing need for multidisciplinary approach when creating job plans for surgeons from specialties that cooperate on a regular basis.

Disclosure of Interest: None declared

PO-116 | RELATED FACTORS FOR RECONSTRUCTION AFTER HARTMANN'S PROCEDURE, EXPERIENCE IN OUR CENTER

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Aim: Hartmann's procedure is frequently performed in emergency situations for left colon disease. According to the literature, 95% of operated patients continue with a stoma 18 months after the intervention. The objective of this review is to analyze the factors related to non-reconstruction in our center.

Method: Retrospective study of all patients who underwent Hartmann's procedure at Hospital del Mar in Barcelona, between 2008 to 2020. We analyzed the perioperative variables of the procedure, as well as the percentage of patients who underwent reconstruction and the factors that favor their reconstruction.

Results: 242 patients were included in the study, 58% men, median age of 68 years. The most frequent indications were: malignancy (39%), and diverticular disease (35%). Thirty-day mortality following Hartmann's procedure was 16% (33 patients).

The percentage of Hartmann's reversal was 44% ($n = 93$) with a median time for the reconstruction of 14 months. 4.3% of patients had a major complication of IIIa or above including one anastomotic leak and 9 patients required a protective ileostomy (9.6%). The patients who did not undergo Hartmann's reversal were significantly older ($P = < 0.001$) and suffer more frequently from chronic kidney disease ($P = 0.043$) than those who did.

Conclusion: Hartmann's procedure is associated with a high mortality rate. In the last 12 years only 44% of patients underwent Hartmann's reversal in our institution. Factors related with no reconstruction were age and renal function.

Disclosure of Interest: None declared



PO-117 | ESTABLISHING MINIMALLY INVASIVE COLORECTAL UNIT AT A TERTIARY CARE INDIAN CENTRE IN COVID-19 SECOND WAVE

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Aim: Minimally invasive cancer surgery is the becoming the standard of care in colorectal oncology. With the growing interest in the use of tailored approach to improve the outcomes, colorectal oncology demands sub-specialised care.

Method: This is a description of establishment of a dedicated colorectal oncology unit at a newly built tertiary care centre in the country, Tata Memorial Centre (Varanasi) with special emphasis on the introduction of laparoscopy for standard and extended colo-rectal surgery.

Results: Over a period of 4 months, from February 2021 to May 2021, 35 colo-rectal surgeries have been done with 5 emergency cases and the remaining in elective setting. Operative procedures included – 10 colectomies, 5 stoma/ostomy creations, 7 rectal resections in standard TME plane, 2 total pelvic exenterations, 11 extended rectal resections. 22 of these 35 surgeries (62.8%) were done using laparoscopic approach. Laparoscopy has been used across all procedures, specifically 5 colectomies, 7 standard TME rectal surgeries, 5 extended rectal resections and 1 total pelvic exenteration. Clavein dindo Grade 3 or higher morbidity was seen in 5.7% cases. Joint clinic session dedicated to colorectal oncology is conducted to provide a tailor-made individualized care to appropriate patients.

Conclusion: Use of minimally invasive approach in colorectal oncology along with a sub specialized unit is the need of the hour to improve the outcomes in this cohort of patients.

Disclosure of Interest: None declared

PO-118 | INFLUENCE OF COVID-19 PANDEMIC ON THE INCIDENCE OF COMPLICATIONS IN COLON CANCER SURGERY

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Aim: Colorectal cancer (CRC) is one of the most frequent pathologies worldwide with important complication rates. During the current COVID-19 pandemic, the number and stage of colon tumors have been affected. It's known that COVID+ patients undergoing surgery have a higher rate of complications. However, the existing literature that analyzes the incidence of

complications in non-COVID patients with CRC undergoing elective surgery is scarce, thus we perform this review analyzing and presenting our results.

Method: Retrospective study, we've included patients with colon cancer who underwent scheduled cancer surgery. Groups: Pre-COVID(A): July-2019 to February-2020 and Group-COVID(B): July-2020 to February-2021.

Results: 172 patients (A:82; B:90) were analyzed, all of them had a negative preoperative PCR-COVID-test. Men:124(72.1%). Age: 72±10.1years. LOS: 7(IQR:5-12days). Laparoscopic approach: 142(82.6%). Overall complications: 40.7%. Infectious: 37.2%. SSI: 30.2%. 30-d readmission-rate: 3.5%. Dehiscence: 9.3%. Reintervention: 15.1%.

COVID-group presented a greater number of patients with long stay (> 7days): (62.2% vs. 46.3%; $P = 0.03$). Use of endoprotheses was higher in the COVID-group (11.1% vs. 2.4%; $P = 0.026$).

In the bivariate analysis, we observed COVID-group presented a higher rate of overall-complications, infectious, SSI, dehiscence and reoperations (51.1% vs. 26.8% $P = 0.001$; 48.9% vs. 24.4% $P = 0.001$; 46.7% vs. 12.2% $P = 0.001$; 15.5% vs. 2.4% $P = 0.001$; 20% vs. 9.7% $P = 0.017$).

No statistically significant differences were found in the 30-d readmission rate (Group A: 2.4%, group B: 4.4% $P > 0.05$).

Conclusion: In our environment, during the COVID-19 Pandemic, patients with colon cancer who underwent scheduled cancer surgery, with a negative PCR-COVID test, had higher risk of presenting overall complications and reoperations and, therefore, a longer hospital stay.

Disclosure of Interest: None declared

PO-119 | A SURVEY ON THE PRACTICE OF ERAS IN ELECTIVE COLORECTAL SURGERY IN WESTERN AUSTRALIA

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Aim: The Enhanced Recovery After Surgery (ERAS) concept includes 24 items to optimize the patient's peri-operative care to reduce post-operative morbidity. However, its adoption remains largely influenced by regional/institutional and surgeons' personal belief. This study aims to evaluate the practice of ERAS in elective colorectal surgery in Western Australia through a survey.

Method: A questionnaire was constructed based on the latest ERAS guidelines, consisting of questions on the demographics of the surgeon, annual number of major colorectal resections and various aspects on the pre-, intra- and post-operative practice. The questionnaire was sent through email or provided to the surgeons identified to be performing routine elective colorectal surgery.

Results: 20 of the 24 eligible surgeons (83.3%) returned the questionnaire. 65% of surgeons perform more than 50 cases of major

colorectal resections annually. There is a high agreement of practice in certain areas: 70% of surgeons perform > 50% of their cases laparoscopically, no routine use of nasogastric tube, majority of surgeons do not routinely place drains in right (95%) and left (70%) colonic surgeries, 75% of surgeons are guided by the Acute Pain Service for the post-operative analgesia and 95% of surgeons encourage early mobilization. A few areas of practice remain widely variable: pre-operative mechanical bowel preparation, post-operative fluids and electrolytes and assessment of gut function.

Conclusion: This survey provides a snapshot of the practice of ERAS in elective colorectal surgery in WA. Whilst certain areas are considered universal practice, there remains gaps to be explored further on barriers to implementation.

Disclosure of Interest: None declared

PO-120 | ADVANCES IN ILEOSTOMY PROCEDURE AND TECHNOLOGY: A SYSTEMATIC REVIEW

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Aim: Developments in ileostomy surgery have been limited in the last century but with the rise of digital application and new surgical modalities, recent innovations have been common. The objective of this systematic review is to provide a summary of recent advances, innovations and developments in ileostomy surgery and to see whether they are likely to become more common in global practice.

Method: In June 2021, a literature search was performed using PubMed and PubMed Central, looking for all published articles relating to English language reports on ileostomy surgery in the last 10 years. Further to the screening of titles, more in-depth analysis was performed of identified articles using the abstracts of the publications, eliminating those with no relevance.

Results: Over 10,000 articles were returned by searching for the keyword "ileostomy", with 37 relevant articles being identified from screening the titles and abstracts. The articles selected for final inclusion contained comparisons of current procedures versus more recent advances, trials of new procedures and investigations into the benefits of newer technologies being used in ileostomy surgery. Due to the nature of the review and the lack of synchronicity across the materials used, no meta-analysis was possible. Results of the review showed that several novel advances identified show clear benefits compared to current techniques, namely the ghost ileostomy and the use of indocyanine green (ICG) in colorectal surgery.

Conclusion: This review has identified a wide range of variations of practice and innovations described in the last 10 years in ileostomy

surgery and describes a field where technology and technical changes are occurring rapidly.

Disclosure of Interest: None declared

PO-121 | APPLICATION OF MODERN REHABILITATION PROGRAMS IN COLOPROCTOLOGICAL PATIENTS

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Aim: Over the past years, minimally invasive technologies have become more popular in coloproctology due to their higher efficiency, shorter postoperative period, and better economic effect. Pre- and postoperative rehabilitation programs can significantly improve the results of surgical treatment. Evaluation of pre- and postoperative rehabilitation programs developed in patients who underwent minimally invasive surgical treatment due to proctological pathology.

Method: The study was based on the results of the examination, surgical treatment, and observation of 225 patients with chronic stage III hemorrhoids and 150 patients with chronic pararectal fistulas (chronic paraproctitis), who underwent minimally invasive surgical treatment and several courses of rehabilitation programs at the Outpatient Center of Proctology at the Surgical Department of NHI "Railway Clinical Hospital «Rzhd Meditsina» Rostov-on-Don from February 2017 to February 2021. All patients were divided into comparison groups 1, 2, and 3 according to their pathology and depending on the type of surgery, the physiotherapy methods used (electrical stimulation of the pelvic floor muscles, ozone therapy, biofeedback therapy, transcutaneous low-intensity laser blood irradiation, etc.) and the timing of their use (before and after surgery) and a control group, in which after surgery patients received standard therapy, which served as a background in the comparison groups.

Results: The combined use of minimally invasive surgical technologies and rehabilitation programs in the complex therapy of patients with chronic hemorrhoids and chronic paraproctitis helped shorten the recovery period and the patient's stay in the hospital while improving the quality of life of the patient.

Conclusion: The combined use of minimally invasive surgical technologies and rehabilitation programs can be recommended for wider use in surgical and coloproctological practice.

Disclosure of Interest: None declared

**PO-122 | NON-SURGICAL MANAGEMENT OF RECURRENT SIGMOID VOLVULUS**

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Aim: Sigmoid volvulus is a primary cause of colonic obstruction worldwide. It occurs frequently in elderly patients with multiple co-morbidities. Rates of recurrent sigmoid volvulus are between 30% and 90% with an associated mortality of 10% to 40%. In the elderly, operative management with sigmoid colectomy is not always a feasible option. Percutaneous endoscopic colostomy (PEC) and percutaneous endoscopic colopexy (pexy) are minimally invasive, non-operative procedures to fix the sigmoid colon and prevent recurrent volvulus. The primary objective of this study is to determine the best treatment for patients with sigmoid volvulus who cannot undergo surgery to reduce their morbidity, mortality and readmission costs.

Method: An electronic search was performed using MEDLINE from 1995 to 2020 as per the PRISMA guidelines. Terms including "sigmoid volvulus", "sigmoidopexy", "colopexy", "sigmoidostomy", "percutaneous endoscopic colostomy" and "recurrent sigmoid volvulus" were searched. Relevant data from 21 eligible studies, comprising a total of 165 patients, were analysed.

Results: 90 patients were treated with PEC, 74 patients were treated with pexy and 1 patient had a combination of sigmoidopexy and sigmoidostomy. 12% of patients with PEC and 15% of patients with pexy had recurrence of volvulus. The main complications identified with both procedures were wound infections and tube migration in patients who had PEC. 3 patients after PEC and 2 after pexy died due to faecal peritonitis.

Conclusion: PEC and pexy are feasible non-operative procedures for management of sigmoid volvulus in comorbid, frail patients not fit for operative treatment. Further studies are required to further understand the risks, efficacy and cost effectiveness of these procedure.

Disclosure of Interest: None declared

PO-123 | GROUP AND SAVE IN EMERGENCY APPENDICECTOMY

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Aim: Appendicectomy is commonly a safe and low bleeding risk procedure. However, some hospital guidelines stipulate a requirement for routine pre-operative blood group and save (G&S). We aim to determine if pre-operative G&S is required for appendicectomies by looking at the number of tests vs transfusion conducted. The cost of G&S is £4.14 per sample in our trust.

Method: A retrospective review was conducted over a 3-month period. Patient data and demographics were identified using the hospital coding, theatre records and transfusion departments.

Results: 118 consecutive appendicectomies were identified. Of which, 99 laparoscopic vs 19 open (13 started open vs 6 converted to open) operations were performed. No patients required a blood transfusion during their admission. There was a total of 219 G&S conducted. Cross matching tests for these procedures cost a total of £906. We estimate a cost projection of £3624 for G&S tests over a year and £18120 over 3 years.

Conclusion: Bleeding complications requiring transfusion following appendicectomies are very uncommon. In our unit, 0% of patients identified required a transfusion during their admission. We suggest stopping routine pre-operative G&S for these patients would be clinically safe and would lead to financial savings and reduce pre-operative waiting time.

Disclosure of Interest: None declared

PO-124 | COMPUTERIZED TOMOGRAPHY OF THE THORAX FOR SURGICAL PATIENTS DURING THE COVID-19 PANDEMIC: WAS IT USEFUL?

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Aim: Diagnostic challenges during the COVID-19 [C-19] pandemic forced the radiology regulating body to adopt the use of CT Chest as a triage and diagnostic tool, which was subsequently abandoned. The Royal Wolverhampton hospital followed both protocols. Here, we investigate the evidence behind this decision within the context of surgical admissions during the C-19 peak in our hospital.

Method: Retrospective data collection and analysis of all surgical admissions between the 1st of March to the 31st of May. Data was collected from the radiology and electronic portal looking into patients

undergoing CT chest to diagnose the presence of C-19 as well as swab results.

Results: Seventy-eight patients fulfilled our inclusion criteria. The scan either confirmed the presence or absence (4, 63 patients) of C-19 but was sometimes inconclusive (11 patients). Comparing these to the results of the swabs; CT showed sensitivity 42.86%, Specificity 97.92%, and accuracy 90.91%. In the inconclusive CT report group, chances of having a positive swab result were 45%: None of the scan results changed any of the surgical planning. Lymphocyte count in the context of surgical presentation did not have any statistical significance to predict the presence of C-19 ($P = 0.7$). Cost implications on our cohort of patients for adding the chest CT is estimated to be around £31,000.

Conclusion: CT Thorax during the pandemic was a good negative predictor but had limited diagnostic value and did not change patient management. Newer, faster techniques of PCR swabs and antibody testing would be a better and cheaper alternative.

Disclosure of Interest: None declared

PO-125 | MANAGEMENT OF ACUTE APPENDICITIS DURING COVID PANDEMIC-WHAT DID WE LEARN

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Aim: During the COVID-19 pandemic, UK intercollegiate guidelines shifted to favour non-operative approach and open surgical approach when required in the management of acute appendicitis. The aim of this study was to assess diagnostic and management approaches during the COVID-19 peak and post-peak period and further evaluate short term patient outcomes.

Method: A retrospective observational study was performed which included all patients with a clinical or radiological diagnosis of acute appendicitis during peak of COVID-19 (01/04/2020-30/06/2020) and post-peak (01/07/2020-30/09/2020). Patient demographics, clinical presentation, investigative findings, management approach and clinical outcomes were recorded by two observers.

Results: Sample consisted of 188 patients (COVID peak $N = 88$; post-peak $N = 102$). There was no significant difference between baseline characteristics (age, ASA, F:M, biochemical markers, CT findings). The median duration of symptoms were 1.5 days during peak and 2 days post-peak. During COVID peak more imaging was performed to confirm the diagnosis (peak 69.3% vs post peak 57%; $P = 0.081$) with CT being the most common modality ($N = 101$, 76.5%). Majority of the patients were managed surgically during both periods (79.5% vs 81%). Conservative management failure rate was 27% ($N = 10$)

(peak 27.8% vs post-peak 26.3%). More laparoscopic appendicectomies were performed during post-peak period (96.5% vs 65.3%; $P < 0.001$) and open appendicectomies were more frequent during peak (34.7% vs 3.4%; $P < 0.001$). There were no significant differences identified in patient outcomes between the two groups ($P > 0.05$). Only one patient developed mild COVID postoperatively. Less negative appendicectomies were performed during COVID peak (10.7% vs 16.5% post-peak).

Conclusion: Laparoscopic appendicectomy remains to be a safe approach to manage acute appendicitis, even in 'time-limited' situations. Cross sectional imaging is a helpful tool in aiding the appropriate management plan in acute appendicitis cases.

Disclosure of Interest: None declared

PO-126 | METHODS OF SURGICAL REPAIR FOR ASCENDING COLON GUNSHOT INJURIES. FEASIBILITY AND OUTCOMES

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Aim: In this study, the postoperative outcomes have prospectively been compared between patients who have had right colectomy, with those who have had a simple repair in patients who suffered gunshot injuries at the right colon. The aim is to assess and analyse the differences between both procedures in terms of rates of postoperative outcomes to determine whether simple repairs could be accepted as a good alternative procedure to the standard colectomy

Method: A cohort study was conducted to compare patients who had right colectomy, who were considered the first group, and patients who had a simple repair, who were considered the second group. Subsequently, this was undertaken in order to analyse the influence of the operative treatment methods on the postoperative outcomes in all patients who had undergone urgent laparotomies following gunshot injuries at the right colon. This was set in the time period from February 17, 2011, to December 31, 2018, in our department. The primary endpoint was an appearance of any short-term postoperative complications

Results: Out of 51 patients, 50 (98%) were male and 1 (2%) was female. 43 (66.2%) patients had right hemicolectomy, while the simple repair group comprised 22 (33.8%) patients. Upon admission to the hospital, 38 (58.5%) patients were in shock. 48 (73.8%) cases had faecal contamination, and 46 (70.8%) suffered from a multi-organ injury. The delay time from the injury to the operation was less than 200 minutes in all cases. The rate of postoperative complication in the first group was 59.2%, while in the second group it was 46.6%. In our study, there was no significant statistical difference between



the type of operative repair and the rate of postoperative complications ($P = 0.18$)

Conclusion: In the operative management for ascending colon gunshot injuries, it was not possible to determine any advantage of the simple colonic wall repair over the segmental colectomy; therefore, we cannot consider it as an acceptable safe alternative method of treatment

Disclosure of Interest: None declared

PO-127 | THE ROLE OF ABDOMINAL ULTRASOUND AS A FIRST LINE IMAGING MODALITY IN AMBULATORY GENERAL SURGICAL PATIENTS PRESENTING WITH RIGHT ILIAC FOSSA PAIN

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Aim: Right iliac fossa (RIF) pain is one of the most common referrals to general surgery¹. Abdominal ultrasound (AUS) is often utilised as a first line imaging modality to investigate the cause of pain². Surgical Ambulatory Care Receiving Units (SACRU) are recognised as a vital resource in reducing emergency department pressures and providing same-day care for patients, avoiding admission³. Our institution offers SACRU 6 days a week, with 10 dedicated daily AUS slots. We aim to look at the number of patients referred with RIF pain undergoing AUS and their outcomes.

Method: Single institution, retrospective review, of all adult patients presenting to SACRU with RIF pain between March–April 2021, where AUS was performed as a first line imaging modality. Primary outcome determined main diagnosis following AUS. Secondary outcomes identified additional imaging modalities utilised and subsequent speciality referrals.

Results: 104 patients were referred to SACRU complaining of RIF pain and proceeded to AUS. 41% ($n = 43$) had a normal US and were discharged with no surgical pathology. 11% ($n = 11$) had a definitive diagnosis of acute appendicitis. 17% ($n = 18$) had a non-general surgical diagnosis, the most common being ovarian pathology. 31% ($n = 32$) required additional imaging; 19 CT, 6 MRI and 7 repeat AUS. Of those, 8 patients had a confirmed diagnosis of acute appendicitis. 24% ($n = 25$) were referred to gynaecology and 3% ($n = 3$) to both gastroenterology and urology respectively.

Conclusion: We have shown a significant role for the use of AUS as a first line imaging modality in the investigation of RIF pain. The majority of patients were discharged directly from SACRU with no surgical pathology, thus avoiding unnecessary burden to the NHS. However, clinical judgement remains the most important aspect in

determining the need for additional imaging and further management for patients.

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Disclosure of Interest: None declared

PO-128 | THE USE OF MESENCHYMAL STEM CELLS IN ANIMAL MODELS OF GASTROINTESTINAL ANASTOMOTIC LEAK: A SYSTEMATIC REVIEW

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Aim: Anastomotic leak is the most feared complication of gastrointestinal surgery. Mesenchymal stem cell technology is used clinically to promote wound healing however the safety and efficacy of this technology on anastomotic healing has yet to be defined. To investigate whether mesenchymal stem cells confer any benefit when applied to animal models of gastrointestinal leak and identify methodology and how efficacy is assessed.

Method: The MEDLINE, EMBASE, Web of Science and Cochrane Library databases were interrogated between 01/01/1947–01/05/2020. All studies where mesenchymal stem cells were applied to laboratory animal leak models to demonstrate a healing effect were considered. All experimental and histological outcomes were examined. Compliance to ARRIVE and current International Consensus was assessed.

Results: 1205 studies were screened. 12 studies reported on 438 gastrointestinal anastomoses in 4 species using 11 models; 7 in the colon. No studies utilised a model with a known leak rate. Significant variance was observed in histological outcomes with efficacy demonstrated in 5/12 studies. One study demonstrated a benefit in leak rate. Colorectal studies had a greater median ARRIVE compliance, 60.8% (IQR 63.2–64.5) compared to non-colorectal 45.4% (IQR 43.8–49.0).

Conclusion: Mesenchymal stem cell delivery to an animal anastomosis is safe and feasible. Use may confer benefit but findings are currently limited to surrogate histological outcomes. There is

consistency in outcome measures reported but variance in how this is assessed. Poor compliance to ARRIVE but good compliance to current international consensus in leak models of the colon was observed.

Disclosure of Interest: None declared

PO-129 | IMPROVING PATIENT FLOW VIA SURGICAL HOT CLINIC

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Aim: The A&E departments in England are under constant pressure and ambulatory care of patients is one of the potential solutions. A surgical hot clinic was introduced to select patients suitable for safe and effective outpatient management.

Aim of the present study was to demonstrate that by reducing the number of emergency surgical admissions, the HC can achieve patients' satisfaction and reduction of the total costs at the same time.

Method: The number of patients attending, the type of pathologies and the number of admissions through the surgical hot clinic in 1 year were reviewed retrospectively. Results of a questionnaire used in UK hospitals to explore patients' experience were analysed, with a five-star scoring system measuring the likelihood of recommending the service and a five-grade scoring system evaluating parameters that affect patient satisfaction.

The total minimum savings related to the reduction of emergency surgical admissions were estimated by multiplying the number of avoided hospital admissions (patients managed via surgical hot clinic not admitted to hospital) by the cost of a patient's admission for a minimum of 1 day.

Results: A total of 2693 patients attended the surgical hot clinic with an average of 10.43 and a median of 11 patients per day.

In-hospital admission was avoided in 2495 cases (92.65%) which could have saved a total minimum of £748 500 as each patient would have been admitted for a minimum of 1 day. Regarding patient satisfaction, the average five-grade score result was 4.58 for the 1-year period.

Conclusion: Overall patients' experience and potential savings demonstrate that the surgical hot clinic can offer economic benefits based on the potential of the Hot clinic to reduce the number of the Emergency Admissions with an overall positive patient experience and satisfaction.

Disclosure of Interest: None declared

PO-130 | APPENDICULAR ENDOMETRIOSIS, LITERATURE REVIEW ON THE SUBJECT OF A CASE

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Aim: Endometriosis located in the cecal appendix has been described very sporadically as the cause of a clinical picture characterized by chronic pain localized in the right iliac fossa (RIF), or recurrent acute. Endometriosis, defined as the presence of endometrial tissue outside the uterine cavity, is a relatively common disease in young women of childbearing age. However, involvement of the gastrointestinal tract is infrequent and appendiceal localization is even rarer. This is a literature review and clinical case presentation in patient with appendicular endometriosis.

Method: A 38-year-old female patient, with no history of interest, came to the emergency department with abdominal pain localized in the FID, of several hours of evolution, similar to other occasions in recent months, examination compatible with acute appendicitis. Ultrasound showed vermiform appendix with thickening at the distal end, and little free fluid in the pelvis and pericecal area. Laparoscopic appendectomy was performed without incident and without complications in the immediate postoperative period. The anatomopathological result shows endometriosis foci in the distal end of the cecal appendix with slight periappendicitis.

Results: Appendicular endometriosis as a cause of chronic or recurrent pain located in the right iliac fossa is very uncommon, although it should be suspected in young women of childbearing age with compatible symptoms. Although subsequent follow-up should be performed by the gynecology service, appendectomy allows an accurate diagnosis, as well as improving the patient's abdominal symptoms.

Conclusion: Laparoscopic access is the best alternative for both diagnostic and therapeutic purposes, since it allows other gynecological diagnoses to be ruled out.

Disclosure of Interest: None declared

PO-131 | SHORT TERM OUTCOMES IN LAPAROSCOPIC COLORECTAL RESECTION AT A LOW-VOLUME CENTRE - A SINGLE SURGEON'S EXPERIENCE

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Aim: The challenges of laparoscopic colorectal resection include a steep learning curve due to limited training and case volume exposure. This may cause surgeons to opt for an open approach instead. The aim of this study is to analyse a surgeon's experience in elective laparoscopic colorectal resection in a low-volume institute,



assess trends in the training curve and compare outcomes with high-volume institutes.

Method: Data was retrospectively collected on patients who underwent elective laparoscopic colorectal resection performed at Mater Dei Hospital - Malta over a period of 8-years, by a single surgical firm. This included data on patient demographics, surgical indications, tumour dimensions, resection margins, lymph node harvests, intraoperative complications, length of hospital stay, 30 day morbidities, mortalities and recurrence rate.

Results: A total of 102 cases were performed, the majority males ($n = 57$, 56%), with a median age of 70 years. Right-hemicolectomies ($n = 38$, 37.3%), followed by anterior resections ($n = 37$, 36.3%), were the most common procedure, indicated mainly for colorectal cancer ($n = 94$, 92.2%). The mean length of stay was 7 days, ranging from 4 to 38 days. The 30-day mortality and morbidity was 2.9% and 32% respectively. Complications classified as per the Clavien-Dindo Classification, showed grade II ($n = 10$) and grade III ($n = 10$) being most frequent. Anastomotic leak rate was 3.9% ($n = 4$). There were no significant differences in complication rates ($P = 0.207$), LOS ($P = 0.061$), LNs harvest ($P = 0.291$), or resection margin ($P = 0.838$) when comparing the first 50% of cases to the last 50%.

Conclusion: Our single surgeon experience at a low-volume institute showed similar outcomes when compared to high-volume centre results, suggesting that safe patient outcomes are achievable. Importance should be placed on structured training in high-volume institutes, followed by self-evaluation, periodical visiting surgeons, and annual audits so as to enhance the experience obtained by surgical trainees.

Disclosure of Interest: None declared

PO-132 | TOO HOT TO HANDLE? MANAGEMENT OF ACUTE CHOLECYSTITIS AND COMPLIANCE WITH NICE GUIDELINES

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Aim: One third of emergency surgical admissions are due to gallstone disease. Current NICE guidelines recommend that patients with acute cholecystitis should be offered laparoscopic cholecystectomy within 1 week of diagnosis. However, the recommendation is often not met within NHS hospitals. We aim to investigate our compliance with these guidelines while outlining the complications and cost effects associated with delayed operation.

Method: We performed a retrospective study identifying emergency patients presenting with image proven uncomplicated acute cholecystitis. Hospital coding and finance departments were used to obtain this information. Our inclusion criteria were all patients with confirmed uncomplicated cholecystitis above the age of 18 years.

Results: 166 patients were identified within a 3-month period. Of which, 85 patients were diagnosed with acute uncomplicated cholecystitis and fulfilled the inclusion criteria. On average, patients waited 108 days for

their cholecystectomies (range 14–281). No patients received a cholecystectomy within 1 week of diagnosis. 33 patients re-presented to hospital at least once and the total number of repeated admissions was 51. The length of stay during re-admissions was 6 days. The total cost incurred for those re-admission was £117,118 (average cost was £3500).

Conclusion: Delayed cholecystectomies for acute cholecystitis increase the likelihood of repeated hospital admissions and places a significant strain on resources. Furthermore, its associated with increased risk of complications. We recommend introducing a weekly 'Hot Gallbladder list' within our trust dedicated for acute cholecystitis. Additionally, we aim to create a pathway to streamline patients for an early operating date.

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Disclosure of Interest: None declared

PO-133 | RIGHT HEMICOLECTOMY ANASTOMOTIC TECHNIQUE; THE CHESTERFIELD ROYAL EXPERIENCE

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Aim: Right hemicolectomy is regularly performed in colorectal units across the UK. Anastomotic techniques vary and currently there is no international standardisation. This project aims to present a small but successfully anastomosed right hemicolectomy patient cohort at Chesterfield Royal Hospital.

Method: A retrospective cohort of 67 patients undergoing right sided colonic resection was audited over a period of 1 year. Local approval was given by the Chesterfield Royal Audit Department. A stapled anastomotic technique (linear staple) was used with staggered staple line prior to cross stapling with refill of the same stapling device for all patients.

Results: From our cohort, 79% and 21% of patients underwent an elective and emergency right hemicolectomy respectively. Our

laparoscopic resection rate was 57%. Median length of stay for all resections was 7 days, reduced in laparoscopic resections (5 days). Anastomotic leak rate was 0.02%.

Conclusion: This audit demonstrates a safe and effective anastomotic technique for right hemicolectomy performed at a District General Hospital in the United Kingdom. Consistent intra-departmental technique and anastomotic leak rate below national average support this claim. We understand the limitations of our project and we look forward to the outcomes of the EAGLE study.

Disclosure of Interest: None declared

PO-134 | SMALL LYMPHOCYTIC LYMPHOMA PRESENTING WITH ACUTE SMALL BOWEL VOLVULUS AND CHYLOUS ASCITES; A CASE REPORT

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Aim: Small lymphocytic lymphoma (SLL) is usually diagnosed incidentally however, acute abdominal pain is a recognised presentation. We aim to present a case of small bowel volvulus with spontaneous chylous ascites due to SLL.

Method: A fit, 66 year old male has been admitted in the emergency department with acute abdomen and raised venous lactate. Clinico-radiological correlation was equivocal and the patient underwent an exploratory laparotomy which revealed an unusual 360-degree small bowel volvulus, enlarged mesenteric lymph nodes and spontaneous chylous ascites. The volvulus was reduced and the lymph nodes were biopsied intra-operatively.

Results: Histopathology of the lymph nodes revealed features of small lymphocytic lymphoma. The patient after an uneventful post-operative recovery has been referred to Haematology for further management of his condition.

Conclusion: This is the first case of small lymphocytic lymphoma known to date, presenting with small bowel volvulus and spontaneous chylous ascites.

Disclosure of Interest: None declared

PO-135 | MANAGEMENT OF CHRONIC PELVIC SEPSIS AFTER TOTAL MESORECTAL EXCISION FOR RECTAL CANCER – A 10-YEAR EXPERIENCE OF A NATIONAL REFERRAL CENTRE

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Aim: To report the outcomes for the management of chronic pelvic sepsis (CPS) after total mesorectal excision for rectal cancer over a 10-year period in a national referral centre.

Method: Patients who were referred with CPS after low anterior resection or Hartmann's procedure for rectal cancer were included. Based on year of referral, patients were divided into two groups:

2010–2014 (A) and 2015–2020 (B). Primary endpoint was successful control of pelvic sepsis, with restoration of bowel continuity as co-primary endpoint.

Results: In total 140 patients were included, of which 52 in group A and 88 in group B. Salvage management entailed a restorative procedure in 46% (65/140), a non-restorative procedure in 46% (64/140) and non-operative approach in 8% (11/140). The operative approach consisted of transanal local anastomotic repair in 15% (7/48) and 3% (2/81) ($P = 0.013$), redo-anastomosis in 44% (21/48) and 43% (35/81) ($P = 1.000$), and intersphincteric resection of the leaking anastomosis in 42% (20/48) and 54% (44/81) ($P = 0.203$), in group A and B respectively. At end of follow-up, control of pelvic sepsis was achieved in all patients who received anastomotic repair, in 91% (19/21) and 89% (31/35) of patients who received redo-anastomosis ($P = 1.000$), and 100% (20/20) and 93% (41/44) of patients who received intersphincteric resection ($P = 0.546$), in group A and B respectively. In patients who underwent a restorative procedure, a functioning anastomosis was achieved in 93% (26/28) of patients in group A and 89% (33/37) of patients in group B ($P = 0.692$). Median follow-up after salvage was 82 months (IQR 39–100) and 42 months (IQR 22–59) for patients in group A and B, respectively ($P < 0.001$).

Conclusion: High rates of success can be achieved with the surgical salvage of CPS, in a dedicated tertiary referral centre, without significant differences over time. In well selected and motivated patients a functional anastomosis can be achieved.

Disclosure of Interest: None declared

PO-136 | PRIMARY VERSUS REPEATED CYTOREDUCTION FOR PERITONEAL METASTASIS: A PAIRED ANALYSIS OF SURGICAL OUTCOMES

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Aim: The aim was to compare the surgical/oncologic outcomes of primary cytoreductive surgery(CRS)&hyperthermic intraperitoneal therapy(HIPEC) with repeated-CRS&HIPEC.

Method: Prospectively maintained database of 661 PM patients treated with CRS&HIPEC was evaluated. Re-cytoreductive surgery was performed in 51 of these patients. Seven of them underwent CRS for the third time. The median age was 54(ranging, 16–76) years and 72.5% of the patients was female. The median Peritoneal Cancer Index(PCI) was 7(ranging, 3–21) and 84.3% of the patients underwent CC-0. All standart clinico-pathological characteristics, re-operative findings, morbi-mortality results, and final oncologic outcomes were



reviewed and were compared with those of matched-patients who had primary CRS&HIPEC.

Results: The median operating time was 300(range, 120–570) and 305(ranging, 120–650) minutes during the primary and re-CRS. While less than five organs were resected in 82.7%(n = 42) of the patients who underwent primary CRS, it was 84.3%(n = 43) for the patients who underwent re-CRS. The median length of hospital stay(LoHS) after primary CRS and re-CRS were 15 days(ranging, 4–48) and 12 days(ranging, 5–90), respectively. The morbidity rates were 31.3%(n = 16) and 7.8%(n = 4), respectively. The high grade morbidity rate was lower in re-CRS group(grade III-IV 21.5% vs 7.8%). The mortality rates were similar in between the patients who underwent primary CRS(5.8%) and re-CRS(5.8%). The patients who underwent re-CRS had significantly shorter hospital(LoHS)($P < 0.05$) and lower high grade morbidity($P < 0.05$) than the patients who underwent primary CRS. The overall survival of the patients in the primary CRS group was 81.29 months, whereas it was 79.77 months in the re-CRS group. The 3- and 5-year survival rates were lower in re-CRS group(17% and 5% vs 22% and 11%), respectively.

Conclusion: Re-CRS&HIPEC can be safely and effectively performed in carefully selected and intensely followed-up patients with PM.

Disclosure of Interest: None declared

PO-137 | ENDOSCOPIC SUBMUCOSAL DISSECTION (ESD) FOR REMOVAL OF LARGE COLORECTAL NEOPLASIAS IN AN OUTPATIENT SETTING: A SINGLE-CENTER SERIES OF 660 PROCEDURES IN SWEDEN

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Aim: ESD is a technique developed in Japan for the removal of large lesions in the gastrointestinal tract. Due to the complexity of the technique, implementation outside Asia has been slow. An ESD procedure is normally followed by hospital admission. Our aim was to investigate if ESD of colorectal lesions can be performed in an outpatient setting.

Method: Six hundred sixty colorectal ESD procedures between 2014–2020 were evaluated retrospectively.

Results: Of 660 lesions, 323 (48.9%) were localized in proximal colon, 102 (15.5%) in distal colon and 235 (35.6%) in rectum. Median lesion size was 38 mm (IQR 30–50). Median procedure duration was 70 min (IQR 45–115). En bloc resection was achieved in 620 (93.9%) cases. R0 resection was achieved in 492 (79.4%) en bloc resections while the number of Rx and R1 resections were 124 (20.0%) and 4 (0.6%), respectively. Low-grade dysplasia was found in 473 (71.7%) cases, high-grade dysplasia in 144 (21.8%) cases and adenocarcinoma in 34 (5.2%) cases. Six hundred twelve (92.7%) procedures were scheduled outpatient procedures and 33 of these underwent unplanned admission. Forty-eight (7.3%) cases were planned as inpatient procedures. The rate of full wall perforation was 38 (5.8%). Three patients

(0.5%) required emergency surgery. Forty-six patients (7.0%) sought medical attention within 30 days due to; bleeding 21 (3.2%); abdominal tenderness 16 (2.4%); other reason 9 (1.4%). Twenty-four of these were admitted for observation for a median duration of two days (range 1–7 days). Ten of these patients were treated with antibiotics and six patients required blood transfusion. None required additional surgery.

Conclusion: ESD of colorectal lesions can be performed in an outpatient setting.

Disclosure of Interest: None declared

PO-138 | EARLY AGE OF ONSET IS AN INDEPENDENT PREDICTOR FOR WORSE DISEASE-FREE SURVIVAL IN SPORADIC RECTAL CANCER PATIENTS. A COMPARATIVE ANALYSIS OF 980 CONSECUTIVE PATIENTS

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Aim: While interest on early-onset colorectal cancer (age ≤ 49) is on the rise^{1,2}, studies on early-onset rectal cancer (EORC) are limited. The aim of this study was to compare predictors for disease progression/recurrence between sporadic EORC and late-onset RC patients (LORC).

Method: This is an ambidirectional cohort study conducted in an Italian tertiary center. Out of 1353 rectal resections, 980 were performed for sporadic rectal adenocarcinoma (150 EORC, 830 LORC) between January 1st 2010 and April 30th 2021. Demographics, tumor characteristics, microsatellite status, gene mutations (KRAS, BRAF, NRAS, PI3Kca) and oncologic outcomes were compared. A Cox proportional hazards regression analysis was performed to ascertain the effect of variables on recurrence/progression and death. Disease free survival (DFS) and cancer specific survival (CSS) were analyzed by the Kaplan-Meier estimator.

Results: Mean age of EORC was 42.16, (46% aged 45–49). A majority of EORC patients had a family history for CRC ($P = 0.01$) and underwent total neoadjuvant treatment ($P = 0.01$). EORC patients showed a higher rate of low-grade tumor differentiation ($P < 0.0001$), stage III-IV ($P = 0.001$), microsatellite instability ($P = 0.02$), locoregional nodal ($P = 0.001$) and distant metastases ($P < 0.0001$). Accordingly, more EORC patients underwent adjuvant treatment ($P < 0.0001$). Mutations were mostly reported among LORC cases ($P = 0.04$),

whereas EORC patients showed a worse disease-free survival (DFS) ($P = 0.02$), even at stage I ($P = 0.04$). Cancer-specific survival (CSS) did not differ ($P = 0.11$) across groups. Multivariate analysis indicated age of onset ($P = 0.04$) as an independent predictor for progression/recurrence.

Conclusion: Age of onset was shown to be an independent unfavorable predictor. Delayed diagnosis could explain this effect in the more advanced stages, while the worse outcomes in stage I may suggest a more aggressive disease behavior.

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Disclosure of Interest: None declared

PO-139 | SURVIVING RECTAL CANCER AT THE COST OF A COLOSTOMY - A GLOBAL SURVEY OF LONG-TERM HRQOL IN TEN COUNTRIES

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Aim: Colorectal cancer is the most common indication for ostomy formation and a stoma may negatively impact HRQoL. Knowledge about factors affecting HRQoL in these patients is needed to improve long term follow up in patients with a colostomy. In this global survey, generic and stoma specific health-related quality of life (HRQoL) was compared in 2557 patients with a permanent colostomy after surgery for rectal cancer across ten countries. Furthermore, we investigated predictors of reduced HRQoL.

Method: Rectal cancer survivors with a colostomy in Denmark, Sweden, Spain, the Netherlands, China, Portugal, Australia, Egypt, Lithuania, and Israel completed a questionnaire regarding demographic and socioeconomic factors and stoma care along with the Colostomy Impact (CI) score, EORTC QLQ-C30 and five anchor questions assessing colostomy impact on HRQoL.

Results: A total of 2557 patients were included and response rates were 51–93%. Generic HRQoL differed significantly between countries, but resembled HRQoL of reference populations. However,



a total of 25.8% of patients reported that their colostomy impairs their HRQoL 'some' or 'a lot'. This group had significantly unfavourable scores across all EORTC QLQ-C30 subscales compared to patients reporting 'no' or 'little' impairment on HRQoL. Multivariable logistic regression showed that stoma dysfunction measured by the CI score, financial burden from the stoma, unemployment, being single/widowed and young age were predictors of reduced stoma-related HRQoL.

Conclusion: Overall, HRQoL is preserved in rectal cancer survivors with a colostomy. A minor proportion experienced impaired HRQoL due to their colostomy and stoma dysfunction was the most important predictor of reduced HRQoL. To improve long-term QoL in this group, stoma dysfunction should be recognized and addressed, and patient factors should guide decision-making in stoma forming surgery.

Disclosure of Interest: None declared

PO-140 | MULTICENTER PROSPECTIVE STUDY OF THE LEARNING CURVE IN ROBOTIC SURGERY FOR RECTAL CANCER (ROBOT-CR STUDY)

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Aim: The aim of the study was to analyse the learning curve in robotic surgery for rectal cancer and to assess the safety of the learning curve period for the patients.

Method: This is a prospective, multicenter study involving 4 French university centers. The analysis concerned surgeons with no previous experience in robotic surgery and having performed at least 25 anterior low resections with recovery for adenocarcinoma of the rectum. Three parameters were analyzed to evaluate the learning curve: the operating time with the CUSUM method, the conversion rate and a composite criterion assessing the quality of surgery (associating CRM > 1mm, mesorectum grade \geq 2 and no occurrence of complication Dindo III-IV) by the RA-CUSUM method. The different phases of the learning curve have been identified. Morbidity according to Dindo, the distal and circumferential margins, the number of lymph nodes removed and the quality of the mesorectum were analyzed and compared between the different phases of the curve.

Results: 1324 patients operated on for colorectal surgery were prospectively included between January 2018 and January 2021, including 359 for rectal cancer in the 3 centers with no previous experience of robotic surgery. Data from 3 surgeons who performed more than 25 procedures were analyzed (174 procedures). The analysis showed that the learning curve evaluated over the operating time, the conversion rate and the quality of surgery was achieved after 12 to 21 procedures, 9 to 14 procedures, and 17 procedures

respectively, with no difference between the learning phases on the safety and the specimen quality.

Conclusion: The study showed that the learning curve was reached after 12 to 21 procedures without additional risk for patients during the learning phase.

Disclosure of Interest: None declared

PO-141 | SPHINCTER-SAVING SURGERY FOR MID OR LOW RECTAL CANCER: WHAT HAPPENS IF TEMPORARY STOMA CLOSURE IS DELAYED BECAUSE OF RADIOLOGIC LEAKAGE? A STUDY IN 565 CONSECUTIVE PATIENTS

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Aim: The aim of this study was to assess long-term follow up after delayed temporary stoma closure (SC) following laparoscopic total mesorectal excision and sphincter-saving surgery for mid or low rectal cancer (TME), in patients presenting anastomotic leakage (AL) on CT-scan with enema performed 6–8 weeks after TME.

Method: All patients undergoing TME with temporary stoma and presenting AL were included. SC was delayed until anastomotic healing on repeated CT-enema every 6 weeks. If asymptomatic radiological AL persisted 6 months after TME, SC was also performed. Success rate was defined by absence of symptoms, symptomatic AL recurrence or reoperation for AL after SC.

Results: From 2005 to 2021, 565 patients underwent TME for mid or low rectal cancer. AL occurred in 22% (126/565). Fourteen patients were excluded (tumor progression, definitive stoma, etc.). Among 112 patients with asymptomatic AL at 6 weeks, AL healing was observed in 42% (47/112) at 3 months, 23% at 4.5 months (15/65) and 16% (8/50) at 6 months; 42/112 (38%) patients presented asymptomatic AL at 6 months. SC was performed in all the 112 patients. After a mean follow up after TME of 59 +/- 41 [range, 27; 86] months, success rate of SC was 70% (33/47), 60% (9/15), 50% (4/8) and 57% (24/42) (NS) at 3, 4.5, 6 months with AL healing and 6 months with persistent AL on CT, respectively. After SC, 42/112 (38%) presented a persistent AL: 31% (13/42) radiological and 69% (29/42) clinical. At the end of follow up, for these 42 patients, success rate was 62% (26/42). The 16 remaining patients presented definitive stoma ($n = 9$) and/or chronic symptomatic AL ($n = 7$).

Conclusion: After TME and sphincter-saving surgery for rectal cancer, in case of delayed SC due radiological AL, SC when spontaneous healing of AL is obtained on CT, or systematically at 6 months even if radiological AL persisted, appears to be a safe strategy with only 14% (16/112) presenting symptomatic persistent fistula and/or definitive stoma at the end of the follow-up.

Disclosure of Interest: None declared

PO-142 | IMPACT OF COVID-19 ON THE SEVERITY AND PRESENTATION OF COLORECTAL CANCER, A SINGLE UK TRUST RETROSPECTIVE COHORT STUDY

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Aim: Colorectal cancer pathways were adversely affected as a result of the COVID-19 pandemic. This study aimed to assess this impact by comparing diagnoses and acute presentations of colorectal cancer before and during the first and second wave of the pandemic, in a UK hospital covering a population of 800,000.

Method: Patients diagnosed with colorectal cancer over one year during the COVID-19 pandemic (April 2020 - March 2021), were compared to patients diagnosed in the previous year (April 2019 - March 2020). Groups were compared according to the route of referral, presenting symptoms, and tumour staging. Patients who presented with an emergency admission were further assessed to determine inpatient management and outcomes.

Results: Colorectal cancer diagnoses fell during the COVID-19 period compared to the year before (261 v 338). Referrals to our cancer pathway fell from 5717 to 2438 (57%) and endoscopies performed from 4389 to 2309 (47%). Fewer patients were diagnosed from primary care, 105 v 174 ($P = 0.0062$). More patients were diagnosed following emergency admissions 49 v 43 ($P = 0.042$).

At diagnosis, more patients presented with Stage 4 cancer during the pandemic, 65 vs 58 (25% v 17%, $P = 0.020$). Fewer patients presented with Stage 1, 26 v 63 (10% v 19%, $P = 0.0031$).

Of patients who presented with an emergency admission, there were more cases of bowel obstruction 26 v 14 ($P = 0.00046$). 30-day mortality was higher in the COVID-19 group 15 v 3 (31% v 7%, $P = 0.0044$) and palliative care was the initial management in 18 v 7 (37% v 16%, $P = 0.003$).

Conclusion: During the COVID-19 pandemic, fewer patients were diagnosed with colorectal cancer at our trust. A greater proportion of patients required emergency admission and presented with higher-stage colorectal cancer. Our results may be attributed to service disruption at our trust and reduced patient engagement with healthcare professionals. Further studies are required to assess the lasting impact of the disruption of colorectal cancer pathways on patient outcomes.

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Disclosure of Interest: None declared

PO-143 | FAMILIAL COMPONENT OF EARLY-ONSET COLORECTAL CANCER IN EUROPE: AN OPPORTUNITY FOR DISEASE PREVENTION

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Aim: Individuals with a family history (FH) of CRC are known to have an increased risk of this cancer. According to the European Society of Gastrointestinal Endoscopy (ESGE), this risk is considered to be significant in those with a first-degree relative (FDR) diagnosed before the age of 50 and in cases with two or more FDRs with CRC. For these cases, starting colonoscopy screening at age 40 is recommended. Therefore, there is an opportunity to prevent early-onset CRC (EOCRC) in this population. We sought to explore the proportion of these cases among EOCRC in Europe.

Method: A retrospective multicenter European study of patients with CRC diagnosed before age 50 (excluding cases with known hereditary syndromes) was conducted between January 2010 and December 2020. Personal and familial history of CRC and age at diagnosis were collected. The prevalence of CRC FH in the population was analyzed by subgroups.

Results: A total of 846 EOCRC patients were included. Mean age at diagnosis was 41.7 (± 6.56), and females comprised 47.6%. Family history of CRC was noted in 250 (29.5%) cases. Only 131 (15.5%) of cases reported one FDR with CRC history, and 16 (1.9%) cases had 2 or more FDRs with CRC history. Among patients with 1 FDR ($n = 131$), the mean age at diagnosis of the relative was 59.6 (± 13.26) and in 25/131 (19%) the incidence CRC was diagnosed in this relative before age 50. Altogether, 39/846 (4.6%) patients met the FH criteria for early screening with a mean age of CRC presentation of 40.45 (± 7.01) years for these cases.

Conclusion: Approximately ~ 5% of patients with EOCRC have a 1 FDR < 50 years or 2 or more FDRs with CRC. Therefore, the approximately one in every twenty cases of early-onset CRC could be prevented under the current surveillance guidelines.

Disclosure of Interest: None declared



PO-144 | TOTAL NEO-ADJUVANT THERAPY FOR RECTAL CANCER: NETWORK METANALYSIS OF RANDOMIZED TRIALS

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Aim: To evaluate effectiveness of total neoadjuvant therapy (TNT) in comparison with conventional chemoradiotherapy (CRT) for rectal carcinoma.

Method: A systematic review was performed according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines. Seven randomized trials undertaken between 2010 – 2020 were selected. Two-thousand-fifty-five patients were enrolled. Of them 862 (42%) had conventional long-course CRT 50 Gy, 240 (12%) had indTNT group (induction chemotherapy followed by CRT 50 Gy), 230 (11%) had constTNT group (CRT 50 Gy followed by consolidation chemotherapy) and 723 (35) undergone modTNT group (modified short course RT 25 Gy with subsequent chemotherapy). Short-term outcome was evaluated. Long-term outcomes were not available.

Results: Baseline data were comparable between all groups. No difference in compliance and grade 3–4 toxicity (NCI-CTC v5.0.) were found among treatment regimes. Total pCR was 12% in the control group, 19% in the indTNT group, 21% in the constTNT group and 22% in the modTNT group. Thus, pCR was significantly higher in the modTNT group vs CRT group (OR 1.95, 95% CI 0.85–3.2). No differences were found in R0-resections and sphincter-sparing surgery rates.

Conclusion: The highest pCR with comparable safety was obtained in the modTNT group.

Disclosure of Interest: None declared

PO-145 | IMPACT OF 62-DAY TREATMENT TARGET ON SURVIVAL OF COLORECTAL CANCER PATIENTS REFERRED VIA THE TWO-WEEK WAIT PATHWAY

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Aim: Colorectal cancer (CRC) is the second most common cause of cancer-related deaths in the United Kingdom (UK). In order to improve the survival of patients diagnosed with cancer, a two-week wait (2WW) referral to first appointment and a 62-day referral to treatment targets were introduced in 2004. We aim to assess compliance of the 62-day treatment target for patients diagnosed with CRC via the 2WW pathway and its impact on survival.

Method: A retrospective review of prospectively maintained database of all consecutive CRC patients diagnosed over a 3-year period

(January 2014 – December 2017) was performed. In addition to basic demographics, data was analysed for 2-year survival between the two groups (< 62 days group and > 62 days group). Mann-Whitney-U-test was used for inter-group comparisons, Kaplan-Meier survival were calculated for overall survival and Log-rank test was used to compare the two groups.

Results: During the study period, 7361 patients were referred via the CRC 2WW pathway. 296 patients (4%) were confirmed to have CRC with a mean age of 72.31 + 11.9 years. 182 (61.5%) were males and our compliance to 62-day target was 75.7% (n = 224). Treatment delays were the most common cause of non-compliance to the 62-day target (58.3%). 2-year mortality was 25% (n = 74). There was no statistically significant difference in 2-year survival between the < 62days group and > 62days group treated with curative intent (P = 0.644) or palliative (P = 0.193). Univariate cox regression showed that larger tumor size, higher nodal metastasis, presence of distant metastasis, higher numerical TNM stage and palliative management was associated with higher 2-year mortality (P < 0.0001). In Multivariate cox regression, stage 3 nodal disease was associated with significantly higher 2-year mortality (P = 0.002).

Conclusion: Our results showed that compliance with the 62-day target for patients diagnosed with CRC did not improve the 2-year survival.

Disclosure of Interest: None declared

PO-146 | SIGNIFICANT IMPROVEMENT AFTER TRAINING IN THE CLASSIFICATION OF LATERAL COMPARTMENTS AND SHORT-AXIS MEASUREMENTS OF LATERAL LYMPH NODES IN RECTAL CANCER

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Aim: Anatomical location and short-axis size of lateral lymph nodes (LLNs) have been significantly correlated to increased lateral local recurrence rates. Sufficient awareness and classification of these aspects is therefore essential. This project evaluated the ability of radiologists to assess LLNs features before and after a training.

Method: 69 Dutch radiologists involved in a national study participated. Radiologists received three MRI-scans and were asked to report the presence of LLNs and evaluate various features, such as their location and size. This was repeated after a training with the same three cases plus an additional three cases. Four cases had significantly enlarged LLNs (cases 1, 2, 5 and 6), case 4 had two small LLNs and case 3 had an external iliac LLN. Four expert radiologists scored the same six cases to form an expert reference.

Results: Mean experience was 10 years (2–25, SD 5.2). Correct identification of anatomical location improved in most cases; from 61% to 79% in case 1 (P = .080) and from 50% to 77% in case 2 (P = .009).

Cases 5 and 6, which were only scored after the training and were most similar to cases 1 and 2, had a higher initial consensus: 61% and 50% vs. 77% and 85% for cases 1, 2, 5 and 6 respectively ($P < .001$). Correct classification of location in case 4 was also high at 79%. Contrastingly, identification of case 3 to be an external iliac LLN decreased after training (87% vs. 69%, $P = .450$). Short-axis measurements after training had a decreased mean deviation from the expert reference, but was not significant.

Conclusion: Variation is present when classifying the anatomical location and short-axis size of LLNs. These features are clinically relevant and accuracy is therefore vital. Significant improvements were seen with significantly higher consensus for anatomical location after training. Awareness for the challenges involved in evaluating lateral lymph nodes is needed and adequate training should be considered.

Disclosure of Interest: None declared

PO-147 | NON-METASTATIC pT0 RECTAL CANCER AFTER NEOADJUVANT TREATMENT AND TOTAL MESORECTAL EXCISION: LESSONS FROM A RETROSPECTIVE MULTICENTRIC COHORT OF 383 PATIENTS

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Aim: A better understanding of pathological features and oncological survival in ypT0 rectal cancer after chemoradiotherapy (CRT) is required to improve the patient selection for rectal-preserving approach by local excision. Our aim was to specify the pathological and oncological outcomes in ypT0 rectal cancer after CRT and total mesorectal excision (TME).

Method: All consecutive patients who underwent TME for a non-metastatic rectal adenocarcinoma classified ypT0 after neoadjuvant CRT, with or without locoregional lymph node involvement (ypN+ or ypN-) in 14 French academic centers between 2002 and 2015 were retrospectively included. All clinical and pathological variables were collected. Overall and disease-free survivals (OS and DFS) were explored.

Results: Among the 383 ypT0 patients, only 6% were ypN+ ($n = 23$). Before CRT, 86% (327/380) were staged cT3-T4 and 41% (156/378) were staged cN+. The risk of ypN+ did not differ between cT3-T4 and cT1-T2 patients ($P = 0.345$) and between cN+ and cN- patients ($P = 0.384$). After a median follow-up of 61.1 months, we observed 95% 95CI[92-97%] of 5-year OS and 93% 95CI[91-96%]

of 5-year DFS. In Cox-multivariate analysis, OS was only altered by intra-abdominal septic complications (HR = 2.53 CI[1.11-5.78], $P = 0.028$). Regarding DFS, only ypN+ status and administration of adjuvant chemotherapy were associated with a reduced DFS ($P = 0.001$ for both). cT3/T4 staging and cN+ staging did not modify OS (P -value = 0.332 and $P = 0.450$) nor DFS (P -value = 0.862 and $P = 0.124$).

Conclusion: The risk of LN metastasis and the oncological survival do not depend on the initial cT or cN staging in case of ypT0 complete rectal tumor regression.

Disclosure of Interest: None declared

PO-148 | LAPAROSCOPIC VERSUS OPEN SURGERY FOR LEFT FLEXURE COLON CANCER. A PROPENSITY SCORE-MATCHED ANALYSIS FROM AN INTERNATIONAL COHORT

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Aim: Surgical treatment of splenic flexure cancer (SFC) still presents some debated issues. Among these, the role of laparoscopic surgery has not been yet defined clearly. Literature is based on small single-center series, while randomized controlled studies comparing open and laparoscopic treatment for colon cancer excluded SFC. This study aimed to determine the role of laparoscopic surgery in the treatment of SFC, comparing short- and long-term outcomes with open surgery.

Method: This was an international multicenter retrospective cohort study involving 10 tertiary referral centers. From a cohort of 641 cases, 484 patients with stage I-III SFC submitted to elective surgery with curative intent were selected. After 1:1 propensity score matching, 156 patients in the laparoscopic group (*LapGroup*) were compared with 156 patients in the open surgery group (*OpenGroup*).



Results: After PSM, the two groups were comparable for demographic and clinical parameters. *OpenGroup* presented a higher incidence of overall (28.8% vs 17.9%, $P = 0.02$) and surgery-related complications (23.1% vs 13.5%, $P = 0.03$), but a similar rate of severe complications (5.8% vs 6.4%, $P = 0.75$). Median length of stay was notably shorter in the *LapGroup* (7 vs 9 days, $P < 0.001$). Overall survival was slightly better in the *LapGroup* but the difference did not reach statistical significance in the whole cohort ($P = 0.056$), while it did in stage III patients ($P = 0.042$). Cancer-specific survival did not differ between the two groups ($P = 0.51$).

Conclusion: Elective laparoscopic surgery for stage I-III SFC is feasible and associated with improved short-term postoperative outcomes compared to open surgery. Moreover, laparoscopic surgery appears to provide excellent long-term cancer outcomes.

Disclosure of Interest: None declared

PO-149 | THE SAFETY AND EFFECTIVENESS OF BAKRI BALLOON TO PREVENT EMPTY PELVIS SYNDROME -- OUR EXPERIENCE OF 38 CASES

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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 38 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 38 patients and retained for variable time intervals postoperatively. Features of EPS were documented.

Results: A total of 38 cases were done in whom a Bakri balloon was inserted in the pelvis and inflated with normal saline. 29 patients were male and 9 were females. 26 patients underwent PE, 10 underwent APR, 1 patient had Hartmann's procedure and 1 underwent intersphincteric resection. 20 cases were performed laparoscopically, 2 robotic, 2 laparoscopic converted to open and 14 were open cases. Bakri balloon was inserted at the time of first surgery in 36 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. 9 patients had perineal wound infections out of which 6 were managed conservatively, 2 patients required secondary suturing and one patient developed local recurrence. 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 morbidity.

Disclosure of Interest: None declared

PO-150 | EVALUATING THE USE OF FAECAL IMMUNOCHEMICAL TESTING (FIT) IN THE URGENT SUSPECTED COLORECTAL CANCER PATHWAY DURING THE SARS-COV-2 PANDEMIC

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Aim: UK endoscopy services faced challenges prior to SARS-CoV-2. During the first months of the pandemic, activity fell by 92%. Consequently, in June 2020, NHS England recommended Faecal immunochemical testing (FIT) for all symptomatic patients to rationalise endoscopy. This study sought to evaluate the real-world safety and effectiveness of this approach.

Method: Patients referred with suspected colorectal cancer (CRC) on the two-week wait (2ww) pathway were asked to complete a FIT. Samples were analysed using the OC-Sensor. While a FIT > 100 µg Hb/g was used to prioritise investigation, all patients were subsequently investigated. FIT results were correlated with diagnostic studies.

Results: Between January to December 2020, 48% of referred patients had a FIT. 26% was above the threshold of 10 µg Hb/g in and 8.6% above 100µg Hb/g. 347 patients also had a positive FIT but were not referred. The sensitivity, specificity, NPV, PPV, and likelihood ratio at a threshold of 10µg Hb/g were 78.6%(95%CI0.69-0.86%), 36.8%(95%CI0.34-0.39%), 7.1%(95%CI0.057-0.088%), 96.5%(95%CI 0.95-0.98%) and 1.24 respectively. At 100µg Hb/g, this was 37.8%(95%CI0.29-0.48%), 80.2%(95%CI0.78-0.82%), 10.5%(95%CI0.077-0.14%), 95.4%(95%CI0.94-0.96%) and 1.9 respectively.

Conclusion: FIT shows promise in trials, but our data raises concerns about real-world performance. Only 48% of patients completed FIT before referral, and we are exploring why 347 FIT-positive patients were not referred. While results are broadly congruent with reported literature that suggested 10% of CRC are FIT negative, this is greater in our cohort at 25%. This raises concerns about the safety of discharging patients based on FIT alone. Modifying the FIT threshold may be required and improving safety-netting where FIT is known to be ineffective, such as patients with iron deficiency anaemia.

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Disclosure of Interest: None declared

PO-151 | WHICH IS THE BEST METHOD TO DETECT AN ANASTOMOTIC LEAKAGE AFTER (COLO)PROCTECTOMY BETWEEN WATER-SOLUBLE CONTRAST ENEMA, CONTRAST ENEMA COMPUTED TOMOGRAPHY AND ENDOSCOPY? A DIAGNOSTIC ACCURACY META-ANALYSIS

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Aim: Anastomotic leakage (AL) after colorectal/anal anastomosis still represents a quite frequent complication with short- and long-term consequences on postoperative morbidity, quality of life and oncological outcomes, improvable with an early diagnosis. Since there are still no clear indications in the literature, the aim of this study is to evaluate the diagnostic accuracy of water-soluble contrast enema (WSCE), contrast enema computed tomography (CECT) and endoscopy in identifying AL and to define which test is more accurate.

Method: A systematic review and meta-analysis of 25 studies reporting diagnostic accuracy estimates was conducted following the PRISMA-DTA guidelines and the Cochrane DTA protocol up to June 2021. Pooled estimates were evaluated for the three diagnostic methods and pairwise comparisons were conducted among diagnostic tests.

Results: Considering WSCE, the pooled Se, Sp, +LR, -LR and DOR were respectively 0.50, 0.99, 62.7, 0.51, and 124. The relative AUC was 0.91. For endoscopy, the pooled estimates were: Se 0.69, Sp 1.00, +LR 324.5, -LR 0.3, and DOR 1046, with an AUC of 0.99. The pooled Se, Sp, +LR, -LR, and DOR for CTE-scan were 0.89, 1.00, 375.1, 0.11, and 3526 respectively; the AUC was 0.99. The comparison between CECT and WSCE highlighted a significantly greater Se ($P = 0.04$) for CECT scan, whereas no differences were found for Sp ($P = 0.146$). Compared to CECT, endoscopy did not result significantly more accurate in terms of both Se ($P = 0.154$) and Sp ($P = 0.485$). On the other hand, endoscopy was found to be significantly more specific than WSCE ($P = 0.031$) while no significant difference was pointed out for Se ($P = 0.59$).

Conclusion: WSCE, endoscopy and CECT have an elevated diagnostic accuracy as attested by their > 0.9 AUC values. Our analysis shows that WSCE is less accurate than both endoscopy and CECT. Although greater Se was demonstrated for CECT compared to endoscopy, this failed to be significant.

Disclosure of Interest: None declared

PO-152 | INCIDENCE OF EARLY-ONSET COLORECTAL CANCER: A POPULATION-BASED STUDY

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Aim: Colorectal cancer (CRC) in those younger than age 50 (early onset colorectal cancer: EOCRC) is reported to be increasing. We

aimed to assess the incidence and survival of EOCRC in our local population to identify if there are differences in profiles between EOCRC and those presenting at or older than age 50 years (later onset colorectal cancer: LOCRC).

Method: A prospectively maintained South East Scotland Cancer Network database was interrogated from 2006–2019. Population data was collected from an open data source from the Office of National Statistics for Lothian population numbers. Patient information was collected from the eHealth database and death certificates. EOCRC were matched to a LOCRC patient by year of diagnosis, sex, site of cancer and postcode, in that order.

Results: 7014 patients were diagnosed with CRC from 2006–2019, of whom 406 (5.8%) were EOCRC. The incidence of EOCRC in the adult population was a median of 3.95 per 100 000 (range 3.35–5.42) and there was no difference in incidence between 2006 and 2019. EOCRC patients were more likely to present as an emergency (24.6% vs 15.7%, $P = 0.0001$) and be referred as routine patients (20.2% vs 4.2%, $P < 0.00001$). Left-sided cancer was more common in LOCRC (25.6% vs 31.1%, $P = 0.023$) whereas rectal cancer was more common in EOCRC (33.7% vs 28.4%, $P = 0.0236$). Poorly differentiated cancers were more common in EOCRC (21.9% vs 13.1%, $P = 0.0012$) as well as signet cell formation (6.2% vs 2.0%, $P = 0.0109$). Stage 1 CRC was more common in LOCRC (8.4% vs 11.8%, $P = 0.0012$) whereas stage 4 was more common in EOCRC (30.8% vs 21.6%, $P < 0.00001$). EOCRC patients were more likely to die of CRC (88.9% vs 65.0%, $P < 0.00001$).

Conclusion: This data highlights the importance of ensuring cancer incidence is framed in the context of changes in the baseline population. The incidence of EOCRC has remained unchanged during the last decade. EOCRC patients presented with more advanced stage of CRC and are likely to die of CRC.

Disclosure of Interest: None declared

PO-153 | SERIAL LIQUID BIOPSIES ALONG THE TREATMENT PATHWAY FOR LOCALLY ADVANCED RECTAL CANCER (LARC): A RELIABLE PREDICTOR FOR TUMOR RESPONSE?

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Aim: Circulating tumor DNA (ctDNA) correlates with response to therapy in different types of cancer. The potential role of such « liquid biopsies » in patients with rectal cancer to help guide non-operative management or neoadjuvant therapy enhancement is unknown. The aim of this study was to explore the value of serial liquid biopsies for monitoring response to neoadjuvant therapy in LARC patients.



Method: Consecutive LARC patients undergoing long course neoadjuvant therapy were included. Mutational characterization of the diagnostic biopsy was followed by plasma ctDNA analysis on the first (T0) and last day of radiotherapy (Tend), at 4 (T+4), 7 (T+7) and 10 weeks after radiotherapy (= day of surgery, Top), and 3–7 days after surgery (Tpost-op). We employed a commercially available kit using next-generation sequencing (NGS) on a cell-free DNA panel covering 14 genes and 46 target regions (ThermoFisher Scientific). The relationship between the values of the ct-DNA at those 7 time-points and the Tumoral Regression Grade (TRG) on the final surgical specimen was explored.

Results: 158 plasma samples from 24 consecutive patients were analyzed. Common CRC related genes were identified in 24 (96%) tissue biopsies. ctDNA positive for one or more of these genes was detected in 78% (18/23) of samples at T0 but only in 9% (2/23), 13% (3/24), 13% (3/23), 17% (4/24), at Tend, T+4 and T+7, and Top, respectively. Negativization of ctDNA did not significantly correlate with a complete pathological response. Persistence of detectable ct-DNA at Top (4/24 patients) was exclusively observed in patients with poor response (TRG 4). Two patients had detectable ctDNA post-operatively, one with a TRG4 and R1 resection, and one with a rapidly fatal diffuse tumor progression.

Conclusion: In our experience, liquid biopsies showed low sensitivity and negativization was not a proof of complete response (TRG 1). Persistence of ctDNA after neoadjuvant therapy may be a marker of poor-response (TRG 4).

Disclosure of Interest: None declared

PO-154 | RESILIENCE OF ELECTIVE CANCER SURGERY SYSTEMS DURING COVID-19 LOCKDOWNS: INTERNATIONAL, PROSPECTIVE COHORT STUDY OF PLANNED SURGERY FOR 15 TUMOUR TYPES IN 61 COUNTRIES

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Aim: This study aimed to identify areas for health system strengthening by comparing the delivery of elective cancer surgery during periods of COVID-19 lockdowns versus light restrictions.

Method: This international, prospective cohort study enrolled patients with 15 cancer types who had a decision for surgery during the COVID-19 pandemic up to 31st August 2020 (NCT04384926). Average national Oxford COVID-19 Stringency Index scores were calculated for each patient during the period they awaited surgery, and classified into light restrictions (index < 20), moderate lockdowns (20–60), and full lockdowns (> 60). The primary outcome was the non-operation rate (proportion of patients who did not undergo their planned surgery). Cox proportional-hazards regression models were used to explore the associations between lockdowns and non-operation.

Results: Of 20,006 patients (466 hospitals, 61 countries), 9.1% did not receive surgery after a minimum of 3-months' follow up (median:23-weeks, IQR:16–30), all of whom had a COVID-19 related reason for non-operation. Light restrictions were associated with a 0.6% non-operation rate, moderate lockdowns a 5.5% rate (adjusted hazard ratio:0.81, 95% confidence interval 0.77–0.84, $P < 0.001$), and full lockdowns a 15.0% rate (HR:0.51, 0.50–0.53). Upon sensitivity analysis including adjustment for SARS-COV-2 case rates, moderate and full lockdowns remained independently associated with non-operation. Frail patients, those with advanced cancer, and patients in lower-middle income countries less likely to undergo surgery.

Conclusion: Cancer systems worldwide were fragile to lockdowns, with one in seven patients not undergoing planned surgery. The resilience of surgical systems requires strengthening through protected elective pathways and investment in surge capacity for public health emergencies.

Disclosure of Interest: None declared

PO-155 | RISK OF BOWEL OBSTRUCTION IN PATIENTS UNDERGOING NEOADJUVANT CHEMOTHERAPY FOR HIGH-RISK COLON CANCER: A NESTED CASE-CONTROL MATCHED ANALYSIS OF AN INTERNATIONAL, MULTI-CENTRE, RANDOMISED CONTROLLED TRIAL (FOXTROT)

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Aim: Implementation of neoadjuvant chemotherapy (NAC) for colon cancer may increase patient's risk of bowel obstruction. This study aims to inform patient selection for neoadjuvant therapies using features identifiable before treatment initiation.

Method: A case-control study nested within an international randomised clinical trial (FOxTROT. ClinicalTrials.gov: NCT00647530). Patients randomised to neoadjuvant chemotherapy (NAC) that developed large bowel obstruction were identified. Obstructed patients (cases) were age- and sex-matched with patients that received NAC but did not develop obstruction (controls) in a 3:1 ratio using incidence density sampling. Bayesian conditional mixed-effects logistic regression modelling was used to explore features associated with obstruction. Absolute risk of obstruction based on the presence of high-risk features was estimated across all patients receiving NAC.

Results: Of 1053 patients randomised, 699 received NAC, of whom 30 (4.3%) developed obstruction (1 withdrawal). There was more open surgery and a higher R1 rate in obstructed patients, but otherwise similar postoperative outcomes to unobstructed patients. In the case-control matched model, two high-risk features were identified: (1) obstructing disease on endoscopy and/or being unable to pass the tumour with the endoscope (odds ratio:9.09, 95% credible interval:2.34–39.66); (2) stricturing disease on radiology or endoscopy (OR:7.18, 95% C.I.:1.84–32.34). Three risk groups were

defined: 63.4% (443/698) of patients were at very low risk (< 1%), 30.7% (214/698) at low risk, and 5.9% (41/698) at high risk (> 10%).

Conclusion: Safe selection for neoadjuvant therapy in colon cancer can be informed with two readily available features that identify a small group of patients with high risk of obstruction during their treatment period.

Disclosure of Interest: None declared

PO-156 | DELAYED PULL-THROUGH COLOANAL ANASTOMOSIS WITHOUT TEMPORARY STOMA: AN ALTERNATIVE TO THE STANDARD MANUAL SIDE-TO-END COLOANAL ANASTOMOSIS WITH TEMPORARY STOMA? A COMPARATIVE STUDY IN 223 PATIENTS WITH LOW RECTAL CANCER

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Aim: After total mesorectal excision (TME) for low rectal cancer, guidelines recommendations for sphincter surgery are today to perform a side-to-end manual coloanal anastomosis (CAA) (or with J-pouch) with temporary stoma. Our study aimed to evaluate if delayed pull-through coloanal anastomosis (DCAA) without temporary stoma could represent a safe alternative in low rectal cancer.

Method: From 2003 to 2020, 223 consecutive patients with low rectal cancer undergoing TME were compared: CAA and diverting stoma ($n = 190$) versus DCAA without stoma ($n = 33$).

Results: Overall 3-month and severe (Dindo \geq IIIb) morbidity rates were similar in CAA vs DCAA groups: 34% (65/190) vs 36% (12/33), and 2.6% (5/190) vs 3% (1/33), respectively. In DCAA group, only one patient (3%) was reoperated at Day 3 due to colon necrosis, with Hartmann's procedure. Anastomotic leakage (AL) rate (both clinical and radiological) was significantly higher after CAA than DCAA: 28% (53/190) vs 3% (1/33) ($P = 0.00138$). Failure of the procedure (with return to stoma) was observed in 8% (15/190) vs 6% (2/33) of patients after DCAA vs CAA respectively (NS).

Conclusion: Our comparative study suggested that in patients with low rectal cancer, DCAA without temporary stoma could represent an interesting alternative to the actual recommended CAA with temporary ileostomy. DCAA could offer two major advantages over CAA: significantly lower rate of AL and absence of temporary stoma and its potential complications (rehospitalization, dehydration, wound hernia after stoma closure).

Disclosure of Interest: None declared

PO-157 | COMPARATIVE EFFECTIVENESS OF VESSEL SEALING DEVICES IN LAPAROSCOPIC COLECTAL SURGERY. A SYSTEMATIC REVIEW AND NETWORK META-ANALYSIS

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Aim: To review all available literature and perform a network meta-analysis to compare the relative efficacy of vessel sealing devices (VSD) that are used in laparoscopic colorectal surgery

Method: Pubmed (Medline), Scopus, Embase and Cochrane library were interrogated for randomized controlled trials comparing vessel sealing devices in laparoscopic colectomy. Data extraction and quality assessment of the studies performed in keeping with the Cochrane risk of bias tool. Outcomes of interest included operative time, estimated blood loss, length of stay, conversion to open or other instruments

Results: Seven published randomized trials and one abstract fulfilled the inclusion and exclusion criteria. Devices included electrosurgery (ES), bipolar vessel sealers (BVS), ultrasonic shears (US), a hybrid device combining ultrasonic and bipolar energy (BUVS) and clips or staplers (C/S). Head-to-head comparisons included BUVS vs US (1 RCT, 44 patients), BVS vs ES (2 RCTs, 57 patients), US vs ES (3 RCTs, 194 patients), BVS vs US (3 RCTs, 208 patients), 5mm vs 10mm BVS (1 RCT, 30 patients) and BVS vs C/S (2 RCTs, 200 patients). US had decreased blood loss (WMD = -43.66 [-63.52, -23.81]; $P < 0.0001$) and conversion to other instruments (OR = 0.19 [0.07, 0.51]; $P = 0.001$) compared to standard diathermy (ES) in pairwise meta-analysis. All the devices had equivalent operative time in network meta-analysis. Estimated blood loss (WMD = -42.66 [-61.76, -23.47]) remained statistically significant with US showing decreased blood loss vs ES in network meta-analysis. No difference between VSD was found regarding length of stay, conversion to open or other instruments, or complications. None of the devices reached a probability of 90% to be ranked best

Conclusion: All the devices were overall equivalent with potential benefits of US in estimated blood loss as compared to simple diathermy. Further RCT are required to verify these results

Disclosure of Interest: None declared

PO-158 | PROGNOSTIC VALUE OF PREOPERATIVE PATHOLOGICAL LYMPHADENOPATHIES IN RECTAL CANCER

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Aim: The current neoadjuvant treatment consisting of chemoradiotherapy for locally advanced rectal cancer is the standard therapy



prior to surgery that has shown better survival rates and disease-free interval. In this study we wanted to analyse the relationship between pathological lymphadenopathies diagnosed by preoperative imaging test (pelvic MRI) and the degree of postoperative tumour regression (surgical specimen without evidence of pathological lymphadenopathies) to assess survival and recurrence time in these patients.

Method: Retrospective observational study. All patients operated on for locally advanced adenocarcinoma of the rectum who underwent neoadjuvant treatment with radiochemotherapy and subsequent surgery (mesorectal excision) were included. Tumour stage classification was performed according to the AJCC 8th edition TNM. Inclusion criteria: pathological lymphadenopathies on preoperative pelvic MRI. Those with distant metastases or those patients with no lymphadenopathies on preoperative staging were excluded. Survival analysis was performed using the Kaplan Meier method.

Results: A total of 105 patients with preoperatively characterised pathological lymphadenopathies (40 women and 65 men) were enrolled. The mean age of the patients was 61.9±11 months and MRI showed 43 patients staged as T3N1, 40 patients as T3N2, 8 patients as T4N1 and 14 patients as T4N2. After radiochemotherapy, the surgical specimen showed no evidence of tumour adenopathy (N0). Survival of each group was T3N1 (96.9±57 months) ($P = 0.03$), T3N2 (80.2±46 months) ($P = 0.06$), T4N1 (74.9±31 months) (0.06) and T4N2 (87.5±51 months) ($P = 0.038$). ANOVA test showed no significant differences between the 4 groups. The disease-free interval was 87.6% (92 patients).

Conclusion: Despite the stages IIIB and IIIC studied with positive preoperative lymphadenopathies, we found no significant differences according to the degree of tumour regression or the absence of pathological lymphadenopathies in the surgical specimen.

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Disclosure of Interest: None declared

PO-159 | MULTIOMIC ANALYSIS IDENTIFIES LYMPH NODE YIELD IN COLON CANCER IS ASSOCIATED WITH PRIMARY TUMOUR IMMUNE RESPONSE

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Aim: High lymph node (LN) yield is independently prognostic for survival in non-metastatic colon cancer. The mechanism underlying this effect is currently unknown. The purpose of this study was to identify whether molecular features in the primary tumour were predictive of LN yield.

Method: Clinical, genomic, transcriptomic, proteomic and methylation data of non-metastatic, chemotherapy naïve colon cancers studied in 'The Cancer Genome Atlas' project were interrogated for associations with LN yield. Based on maximal survival effects, patients were segregated into high yield (> 15) and low yield (≤15) LNs. Gene set enrichment analysis was performed using the hallmark gene set, immune and xCell type signatures on transcriptomic changes to identify biological processes associated with LN yield. Correlations were validated in an independent transcriptomic data set of Stage II node-negative colon cancers.

Results: High LN yield was found predictive of overall and disease-free survival in node-negative and node-positive cancers. There was no association of higher LN yield and an increasing nodal positivity rate. There was a greater enrichment in immune response related hallmark gene sets with a higher LN. High LN yield was strongly linked with gene expression changes associated with an enhanced adaptive immune response and dendritic cells. This association was most prominent in node-negative cancers. Analogous findings were reproduced in the validation dataset.

Conclusion: This large multiomic analysis demonstrates that stage migration fails to explain the survival benefit of high LN yields. These novel findings show a strong association of an activated immune response in the primary tumour with LN yield. We propose that this immune response enhances identification of LN in the draining mesentery leading to an apparent greater yield. Immunogenic tumours are known to have better prognosis strongly suggestive of explaining the survival effect seen with higher LN yields.

Disclosure of Interest: None declared

PO-160 | IMPROVING TIME TO TIME TO ILEOSTOMY CLOSURE FOLLOWING AN ANTERIOR RESECTION FOR RECTAL CANCER IN THE UK

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Aim: The aims of this study were i) to investigate variation in patient pathways between UK hospitals, ii) identify key learning points from units who were found to have a shorter time to closure and iii) to suggest guidance on the optimal pathway to minimize delays in closure of ileostomy.

Method: To explore existence of pathways, targets or barriers to closure 38 colorectal units in the UK completed a short online survey. The 9 colorectal units in Wales filled in a separate, more extensive version of the survey. In depth interviews were performed with clinicians from the 6 best performing colorectal units in the UK in terms of timely ileostomy closure. The optimal pathway suggested is based on the best evidence available from the ACP guidelines and results of our studies.

Results: This qualitative analysis revealed that only 5% colorectal units in the UK have a target time ileostomy closure. There is a lack of guidance in timing of contrast studies and ileostomy closure, planning of stoma reversal. Of all units 90% would consider implementing a pathway if guidelines were developed. In depth interviews highlighted the importance of a multi-disciplinary approach, a dedicated person to facilitate timely booking, and planned timing of closure before or during chemotherapy.

Conclusion: There is a need for guidelines for stoma closure. To create the optimal pathway for timely stoma closure key aspects to include are a dedicated person to track patients, gastrograffin to be arranged at discharge from initial surgery and that a planned closure time of around 12 weeks is feasible for most units. Patients need better information at consent regarding stoma closure timing and that chemotherapy and postoperative complications may delay this.

Disclosure of Interest: None declared

PO-161 | NEGLECTED PROGNOSTIC IMPORTANCE OF ILEAL RESECTION IN PATIENTS WITH PERITONEAL METASTASIS

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Aim: Ileal resection is often a component of aggressive multi-visceral CRS/HIPEC procedure. This study aimed to determine the prognostic

role of ileal resection on postoperative complications and final oncological results of CRS/HIPEC treatment in patients with PM.

Method: Prospectively recorded data of 661 patients with PM who underwent CRS/HIPEC between 2007 and 2020 were analyzed. Ileal resection was performed in 348 (52.3%) cytoreduced patients. In addition to well-known clinico-pathological variables, peritoneal cancer index (PCI), completeness of cytoreduction (CC-0, CC-1 and CC-2), (neo-)adjuvant chemotherapy, the operative time, need for surgical intensive care unit, usage of albumin, erythrocyte suspension, and fresh frozen plasma were all evaluated.

Results: Median follow-up period was 35.26 months. High PCI score ($P < .001$), more CC-1 or CC-2 cytoreductions ($P < .001$), high number of resected organs (≥ 5 organs) ($P = .000$), more splenectomy ($P = .001$), the prolonged operative time ($P < .001$), increased morbidity ($P < .001$), more neoadjuvant chemotherapy ($P = .004$), the presence of ostomy ($P < .001$), and development of infection ($P < .001$), more intra-operative erythrocyte suspension ($P < .001$), albumin ($P < .001$), and fresh frozen plasma (FFP) ($P < .001$), and more post-operative erythrocyte suspension ($P < .001$) usage were significantly associated with ileal resection. In multivariate analysis, PCI score ($P = .000$), the number of resected organs ($P = .000$), splenectomy ($P = .045$), neoadjuvant chemotherapy ($P = .004$), and morbidity ($P = .020$) were independent prognostic factors. The 3- and 5-year survival rates were significantly lower in ileal resection group (41.3% and 28.0% vs. 57.5% and 36.3%; $P = .001$).

Conclusion: Increased awareness and greatest care must be given to the patients to improve optimisation of outcomes in the complex oncologic setting of extended CRS/HIPEC with ileal resection.

Disclosure of Interest: None declared

PO-162 | INFLUENCE OF COVID19 ON THE DIAGNOSTIC DELAY IN PATIENTS WITH COLON CANCER. ANALYSIS OF CASES IN A TERTIARY LEVEL HOSPITAL

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Aim: The increased burden of care at different points in the health-care system, due to the COVID 19 pandemic, has led to a delay in diagnosis and treatment in patients with colon cancer, presenting with more advanced disease than patients before the pandemic.

The objective is to test differences in how advanced the disease is in patients with colon cancer, before and during the COVID 19 pandemic.

Method: Retrospective study in third level hospital, where patients who underwent scheduled surgery for colon cancer were included, dividing them into two groups, pre-Covid group (July 2019-February 2020) and post-Covid group (July 2020-February 2021). We



analyzed demographic data, TNM staging, and complications in the immediate postoperative period.

Results: Data from 172 patients ($n = 172$), mean age 72 years, 124 males (72.1%) and 48 females (27.9%). We included 82 patients (47.7%) in the pre-Covid group and 90 patients (52.3%) in the post-Covid group. The results obtained were, regarding post-surgical stay, the long stay (> 7 days) was in preCovid period 46.3% vs postCovid 62.2% ($P = 0.037$). Regarding TNM staging, those patients with a $T \geq T4$ have been in preCovid period 19.5% vs postCovid 42.2% ($P = 0.001$), with a stage $\geq IIa$ has been preCovid vs postCovid of 70.7% vs 88.9% ($P = 0.003$), and those with an $N > N0$ have been preCovid 41.5% vs postCovid 57.8% ($P = 0.033$).

Conclusion: The delay in health care, due to the COVID 19 pandemic, has caused in patients operated on for colon cancer a greater progression of the disease in relation to those patients operated on before the pandemic, being striking the greater tumor size as well as the local invasion of the same. Likewise, we have identified an increase in prolonged admissions after surgery.

Disclosure of Interest: None declared

PO-163 | SHORT AND LONG-TERM OUTCOMES AFTER LAPAROSCOPIC EMERGENCY RESECTION OF LEFT-SIDED OBSTRUCTIVE COLON CANCER; A NATIONWIDE PROPENSITY-SCORE MATCHED ANALYSIS

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Aim: The role of laparoscopy for emergency resection of left-sided obstructive colon cancer remains unclear, especially regarding the impact on survival. The aim of this study was to determine short- and long-term outcomes after laparoscopic versus open emergency resection of left-sided obstructive colon cancer.

Method: This nationwide, population-based, observational cohort study compared patients that underwent laparoscopic emergency resection versus open emergency resection between 2009 and 2016, for left-sided obstructive colon cancer, by using 1:3 propensity-score matching. Matching variables included gender, age, BMI, ASA score, prior abdominal surgery, tumor location, cT4, cM1, multivisceral resection, small bowel distention on CT, and subtotal colectomy. Main outcomes were 90-day mortality, 90-day complications, permanent stoma, disease recurrence, overall and disease-free survival.

Results: Intentional laparoscopy resulted in significantly fewer 90-day complications (26.6% vs 38.4%, cOR 0.59, 95% CI 0.39–0.87), and similar 90-day mortality. Laparoscopy resulted in better 3-year overall survival (81.0% vs 69.4%, HR 0.54, 95% CI 0.37–0.79) and disease-free survival (68.3% vs 52.3%, HR 0.64, 95% CI 0.47–0.87). Multivariable regression analyses of the unmatched 2,002 patients confirmed an independent association of laparoscopy with fewer 90-day complications and better 3-year survival.

Conclusion: This population-based study with propensity-score matched analysis revealed that patients with left-sided obstructive colon cancer who underwent an intentional laparoscopic emergency resection had better short- and long-term outcomes compared to those who had primary open emergency resection. Management of those patients in the emergency setting requires proper selection for intentional laparoscopic resection if relevant expertise is available, thereby considering other alternatives to avoid open emergency resection (i.e. decompressing stoma).

Disclosure of Interest: None declared

PO-164 | ADHESION FORMATION AFTER RESECTION OF LOCALLY ADVANCED COLON CANCER: AN EVALUATION BY STANDARDIZED 18 MONTHS RE-EXPLORATION WITHIN THE COLOPEC TRIAL

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Aim: Adhesion formation after colon cancer resection can result in significant long-term morbidity, and hampers re-exploration for recurrence. Studies on standardized re-exploration of the abdominal cavity at 18 months postoperatively are scarce. The aim of this study was to evaluate incidence and severity of adhesions after laparoscopic versus open resection of locally advanced colon cancer based on re-exploration within a clinical trial on adjuvant hyperthermic intraperitoneal chemotherapy (HIPEC) using oxaliplatin.

Method: This is an observational cohort study of c/pT4N0–2M0 or perforated colon cancer patients included in the COLOPEC multicenter trial between April 2015 and January 2017, where patients were randomized to adjuvant HIPEC followed by routine adjuvant systemic chemotherapy or to adjuvant systemic chemotherapy alone. Patients were included in this study if they underwent a diagnostic laparoscopy at 18 months for standardized re-exploration for peritoneal staging. Adhesions were assessed during this re-exploration and a comparison was made between laparoscopic or open primary resection. The primary outcome was the incidence of adhesions.

Results: Adhesions were assessed in 128 patients. Standardized re-explorations revealed adhesions in 36/75 (48.0%) after laparoscopic resection, and 46/53 (88.5%) after open resection ($P < 0.001$). The mean Dowson score (0–10) after laparoscopic resection was 2.44 versus 5.28 after open resection. Compared to laparoscopic resection, open resection was independently associated with increased risk of adhesions (HR 4.43, 95% CI 1.47 to 13.38) as well as severe adhesions (HR 3.35 95% CI 1.16 to 9.72). Intraperitoneal oxaliplatin was not associated with risk of any adhesions or severe adhesions.

Conclusion: Laparoscopic resection of locally advanced colon cancer reduces (severe) adhesion formation compared to open resection. These findings provide another argument to aspire to maximize the use of laparoscopy, also in complex colon cancer cases.

Disclosure of Interest: None declared

PO-165 | WATCH AND WAIT FOR RECTAL CANCER – A NATIONAL PROSPECTIVE STUDY

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Aim: The aim of this study is to investigate if a watch and wait (W&W) strategy is a safe option to surgical resection, for patients who achieve a clinical complete response (cCR) following neoadjuvant therapy for rectal cancer, in terms of long term outcomes.

Method: W&W is conducted within a prospective national multi-centre study in Sweden, the WoW study. Since 2017, patients who achieve cCR following neo-adjuvant therapy for rectal cancer are eligible for inclusion. Participants are followed according to a standardized protocol to detect signs of local regrowth or metastasis. The target population is 200 patients. The primary endpoint is 3 year disease-free survival. We present descriptive data for patients included thus far.

Results: 110 patients with a cCR have been included until 2021-03-29. In 26 patients (24%) tumour regrowth has been detected. Demographic characteristics; Patients with complete response (n): 110, Female/ Male (n): 51/ 59, Age (median (range)): 66 (30–89) BMI (median): 25.9, Tumour distance from anal verge cm (median (range)): 5.5 (1–14). Distribution of TNM stage at diagnosis (n); T2: 27, T3: 58, T4: 21, N0: 34, N1: 46, N2: 26, M0: 99, M1: 7, Unknown: 4. Distribution of UICC stage (n); I: 15, II: 18, III: 66, IV: 7, Unknown: 4. Distribution of neoadjuvant treatment (n); Short-course radiotherapy + chemotherapy: 54, Short-course radiotherapy: 37, Chemo-radiotherapy: 7, Other: 8, Unknown: 4.

Conclusion: Because patients were treated according to national guidelines and only included in the WoW study following a cCR, the majority of patients had an advanced tumor stage as expected. The present local regrowth rate of 24% is in line with data from the previous literature, however, the long term outcomes are still uncertain. The current national prospective WoW study will contribute with additional knowledge.

Disclosure of Interest: None declared

PO-166 | DELAYED PERINEAL WOUND HEALING AFTER ABDOMINAL PERINEAL RESECTION- A RETROSPECTIVE COHORT STUDY

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Aim: Delayed perineal wound healing is a common complication after abdominoperineal resection (APR) in rectal cancer. The primary aim of this study was to evaluate the number of patients with delayed wound healing after APR. Secondary aims were to identify risk factors, and describe treatments.

Method: Prospectively collected data from the Swedish Colorectal Cancer Registry (SCCR) were used for retrospective analysis of APR performed in at Skåne University Hospital Malmö between 2013 and 2018. Medical charts were also retrospectively reviewed. Delayed healing was defined as non-healed perineal wound 30 days postoperatively. Patients undergoing extralevator APR requiring reconstruction were excluded. Statistical analysis was made using SPSS. Risk factors for impaired wound healing were analyzed using a multivariable model.

Results: 162 patients were included, of which 114 underwent standard APR and 48 patients intersphincteric APR respectively. In the total population, 69% (111/162) were male, with median age 71 (26–87). The overall healing rate was 52% (85/162); 44% (50/114) standard APR vs 73% (35/48) intersphincteric APR ($P < 0.001$). BMI > 30 OR 8.3 (95% CI 2.2–39, $P = 0.002$), reoperation OR 9.1 (95% CI 1.8–46, $P = 0.012$), neoadjuvant radiotherapy 4.5 (95%CI 0.9–11), $P = 0.05$ and standard APR OR 2.5 (95% CI 1.0–5.9, $P = 0.025$) were risk factors for impaired healing after multivariable analysis. Eight% (8/162) required an intervention (Clavien-Dindo ≥ 3).

Conclusion: Delayed perineal wound healing is a frequent complication after APR but the majority could be treated conservatively. Several risk factors were identified. Further studies aiming at interventions reducing delayed perineal wound healing after APR are warranted.

Disclosure of Interest: None declared

PO-167 | BOWEL FUNCTION RECOVERY AFTER LAPAROSCOPIC RIGHT HEMICOLECTOMY WITH INTRA VS EXTRACORPOREAL ANASTOMOSIS

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Aim: In order to perform an ileocolic anastomosis after a laparoscopic right hemicolectomy, surgeons have two main options. They can either choose an extracorporeal (EC) or an intracorporeal (IC) technique. The aim of this paper is to study the short-term outcomes of these two techniques.



Method: All patients who underwent laparoscopic right hemicolectomy with complete mesocolic excision from January 2012 until February 2021 were included in the study. Data were gathered from the official ERAS database in combination with our institution's electronic health records (EHR). Both databases are prospectively maintained. Our primary endpoint was Prolonged Postoperative Ileus (PPOI), defined as the need to insert a nasogastric tube, or refractory nausea VAS > 4 on or after the third postoperative day. Secondary endpoints were postoperative morbidity and length of hospital stay (LoS).

Results: Out of 190 patients, 122 met our inclusion criteria. Anastomosis was EC in 86 patients and IC in 36 patients; baseline characteristics were similar. PPOI rate resulted similar between groups and was observed in 2 (5.6) vs. 10 (11.6) patients in the intra- and extracorporeal anastomosis groups respectively ($P = 0.306$). Patients in the IC group had an earlier first passage of gas (1.5 days (1–2) vs. 2 days (1–3), $P = 0.035$) and stool (2 days (2–4) vs. 3 days (2–4), $P = 0.029$) than patients in the EC group. The day of tolerating normal diet, postoperative ileus (nasogastric tube insertion) and duration of ileus did not differ significantly between groups. Pain score at 24h was also found to be statistically significant less in the IC than in the EC group. The postoperative LoS was 6 (5–8) days vs. 7 (6–10) days in the IC and EC groups respectively ($P = 0.054$).

Conclusion: Although the two techniques do not differ significantly as far as PPOI rate is concerned, patients in the IC group experienced less post-op pain, faster bowel recovery and border-line shorter hospital stay at the expense of longer operating times.

Disclosure of Interest: None declared

PO-168 | MULTI-CENTRE, PROSPECTIVE COHORT STUDY OF HAND-SEWN VERSUS STAPLED ANASTOMOSIS FOR ROBOTIC RIGHT HEMICOLECTOMY

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Aim: Background

Robotic right colectomy is gaining in its popularity due to its associated technical benefits. However, there is a lack of standardisation regarding the optimal anastomotic technique, with stapled and handsewn intra- and extra-corporeal anastomosis performed in this setting. The aim of this study was to compare the short-term clinical outcomes of stapled versus hand-sewn intracorporeal anastomosis (ICA).

Methods: A multicentre prospective cohort study was undertaken across four high volume robotic centres in France between September 2018 and December 2020. All adult patients undergoing an elective robotic right colectomy with an ICA and a follow up of 30 days

post-operatively were included. The primary endpoint of our study was anastomotic leak within 30 days post-operatively.

Results: A total of 144 patients were included; 92 (63.8%) patients undergoing a stapled ICA and 52 (36.1%) undergoing a handsewn ICA. The operative indication was adenocarcinoma in 90% in the stapled ICA group compared to 62% in the handsewn ICA group, $P < 0.001$. The overall operative time was longer in the handsewn ICA compared to the stapled ICA; 193 minutes compared to 219 minutes, $P = 0.001$. The overall conversion rate was similar in both groups, with rates of 5.4% ($n = 5$) in the stapled ICA group and 5.8% ($n = 3$) in the handsewn ICA group, $P = 1.00$. There were no observed differences in anastomotic leak rates between the stapled ICA and handsewn ICA, with observed rates of 3.3% and 3.8% respectively, $P = 1.00$. There was no difference in the rate or severity of post-operative morbidity. The median length of stay was shorter in the handsewn ICA group compared to the stapled ICA, 5 and 6 days respectively, $P = 0.03$.

Conclusion: ICA robotic hemicolectomy is technically safe and is associated with low rates of anastomotic leak overall. Our study demonstrated equivalent clinical outcomes between the two techniques and therefore either should be used in the robotic setting based on surgeon expertise.

Disclosure of Interest: None declared

PO-169 | PROGNOSTIC VALUE OF TUMOUR DEPOSITS IN RECTAL CANCER – A NATIONAL COHORT STUDY

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Aim: Tumour deposits (TDs) are considered a risk factor for recurrence in colorectal cancer. After colon cancer resection, presence of TDs prompt adjuvant chemotherapy. The current study examines how TDs, found during histopathological examination after rectal resection, affect prognosis in rectal cancer.

Method: Data from the Swedish Colorectal Cancer Registry (SCRCR) were used for retrospective analysis of rectal cancers resected by abdominal surgery between 2011 and 2014. Primary endpoints were recurrence and survival.

Results: 5,455 patients were identified. 3,782 patients were analysed after exclusion primarily due to incomplete pathology reports regarding TDs, cM1-status and non-radical resection. TDs were found in 408 (10.8%) patients where 142 (3.8%) patients had N1c-status. In TD-positive patients, overall recurrence rate was 40.7% (166/408) compared to 15.8% (534/3374) in TD-negative patients. In univariable regression analysis, risk of local recurrence and distant metastasis were significantly increased; HR 2.84 (95% CI 1.86 to 4.35; $P < 0.001$) and 3.22 (95% CI 2.68 to 3.86; $P < 0.001$) respectively. After a median follow-up of 60 months, overall survival

was 66.2% (270/408) in TD-positive patients and 79.7% (2689/3374) in TD-negative patients.

Conclusion: This study suggests a relation between TDs and prognosis of rectal cancer. TDs appears to influence local and distant recurrence as well as overall survival.

Disclosure of Interest: None declared

PO-170 | THE IMPACT OF THE COVID-19 PANDEMIC ON THE MANAGEMENT OF COLORECTAL CANCER IN DENMARK: WHAT LESSONS CAN BE LEARNED FROM A COUNTRY ACHIEVING GOOD CONTROL OF THE INITIAL WAVE

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Aim: The COVID-19 pandemic has had a global impact on cancer care. However, little is known as to what extent this impact has varied between different countries. Denmark was one of the first European nations to introduce national lockdown measures and achieved comparatively good control of the initial wave. We sought to determine the impact of the pandemic's initial wave on colorectal cancer care and investigate what lessons may be learned for future pandemics.

Method: The Danish national cancer registry was used to identify patients newly diagnosed with colorectal cancer between 01/03/2020 – 01/08/2020 (pandemic period) and the corresponding dates in 2019 (pre-pandemic period). This registry comprise > 95% of patients diagnosed with colorectal cancers in Denmark. Data regarding clinicopathological demographics and peri-operative outcomes were retrieved and compared between the two cohorts.

Results: 2,794 patients were identified during the study period. Surgical practices were unaltered during the pandemic, with no alterations in the use of minimally invasive surgery (colon 84% vs 87%, rectum 93% vs 96%) nor in the formation of anastomoses or stomata noted between cohorts. No significant differences in 30-day or 90-day mortality rates were identified and on multivariable analysis treatment during the pandemic period was not found to be independently associated with peri-operative death. However, a marked reduction in total (359/month versus 201/month, $P = 0.008$) and screening diagnoses (80/month versus 38/month, $P = 0.016$) was noted during the pandemic.

Conclusion: The Covid-19 pandemic had limited impact on the technique or outcomes of colorectal cancer care in Denmark, perhaps due to the success of early control of the initial wave when compared to other European nations. However, a concerning reduction in new diagnoses was still noted, highlighting the need to encourage patients to seek medical attention during the current and future pandemic in order to avoid delays in cancer diagnoses.

Disclosure of Interest: None declared

PO-171 | SHORT-TERM OUTCOMES IN ROBOTIC-ASSISTED COMPARED TO LAPAROSCOPIC COLON CANCER RESECTIONS: A SYSTEMATIC REVIEW AND META-ANALYSIS

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Aim: This study aimed to compare short-term outcomes in robotic-assisted versus laparoscopic resections for colon cancer.

Method: We conducted a systematic review and meta-analysis of studies comparing the robotic-assisted and laparoscopic methods in resections for elective colon cancer. Following databases were used for the literature search: Embase, MEDLINE and Cochrane library. Primary endpoints were anastomotic leakage rate, conversion to open surgery, operative time and length of hospital stay. Secondary endpoints were intraoperative surgical efficacy, and the rate of postoperative morbidity. The risk of bias was assessed by the application of Cochrane quality assessment tool RoB2 for randomized clinical trials and ROBINS-I for observational studies. Overall quality of evidence was assessed by The Grading of Recommendations Assessment, Development and Evaluation (GRADE).

Results: The literature search resulted in 145 studies, and 24 studies with a total of 14,093 patients were included in the meta-analysis; robotic-assisted 1,862 and laparoscopic 12,231. Robotic-assisted surgery was superior regarding primary outcomes; the rate of anastomotic leakage (OR = 0.51, 95% CI [0.31–0.87], $I^2 = 0\%$, $P = 0.01$), conversion rate (OR = 0.31, 95%CI [0.23,0.41], $I^2 = 33.91\%$, $P = 0.00$) and overall complication rate (OR = 0.83, 95%CI [0.72,0.97], $I^2 = 24.94\%$, $P = 0.02$). Remaining outcomes of interest were in favor for robotic-assisted surgery in relation to surgical efficacy and postoperative morbidity. The quality of evidence was moderate to very low.

Conclusion: Robotic-assisted surgery tends to have improved short-term outcomes in colon cancer resections compared to laparoscopy despite a moderate to very low quality of evidence. These findings should be verified by large prospective clinical trials.

Disclosure of Interest: None declared



PO-172 | THE IMPACT OF DELAY TO SURGERY ON ONCOLOGICAL OUTCOMES FOR COLORECTAL CANCER PATIENTS: A GLOBAL PROSPECTIVE COHORT STUDY DURING THE SARS-COV-2 PANDEMIC

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Aim: The impact of a delay from treatment decision to surgery in colorectal cancer is unknown. The COVID-19 pandemic has provided a unique opportunity to ethically research the topic. This study aimed to compare the short-term oncological outcomes for colorectal cancer patients undergoing delayed versus non-delayed surgery.

Method: This international prospective cohort study included consecutive colorectal cancer patients with a treatment decision for curative surgery, from February to July 2020. A delayed surgery was defined as being performed > 4 weeks after treatment decision. Further delays of 6 and 8 weeks after treatment decision were analysed. Surgical delays were analysed only in patients who did not receive neoadjuvant therapy. The primary outcome measure was poor oncological outcome, defined as progression to unresectable disease or positive resection margins.

Results: Overall, 5453 patients from 47 countries were included, of which 9.6% (522/5453) did not receive the planned operation. Of the operated patients, 15.6% (767/4931) received neoadjuvant therapy. From the patients who went straight to surgery, 38.7% (1611/4164) were delayed beyond four weeks. Delayed patients were more likely to be older, male, more comorbid, have a higher BMI. Rectal cancers and early stage patients were more exposed to delay. After adjustment, delay was not associated with increased risk of a poor oncological outcome (OR = 0.89 (0.68–1.17, $P = 0.415$). Longer delays also did not show worse outcomes.

Conclusion: One in ten colorectal cancer patients did not receive their planned operation during the COVID-19 pandemic. Delay to surgery did not impair short-term oncological outcomes and seems safe to be used during future pandemic waves if needed. Further research is needed to assess the long-term effects of surgical delay.

Disclosure of Interest: None declared

PO-173 | A NOVEL EXTRA-PERITONEAL SURGICAL TECHNIQUE TO COLORECTAL RESECTION: ESTABLISHING A NEW PROCEDURE

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Aim: Head down position, small bowel retraction and identification of the ureter may pose challenges and even risk during laparoscopic colorectal surgery. We describe a novel extraperitoneal (XP)

approach which aims to avoid some of the challenges associated with conventional intraperitoneal (IP) colorectal

Method: Only patients with sigmoid or recto-sigmoid cancer were included in this prospective pilot study. An extra-peritoneal, same-side, lateral-to-medial approach was made with the patient in supine position. An IP port was inserted for initial laparoscopy. A 5 cm LIF incision was used to access the XP space. A 'Gelpoint' with 3 ports was inserted in the LIF. An optional XP port was used to facilitate dissection.

Results: N = 17 patients, 11 males. Median age 67(50–84). 12 had anterior resections and five sigmoid colectomies. There was one conversion to standard laparoscopic procedure and one to robotic procedure. There was no intra-operative complications or post-operative mortality. One patient developed an ischaemic proximal colon unrelated to the technique. The XP phase resulted in a mean Peak Airway Pressure of 10cmH₂O lower than the head down IP phase. Retroperitoneal structures including inferior mesenteric vessels were identified early during all XP procedures. All completed oncologically in correct surgical plane. In all cases there was R0 resection and median lymph node count was 16 (6–31)

Conclusion: : in this initial series, extraperitoneal approach provided safe access and early identification of retroperitoneal structures in the supine position. Small bowel was excluded from operative field. Larger prospective studies are needed to assess its potential role in everyday practice.

Disclosure of Interest: None declared

PO-174 | NEOADJUVANT SHORT-COURSE RADIOTHERAPY FOR UPPER THIRD RECTAL TUMORS: A SYSTEMATIC REVIEW AND INDIVIDUAL PATIENT DATA META-ANALYSIS OF RANDOMIZED CONTROLLED TRIALS

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Aim: There is no consensus on the use of neoadjuvant radiotherapy for tumors of the upper third of the rectum. Due to the conflicting findings of high quality trials and given the significant long term side effects associated with neoadjuvant radiotherapy, the benefit of neoadjuvant radiotherapy for upper third rectal tumors is less certain than for lower two third rectal tumors. This meta-analysis compares oncological outcomes with neoadjuvant radiotherapy and surgery versus surgery alone for upper third rectal tumors.

Method: Pubmed, Embase and the Cochrane library databases were searched. Randomized controlled trials (RCT) comparing neoadjuvant radiotherapy and surgery versus surgery alone for resectable rectal cancer were included. Individual patient data were sought from the principal investigator of each eligible trial for comparative data on patients with upper third rectal tumors. The main outcomes measured were survival outcomes, oncological outcomes, post-operative morbidity and late toxicity.

Results: Individual patient data from two RCTs examining outcomes in 758 patients were obtained. Published data from one further RCT containing comparable data on upper third rectal tumors was included in analysis of local recurrence. In patients with curative surgery there was no significant reduction in local recurrence and no significant improvement in overall survival or disease-free survival with neoadjuvant radiotherapy (LR RR: 0.38, 95% CI: 0.14 to 1.04, $P = 0.06$) (OS RR: 1.10, 95% CI: 0.98 to 1.24, $P = 0.11$) (DFS RR: 1.11, 95% CI: 0.97 to 1.26, $P = 0.13$).

Conclusion: The benefit of neoadjuvant radiotherapy for upper third rectal tumors is not certain, and surgery alone for patients with potentially curative disease at preoperative staging may be sufficient.

Disclosure of Interest: None declared

PO-175 | POSTOPERATIVE RECTOVAGINAL FISTULA: CAN TRANSANAL COLONIC PULL-THROUGH DELAYED COLOANAL ANASTOMOSIS AVOID THE NEED FOR DEFINITIVE STOMA? AN EXPERIENCE OF 28 CONSECUTIVES CASES

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Aim: Management of rectovaginal fistula (RVF) remains a challenge, especially in case of postoperative RVF which are often large and surrounded by inflammatory and fibrotic tissue, making local repair difficult or even impossible. In this situation, transanal colonic pull-through delayed coloanal anastomosis (DCAA) could be an interesting option. The aim of this study was to assess results of DCAA for RVF after rectal surgery.

Method: All patients who underwent DCAA for RVF were reviewed. Success was defined as patient without stoma and without any symptom of recurrent RVF at the end of follow-up.

Results: From January 2010 to December 2020, 28 DCAA were performed for RVF after rectal surgery for rectal cancer ($n = 21$) or endometriosis ($n = 7$). Ten patients (36%) had at least one previous local procedure before DCAA. DCAA was associated with temporary ileostomy in 22/28 cases (79%). After a mean follow-up of 23 ± 23 (2-82) months, success rate was 86% (24/28): 3 patients (11%) required a definitive stoma because of poor functional results ($n = 1$), chronic pelvic sepsis with anastomotic leakage ($n = 1$) or stoma reversal refused ($n = 1$); the last patient presented recurrence of RVF (3%) 26 months after DCAA. Although not significant, success rate

was higher in case of DCAA with diverting stoma (20/22, 91%) than without (4/6, 67%) ($P = 0.191$).

Conclusion: In case of postoperative RVF, DCAA is a safe option which can avoid definitive stoma in the majority of patients. Concomitant use of a temporary stoma could slightly increase success rate.

Disclosure of Interest: None declared

PO-176 | PROGNOSIS OF UNRESECTABLE STAGE IV COLON CANCER WITH PRIMARY TUMOUR RESECTION. A MULTICENTER STUDY OF NEWLY DIAGNOSED MINIMALLY OR ASYMPTOMATIC UNRESECTABLE METASTATIC STAGE IV CARCINOMA OF COLON

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Aim: To determine the factors affecting survival of patients with unresectable stage IV colon cancer with Primary tumour resection (PTR) as first treatment compared with those with conventional palliative chemotherapy.

Method: Patient with minimally or asymptomatic stage IV colon cancer at diagnosis were identified from prospectively managed database in included centers from 2015 to 2020. Patient with and without PTR performed were followed up. Primary end point was overall survival. Risk factors affecting survival will be analysis by Kaplan Meier statistics and Cox regression analysis. Secondary outcome will be stoma formation, complication rate and reoperation.

Results: 162 patients were included in analysis. 68 patients treated with systemic therapy PTR and 94 patients with tumour in-situ before systemic therapy. Baseline demographics including sex, age, functional status, tumour location, site of metastasis, RAS status were similar except there was slightly more liver metastasis on non-resection group (63.2% vs 79.8%). Cox regression analysis found PTR (HR 0.485, 0.302 -0.778, $P = 0.003$), bone metastasis (HR 3.163, 1.146 -6.918, $P = 0.004$) commencement (HR 0.579, 0.345 - 0.971, $P = 0.038$) and completion of systemic therapy (HR 0.310, 0.178 - 0.539, $P = 0.000$) are independent factors predicting survival. The overall survival after PTR vs tumour in-situ is 41.9(21.0-62.9) vs 16.7(13.5 -19.9) months ($P = 0.000$).

Conclusion: Resection of primary tumour is an independent good prognostic factor in relatively asymptomatic stage IV CA colon patients with unresectable metastasis. Resection should be considered as long as the procedure is straight forward and do not impose significant morbidities with careful patient selection.

Disclosure of Interest: None declared



PO-177 | TRANSANAL TRANSECTION AND SINGLE-STAPLED ANASTOMOSIS (TTSS): A COMPARISON OF ANASTOMOTIC LEAK RATES WITH THE DOUBLE-STAPLED TECHNIQUE AND WITH TRANSANAL TOTAL MESORECTAL EXCISION (TATME) FOR RECTAL CANCER

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Aim: In the literature on rectal cancer (RC) surgery many studies have focused on the quality of total mesorectal excision (TME) dissection, while there is a scarcity of comparative data on transection and anastomosis¹⁻⁷. No anastomosis has so far proved superior to any other. The aim of this study was to compare anastomotic leak (AL) rates between conventional laparoscopic double-stapled (DS), transanal total mesorectal excision (TaTME) and Transanal Transection and Single-Stapled anastomosis (TTSS) techniques.

Method: Consecutive mid-low RC patients undergoing elective laparoscopic TME with stapled anastomosis and protective stoma, by either DS, TaTME or TTSS techniques were retrieved from a prospectively collected database.

Results: Of 743 RC operated between January 2015-August 2020, 277 were selected (127 DS; 100 TaTME; 50 TTSS). Demographics, distance of the tumor from anal verge and neoadjuvant therapy were comparable. Operative time was longer in TaTME over DS and TTSS ($P < 0.0001$). More 90-days complications occurred in DS group vs TTSS ($P = 0.029$). The AL rate was 17.5% in DS, 6% in TaTME and 2% in TTSS group ($P = 0.005$). In TTSS AL grade was B (2%); in TaTME 2 grade B (2%) and 4 grade C (4%) AL occurred; in DS 6 grade A (4.7%), 7 grade B (5.5%) and 9 grade C (7.1%) AL were reported. Reintervention rate after AL was higher in DS group over TTSS (12.6% vs 2%; $P = 0.003$). The rate of stoma closure, pathology data and margin positivity did not differ.

Conclusion: TTSS strategy is feasible, safe and leads to very low AL rates after TME for RC.

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Disclosure of Interest: None declared

PO-178 | PERITONEAL CANCER INDEX-IMMUNOSCORE IN CYTOREDUCTIVE SURGERY AND HYPERTHERMIC INTRAPERITONEAL CHEMOTHERAPY

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Aim: PCI-Immunoscore system can translate a complex clinical situation into a simple point value to foresee/improve postoperative outcomes. This study was aimed to investigate the prognostic impact of combined PCI-Immunoscore in patients treated with CRS/HIPEC.

Method: 424 patients of the prospectively maintained database of Dokuz Eylul University Peritoneal Surface Oncology Center were analyzed. In addition to the well-known clinicopathologic factors, modified Glasgow Prognostic Score(mGPS), CRP-Albumin Ratio(CAR), Neutrophile-Lymphocyte Ratio(NLR), thrombocyte count, and Neutrophile-Thrombocyte Ratio(NTR) were all searched and stratified in scoring categories as prognostic determinants of surgical complications and final oncologic outcomes.

Results: There were 314(74%) female patients. Median age was 56 year(ranging, 18 to 86yrs). The median follow-up was 37.8(ranging, 1 to 124)mos. The overall survival was 51.7%. The 1-yr, 3-yr, and 5-yr survival rates were estimated as 81.1%,58.1%, and 46.5%, respectively. The number of resected organs($P = .001$), ICU stay($P = .011$), and the mGPS(1&2) scoring categories were significantly associated with overall morbidity($P = .001$). Dindo-Clavien III-IV morbidity was significantly associated with the number of resected organs($P = .003$) and mGPS(1&2)($P = .002$). Incomplete cytoreduction(CC-1&2)($P = .001$), PCI($P = .005$), and neoadjuvant chemotherapy($P = .001$) were powerful independent determinants for the recurrent peritoneal disease. Anastomotic leak($P = .002$), completeness of cytoreduction ($P = .0014$), number of organ resection ($P = .002$), the lymph node involvement($P = .003$), and all of the combined PCI-CAR-NT(1-3) scoring categories($P = .001$) were found to be robust prognostic factors for overall survival.

Conclusion: Staging the host by combining the PCI with an immunoscore may help to assess/monitor/improve the complications and oncologic outcomes in these complex cancer patients. The aggregate maximum PCI-Immunoscore tool may be a better prognostic measure for outcome evaluation.

Disclosure of Interest: None declared

PO-179 | RETROSPECTIVE ANALYSIS OF QUANTITATIVE FAECAL IMMUNOCHEMICAL TESTING (qFIT) LEVELS IN COLORECTAL MALIGNANCY DURING THE COVID-19 PANDEMIC, AND CORRELATIONS BETWEEN qFIT VALUE AND SITE OF NEOPLASIA

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Aim: Routine endoscopic services were significantly reduced in response to the COVID-19 pandemic. As a response, two-week-wait referral for patients with rectal bleeding suspicious of colorectal cancer, incorporated qFIT as a tool to identify patients that may require further investigation. This study aimed to analyse the accuracy and sensitivity of qFIT as a tool to identify malignant colorectal neoplasia. Correlations between qFIT, anatomical site of neoplasia and haemoglobin status (Hb) was similarly considered.

Method: Participants were included if they had confirmed colorectal adenocarcinoma or adenoma detected via the two-week-wait referral system alongside a qFIT score. A qFIT score of $\geq 10\text{mg/g}$ was interpreted as positive. Exclusion criteria included anal cancers, neuroendocrine cancers, small bowel tumours and participants without a qFIT level. Participants with polyps and confirmed rectal, sigmoid and/or colonic cancer were included. Haemoglobin level at diagnosis, colonoscopy report and histological outcomes were analysed.

Results: 3664 patients were referred in on the two-week-wait pathway in 2020. Of these 372 (10%) were coded as having a gastrointestinal tumour or polyp cancer diagnosis. 119 (32%) of participants fulfilled the criteria to be amenable for review. Of these 10 (8.4%) participants only had a polyp, while 109 (91.6%) participants had colorectal adenocarcinoma +/- polyps. A total of 12 (11%) participants with colorectal adenocarcinoma had a qFIT level of $\leq 10\text{mg/g}$, with 2 (16%) of these having concurrent anaemia. There was no demonstrable level of qFIT that correlated with right versus left sided colonic tumours.

Conclusion: Symptomatic patients with a qFIT of $\geq 10\text{mg/g}$ should undergo further investigation for malignant colorectal neoplasia. This study found that qFIT did not reliably predict the site of neoplasia. A qFIT of $\leq 10\text{mg/g}$ was present in 11% of participants with colorectal adenocarcinomas and is therefore not a sensitive tool in excluding colorectal neoplasia.

Disclosure of Interest: None declared

PO-180 | THE IMPACT OF THE GERIATRIC SURGICAL LIAISON SERVICE ON MORTALITY RATES IN ELDERLY PATIENTS UNDERGOING ELECTIVE MAJOR COLORECTAL CANCER RESECTION

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Aim: A number of service-related factors may contribute to peri-operative mortality in elderly surgical patients. Our Centre, a large teaching hospital with a high volume of colorectal cancer resections, introduced an embedded Geriatric Surgical Liaison Service (GSLS) in 2013. In this study, we compare patient mortality rates before and after establishment of the service to identify its impact on patient outcomes in colorectal cancer surgery.

Method: We identified patients undergoing major elective colorectal cancer resection between November 2013 and May 2020 from a Teaching Hospital single-centre cancer database. Patients were stratified into > 80 and < 80 year groups. Primary outcome measures were postoperative 30-day, 90-day, and 1-year mortality. Results were compared to outcomes prior to the introduction of the GSLS to investigate to what extent this influenced mortality rates in the elderly.

Results: 1140 patients underwent elective major colorectal cancer surgery. Of these, 340 (29.8%) were > 80 years, and 800 (70.2%) were < 80 . 55 patient records (4.82%) were excluded due to incomplete records. In the < 80 group, 30-day mortality was 0.88% vs 4.12% for the > 80 cohort. 90-day mortality was 2.63% and 6.47% respectively, whereas 1-year mortality was 6.88% vs 12.94%. We compared our findings to a previous study with similar patient demographics from our centre, prior to the introduction of GSLS. We found a significant reduction in mortality across all age groups, with a reduction at 1-year from 9.74% to 6.88% ($P = 0.013815$) in the under 80s, but the reduction was most pronounced in the over 80s after the introduction of GSLS (from 24.89% to 12.94%, $P = 0.000135$).

Conclusion: There has been a general improvement in mortality outcomes from elective major colorectal cancer surgery in our Centre over the period investigated. This was most pronounced in the elderly patient cohort after the introduction of the GSLS, highlighting its effectiveness in improved peri-operative care.

Disclosure of Interest: None declared

PO-181 | INCIDENCE OF COLORECTAL CANCER FOLLOWING DETECTION OF ADVANCED ADENOMA

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Aim: To assess the incidence of cancer within 5 years following polypectomy for advanced adenomas, over 20mm in size.



Method: A retrospective review of a cohort of patients who had advanced adenomas detected between 2012 and 2014. Data collected included demographic factors, lifestyle factors and data from the endoscopy and pathology reports. Lifestyle factors included smoking, ischaemic heart disease and diabetes. This was cross-referenced against a regional cancer database of patients with minimum 5-year follow-up period.

Results: There were 11,456 polypectomies performed between 2012 and 2014, out of whom 530 patients (4.63%) had an advanced adenoma of ≥ 20 mm. The median age was 68 with a range of 21–90 years old. 60.9% of patients were male. The average BMI was 27.92. 66 patients (12.4%) had diabetes mellitus.

The left colon (46.2%) was the most common site for polypectomy, followed by 28.7% in the rectum and the remaining 25.1% in the right colon. The most common histological type was tubulovillous adenomas with low grade dysplasia (53.9%).

73 patients (13.8%) with advanced adenomas developed colorectal cancer in the subsequent 5-year period. 24 (32.9%) of these patients had cancer detected histologically from the initial polypectomy, and a further 27 patients (37%) had high-grade dysplasia detected at the initial polypectomy.

Conclusion: A small percentage of polypectomy patients had advanced adenomas. A further minority of these patients had or developed colorectal cancer in the follow-up period, but this highlights the importance of developing appropriate surveillance pathways to identify these patients.

Disclosure of Interest: None declared

PO-182 | BILE ACID MALABSORPTION IN PATIENTS WITH CHRONIC DIARRHOEA FOLLOWING RIGHT-SIDED HEMICOLECTOMY FOR COLON CANCER

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Aim: A proportion of colon cancer patients treated with right-sided hemicolectomy have documented long-term bowel dysfunction, including chronic diarrhoea, urgency and faecal incontinence, affecting their quality of life. The underlying causes are unknown. The aim of this study was to investigate the aetiology of chronic diarrhoea among right-sided hemicolectomy patients curatively operated for cancer in the right colon.

Method: Cases with chronic diarrhoea (Bristol stool type 6–7) after right-sided hemicolectomy were compared to a control group of

right-sided hemicolectomy patients without diarrhoea. All participants underwent a selenium-75 homocholeic acid taurine (SeHCAT) scan to diagnose bile acid malabsorption (BAM). A glucose breath test was performed to diagnose small intestinal bacterial overgrowth (SIBO). Fibroblast Growth Factor (FGF) 19 was measured in fasting blood. In addition, gastrointestinal transit time (GITT) was measured in all participants.

Results: In total, 45 cases and 19 controls were included. In the case group, 82% had BAM, compared with 37% in the control group, $P < 0.001$. SIBO was diagnosed in 73% of patients with chronic diarrhoea as well as in 74% of the control patients. No association between BAM and SIBO was observed. Median (interquartile range) FGF19 was 90.7 (67.9–135.8) pg/ml in cases and 93.9 (78.1–115.0) pg/ml in controls, $P = 0.894$. There was no association between SeHCAT retention and FGF19. GITT was similar in cases and controls.

Conclusion: Right-sided hemicolectomy patients with chronic diarrhoea had a higher frequency of BAM than controls, indicating that BAM plays an important role in the bowel dysfunction seen after colonic resection for right-sided colon cancer. Since BAM was frequently found in patients without diarrhoea, further studies are needed.

Disclosure of Interest: H. Larsen: None declared, K. Krogh Conflict with: GE Healthcare, M. Borre: None declared, T. Gregersen: None declared, M. Mejlby Hansen: None declared, A. Arveschoug: None declared, P. Christensen: None declared, A. Mohr Drewes: None declared, K. Emmertsen: None declared, S. Laurberg: None declared, J. Fassov: None declared

PO-183 | THE AWARENESS OF RADIOLOGISTS FOR LATERAL LYMPH NODES IN LOW, LOCALLY ADVANCED RECTAL CANCER CASES: A RETROSPECTIVE COHORT STUDY

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Aim: Enlarged lateral lymph nodes (LLNs) have been significantly related to increased lateral local recurrence (LLR) rates. Size and anatomical location should therefore always be reported by radiologists and discussed during multidisciplinary meetings. This study investigated how often LLNs were mentioned in radiology reports and were compared to an expert review.

Method: A single-centre retrospective study of 202 patients treated for primary rectal cancer between 2012–2020 in Amsterdam UMC. Patients with at least a T2 tumour located within 12cm of the anorectal junction were included. All MRI-scans were re-evaluated by a team of expert radiologists.

Results: In 113 (56%) cases, primary MRI reports did not mention the presence of absence of LLNs. In 89 (44%) reports, LLNs were mentioned; 43 cases reported that LLNs were present and absent in 46 cases. Expert-review revealed that 16 LLNs were 7mm or larger and 2 of these LLNs identified during expert-review were not mentioned in

the primary reports. Of the 43 cases with reportedly present LLNs; 2 (1%) mentioned purely the presence of LLNs, 40 mentioned varying degrees of characteristics such as size, location, malignant features, and only 1 (1%) case reported on all features. Furthermore, 17 (40%) cases with reportedly present LLNs, did not mention the response of this LLN during the restaging report. The incidence of reporting LLNs increased significantly with higher N-stage (N0: 33%, N1: 47%, N2: 62%, $P = 0.010$) and from 2018–2020 versus 2012–2017 (38% vs 52% respectively, $P = 0.042$).

Conclusion: Though improving with time, consequent reporting of LLNs is still inadequate. Only 44% of primary MRI reports stated the presence or absence of LLNs. Of the 43 cases where LLNs were reported to be present, only 1 (1%) mentioned the presence or absence all relevant features; information crucial for subsequent clinical treatment. Proper training and the implementation of reporting-templates may improve this further.

Disclosure of Interest: None declared

PO-184 | SPECIMEN EXTRACTION IN COLORECTAL CANCER SURGERY: NATURAL ORIFICE SPECIMEN EXTRACTION OR TRANSABDOMINAL SPECIMEN EXTRACTION?

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Aim: To compare natural orifice specimen extraction (NOSE) and transabdominal specimen extraction in conventional laparoscopic surgery (LAP) in terms of postoperative complications, pathological results as well as cancer recurrence and survival rates in patients with colorectal cancer.

Method: A systematic search was conducted in five electronic databases (Cochrane Library, CINAHL, EMBASE, MEDLINE, SCOPUS) from inception till October 2020. Articles were selected based on inclusion criteria and analysed using RevMan 5 and R program.

Results: Nineteen studies involving a total of 3432 participants were analysed. Pooled results showed that NOSE decreases patients' postoperative complications (OR0.54; 95%CI 0.44, 0.67; $P < 0.00001$) and postoperative pain (WMD-1.86, 95%CI -2.34, -1.38; $P < 0.00001$), improves gastrointestinal function (WMD-0.53; 95%CI -0.78, -0.28; $P < 0.0001$) and results in better cosmetic outcomes (WMD1.52; 95%CI 1.17, 1.87; $P < 0.00001$). However, NOSE was associated with prolonged operation time (WMD10.52; 95%CI 4.72, 16.31; $P = 0.0004$). Pathological outcomes of NOSE were comparable to LAP with no significant difference noted in terms of resection margins ($P > 0.05$) and lymph node harvest (WMD-0.47; 95%CI -0.94, 0.00; $P = 0.05$). Pooled analysis demonstrated comparable long term outcomes in terms of cancer recurrence (OR0.94; 95%CI 0.63, 1.39; $P = 0.75$), 5-year disease-free survival and overall survival (HR0.93, 95%CI 0.58, -1.51; $P = 0.78$).

Conclusion: NOSE is an effective surgical approach for treatment of colorectal cancer. It results in improved postoperative recovery

including lower postoperative complications with comparable oncological outcomes to conventional laparoscopy.

Disclosure of Interest: None declared

PO-185 | YOUNGER AGE AT ONSET OF COLORECTAL CANCER IS ASSOCIATED WITH INCREASED PATIENT'S DELAY

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Aim: The aim of this study was to investigate if younger age at diagnosis of colorectal cancer was associated with an increased diagnostic delay.

Method: The study-population consisted of the cohorts from two prospective multicenter studies conducted in Sweden and Denmark, QoLiRECT and QoLiCOL. These studies used questionnaires at baseline and follow-up to investigate quality-of-life in patients with rectal (QoLiRECT) and colon (QoLiCOL) cancer. For the present analysis, the baseline questionnaires were used to extract data on patient's delay, doctor's delay and first presenting symptoms. Clinical variables were retrieved from the Swedish Colorectal Cancer Registry and the Danish Colorectal Cancer Database.

Results: 2574 patients were included, 1085 from QoLiRECT and 1489 from QoLiCOL. The probability of an increased patient's delay was significantly higher when age decreased by 10 years (the standard deviation for both QoLiRECT and QoLiCOL), adjusted OR 1.19 (95%CI: 1.10; 1.30), $P < 0.001$. A similar trend was seen for doctor's delay, but the effect of age was not significant in the adjusted analysis, OR 1.05 (95%CI: 0.97; 1.15), $P = 0.177$. Younger patients had similar symptoms compared to older, and had symptoms to an equal or greater extent.

Conclusion: Younger patients had an increased probability of a delayed diagnosis of colorectal cancer, mainly attributable to an increased patient's delay. Further studies investigating the importance of a delay to diagnosis and treatment of colorectal cancer are warranted.

Disclosure of Interest: None declared



PO-186 | CONTACT X-RAY BRACHYTHERAPY FOR OLDER OR INOPERABLE RECTAL CANCER PATIENTS: SHORT-TERM ONCOLOGICAL AND FUNCTIONAL FOLLOW-UP

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Aim: Total mesorectal excision for rectal cancer is a major operation, associated with morbidity and mortality. For older or inoperable patients alternatives are necessary. This study evaluated the functional and oncological outcome, and quality of life of older or inoperable rectal cancer patients treated with a contact x-ray brachytherapy boost to avoid major surgery.

Method: Older or inoperable rectal cancer patients treated with contact x-ray brachytherapy were prospectively evaluated. During follow-up, the tumour response and toxicity on endoscopy was scored. Functional outcome and quality of life were assessed with self-administered questionnaires. Additionally, in-depth interviews regarding patients' experiences were conducted.

Results: Nineteen patients were included with a median age of 80 years (range 72–91); nine patients achieved a complete response, and in another four local control of the tumour was established. The 12 months organ-preserving rate, progression-free survival, and overall survival were 88%, 78%, and 100%. A transient decrease in quality of life and bowel function was observed at 3 months, which was generally restored back to baseline levels at 6 months. In-depth interviews revealed that patients' experience was positive despite the side-effects shortly after treatment with contact x-ray brachytherapy.

Conclusion: In older or inoperable rectal cancer patients, contact x-ray brachytherapy can be considered as an option to avoid total mesorectal excision. Contact x-ray brachytherapy is well-tolerated and can provide good tumour control.

Disclosure of Interest: None declared

PO-187 | RELATIONSHIP BETWEEN BACTERIA ISOLATED IN PATIENTS WITH ORGAN/SPACE INFECTION AND TUMOR RECURRENCE AFTER COLORECTAL CANCER SURGERY

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Aim: Organ/space infection after colorectal cancer surgery has been associated with higher recurrence rates, although the responsible mechanisms remain to be elucidated. Several studies have proven the relationship among gut bacteria and colorectal carcinogenesis, but their role on tumor recurrence has not been investigated. The

aim was to investigate microbiological culture results in patients with intra-abdominal infection after colorectal cancer surgery and its association with recurrence.

Method: Retrospective case-control study. Patients with colorectal cancer operated for cure complicated with organ/space infection were included. Patients diagnosed with local and/or distal recurrence (cases) were compared with patients without recurrence (controls).

Results: 180 patients suffered infection confirmed with positive peritoneal fluid culture. The mean age was 72.2 ± 10 years (72.2% males). Most common bacteria isolated included *Escherichia coli* (56.1%) in peritoneal fluids and *Staphylococcus* spp. (12.8%) in blood samples. After a follow-up of 5 years, 51 patients (28.3%) were diagnosed with recurrence. There were no significant differences in the microbial composition of peritoneal fluid between both groups. However, analysis of blood cultures showed that *Enterococcus* spp. was founded at a significantly higher rate in the recurrence group (7.8% vs 0.8%; $P = 0.009$).

Conclusion: Microbiological cultures after colorectal cancer surgery complicated with an organ/space infection are heterogeneous, and we could not determine an association between any particular bacterial species in peritoneal fluid and recurrence. Nevertheless, *Enterococcus* spp. in blood samples of patients with recurrence was significantly increased. Preclinical studies have shown that *Enterococcus faecalis* has tumor-promoting capabilities. The association between gut bacteria, specifically *Enterococcus* spp., and tumor recurrence should be further investigated by 16S rRNA gene sequencing.

Disclosure of Interest: None declared

PO-188 | TOTAL NEOADJUVANT TREATMENT IN LOCALLY ADVANCED RECTAL CANCER

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Aim: Conventional treatment for locally advanced rectal cancer(LARC) is neoadjuvant chemoradiotherapy(CRT) followed by total mesorectal excision(TME) and adjuvant chemotherapy. Although this regimen decreased local recurrence, distant metastasis remains to be affect overall survival(OS). Total neoadjuvant therapy(TNT) has been developed to challenge this. This study aimed to compare the effects of TNT versus CRT in patients with LARC, in terms of complete response (CR = pathological(pCR)+clinical(cCR)), OS, disease-free survival(DFS), mesorectal fascia completeness, sphincter preservation(SP).

Method: This retrospective study included LARC patients without distant metastasis. CRT group recieved long course radiotherapy

with concurrent chemotherapy. TNT group received induction cycles before RT and/or consolidation cycles after RT or both. After neoadjuvant therapy (NT), patients were restaged. Patients with a cCR were given the option of non-operative management (NOM) as endorsed by the institutional tumor board. Patients without cCR or patients who refused NOM underwent surgery. In addition, patients' demographical data, operative complications, pathology reports, disease-free survival (DFS), overall survival (OS), local recurrence (LR), and systemic recurrence (SR) data were collected and analyzed. **Results:** 192 were retrospectively analyzed. 97 (50.5%) received CRT, 95 (49.5%) received TNT. 38 patients underwent NOM. 154 patients were operated with TME, and 19 (12.4%) had pCR. CR was found to be higher in the TNT group (41% vs. 20.6%, $P = 0.004$). No significant difference was observed in pCR, sphincter preservation rate, complications, DFS, and OS. Patients with CR after NT showed better OS ($P = 0.014$).

Conclusion: TNT is associated with increased CR, pCR; comparable postoperative complications, thus, it could be safely utilized in the treatment of LARC. Further patient involvement and longer follow-up will result in more precise results.

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Disclosure of Interest: None declared

PO-189 | ORGAN PRESERVATION FOLLOWING SHORT-COURSE RADIOTHERAPY FOR RECTAL CANCER

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Aim: Non-operative management of rectal cancer is increasingly being used for selected patients. Most reports include patients treated with conventional chemoradiotherapy (CRT) before inclusion to a Watch&Wait (W&W) programme. The aim of this study was to report outcomes from a single centre W&W programme with a large proportion of patients having received short-course radiotherapy (SCRT) with or without chemotherapy.

Method: Patients treated with "pre-operative" radiotherapy according to National guidelines with signs of a clinical complete response (cCR) were assessed and followed in a dedicated W&W programme, and outcomes were prospectively registered.

Results: Of 142 patients assessed, 88 fulfilled criteria for cCR. Treatment prior to cCR was CRT, SCRT with chemotherapy and SCRT alone in 16, 28 and 44 patients, respectively. Patients treated with CRT and SCRT with chemotherapy initially had higher T- and N-stage. Overall rate of regrowth was 19% with 31%, 21% and 14% following

CRT, SCRT with chemotherapy and SCRT alone, respectively. Initial T-stage appeared associated with regrowth. All but one patient with regrowth underwent salvage surgery. Overall 3-year survival was 93% with no significant difference between treatment groups.

Conclusion: Outcomes from this W&W programme including 82% of patients having received SCRT with or without chemotherapy indicate that SCRT can play a substantial role in the era of organ preserving rectal cancer management.

Disclosure of Interest: None declared

PO-190 | LABOR MARKET ATTACHMENT TWO YEARS AFTER COLORECTAL CANCER SURGERY - A POPULATION-BASED

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Aim: Background: A rising prevalence of younger CRC survivors commands a stronger focus on labor market attachment. Sociodemographic factors are associated with CRC survivors' labor market attachment, but the association with clinical factors like type of surgery remains poorly investigated.

Aim: The aim of this study was to investigate the association between clinical/sociodemographic factors and labor market attachment, and to estimate employment probability two years after colorectal cancer (CRC) surgery.

Method: National registries provided information on employment status and clinical/sociodemographic variables for all 20–60-year-old CRC patients without previous cancer diagnosed in 2001–2014, undergoing surgery and being attached to the labor market. Associations between clinical/sociodemographic factors and labor market attachment were investigated in multiple logistic regression analyses.

Results: A total of 5,755 CRC patients were included. Two years after surgery, 59.5% were in employment. Factors significantly associated with a higher employment probability were younger age, male gender, higher educational level, no comorbidity, working at the time of surgery, lower UICC stage, and undergoing surgery in the most recent of four time periods. Two years after undergoing surgery, the employment probability was significantly higher for left- than for right-sided hemicolectomies, higher for LAR/high tumor than for LAR/low tumor, and higher for LAR/low tumor than for permanent colostomy. Among survivors (86.7%), 68.7% were in employment, 7.8% had retired, while 23.4% were on temporary benefits, sick leave, or disability pension.

Conclusion: Clinical/sociodemographic factors were associated with employment probability two years after surgery. This knowledge can be used to inform patients and target interventions towards patients with low post-CRC employment probability.

Disclosure of Interest: None declared



PO-191 | DIAGNOSTIC VARIABILITY IN THE HISTOPATHOLOGICAL ASSESSMENT OF ADVANCED COLORECTAL NEOPLASIA IN A SCREENING POPULATION

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Aim: The goal of this study was to evaluate interobserver variability between individual pathologists and a panel of pathologists in the histopathological assessment of advanced colorectal neoplasms in the Dutch bowel cancer screening population.

Method: Histological slides of adenomas with high-grade dysplasia and early colorectal carcinomas (CRC) from 20 different laboratories were reviewed by the pathology panel of the Dutch bowel screening programme. Interobserver variability was reported by descriptive statistics. In addition, potential clinical consequences of discrepancies were evaluated. Potential clinical consequences were defined as an alteration in either recommended treatment or interval of surveillance colonoscopy.

Results: A total of 104 cases of adenomas with high-grade dysplasia, and 83 early CRC were reviewed. In 41 of 104 (39.4%) adenoma cases discrepancies were observed, which potentially had clinical consequences in 19 of 104 (18.3%) cases. For CRC, discrepancies were shown in 44 of 83 cases (53.0%), and would have potentially led to alternative treatment strategies in 25 (30.1%) cases. Most frequently, discrepancies were observed in the assessment of lymphovascular invasion (23 of 73 cases, 31.5%).

Conclusion: This study shows that considerable interobserver variability is present in the histopathological assessment of advanced colorectal neoplasia, which may impact treatment strategy. Additional stains and education, as well as inter-collegial consultation might decrease this variability.

Disclosure of Interest: None declared

PO-192 | OUTCOMES OF PATIENTS REFERRED VIA THE LOWER GASTROINTESTINAL (LGI) CANCER PATHWAY WITH NON-LGI CANCER

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Aim: In the UK, referral to a colorectal specialist for investigation via a lower gastrointestinal (LGI) cancer pathway (LGIcAP) is based on age and symptom criteria. These have broadened over time to increase early cancer detection and improve survival, resulting in a

decrease in symptom and pathology specificity. This study investigates the outcomes of patients referred on a LGICaP who were subsequently diagnosed with a non LGI cancer.

Method: A retrospective analysis of all patients referred to a single UK centre on a LGICaP between 01/01/2015 – 31/12/2018 were included (audit approval 19-4481). Clinical systems were interrogated for investigations and diagnosis. Statistical analysis was performed with generalised log-rank test, statistical significance $P < 0.05$.

Results: A total of 691 cancers were diagnosed, 20% of which were non-LGI (140/691). Patients with non-LGI cancer had mean age 76 and were investigated with endoscopy (69/140; 49%) and radiological imaging (134/140; 96%). Cancer site was upper gastrointestinal (43/140; 31%); urological (21/140; 15%); haematological (21/140; 15%); gynaecological (20/140; 14%); unknown primary (12/140; 9%); lung (10/140; 7%); peritoneal/retroperitoneal (7/140; 5%) and other (Breast -3; brain -1; adrenal -1; 4%). Survival was lower in patients diagnosed with non-LGI cancer ($n = 140$; median survival 13 months (95% CI 9.1-16.9)) compared to LGI cancer ($n = 551$; median survival 49 months (95% CI - 37.2-60.8)) which was statistically significant ($P < 0.001$).

Conclusion: Patients diagnosed with non-LGI cancer were primarily investigated with radiological imaging, suggesting non-LGI specific symptoms on referral. These patients had a significantly worse survival outcome than those with LGI cancer. LGICaP referral criteria need reform to take into account the high volume of non-LGI cancers with very poor prognoses. We suggest a separate referral pathway is instituted to investigate non-LGI specific symptoms, and relieve current service pressures on the LGICaP.

Disclosure of Interest: None declared

PO-193 | ROLE OF CONSOLIDATION CHEMOTHERAPY IN DOWNSTAGING IN HIGH RISK LOCALLY ADVANCED RECTAL CANCERS: MRI BASED CLINICO-RADIOLOGICAL CORRELATION

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Aim: Patients of locally advanced rectal cancers (LARC) with persistent involvement of mesorectal fascia (MRF) on MRI, often receive 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 LARC 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 by a team of 2 dedicated

colorectal radiologists. Primary objective was to analyze the impact of consolidation chemotherapy in decreasing the involvement of MRF and the extent of predicted surgery. Secondary objective was to analyze the accuracy of change in MRI parameters in predicting the surgical plan.

Results: T2 signal intensity, quadrant of MRF involvement, involvement by primary tumor or node or extra mural venous invasion (EMVI), restriction on diffusion weighted imaging, sphincter involvement and involvement of surrounding viscera were analysed to look for a change between MRI-2 and MRI-3 to predict an overall change in the extent of predicted surgery. There was an overall decrease in parameters in 29 patients, no change in 13 patients and increase in 4 patients. There were 8 patients (17.8%) who had MRF involvement on MRI 2, which was down-staged to a negative MRF on MRI 3 after the consolidation chemotherapy. There was a decrease in the extent of predicted surgery in only 2 patients (4.34%) while no change in the predicted surgery in remaining 44 patients.

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

PO-194 | PROGNOSTIC SIGNIFICANCE OF PELVIC TUMORAL COMPLEXITY ("PETCOM") SCORE IN MULTIDISCIPLINARY MANAGEMENT OF PELVIC TUMORAL MASSES

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Aim: This study is aimed to assess the results of multidisciplinary approach in management of patients treated for unknown pelvic masses and to develop a pelvic tumour complexity score to determine the prognostic significance in surgical/final oncological outcomes.

Method: The prospectively maintained clinicopathological database of 100 patients examined for unknown pelvic tumoral mass were analyzed. The PETCOMscore was defined by combining the specific radiological evaluative parameters and perioperative surgical findings. The cut-off point of PETCOM score was determined with ROC analysis and Youden index. The cut-off values dichotomized into two patient subgroups: low vs high PETCOM scores.

Results: Colorectal resection was performed in 24%. The morbidity rates were 30 and 43%, respectively. In multivariate analysis, the PETCOM score was found to be a strong independent prognostic factor for mortality ($P = .022$), local recurrence ($P = .004$), and distant metastasis ($P = .007$). A statistically significant difference was found between the overall survival of patients with low(138.62

± 13.05 months) and high PETCOM(62.53 ± 9.25 months) scores($P < .001$).

Conclusion: The PETCOM score is a reliable and a valid prognostic and predictive factor to improve clinical morbi-mortality results and oncologic outcomes in multimodal management of unusual pelvic tumoral masses.

Disclosure of Interest: None declared

PO-195 | COST EFFECTIVENESS OF USING FAECAL IMMUNOCHEMICAL TESTING (FIT) AS AN INITIAL DIAGNOSTIC INVESTIGATION FOR PATIENTS WITH LOWER GASTROINTESTINAL SYMPTOMS SUGGESTIVE OF MALIGNANCY

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Aim: There has been an increase in the number of patients presenting to primary care with suspected colorectal malignancy and subsequently an increase in demand for endoscopy. This study aims to forecast the cost of faecal immunochemical testing (FIT) compared to conventional diagnostic tests as a primary investigation for patients with symptoms suggestive of colorectal malignancy.

Method: Retrospectively, 1950 patients who were referred through primary care and underwent investigations through standard endoscopic evaluation were included. These patients were used to forecast the cost of FIT creating theoretical data for sensitivity and specificity. Outcome measures included: the number and cost of investigations under current protocol; number of predicted false negatives and false positives and positive/negative predictive values using current sensitivity data for FIT; the cost forecast of using FIT as the primary investigation for colorectal malignancy.

Results: A total of 1950 investigations were carried out with a diagnostic yield of 26 cancers, 138 polyps and 29 high risk adenomas. In total, £713,948 was spent on the investigations, most commonly colonoscopy totalling £533,169. The total cost per cancer diagnosis was £27,459. Sensitivity (92.1% CI 86.9–95.3) and specificity (85.8% CI 78.3–90.1) for FIT in colorectal cancer was taken from NICE and was costed via the manufacturer(s). The projected total cost of FIT for the same population using a ≥ 4 μg haemoglobin cut off was £415,680 (£15,554 per cancer). The total cost of high-risk polyps using ≥ 4 μg cut off was £404,427 (sensitivity 71.2% CI 60.5–87.2, specificity 79.8%CI 76.1–83.7) or £13,945 per polyp.

Conclusion: FIT is a cheaper and effective alternative test with the potential to replace current expensive methods. The forecast is based on the limited data available for sensitivity/specificity in the current literature. FIT has now been commenced for symptomatic patients in the UK and therefore sensitivity may change in the future.

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Disclosure of Interest: None declared**PO-196 | THE MANAGEMENT OF RETRORECTAL TUMOURS – A TERTIARY CENTRE RETROSPECTIVE CASE SERIES**

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Aim: Tumours of the retrorectal space are uncommon, pathologically heterogeneous, and difficult to diagnose, with ongoing controversy over their surgical management. The aim of this study was to evaluate the surgical management of a consecutive series of patients who had undergone excision of primary retrorectal tumours (PRRTs) at a tertiary referral centre.

Method: Patients were identified from a prospectively maintained database between 01/03/2001–31/12/2019. Electronic patient records were reviewed for demographics, preoperative imaging, operative details, histology and follow-up. A Chi-squared test was used to assess the statistical significance of findings.

Results: 136 patients were included in the study. 97 patients were female (71%), 46 patients (33.8%) presented incidentally and 92 of the patients had tumours located below S3 (67.6%). 70 patients underwent a transperineal approach (51.5%) with the most common findings of a tailgut cyst occurring in 50 (36.8%) cases. Pre-operative MRI predicted uro-vascular and pelvic sidewall involvement assessed intraoperatively with a sensitivity of 83.3% and 75% and a specificity of 99.2% and 98.4% respectively. Risk of malignancy in solid tumours was 32.1% versus 8.8% in cystic tumours (RR 3.7, 95% 1.6–8.2 $P < 0.001$). Major complications (CDC Grade 3 and above) occurred in 9 patients (6.6%) and all-cause mortality was 5.1% (7 patients).

Conclusion: With rigorous preoperative planning, PRRTs can be safely excised with minimal complications in specialised centres by surgical teams with the relevant expertise. This study questions the conservative management of cystic tumours and given the risk of solid tumour malignancy, supports surgical management.

Disclosure of Interest: None declared

**PO-197 | INTERNATIONAL SOCIETY OF UNIVERSITY
COLORECTAL SURGEONS SURVEY OF SURGEONS'
PREFERENCE ON RECTAL CANCER TREATMENT**

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Aim: The purpose of this survey was to assess the personal opinion of active practicing surgeons on rectal cancer treatment if he/she was the patient.

Method: A panel of International Society of University Colon & Rectal Surgeons (ISUCRS) selected ten questions that were included in a questionnaire that included other items including demographics. The questionnaire was distributed electronically to ISUCRS fellows and other surgeons included in our database and remained open from April 16 to 28, 2020.

Results: One hundred sixty-three specialists completed the survey. The majority of surgeons chose the minimally invasive (laparoscopic) surgery for their personal treatment of rectal cancer (39.88). For low lying rectal cancer T1 and T2 the treatment choice was standard chemoradiation + local excision (36.81%) followed by local excision ± chemoradiotherapy if needed (33.74%). In regards to locally advanced low rectal cancer T3 or greater, the preference of the responders was for laparoscopic surgery. We found a statistically significant relationship between surgeon's age and their preference for minimally invasive techniques demonstrating an aged based bias senior surgeons' inclination towards open approach.

Conclusion: Our survey reveals an aged based preference by surgeons for minimal invasive surgical techniques as well as organ preserving techniques for personal treatment of treating rectal cancer. Only 1/4 of specialists do adhere to the international guidelines treating early rectal cancer.

Reference: -

Disclosure of Interest: None declared

**PO-198 | UNIVERSAL TUMOR SCREENING FOR LYNCH
SYNDROME: IMPLEMENTATION IN AN ITALIAN TERTIARY
REFERRAL CENTER**

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Aim: The diagnosis of Lynch syndrome (LS), the most common form of hereditary colorectal cancer (CRC), is confirmed by genetic testing. The clinical suspicion of LS is unreliable and the universal

genetic testing is still too expensive, so patients are best selected by an universal tumor screening (UTS) program. The aim of our study is to evaluate the yield of UTS in a colorectal unit in Italy, where it has been poorly incorporated in clinical practice

Method: we retrospectively applied a UTS protocol (MMR proteins IHC on tumor tissue, BRAF determination on tumors MLH-1 / PMS-2 deficient, and genetic counseling for selected patients) to all patients operated on for CRC in the Colorectal Surgery Unit, Pisa Hospital, during the 4 years' period 2016 – 2019. Candidates for genetic counseling were informed about Lynch syndrome and genetic testing with its personal/familial implications. Patients with a polyposis syndrome or a known LS were excluded

Results: of 647 consecutive CRC patients (359 males, mean age 69±12), microsatellite status was obtained in 586 (91%): 17% (n = 99) showed MSI. Seventy-two were MLH-1 – PMS-2 deficient, and BRAF was wild type in 30 (42%). 27 patients were MSH2-MSH6 deficient or showed other combinations of missing MMR proteins. So 57 subjects (9,7% of those submitted to UTS) were candidates for genetic counseling. When contacted for genetic referral, 13 were not evaluable (one was lost to follow-up, five were dead, and seven refused genetic counseling). Among the remaining 44 (77%), 19 are still waiting the pre-test evaluation by medical genetists, 16 had no genetic abnormalities, and 9 were confirmed to have LS

Conclusion: our data confirm that this UTS program is efficient and cost effective in diagnosing LS in patients with CRC. Our (partial) results already more than doubled our yearly diagnostic rate. The institution of dedicated multidisciplinary management pathways and international networks are mandatory to allow an individualized approach to LS patients and relatives

Disclosure of Interest: None declared

**PO-199 | PATTERNS OF RECURRENCE IN ANAL SQUAMOUS
CELL CARCINOMA**

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Aim: Anal squamous cell carcinoma (ASCC) is increasing in incidence, but survival outcomes have improved little over recent decades. Conventional treatment is with "one size fits all" chemoradiotherapy (CRT) with no defined clinical follow-up regimen. Studies addressing treatment based on stage are ongoing, but patterns of recurrence are not well described. This study aimed to describe the site and timing of recurrence in ASCC and its associated predictors.

Method: Consecutive patients undergoing CRT (intensity-modulated from 2013 onwards) with curative intent for ASCC at a tertiary centre between June 2007 and Feb 2019 were included. Clinical parameters, including timing and location of recurrence, were recorded on a prospective database. Statistical analysis, including Cox regression for survival endpoints, was conducted using Stata software.



Results: Of 247 included patients, 182 (73.7%) were female and the median age was 61 years. Median follow up was 51 months and 36 patients (14.6%) had perianal tumours. The five-year local relapse free survival, disease free survival and overall survival were 77.5%, 66.6% and 72.8% respectively. Local recurrences (LR) developed in 39 patients (15.8%) and distant recurrence (DR) in 22 patients (8.9%). Five LRs (12.8%) developed in the low dose radiotherapy field and two LRs (5.1%) outside the field at a median of 21 and 30 months, respectively. 32 patients (82.0%) developed LRs outside the high dose field at a median of 13 months. No LRs outside the high dose field occurred in patients with perianal tumours. Nodal disease at presentation in the inguinal ($P = 0.05$) and external iliac lymph node chains ($P = 0.037$) were the only factors associated with DR.

Conclusion: Survival outcomes were favourable with most LRs developing within the high dose field. LRs outside the high dose field tended to present later, suggesting that ongoing MRI pelvis may be warranted. Ongoing whole-body CT surveillance should also be considered in high-risk nodal disease.

Disclosure of Interest: None declared

PO-200 | PROSPECTIVE STUDY EVALUATING THE ROLE OF PET CT IN RECTAL CANCER PATIENTS WITH LATERAL PELVIC NODES

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Aim: Whether lateral pelvic lymph nodes represent metastatic disease or not remains the principal driving philosophy in the global variations for their management in rectal cancers. We attempted to provide some resolve by determining disease upstaging by PET CT in these patients.

Method: Prospective, single center, single arm study of consecutive patients of rectal cancer within 10cm from the anal verge that had baseline lateral pelvic nodes on MRI ($> 10\text{mm}$) between February 2017 to December 2018. All eligible patients underwent PET CT after confirming non-metastatic status on CT of thorax and abdomen. Primary outcome measure was additional M1 stage detected on PET CT.

Results: 44 patients were included and the concordance between MRI and PET in detection of lateral nodes was 97.7% (43 patients). Additional (extra-pelvic) sites of metastasis were detected in 5 patients (11.36%) and there was a change in treatment plan in 7 (15.9%). The number needed to treat (NNT) for PET scans to detect additional metastatic sites and change treatment were 8.8 and 6.3 respectively. There was a change in treatment intent (curative to palliative) in 2 patients (4.5%, NNT = 22.2). All patients received neoadjuvant treatment and 23 (52.7%) underwent curative surgery. At a median follow up of 31 months, 2-year DFS and OS were 47.5% and 54.5% respectively for the entire cohort and 71.1% and 82.4% for those that underwent surgery.

Conclusion: Conventional threshold for NNT were not met (NNT < 5) for PET scans to be incorporated into routine staging investigations in patients with MRI detected lateral pelvic nodes.

Disclosure of Interest: None declared

PO-201 | IMPACT OF PERINEAL HEALING ON ONCOLOGICAL OUTCOME FOLLOWING SURGERY FOR SQUAMOUS CELL CARCINOMA OF THE ANUS

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Aim: Perineal wound complication following salvage surgery in anal cancer are common. It is not known if healing disorder impact oncological outcomes. This study aims to investigate survival in relation to perineal healing status at three months after surgery.

Method: Patients and Methods: A retrospective cohort study including all patients with squamous cell anal cancer operated between January 2005 and December 2015 in Stockholm, Sweden was undertaken. Data collection was by registers and supplemented by chart review. All patients were followed until death or December 31, 2020. Perineal healing status at three months was used as landmark. Association between healing status and recurrence free (RFS) and overall survival (OS) were evaluated using Cox proportional hazard regression model.

Results: Results: Final study population was 95 patients (64 women). At the landmark date, 59 patients (62%) had a healed perineum and 36 patients (38%) had an unhealed perineum. R0 resection rate was 93% (88 patients). Follow-up ranged between 6 and 185 months. 5-year OS for all patients was 61%. OS was 68% vs. 51% and DFS was 65% vs. 43% for patients with healed vs. unhealed wound at landmark date, respectively. Healing status was significantly associated with OS in univariable analysis and RFS showed a trend ($P = 0.057$) in the same direction. In a multivariable analysis adjusting for age, gender and T-stage the trend, albeit statistically non-significant, remained for both OS (HR = 0.68, 95% CI: 0.36–1.30) and RFS (HR = 0.81, 95% CI: 0.42–1.55).

Conclusion: Conclusion: The hypothesis that an unhealed perineal wound following salvage surgery for patients with squamous cell anal carcinoma not only constitutes a surgical but also an oncological problem is strengthened by this study.

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PO-202 | LOOP-ILEOSTOMY REVERSAL IN A 23-HOUR STAY SETTING IS SAFE WITH HIGH PATIENT SATISFACTION

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Aim: The aim of the study was to evaluate the safety and patient experiences of loop-ileostomy closure following discharge within 23 hours.

Method: This was a prospective pilot study of patients with rectal cancer who received a diverting loop-ileostomy. Patients were included consecutively. The inclusion of patients in this study began in August 2015 and closed in June 2019. A historical cohort was used as control group.

Patients followed ERAS principles. Loop-ileostomy closure was performed using a circumstomal technique. In the morning after the operation at the post operative care unit, the surgeon checked vital parameters and the patient's clinical status. If patients met discharge criteria (within 23 hours of surgery), they were discharged.

Patients were followed up on the third, seventh, and 30th postoperative day and phoned daily during the first week. During the first 6 days after surgery, patients registered if they felt anxious or neglected, if hospitalization would have been a better option, and if they would recommend this procedure to other patients. The patients were asked to rate their experience.

Results: In total, 30 patients (median age, 67 years; range, 41–79 years) were included. All patients met discharge criteria and were discharged within 23 hours of surgery, except one. In total, seven patients (23%) were admitted. Two of these patients underwent laparotomy because of anastomotic leakage and small bowel obstruction, respectively. The mean total length of stay was 1.7 days. Most patients (87%) were satisfied with the treatment without feeling neglected or anxious and preferred the 23-hour stay setting. In the control group, the mean length of stay was 5 days. Seven patients (23%) were readmitted. Two of these patients underwent laparotomy because of small bowel obstruction and abscess, respectively.

Conclusion: Ileostomy closure in a 23-hour stay setting in selected patients with meticulous follow up is feasible and safe with high patient satisfaction.

Disclosure of Interest: None declared

PO-203 | ARE EARLY ONSET COLON CANCERS ASSOCIATED WITH WORSE OUTCOMES?

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Aim: It is known that early onset colorectal cancers have advanced stage at presentation, biologically aggressive phenotype, familial predisposition to cancers with more microsatellite instability (MSI-H) and are treated more aggressively with adjuvant chemotherapy. However, if age can be used as an independent prognostic factor for outcomes when controlled for conventional risk factors is not known.

Method: Single center, retrospective cohort of consecutive colon cancers (> 15cm from anal verge) that underwent surgery between June 2013 and April 2018. Multivariable cox regression analysis with backward elimination using likelihood ratios for selecting variables was performed to determine factors influencing disease free survival including all baseline, pathological and treatment variables.

Results: 633 patients were included with 206 early onset cancers (45 years). Younger patients were associated with more poorly differentiated histology (30.1% vs. 20.1%; $P=0.012$), less comorbidities (20.9% vs. 51.3%; $P < 0.0001$), lower surgical complications (7.3% vs. 11.2%;

$P < 0.0001$) and higher MSI-H status (55.3% vs. 43.8%) while other tumour, pathological and treatment parameter were not different. At a median follow up of 48 months, 104 patients had recurrences with 5-year DFS of 79.5% vs. 76.2% ($P=0.585$) and 5-year OS of 90.2% vs. 84.2% ($P=0.058$) for early and late onset cancers respectively. In multivariate analysis, only sidedness (right colon; HR-1.845), positive family history (HR-2.45), increasing T and N stage predicted worse DFS. Age, MSI status, histology and receipt of adjuvant chemotherapy did not influence DFS when controlled for other factors.

Conclusion: In operated patients of colon cancers, younger age was not independently prognostic for outcomes when controlled for traditional risk factors.

Disclosure of Interest: None declared

PO-204 | OCCULT ADENOCARCINOMA IN ADENOMAS. POSSIBILITIES OF DIAGNOSTIC METHODS

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Aim: to analyze the diagnostic value of the digital rectal examination, colonoscopy, MRI and ERUS for detecting occult adenocarcinoma in rectal adenomas

Method: the study included 100 patients with newly identified epithelial rectal neoplasms, which undergone transanal endoscopic microsurgery from December 2019 to December 2020. All the patients underwent digital rectal examination, colonoscopy, ERUS with sonoelastography, and pelvic MRI. The diagnostics value of this methods was estimated with determination of sensitivity and specificity.

Results: the study included 67 (67%) females and 33 (33%) males. The mean age of the patients was 64.4 ± 10.7 years. The median distance from the tumor to the anal verge was 6.0 ± 2.9 cm. The sensitivity of the digital rectal examination in the occult malignancy verification was 0.44 (95% CI: 0.24–0.65), specificity – 0.93 (95% CI: 0.85– 0.97). The sensitivity of the colonoscopy – 0.56 (95% CI: 0.34–0.75), the specificity – 0.84 (95% CI: 0.73–0.91). The sensitivity of MRI – 0.40 (95% CI: 0.21–0.61), specificity – 0.89 (95% CI: 0.80–0.95). The sensitivity of ERUS was 0.48 (95% CI: 0.27–0.68), the specificity – 0.73 (95% CI: 0.61–0.82). Pair wise comparison of diagnostic methods revealed the absence of significant differences in their diagnostic value ($P > 0.05$).

Conclusion: at least one of diagnostic methods allows to verify the presence of malignant transformation in 100% of cases. So, only combination of diagnostic methods can help to choose the optimal treatment option.

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- Disclosure of Interest:** None declared

PO-205 | SEQUENTIAL GROUP ANALYSIS OF LATERAL PELVIC LYMPH NODE DISSECTIONS FOR RECTAL CANCERS FROM A SINGLE CENTER

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Aim: The radicality of lateral pelvic node dissections (LPLND) have increased over time with a simultaneous reduction in size thresholds for baseline nodes to be considered metastatic. We aimed to analyze the short-term outcomes of the influence of increasing experience in LPLND.

Method: Retrospective analysis of sequential groups of 30 patients each who underwent LPLND for persistent nodes (> 4mm) after neoadjuvant radiation for rectal cancers between January 2014 to March 2021.

Results: 120 patients with 4 groups of 30 patients each were included. Median age was 44 years and majority received long course chemoradiation (90.5%) with a decreasing use of consolidation chemotherapy with time ($P=0.052$). Adoption of minimally invasive approach increased significantly between groups (Groups 1–4: 20%, 60%, 53.3% & 81.8% respectively, $P < 0.001$). No significant differences in blood loss (median – 650ml), hospital stay (median – 9 days) and post-operative complications (> grade II – 15.9%) were noted. Although there was no clinically significant increase in nodal yield,

proportion of pathologically positive nodes increased from 10% in group 1 to 33% in group 4 ($P=0.077$). At a median follow up of 22 months, 9 local recurrences were recorded providing a 2-year local recurrence free survival of 93.8% and overall survival of 87.3%.

Conclusion: Increasing experience in LPLND allowed comparable peri-operative and short-term oncological outcomes despite the concurrent increase in the extent of dissection and use of minimally invasive approaches.

Disclosure of Interest: None declared

PO-206 | THE IMPACT OF NARROW AND INFILTRATED DISTAL RESECTION MARGIN IN RECTAL CANCER OUTCOMES: A SYSTEMATIC REVIEW AND META-ANALYSIS

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Aim: Delineate the impact of narrow and microscopically infiltrated margins detected on paraffin examination after radical surgery for rectal cancer on the recurrence, disease free and overall survival of the patients.

Method: The authors systematically reviewed all published literature with specific Mesh terms till the end of year 2019. Thereafter, retrieved articles were assessed using Newcastle-Ottawa scale and metaanalysis was conducted comparing local recurrence among 1cm, 5mm and narrow (< 1mm)/infiltrated margins.

Results: 39 articles were included in the study. Macroscopic distal margin < 1cm carried a higher incidence of recurrence for those who did not receive neoadjuvant radiation, without affecting neither overall nor disease free survival. Less than 5mm margin after radiation therapy is accepted oncologically. Infiltrated margins and narrow margins (< 1mm) microscopically are associated with higher incidence of local recurrence, shorter overall and disease-free survival.

Conclusion: Surgeons should aim at 1cm safety margin in radiotherapy naïve patients and microscopic margin free lance > 1mm for those who received neoadjuvant therapy. The cost/benefit of reoperation for patients with infiltrated margins is still inadequately studied.

Disclosure of Interest: None declared

PO-207 | ARE TUMOUR LENGTH AND HEIGHT FROM ANAL VERGE PREDICTORS OF RESPONSE OF LARC TO CRT? A SUB-ANALYSIS OF THE TRIGGER FEASIBILITY STUDY

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Aim: To assess the relationship between tumour length/tumour height from anal verge and response to neoadjuvant

chemoradiotherapy as defined by the magnetic tumour regression grade (mrTRG) in patients with locally advanced rectal cancer (LARC) enrolled in the TRIGGER feasibility study

Method: The TRIGGER trial is a multicentre randomised control trial. The feasibility study incorporated the first 96 randomised (2:1) patients. Patients with MRI defined LARC, 0–15cm from the anal verge, treated with CRT (45–55Gy) were eligible. mrTRG was available for 94 patients within the feasibility study. The median tumour length and tumour height was compared between good responders (mrTRG I/II) and poor responders (mrTRG III-V). The potential predictive relationship between tumour length and height from anal verge (as described on baseline pre-CRT MRI) with mrTRG response on post-CRT MRI was assessed using the Mann-Whitney U test.

Results: 43 patients (46%) had a good response and 51 (54%) a poor response to CRT as defined by mrTRG. Median tumour length (range) in those with a good response was 4.3cm (1.0–7.3) and 5.0cm (2.8–9.6) in those patients with a poor response. Although the relationship between tumour length and mrTRG assessed response to CRT was statistically significant ($P = 0.0003$) there was considerable overlap in tumour length between those who had a good response and those with a poor response to CRT. The median tumour height (range) from anal verge in those with a good response was 6.3cm (1.8–12.3) and 6.6cm (1.0–14.0) in those with a poor response ($P = 0.534$).

Conclusion: The overlap in tumour lengths between response groups suggests tumour size alone cannot predict response to CRT. We therefore cannot advocate those with smaller tumours being offered CRT solely in the hope of achieving a complete response where the patient would otherwise have been managed with surgery alone. No significant relationship was found between tumour height from anal verge and response to CRT.

Disclosure of Interest: None declared

PO-208 | MRTRG INTER-OBSERVER AGREEMENT WITHIN THE TRIGGER FEASIBILITY STUDY

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Aim: Rectal cancer tumour response to neoadjuvant chemoradiotherapy (CRT) can be assessed using magnetic resonance tumour regression grade (mrTRG) by comparing pre- and post-CRT MRI scans. mrTRG evaluates the ratio of tumour to fibrosis on standard high-definition MRI sequences and rated I-V with mrTRG I complete radiological response (linear scar only) and mrTRG V no response/regrowth of tumour.

The TRIGGER trial is a multicentre randomised control trial using mrTRG as an imaging biomarker to stratify management of patients with locally advanced rectal cancer (LARC).

Results of inter-observer mrTRG agreement between the site radiologists participating in the TRIGGER feasibility study and a central reviewer are presented here.

Method: For a site to participate in the TRIGGER feasibility study a nominated gastrointestinal radiologist from that site was required to attend a TRIGGER trial specific MRI reporting workshop. Following this training, each radiologist assessed the mrTRG on a training set of 29 LARC cases. These results were then compared with the assessment made by the central reviewer and agreement between the two observers determined by kappa calculation. $\kappa < 0$ poor agreement; $\kappa 0-0.20$ slight agreement; $\kappa 0.21-0.40$ fair agreement; $\kappa 0.41-0.60$ moderate agreement; $\kappa 0.61-0.80$ substantial agreement; $\kappa 0.81-1.00$ almost perfect agreement.

Results: Seven UK sites participated in the TRIGGER feasibility site with six GI radiologists in addition to the central reviewer. Kappa scores ranged from 0.55–0.86 with two radiologists sharing almost perfect agreement with the central reviewer; two substantial agreement and two a moderate level of agreement. Radiologists with moderate level of agreement with the central reviewer were offered further central support and training.

Conclusion: mrTRG is a reproducible tool to assess the response of LARC to CRT. With appropriate training and support the assessment of mrTRG is a skill that can be learnt by GI radiologists.

Disclosure of Interest: None declared

PO-209 | ENDOSCOPIC TATTOOING OF COLONIC LESIONS BEFORE SURGERY. WHICH IS THE MOST EFFECTIVE TECHNIQUE TO IMPROVE TUMOR LOCALIZATION?

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Aim: Localizing a colonic lesion after endoscopy diagnosis is sometimes challenging during surgery. Tattooing may ease its identification, but there is not enough evidence on which marking technique is the most appropriate. The aim of this study is to assess which technique might be best to increase location.

Method: Prospective, randomized pilot study from January 2016 to December 2018. Patients eligible for colorectal surgery were randomized into Group I (2 tattoo marks with 1ml of Chinese ink), G II (3 tattoo marks with 1ml), G III (2 tattoo marks with 1.5ml) G IV (3 points with 1.5ml). The effectiveness of intraoperative lesion localization was evaluated.

Results: 189 patients with a mean age of 70.1 years (SD 10.8); men 67.2%. Laparoscopic approach was feasible in 58.5% of cases. The tattoo was identified in 93.3% of cases without significant differences according to the type of marking, surgical approach and

localisation of the tumour. In 73% of those, the tattoo was less than 1 cm from the lesion and the rest were less than 5 cm from the lesion in 80%. Therefore, endoscopic approach is useful in 94.8% (of those visible). In 7.9% of cases the marking was excessive (extension to the peritoneum) with no complications reported.

Conclusion: Endoscopic tattooing of colonic lesions is an effective and safe procedure regardless of the technique used. We suggest the 2 mark tattoo technique with 1ml might be recommended due to its simplicity. The endoscopic approach in the definitive location of the lesion is very reliable.

Disclosure of Interest: None declared

PO-210 | IMPACT OF BODY MASS INDEX ON SURGICAL AND ONCOLOGICAL OUTCOMES IN TOTAL MESORECTAL EXCISION FOR RECTAL CANCER: LAPROSCOPIC VERSUS OPEN PROCEDURES

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Aim: This study was intended to evaluate the impact of obesity, as measured by body mass index, on feasibility, safety, and oncological outcome of laparoscopic total mesorectal excision (laTME) versus open procedures for rectal cancer patients, in a tertiary center, but with the desire to progress and promote minimally invasive techniques regardless of patient comorbidities. We also sought to identify factors associated with postoperative morbidity of laTME.

Method: Between January 2016–2021, 117 patients with a pre-operative BMI > 29 underwent laparoscopic ($n = 38$) or open ($n = 79$) total mesorectal excision for rectal cancer (stage II-III) in the Department of General Surgery, Emergency Hospital of Constanta. Preoperative radiotherapy was delivered in 45–50.4 Gy/25f, 5 days/week, and concurrent chemotherapy using FOLFOX or CapeOX. Technical feasibility, postoperative and oncological outcome were compared between groups.

Results: Laparoscopic or open TME were performed on 38(32.48%) and 79(67.52%) patients, respectively. The patient characteristics were similar between the two groups. LaTME correlated with an increased duration of surgery compared with open TME (260 vs. 187min; $P < 0.05$), but intraoperative blood loss was decreased (168 vs. 188 ml; $P < 0.05$). The incidence of wound infection was reduced in the laparoscopic group compared with the open group (3 vs 19%). The length of resection margin, circumferential resection margin involvement, and number of lymph node retrieved were comparable.

Conclusion: Obesity does not affect surgical or oncological outcome of laTME which is technically and oncologically safe and must be popularized in obese colorectal patients, but this approach should be reserved for experienced surgeons in order to reduce conversion rates and enhance the benefits of mini-invasive procedures in this high-risk population.

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Disclosure of Interest: None declared

PO-211 | BASELINE MRI-CRM AS A STRONG PREDICTOR OF LONG-TERM SURVIVAL: EXPERIENCE FROM TERTIARY CENTRE

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Aim: To assess the role of baseline, and post-NACTRT MRI-CRM as significant predictors of long-term survival outcomes in rectal cancers.

Method: Retrospective analysis of prospectively maintained database of patients with resectable adenocarcinoma of rectum, between 1st July 2013 and 30th June 2014 undergoing curative resections (upfront and post-NACTRT). All patients underwent at least one baseline MRI (MRI_T) irrespective of further treatment. Patients undergoing NACTRT had pre-NACTRT MRI (MRI₁) and post-NACTRT MRI (MRI₂). Outcomes analyzed were overall survival (OS), disease-free survival (DFS), and local recurrence-free survival (LRFS) Univariate and multivariate analyses were done and hazard ratio (HR) calculated.

Results: 221 patients were analyzed with a median follow-up duration of 80.2 months (77.2–82.8 months). 24% patients underwent upfront surgery. The 5-year OS, DFS and LRFS of the cohort were 71.7%, 60.5%, and 90.7% respectively. Patients with MRI_T-CRM positive had statistically significant lower OS ($P < 0.0001$), DFS ($P < 0.0001$) and LRFS ($P = 0.0028$). Patients with MRI₁-CRM positive had statistically significant lower OS ($P = 0.0043$), DFS ($P = 0.002$) and LRFS ($P = 0.022$). The impact of MRI₂-CRM status did not reach statistical significance (OS: $P = 0.095$, DFS: $P = 0.15$; LRFS: $P = 0.19$).

On univariate analysis, MRI_T-CRM, MRI₁-CRM, path-CRM, differentiation, and preop-T stage were significant factors impacting OS, DFS and LRFS. On multivariate analysis, significant factors affecting OS, DFS and LRFS were MRI_T-CRM status (HR for OS, DFS and LRFS: 2.6, 2.5 and 5.2 respectively) and path-CRM status (HR for OS, DFS, LRFS: 4.2, 2.7 and 8.2 respectively).

Conclusion: Baseline MRI-CRM is a powerful tool to predict long-term survival outcomes and needs meticulous assessment by clinicians to prognosticate and plan further treatment. Surgical decision should not be made on post-NACTRT MRI-CRM.

Disclosure of Interest: None declared

PO-212 | PREOPERATIVE HEMOGLOBIN RATE IN COLORECTAL SURGERY SHOWS LINEAR CORRELATION WITH LENGTH OF HOSPITAL STAY

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Aim: the purpose of this study was to evaluate the association between pre operative hemoglobin level and in-length hospital stay for patients benefiting from elective colorectal surgery.

Method: a retrospective study was performed at the University Hospital of Geneva between September 2013 and March 2015 using data from a prospective database, including all patients with elective colorectal surgery during this period. The association between pre operative hemoglobin level and in-length hospital stay was estimated using univariate and multivariate linear regressions.

Results: a total of 131 patients were included with either inflammatory bowel disease, cancer or non inflammatory bowel disease.

A significant negative association has been found between pre operative hemoglobin rate and in-length hospital stay ($P < 0.001$) after adjusting for age, sex, ASA score, BMI, renal failure, complications. For an increase of 1 unit of Hb rate, the length of stay was decreased by 9%.

Conclusion: It is fundamental, in the course of patient care and with the era of enhanced recovery pathway to evaluate pre operative hemoglobin rate and to correct any anemia before surgery if feasible. Correcting hemoglobin level in colorectal surgery allows to decrease in-length hospital stay.

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Disclosure of Interest: None declared

PO-213 | THE IMPACT OF ROBOTIC SURGERY ON A TERTIARY CARE COLORECTAL SURGERY PROGRAM, AN ASSESSMENT OF COSTS AND SHORT TERM OUTCOMES – A CANADIAN PERSPECTIVE

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Aim: Robotic surgery for colorectal pathology has gained interest as it can overcome technical challenges and limitations of traditional laparoscopic surgery. A lack of training and costs have been cited as reasons for limiting its use in Canada. The objective of this paper was to assess the impact of robotic surgery on outcomes and costs in a Canadian setting.

Method: This is a retrospective study of consecutive patients undergoing left sided colorectal surgery ("Pre-Robotic Phase" $n = 145$ vs. "Post Robotic Phase" $n = 150$) at a single tertiary care centre in Ontario, Canada. Utilization and success of minimally invasive surgery (MIS), length of stay, complications and hospital costs were compared. Univariate and Multivariate analysis was used for these comparisons.

Results: Characteristics, diagnosis and type of resection were similar between groups. Robotic Implementation resulted in higher rates of successful MIS (i.e. attempt at MIS without conversion) (85% vs. 47%, $P < 0.001$), shorter mean length of stay (4.7 days vs. 8.4 days, $P < 0.001$), and similar mean operative times (3.9 hrs vs. 3.9 hrs, $P = 0.93$). Emergency Department visits were fewer in the Robotic Phase (24% vs. 34%, $P = 0.04$), with no difference

in readmission, anastomotic leak or unplanned reoperation. After robotic implementation, the mean total hospital costs decreased, but this was not statistically significant (-\$1,453, 95%CI -\$3,974 to +\$1068, $P = 0.25$). Regression analysis, adjusting for age, gender, obesity, ASA and procedure showed similar findings (Robotic Phase -\$657, 95%CI -\$3,038 to +\$1,724, vs Pre Robotic Phase [Reference], $P = 0.59$).

Conclusion: Implementation of a robotic colorectal surgery program in a Canadian tertiary care centre showed improved clinical outcomes, without a significant increase in the cost of care. Although this study is from a single institution, we have demonstrated that robotic colorectal surgery is feasible and can be cost effective in the right setting.

Disclosure of Interest: None declared

PO-214 | REAPPRAISAL OF LYMPHATIC DRAINAGE SYSTEM OF THE DISTAL RECTUM: DIRECT LYMPHATIC DRAINAGE INTO THE PRESACRAL SPACE AND ITS CLINICAL IMPLICATION IN RECTAL CANCER TREATMENT

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Aim: The pattern of nodal metastasis in rectal cancer is related to the lymphatic flow from the rectum to different regions in the pelvic cavity. Understanding the source and route of pelvic metastasis is essential to develop an optimal strategy for local and systemic disease control. This study aims to delineate the distribution of lymphatic channels and flow in the distal rectum.

Method: Using fresh-frozen cadaveric hemipelvis specimens, the ligamentous attachment of the distal rectum to the pelvic floor muscles and the presacral fascia was evaluated via fine dissection. Using fluorescent imaging, we evaluated the gross anatomy of lymphatic communication of the distal rectum after injecting indocyanine green (ICG) into fresh frozen cadavers. With the same method, we also investigated intraoperative lymphatic flow in the pelvic cavity to identify potential routes of metastasis in rectal cancer patients who undergo radical rectal resection with total mesorectal excision (TME).

Results: In fresh cadavers, the multiple small perforating lymphovascular branches exist in the retrorectal space, connecting the mesorectum to the presacral fascia posteriorly. Through the branches, the lymphatic flow from the distal rectum drains directly into the presacral space. In patients who underwent TME for rectal cancer, the intraoperative the ICG-fluorescent signals were shown not only in the pelvic side walls but also in the presacral space.

Conclusion: This anatomical study demonstrated that the lymphatic flow from the distal rectum is not only run directly to the pelvic lateral side walls but also to the presacral space. This finding suggests that the direct lymphatic drainage from the distal rectum to

the retroperitoneum through the presacral space may be a possible route of metastasis in distal rectal cancer.

Disclosure of Interest: None declared

PO-215 | ANALYSIS OF RESULTS AFTER TAMIS RESECTION IN A TERTIARY CARE HOSPITAL AFTER 6 YEARS OF FOLLOW-UP

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Aim: Transanal minimally invasive surgery (TAMIS) offers advantages in terms of its results and complications when compared to abdominal surgery, and has become a new standard of treatment in most centers, obtaining pieces with a high rate of negative margins. The objective is to analyze differences between complications and recurrences between R0 and $\geq R1$ resection by TAMIS.

Method: Analytical, retrospective study, analyzing our database of patients with rectal tumors submitted to local resection by TAMIS approach, from January 2014 to December 2020.

Results: A total of 46 patients underwent resection by TAMIS. In terms of gender, female 29 (41.3%), male 27(58.7%). With a mean age of 73 ± 8.9 years. The type of lesion removed was scar in 13 cases (28.3%), adenoma in 16 cases (34.8%), and carcinoma in 17 cases (37%). There were complications in 15 patients (32.6%), these had a Clavien Dindo (CD) $\geq III$ on 2 occasions (4.3%). The type of resection was R0 in 41 patients (89.1%), R1 in 3 patients (6.5%), and R2 in 2 patients (4.3%).

Survival in R0 vs $\geq R1$ patients was 92.4 months (95% CI 82.26–98.55) vs 48.8 months (95% CI 27.41–70.19%) ($P = 0.04$). Recurrence in patients with R0 vs $\geq R1$ resection was 4.9% vs 40% ($P = 0.009$). And major complications (CD $\geq III$) in patients with R0 vs $\geq R1$ resection was 2.4% vs 20% ($P = 0.05$).

Conclusion: Resection by TAMIS has presented great results as long as it is performed according to oncologic standards, presenting those patients with $\geq R1$ resections, higher number of postoperative severe complications, higher recurrence rate and lower survival than those who underwent R0 resection.

Disclosure of Interest: None declared

PO-216 | THE EFFECT OF TUMOUR CHARACTERISTICS ON THE DIAGNOSTIC ACCURACY OF QUANTITATIVE FAECAL IMMUNOCHEMICAL TESTING (QFIT)

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Aim: To investigate if the diagnostic accuracy of quantitative faecal immunochemical testing (qFIT) results at a faecal haemoglobin (f-Hb) threshold of 10 μ g Hb/g are impacted by tumour characteristics.

Method: A prospective data set of patients referred with lower gastrointestinal symptoms from January 2019 to April 2021 was analysed. Diagnostic investigations were reviewed for colorectal cancer location, size, morphology, and stage.

Results: Of 5004 referred patients, there were 154 colorectal cancers: 15 of the cancers had a qFIT less than 10 μ g Hb/g. There were significantly more right sided cancers with a qFIT below 10 μ g Hb/g than left sided (11/50 vs 4/104, $P < 0.05$). The 154 cancers were staged at: Nine T1, twenty T2, seventy-nine T3 and forty-five T4 tumours with the staging for one not available. Sensitivity for tumours T stage 1 was 66.7% compared with 90.3% overall. The median f-Hb for T1/2 lesions was 71 μ g Hb/g (IQR 24–348 μ g Hb/g) and for T3/4 lesions 400 μ g Hb/g (IQR 59–400 μ g Hb/g), qFIT results were more likely to be less than 10 μ g Hb/g in T1 tumours compared with more advanced T3/4 ($P < 0.05$). The median size of tumours with a qFIT less than 10 μ g Hb/g was 29mm (IQR 20–40mm) compared with 41mm (IQR 30–53mm). The morphology of the colorectal cancers was described as polypoidal in 44 cases, ulcerative 39, stricturing 56 and was unavailable in 15. Tumour morphology did not make a significant difference on qFIT results greater than 10 μ g Hb/g ($P = 0.6$).

Conclusion: Results of qFIT in colorectal cancers were more likely to be below the threshold of 10 μ g Hb/g in right sided lesions and in T stage 1 cancer. The median qFIT for early cancer was 71 μ g Hb/g, which is below the investigation threshold of Scottish Bowel Screening.

Disclosure of Interest: None declared

PO-217 | EFFECT OF A PATIENT BLOOD MANAGEMENT (PBM) PROTOCOL IMPLEMENTATION ON COLORECTAL SURGERY. PROSPECTIVE AND COMPARATIVE STUDY OF 1128 PATIENTS BETWEEN 2012–2018

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Aim: The aim of this study is to assess the impact of parenteral iron (PI) treatment for PA within a Patient Blood Management (PBM) Protocol on short term CCR results.

Method: Prospective non-randomized unicentric comparative cohort study of 1128 consecutive patients which underwent radical surgery for CCR after completing PA assessment. Comparative analysis of surgical outcomes between anaemic patients treated with PI prior to surgery (Group I) and non-anaemic patients (Group II). Main outcome was the effect of PI on Hb levels, need for Allogenic Blood Transfusion (ABT) and complications according to Clavien-Dindo scale. Patients which received ABT prior to diagnosis or that did not complete PA assessment were excluded. Descriptive analysis

of demographical characteristics and propensity score analysis were performed with Stata 15.1.

Results: 613 patients with PA (Group I) and 511 without PA (Group II). Demographical analysis showed greater median age and larger proportion of comorbidities and anticoagulant therapy among Group I patients ($P < 0.05$). Median Hb at the moment of diagnosis was statistically significantly lower in Group I than in Group II patients (9.9 +/- 2.3 and 14.5 +/- 1.8 respectively, $P < 0.05$). Group I patients showed a statistically significant increase in Hb levels after IE treatment and median Hb levels immediately prior to discharge were 10.3 (+/-1.2) in Group I and 11.8 (+/-2.0) in Group II. Propensity score analysis showed no differences in terms of complications according to Clavien-Dindo scale or hospitalisation days after pairing. Allogenic blood transfusion index was 26% in Group I and 3.8% in group II. Subgroup analysis suggested a theoretical decrease in transfusion of 15% in properly treated Group I patients.

Conclusion: Preoperative optimization of PA with PI leads to an equalization of surgical outcomes to those of non-anaemic patients. Improvement of preoperative Hb levels stays throughout hospital stay and leads to a noticeable theoretical reduction in transfusion.

Disclosure of Interest: None declared

PO-218 | THE SENIORITY OF THE ASSISTANT SURGEON DOES NOT IMPACT PERIOPERATIVE OUTCOMES IN ROBOTIC ASSISTED PROCTECTOMY FOR RECTAL CANCER

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Aim: The performing surgeon's surgical experience in robotic assisted surgery has been shown to play a critical role in patient outcomes. However, the assistant surgeon's impact has not been thoroughly studied. In this study, we aimed to evaluate that impact in robotic assisted proctectomy (RAP) on perioperative outcomes.

Method: A retrospective analysis of a prospectively collected database of all patients who underwent RAP for rectal adenocarcinoma between 2011–2020 was conducted. Patient cohort was divided into three groups based on the assistant surgeon's training level: post graduate years (PGY) 1–3 surgical residents (group 1), PGY 4–5 surgical residents (group 2), and board-certified general surgeons (group 3).

Results: Overall, 175 patients were included in the study: 29 patients (17%) in group 1, 84 (48%) in group 2, and 62 (35%) in group 3. Surgical procedures reviewed were anterior resections (95%, $n = 156$), and abdominoperineal resections (5%, $n = 9$). The median tumor distance from the anal verge was 8 cm in all groups ($P = .73$). The median operative time was similar across all groups: 290, 291, and 281 minutes in groups 1, 2, and 3, respectively ($P = .69$). In a multivariable analysis, the lack of association between assistant training

level and procedure time maintained when adjusting for the year of operation ($P = .84$). Patients operated with junior residents as assistant surgeons (group 1) had a slightly longer hospital length of stay (7 days, interquartile range [IQR] 3), compared to those operated by assistant surgeons that were senior residents or attendings (6 IQR 2.5, and 6 IQR 2 in groups 2 and 3, respectively; $P = .02$). Conversion rates ($P = .12$), intraoperative complications ($P = .39$), major postoperative complications (Clavien-Dindo ≥ 3 ; $P = .32$), 30-days readmission ($P = .45$) and mortality ($P = .99$) were similar between the groups.

Conclusion: The assistant surgeon's training level in robotic assisted proctectomy for rectal cancer did not influence perioperative outcomes.

Disclosure of Interest: None declared

PO-219 | ANASTOMOTIC LEAK IMPACT ON LONG-TERM SURVIVAL AFTER RIGHT COLECTOMY FOR CANER: A PROPENSITY SCORE MATCHED ANALYSIS

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Aim: Our goal was to assess the impact of AL on oncologic outcomes using a case-matched analysis.

Method: Patients undergoing right hemicolectomy for cancer between 2014 and 2018 were included. Main variables were risk factors of anastomotic leak, overall survival and disease-free survival. Propensity score matching was performed by patient's age, co-morbidities, TNM staging and type of the procedure. Oncologic outcomes were analyzed.

Results: 488 patients included. AL rate was 4.71% (23 patients). In-hospital mortality was significantly higher in the AL group (1.3% (6 of 465) vs 8.7% (2 of 23), $P = 0.05$). Three-year OS in non-AL group was higher, although, the difference failed for significance (71.5% vs 37.3%, $P = 0.082$); similarly, tendency for impaired 3-year DFS, but the difference also failed for significance was seen (69.3% vs 37.3%, $P = 0.106$). Age, advanced tumor stage, lymph node metastases and distant metastases were associated with higher probability for death or recurrence of disease by univariate Cox regression analysis. In contrast, minimally invasive surgery was associated with lower probability for death (HR (95% CI): 0.99 (0.14–0.72); $P = 0.023$) and recurrence of disease (HR (95% CI): 0.94 (0.13–0.68); $P = 0.020$). In adjusted Cox regression analysis, AL, age and distant metastases were associated with poor long-term survival. Moreover, AL, age and distant metastases were associated with higher probability of recurrence.

Conclusion: Based on our results, AL was a significant factor for worse oncologic outcomes. Still, further larger studies needed on that topic to provide stronger evidence.

Disclosure of Interest: None declared

PO-220 | CLINICOPATHOLOGICAL AND SURVIVAL FEATURES OF COLORECTAL LYMPHOMAS: A RETROSPECTIVE SINGLE-CENTER STUDY

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Aim: Describe the main clinical and pathological characteristics of colon lymphomas and identify factors associated with worse prognosis.

Method: Retrospective study that included all patients with histological diagnosis of colon lymphoma between January 2010 and December 2019.

Results: A total of 31 patients with colon lymphoma were identified, with a median age of 69 years; 52% were female. The most common histological subtypes were diffuse large B-cell lymphoma (32.3%) and mantle cell lymphoma (25.8%). The most common clinical symptoms were abdominal pain, constitutional symptoms, diarrhea and rectal bleeding; 12 patients (38.7%) were asymptomatic, whereas 11 (35.4%) had an acute form of presentation. Colonoscopy was performed in 27 patients and all presented endoscopic abnormalities, as polyps, an isolated mass, diffuse infiltration or ulceration. The most common locations were cecum and ascending colon. Most cases (74.2%) were diagnosed at stage IV. Chemotherapy was administered to 25 patients, with complete response in 48%, partial response in 20% and absence of response in 32%. In 9 patients, there was additional need of surgery. During follow-up, 14 patients died, corresponding to a mortality rate of 45.1%. Primary factors associated with higher risk of mortality included presence of anemia ($P = 0.017$), leukocytosis ($P = 0.049$), elevated LDH ($P = 0.018$), advanced aged ($P = 0.017$) and absence of complete response to treatment ($P < 0.001$). No association was found regarding gender, histological subtype, stage, location, albumin or clinical symptoms.

Conclusion: We describe one of the largest series of colon lymphomas to date. Colon lymphoma is a rare type of malignancy that can present with heterogeneous clinical symptoms and endoscopic findings. It is associated with high morbidity and mortality and primary factors associated with worse outcome included advanced age, presence of anemia, leukocytosis and elevated LDH and absence of complete response to treatment.

Disclosure of Interest: None declared

PO-221 | CLINICAL CONSEQUENCES OF INTEROBSERVER VARIABILITY IN THE HISTOPATHOLOGICAL EVALUATION OF EARLY RECTAL CANCER

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Aim: In early rectal cancer, organ sparing treatment strategies such as local excision have gained popularity. The necessity of radical surgery is based on the histopathological evaluation of the local excision specimen. This study aimed to describe interobserver variability between pathologists, and its potential impact on treatment allocation in patients with locally excised early rectal cancer.

Method: Patients with locally excised pT1-2 rectal cancer were included in this prospective cohort study. Both quantitative measures and histopathological risk factors (i.e. poor differentiation, deep submucosal invasion, and lymphatic- or venous invasion) were evaluated. Interobserver variability was reported by both percentages and Fleiss' Kappa- or intra-class correlation coefficients.

Results: A total of 127 patients were included. Ninety-three percent of the original histopathological reports contained all required parameters. In 73 of the 127 (57.5%) patients, at least one inconsistency was observed, which regarded histopathological risk factors in 36 patients (28.3%). Interobserver agreement among different variables varied between 74% and 95% or κ 0.533 - 0.962. The assessment of lymphovascular invasion showed inconsistencies in 26% (κ = 0.533, 95% CI 0.379 - 0.687) of the cases. In fourteen (11%) patients, inconsistencies led to change in treatment strategy.

Conclusion: This study demonstrated that histopathological reports show substantial interobserver variability between pathologists, especially in the assessment of lymphovascular invasion. Pathologists play a key role in treatment allocation after local excision of early rectal cancer, therefore interobserver variability needs to be reduced to decrease the amount of patients that are over- or undertreated.

Disclosure of Interest: None declared

PO-222 | A SINGLE-CENTRE EXPERIENCE OF TELEPHONE ASSESSMENT OF PATIENTS REFERRED TO TWO WEEK-WAIT COLORECTAL SURGERY CLINICS IN ENGLAND

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Aim: Despite Covid-19, hospitals in the England, United Kingdom continued to assess and manage patients referred on two week-wait (2WW) suspected cancer referral pathways. Most index clinic assessments of such patients were conducted via telephone. We retrospectively evaluated a district general hospital experience of managing patients on a 2WW suspected lower gastrointestinal tract (LGIT) cancer referral pathway, initially assessed via telephone

Method: Data were obtained using a prospectively maintained database and electronic patient records. LGIT 2WW referrals between 01/06/2020 to 31/10/2020 were included. Data were retrospectively collated and analysed using Excel (Microsoft Corporation, USA)

Results: A total 757 patients (median age = 70, interquartile range = [59-79], female = 47.2%) were identified. The majority ($n = 629, 83.1%$) were white Caucasian. All patients were initially assessed virtually and only 3 (0.4%) were re-assessed face-to-face for their index appointment. Sixteen (2.1%) missed at least one prior appointment. The most common presenting complaints included change in bowel habit, rectal bleeding, weight loss, anaemia and abdominal pain, and 415 (54.8%), 269 (35.5%) underwent endoscopy and imaging respectively as the first investigation. Forty four (5.8%) patients had malignant pathology with the majority ($n = 37, 84.1%$) being colorectal in origin. Of those diagnosed with a primary colorectal malignancy 25 (67.6%) underwent surgical or endoscopic treatment, 3 (8.1%) were referred to chemoradiotherapy and 8 (21.6%) were referred for palliation.

Conclusion: Patients referred on the 2WW LGIT pathway continued to be assessed and managed despite Covid-19. Index telephone clinic assessments are perhaps as effective a tool as face-to-face assessments, for patients referred on this pathway. This warrants further investigation.

Disclosure of Interest: None declared

PO-223 | SYMPTOMATIC LOWER GASTROINTESTINAL REFERRALS THAT DO NOT RETURN QUANTITATIVE FAECAL IMMUNOCHEMICAL TESTING (QFIT) REMAIN AT RISK OF COLORECTAL CANCER

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Aim: To describe and analyse the group of patients referred to secondary care with lower gastrointestinal (GI) symptoms that do not complete the qFIT that they are sent as part of their investigation

Method: A prospectively maintained dataset of patients referred to secondary care with lower GI symptoms and sent a qFIT as part of their investigation was interrogated for those who did not return a sample

Results: The qFIT was not returned in 6.4%, (392/6092) of referred patients. The colorectal cancer (CRC) rate in the non-returned group was higher than in those who returned their qFIT (6.4% v 3.3%). However five of these patients had an emergency hospital admission shortly after their referral, one had a positive bowel screening result at the time of referral and another returned a test but it was unanalysable. With these mitigating circumstances the CRC rate dropped to a similar level, 3.7% v 3.3%. The median age of the non-returned group was younger (median age 61 v 65, $P < 0.05$). No difference was found in the qFIT return rate between men and women ($P = 0.2$). In the non-returned group 19.4% cancelled or did not attend planned hospital investigation compared with 5.8% of the returned group ($P < 0.05$). Ten of the non-returned group had provided non-analysable samples and when recontacted for a repeat sample did not return. Eleven of the non-returned group were investigated as inpatients shortly after their referral, and a further ten did not complete the qFIT as they had investigations scheduled before they received the test kit.

Conclusion: The rate of colorectal cancer in those who do not return qFIT is similar to those who do. Therefore if qFIT is to be used as a first line investigation for symptomatic referrals, a safety net is required for this group, they cannot be automatically discharged for non-engagement with the test.

Disclosure of Interest: None declared

PO-224 | HOW ACCURATE IS MAGNETIC RESONANCE IMAGING IN THE PREOPERATIVE STAGING OF RECTAL CANCER?

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Aim: An accurate preoperative staging of rectal cancer is crucial in determining the appropriate mode of treatment. In this study we aim to determine the accuracy in the staging of rectal cancer preoperatively by magnetic resonance imaging (MRI).

Method: We included all patients who were diagnosed with rectal cancer in Central Scotland from January 2014 to December 2018, and who received primary resectional surgery with curative intent. These patients had a preoperative staging MRI according to established protocol. Tumours were staged according to the TNM staging system. Sensitivity, specificity and accuracy analyses were carried out using SPSS statistics programme.

Results: 126 patients were included in analysis. Overall sensitivity (95% CI) for T3 and T4 cancers was 88.4% (78.4 to 94.8), specificity was 89.5% (78.5 to 96.0) and accuracy was 88.9% (82.1 to 93.8). Overall sensitivity (95% CI) for lymph node involvement was 81.6%

(68.0 to 91.2), specificity was 93.9% (85.2 to 98.3), and accuracy was 88.7% (81.5 to 93.8).

Conclusion: Our results indicate that MRI provides a reasonably good assessment of tumour invasion through the bowel wall and invasion of adjacent organs, as well as of lymph node involvement. Further research needs to be undertaken to assess the reasons and the impact of under and over staging and identify strategies for improvement.

Disclosure of Interest: None declared

PO-225 | LAPAROSCOPIC VERSUS ROBOT-ASSISTED VERSUS TRANSANAL LOW ANTERIOR RESECTION: LONG-TERM ONCOLOGICAL RESULTS OF A POPULATION-BASED COHORT IN EXPERIENCED CENTERS

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Aim: Laparoscopic, robot-assisted and transanal total mesorectal excision are the most used minimal invasive techniques for rectal cancer surgery. As data regarding long-term oncological results are lacking, we aimed to compare these three techniques while taking the learning curve into account.

Method: This retrospective population-based cohort included all patients that underwent a low anterior resection, performed in eleven dedicated centers between 2015–2017 that completed the learning curve of the specific technique. The primary outcome was overall survival at three years of follow-up. Secondary outcomes included 3-year disease-free survival and 3-year local recurrence rate. Statistical analysis was performed using Cox-regression.

Results: In total, 617 patients were included, 252 patients underwent a laparoscopic, 205 a robot-assisted and 160 patients a transanal low anterior resection. Oncological outcomes were equal between the three techniques. 3-year overall survival was 90.0% for laparoscopic, 90.4% for robot-assisted and 87.6% for transanal low anterior resection. 3-year disease-free survival was 77.8% for laparoscopic, 75.8% for robot-assisted, and 78.8% for transanal low anterior resection. 3-year local recurrence rate was in 6.1%, 6.4% and 5.7% for laparoscopic, robot-assisted and transanal procedures respectively. Cox-regression did not show a significant difference between the techniques while taking into account confounders.



Conclusion: Long-term oncological results are good and comparable between laparoscopic, robot-assisted and transanal total mesorectal technique in experienced centers. These techniques can safely be performed in experienced hands.

Disclosure of Interest: None declared

PO-226 | INTESTINAL FAILURE: PARENTAL NUTRITION, CATHETER RELATED SEPSIS & CHALLENGES

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Aim: To review the outcomes of the Leicestershire intestinal failure team (LIFT) service, particularly the indication and delivery mechanisms of PN.

To review the catheter-related sepsis (CRS) rates and identify areas for improvement.

Method: The LIFT data from January 2016 to November 2017 was analysed retrospectively. Descriptive and inferential statistical analysis was carried out. Chi-square/ Fisher Exact tests were used to identify significance on categorical data and non-parametric settling was used for qualitative data analysis. *P* value of < 0.05 was considered significant.

Results: 365 patients were referred to LIFT from January 2016 to November 2017. 58% patients had grade I intestinal failure. 34% and 24% referrals were made by the colorectal and hepatopancreato-biliary (HPB) units respectively. Gut rest (27%) and bowel obstruction (25%) were the most common indications for nutritional support. Duration of PN requirements varied greatly, but most patients (39%) patients required it for up to 7 days. Single lumen PICC line (64%) and cephalic vein (54%) were the most commonly used catheter and site of vascular access respectively. Successful initiation of enteral nutrition was the common indication for cessation of parenteral nutrition (PN) (64%). CRS was the biggest challenge for LIFT. Chronicity of IF and number of vascular catheters required to provide PN were significantly associated with rates of CRS.

Conclusion: LIFT provided nutritional support and PN to a large of number of patients with IF. CRS was found to be statistically significantly associated with chronic IF and number of vascular access catheters required to provide PN. The cost implication and morbidity of CRS could be analysed further to identify other ways to provide safer and cost-efficient parental nutrition for patients with intestinal failure.

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Disclosure of Interest: None declared

PO-228 | SHORT TERM OUTCOMES FOLLOWING BEYOND TOTAL MESORECTAL EXCISION AND RECONSTRUCTION USING MYOCUTANEOUS FLAPS: A RETROSPECTIVE COHORT STUDY

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Aim: Beyond total mesorectal excision (bTME) offers long term survival in patients with advanced pelvic malignancy. At Skåne University Hospital (SUS) Malmö, Sweden, Vertical Rectus Abdominis Musculocutaneous (VRAM) flap and Gluteal Maximus (GM) flap have been used for perineal reconstruction to promote healing and functional outcomes after great tissue loss. This study aims to examine 90-days overall and flap specific complications in patients with advanced pelvic cancer treated with bTME and perineal flap reconstruction.

Method: This retrospective study conducted at SUS, included patients undergoing surgery between January 1st, 2010 and August 1st, 2016. Patients' data was gathered through medical chart review. The Clavien-Dindo (CD) classification system was used to classify surgical and medical postoperative complications. Flap specific complications were evaluated regardless of CD classification.

Results: One hundred five patients (51 men, 54 women) underwent bTME surgery with perineal reconstruction, using VRAM in 27 (26%) patients, GM in 51 (49%) patients and GM with vaginal reconstruction in 27 (26%) patients. Ninety-day mortality rate was 1 (1%), despite surgical CD \geq III and/or medical CD \geq II complications affecting 50 (48%) patients. Partial perineal dehiscence was noted in 45 (43%) patients, mostly treated conservatively. At first out-patient visit (median 42 days postoperatively) flap healing was complete in 47 (45%) patients.

Conclusion: bTME surgery in pelvic cancer patients with perineal flap reconstruction using VRAM or GM results in high overall and flap complication rates but low mortality. Most complications can be conservatively treated.

Disclosure of Interest: None declared

PO-229 | SEVEN PELVIC COMPARTMENTS DESCRIBED BY MRI UNDER ANATOMICAL INVESTIGATION FOR BEYOND TME SURGERY

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Aim: In locally advanced or recurrent rectal carcinoma pelvic exenteration including two or more pelvic compartments is often the only chance for cure. Based on MRI staging, a classification into 7 pelvic compartments has been proposed. This study gives a systematic dissection-based anatomical account of these compartments.

Method: 10 (4 females) formalin fixed pelvic specimens were trimmed to the region of interest and systematically investigated according to the MRI-defined compartments. All dissection steps followed the surgical strategy of pelvic exenteration and were serially photodocumented

Results: All 7 pelvic compartments were scrutinized, including the (1) peritoneal reflexion (PR), (2) anterior above PR, (3) anterior below PR (male/female), (4) central, (5) lateral, (6) posterior, and (7) inferior compartments. The urinary bladder/prostate complex with the membranous urethra, the lateral topography of the uterus, the ureter and neurovascular structures along the pelvic side wall, the lumbosacral plexus, and prerequisites for sacrectomy could be highlighted.

Conclusion: The proposed classification proved to be useful for a systematic description of pelvic anatomy related to surgical

procedures beyond TME. It does not only allow for clear planning of exenterative procedures but also provides a pragmatic concept to approach and surgically address the complex anatomy of the pelvis.

Disclosure of Interest: None declared

PO-230 | THE IMPACT OF SURGICAL TECHNIQUE WITH LYMPH NODE YIELD AND THE RELATIONSHIP BETWEEN EXTRAMURAL VASCULAR INVASION ON LONG-TERM SURVIVAL: A RETROSPECTIVE OBSERVATIONAL STUDY

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Aim: The aim of this study was to assess the oncological outcomes of patients undergoing a right hemicolectomy (RH) for colonic adenocarcinoma in our institution over an 8 year period. We aimed to investigate both impact of surgical technique in the influence of lymph node (LN) yield and the impact of extramural vascular invasion (EMVI) on overall survival.

Method: Data for all patients who underwent an elective or emergency RH between January 2013 and June 2021 was collected for this single centre retrospective study. Primary outcomes were number of harvested LN, presence of EMVI and cancer related survival. Non-parametric statistical analysis was performed using Statistical Package for the Social Sciences (SPSS version 28) software.

Results: 471 patients underwent a RH for colon cancer with curative intent from 2013–2021. EMVI was present in 194 tumours (41%). Mean LN yield was significantly higher in both the complete mesocolic excision group (mean LN:40.2) and extended RH group (mean LN:28.8) vs standard RH group (mean LN:22.9) $P < 0.001$. LN yield was significantly more when the right branch of middle colic artery (RMCA) was divided (mean LN yield:27.9 vs 22.3 when RMCA intact) $P < 0.001$. 440 patients (ie operations from 2013–2020) were included in the survival analysis by EMVI and by division of RMCA within nodal stages 0–2. Survival analysis showed significantly reduced cancer related survival in patients whose tumours had EMVI ($P < 0.001$, log rank analysis). Sub-group analysis by nodal stage showed no significant impact on survival if the RMCA was divided within any of the nodal stages 0–2 ($P = 0.275$, log rank analysis).

Conclusion: Surgical technique with extent of vascular ligation clearly impacts LN yield but didn't show effect on survival in this cohort of patients. The presence of EMVI significantly reduced cancer related survival. Accurate detection of EMVI is important to allow patients to be offered adjuvant chemotherapy to reduce the risk of systemic relapse and mortality.

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Disclosure of Interest: None declared

PO-231 | EFFERENT LOOP STIMULATION BEFORE ILEOSTOMY CLOSURE: HOW TO PREVENT ILEUS AND REDUCE HOSPITAL STAY

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Aim: Neoadjuvant treatment for rectal cancer has increased sphinter-sparing surgery and, consequently, the number of colorectal anastomoses. Performing a protective ileostomy (PI) helps prevent some of the anastomotic-related complications, such as leak or dehiscence, but needs for a second stage surgery for its closure, which is not exempt of complications. There is controversy regarding different methods to prevent said risks such as efferent loop stimulation (ELS), which has reported good results.

The objective of this study is to compare the results of the PI closure after ELS with the classic closure procedure (NELS).

Method: Prospective, single-center, observational, descriptive and comparative study of a sample of 86 patients who underwent low anterior resection (LAR) followed by PI from 2013 to 2018. Comparative analysis in terms of complications and stratified analysis in relation to several pre-existing risk factors. All data were analysed with Stata 13.1.

Results: We report results of 65 men (75.6%) and 21 women (24.4%) with a mean age of 67.6 years (+/- 11.8). 80.2% of them were ASA II with a mean BMI of 27.1 (+/- 5). No differences were found between the 2 groups except in the prevalence of diabetes mellitus II (DM II), more prevalent in the ELS group. We found a statistically significant lower incidence of ileus in the ELS group ($P = 0.03$). Moreover, we found an earlier oral tolerance and an

earlier reappearance of bowel movements ($P = 0.001$, $P = 0.006$, respectively). Finally, we report shorter inpatient days in the ELS group ($P = 0.02$). In terms of complications, we didn't find statistically significant differences. Regression analysis did not report other risk factors for the appearance of ileus, besides the absence of stimulation.

Conclusion: ELS is a safe and simple technique than can help prevent postoperative ileus in IP closure surgery, with a considerable reduction in hospital stay.

Disclosure of Interest: None declared

PO-232 | EMERGENCY SURGERY FOR UNCOMPLICATED OBSTRUCTIVE TUMOR OF THE SPLENIC FLEXURE: RESULTS OF A MULTICENTRIC COHORT OF THE FRENCH SURGICAL ASSOCIATION (AFC)

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Aim: Surgical management of malignant acute left-sided colonic obstruction is a major procedure. The presence of a proximal distended colon with liquid faces requires performing an ostomy in 40 to 65% of cases. In case of uncomplicated obstructive tumor of the splenic flexure (TSF), there is still a debate regarding the most appropriate surgery to be performed. The aim of this study was to compare the operative, histological and survival characteristics of the different possible procedures. **Method:** Between 2000 and 2015, 2325 patients were treated for obstructive colon cancer in French surgical centers, members of the French National Surgical Association (AFC). Of these cases, 198 underwent surgery for TSF without ischemia nor peritonitis and were retrospectively analyzed. The primary endpoint was 12-month stoma-free survival.

Results: Four procedures were performed: proximal diverting stoma (PDS, 39%, $n = 77$), splenic flexure colectomy (SFC, 39%, $n = 77$), sub-total colectomy (STC, 17%, $n = 34$) and left hemicolectomy (LHC, 5%, $n = 10$). All patients treated with LHC underwent a Hartmann's procedure. Overall, 123 of 198 patients (62%) had a stoma constructed during the first-stage procedure. There was no significant difference between the different groups in terms of postoperative mortality, morbidity, medical and surgical complications. The initial hospital stay was significantly longer after PDS. The length of specimen, longitudinal resection margin and number of lymph nodes retrieved were significantly longer in the STC group. There was no difference in overall survival and disease-free survival. The 12-month stoma-free survival was significantly lower after LHC (62%) in comparison

with the three other groups (PDS: 83%; SFC: 96%; STC: 95%, $P < 0.0001$). At the end of follow-up, 50% of patients who underwent a LHC were considered to have a permanent stoma with a Hartmann's procedure.

Conclusion: LHC should not be performed in case of an uncomplicated obstructive TSF, due to the high rate of permanent stoma.

Disclosure of Interest: None declared

PO-233 | A NOVEL PREDICTIVE SCORE FOR EARLY DETECTION OF ANASTOMOTIC LEAKAGE

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Aim: This study aims to find a novel scoring system to detect anastomotic leak after colorectal surgery using inflammatory and nutritional indicators. Our purpose was to analyze the diagnostic accuracy of leak score (CRP POD3/(CRP POD1*PREOPERATIVE ALBUMIN)) in predicting postoperative complications.

Method: Colorectal cancer patients, who underwent curative surgery in Koc University Hospital between 2014 and 2018 were included in our retrospective study. Patients were categorized into two groups depending on the presence of anastomotic leak and compared in terms of preoperative albumin levels, CRP levels in postoperative day 1 and day 3, anastomotic leak rates, length of hospital stay and CRP quotient which is calculated by dividing POD 3 CRP level to POD 1 CRP level. Leak score is calculated dividing CRP quotient by preoperative albumin. Predictive value of leak score, CRP quotient and preoperative albumin levels in estimating anastomotic leak was analyzed using independent sample Kruskal-Willis test and accuracy testing was done by an area under the curve analysis using receiver operated characteristic curves. A cut-off value for the leak score was calculated.

Results: A total of 185 patients were included in our study. Leak score, CRP POD 3 to 1 ratio and preoperative albumin levels were found to successfully detect anastomotic leakage ($P < 0.01$ for all). Area under the curve for the leak score, CRP POD 3 to 1 ratio and preoperative albumin level were calculated as 0.795, 0.735 and 0.197 respectively. With 75% sensitivity and specificity, cut-off value of leak score was 78. Patients with a leak score > 78 were found to have significantly higher anastomotic leak rates ($P < 0.01$).

Conclusion: Leak score can be a valuable diagnostic tool to detect patients at risk for anastomotic leakage after colorectal surgery. Prediction of anastomotic leak sooner might be helpful in avoiding unwanted complication and might prevent morbidity, mortality and associated cost.

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Disclosure of Interest: None declared

PO-234 | INFLUENCE OF ADJUVANT CHEMOTHERAPY ADMINISTRATION ON DISEASE-FREE INTERVAL AND TUMOUR RECURRENCE IN PATIENTS WITH COMPLETE TUMOUR REGRESSION OF RECTAL CANCER (PTON0)

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Aim: To analyse whether there is a relationship between the disease-free interval and the administration of adjuvant chemotherapy in patients with complete tumour regression with rectal cancer (pTON0).

Method: Retrospective study. All patients operated on for locally advanced rectal carcinoma between January 2004 and December 2019 were collected in a database. Inclusion criteria were: neoadjuvant treatment with chemoradiotherapy, total mesorectal excision and histological complete regression (pTON0). Exclusion criteria were: emergency surgery, distant metastatic disease at the time of diagnosis or the presence of pathological lymphadenopathies in the surgical specimen (pTON1). The following variables were studied and analysed: age, sex, location (head, body, tail), form of presentation, grade, stage, type of intervention, complications according to the Clavien-Dindo classification, and survival. The data were tabulated and analysed using the IBM SPSS Statisticâ version 25 statistical program. In the case of categorical variables, the proportion of each variable with respect to the total number of patients was calculated. For the quantitative variables, the mean and standard deviation were studied. For the statistical calculation, the t student for independent samples was used.

Results: During this period 224 patients were treated, of whom only 32 showed complete regression (pTON0). Of these, 17 patients received chemotherapy according to the stage prior to neoadjuvant treatment, based on the XELOX schedule. Six recurrences with subsequent exitus were described during follow-up, three in each group. (OR:1.13;(0.19–6.4)95%CI; $P = 0.888$. The median (months)

disease-free interval of the group that received chemotherapy was 89.8 ± 46.5 months while the rest was 100.7 ± 67.4 months. ($P = 0.59$ (-52.4–30.4)95%CI).

Conclusion: Despite postoperative chemotherapy, no significant increase in disease-free-interval was observed in patients with complete regression (pT0N0).

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Disclosure of Interest: None declared

PO-235 | NO IMPACT OF RECTAL WASHOUT ON THE ONCOLOGICAL OUTCOME IN ABDOMINOPERINEAL RESECTION FOR RECTAL CANCER

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Aim: Intraoperative rectal washout in rectal cancer surgery is performed to reduce the risk of local recurrence by elimination of exfoliated intraluminal cancer cells. Rectal washout in abdominoperineal resection has not been studied. This study aims to assess the oncological outcome after rectal washout in abdominoperineal resection for rectal cancer and to find evidence if rectal washout should be performed or not.

Method: All patients registered in the Swedish Colorectal Cancer Registry treated with elective RO abdominoperineal resection for TNM stage I-III rectal cancer during 2007–2013 were included. Multivariable analysis was performed.

Results: No differences were shown between the rectal washout group and no rectal washout group in rates of local recurrence [10/265 (3.8%) vs 87/2160 (4.0%), $p = 0.84$], distant metastasis [51/265 (19.2%) vs 476/2160 (22.0%), $P = 0.29$] and overall recurrence [53/265 (20.0%) vs 505/2160 (23.4%), $P = 0.21$]. In multivariable analysis, rectal washout did not impact the oncological outcome in terms of local recurrence, distant metastasis, overall recurrence and 5-year overall and relative survival.

Conclusion: Our results do not support routine rectal washout in abdominoperineal resection to improve the oncological outcome. Rectal washout in abdominoperineal resection may be important in other aspects. Further studies are needed to investigate the

importance of rectal washout in rectal cancer surgery. Uniform guidelines on how to perform rectal washout are warranted.

Disclosure of Interest: None declared

PO-236 | CURRENT PRACTICES CONCERNING THE ASSESSMENT AND TREATMENT OF LATERAL LYMPH NODES IN LOW RECTAL CANCER: A SURVEY AMONG COLORECTAL SURGEONS IN THE NETHERLANDS

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Aim: The presence of lateral lymph nodes (LLNs) in patients with rectal cancer is not always acknowledged by the multidisciplinary team or treated in a standardized manner and (inter)national guidelines concerning this topic are lacking. This study evaluated the current practices regarding the assessment and treatment of LLNs in rectal cancer patients based on a survey among Dutch colorectal surgeons.

Method: An online survey was sent to members of the Dutch Association of Coloproctology (WCP). The survey consisted of 16 questions addressing their views on diagnosis, restaging, and treatment approaches for suspicious LLNs.

Results: A total of 62 surgeons from 50 Dutch hospitals responded. For patients with a distal cT3/T4 rectal tumor; lateral lymph node compartments were only routinely discussed during multidisciplinary meetings in nine hospitals (18%). When defining a suspicious LLN; the size threshold varied from > 3 to > 10 mm (median 7, SD 2) and MRI-based malignant features were mentioned by 29 surgeons (47%). Surgeons stated eight different treatment strategies as their designated treatment of suspicious LLNs. A total of 33 surgeons (53%) would add a radiotherapy boost to the neoadjuvant treatment. In cases of surgical resection of the LLN; 12 surgeons (19%) would choose to remove the suspicious LLN by 'node-picking', of which 11 surgeons (18%) would base their decision on the response on the restaging MRI and one surgeon (1%) on the primary MRI. Furthermore, 44 surgeons (71%) would choose to perform a lateral lymph node dissection, of which 40 surgeons (65%) would base this decision on the restaging MRI and four surgeons (6%) would base their decision on the primary MRI. Six surgeons (10%) would not surgically remove the suspicious LLN at all.

Conclusion: These results highlight the variation present in the awareness of LLNs, the different definitions which are used and the existence of various treatment approaches. International guidelines based on further research are warranted.

Disclosure of Interest: None declared

PO-237 | OPTIMISING PRE-OPERATIVE HAEMOGLOBIN LEVELS WITH IV IRON TRANSFUSION IN ANAEMIC PATIENTS UNDERGOING ELECTIVE COLORECTAL CANCER RESECTION

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Aim: The aim of this Quality Improvement project was to assess the rates of iron deficiency anaemia pre-operatively in patients undergoing elective resection for colorectal cancer and whether their Hb was optimised with iron replacement before their procedures.

Method: We identified 262 patients with colorectal cancer who had undergone elective surgeries between June 2018 and June 2019 and using the electronic system Trakcare we looked at iron levels at 3 distinct points: diagnosis of malignancy, post intervention (either oral or IV iron replacement) and pre-operatively. Our primary outcome was to assess the rates of anaemia in patients with colorectal cancer and our secondary outcome to assess Hb levels pre and post iron replacement therapy.

Results: Of the 262 patients who underwent elective resections, we found 83 (31%) to be anaemic according to the WHO definition of anaemia ($< 120\text{g/l}$ in females and $< 130\text{g/l}$ in males)¹. Of these patients, 40 (15%) were given oral iron replacement, 4(1.5%) were given iron transfusion and 7 (2.6%) had a blood transfusion pre-operatively. Of the patients who received oral iron, 7.5% were identified as having severe anaemia ($< 70\text{g/l}$) compared to 50% of the patients who received IV iron. The mean Hb in patients who received IV iron was increased by 16.25g/l compared to 7.78g/l in patients who were given oral iron replacement.

Conclusion: In our institution, many patients with preoperative iron deficiency anaemia are not receiving adequate iron replacement prior to their operations. Therefore, we have instituted a pathway for patients with a new diagnosis of colorectal cancer to check their haematinics prior to MDT discussion and to refer to our newly established IV iron transfusion clinic run by a consultant anaesthetist. By optimising the pre-operative HB with IV iron, we are looking forward to optimising post-op recovery and improving the overall outcomes.

Reference:

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Disclosure of Interest: None declared

PO-238 | ALBUMIN ROLE IN ASSOCIATION WITH C-REACTIVE PROTEIN AS POSTOPERATIVE COMPLICATIONS' PREDICTORS IN COLORECTAL SURGERY

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Aim: Our purpose was to investigate the potential role of albumin in comparison with C-reactive protein (CRP) as a predictive marker of postoperative complications in colorectal surgery.

Method: Adult patients who underwent elective colorectal surgery between January 2019 and December 2020 were eligible. Serum levels of albumin and CRP were measured preoperatively and on the first 4 postoperative days. Univariate analysis was performed to assess the association of albumin and CRP with postoperative complications. Receiver operating characteristic curve analysis and Youden test were used to determine acuity and predictive cut-off values.

Results: Ninety-three patients were included. A CRP cut-off of 83.4 mg/dL on postoperative day (POD) 4 was the best predictor of postoperative complications ($P < 0.001$; AUC 0.83, 70% sensitivity, 91% specificity). Major complications were strongly correlated with ΔAlb on POD 2, 3 and 4 ($P < 0.001$), with a ΔAlb cut-off of 27.4% on POD 2 showing the strongest association with this outcome (AUC 0.834, 83% sensitivity, 90% specificity). Regarding anastomotic leak, CRP on POD 3 showed better predictive values ($P = 0.037$; AUC 0.792) with a cut-off value of 88.7 mg/dL (100% sensitivity, 52% specificity).

Conclusion: Herein, the authors demonstrate there is a role for albumin, as an earlier and sensitive marker, to predict major postoperative complications in colorectal surgery. This analysis may be further applied to aid in the early identification of significant causes of reoperation and long-term morbimortality.

Disclosure of Interest: None declared

PO-239 | MANAGEMENT OF EARLY COLORECTAL CANCER (PT1)

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Aim: The introduction of screening programs and the increasing use of colonoscopy has improved detection of early colorectal cancer (ECC). The fact that there is not a established consensus for ECC treatment along with the current trend towards organ preservation makes conservative strategies to be considered. The aim of this

study was to know if it is feasible to avoid segmental resections in ECC.

Method: We performed a retrospective cohort analysis of patients with ECC (pT1) over 2-year period (July 2018-June 2020). Patients were stratified in low, intermediate and high risk based on sixth factors: differentiation grade, tumor size, parietal infiltration, lymphatic/vascular invasion, tumor budding and affection of resection margins.

Results: A total of 59 patients (7 low risk, 16 intermediate risk and 36 high risk) were included in the study. Low-risk patients went on clinical follow-up in all cases. Eight patients from intermediate-risk group were managed conservatively, 3 went to TAMIS procedure and 5 underwent primary surgical resection. Of the 36 high-risk patients, in 18 of the cases, clinical follow-up was carried out due to comorbidities or by decision of the patient. TAMIS was performed in 4 cases and radical surgery was performed in 14 patients. Among those who endoscopic excision was the definitive treatment no cancer progression or recurrence was detected (follow-up median 25 months +/- 9.5). In the case of patients underwent primary surgical resection, a 26,3% had residual tumor (3 pT1, 1 pT2, 1 pT3), 15,7% had affected lymph nodes (2 N1, 2 N2) and 3 required adjuvant therapy. Postoperative follow-up of the patients was performed (median 17,5 months +/- 7.3) without detecting progression or subsequent recurrences.

Conclusion: Organ preservation appears to be a safe strategy in patients with ECC, after individualized risk estimation, assessment by a multidisciplinary team and in accordance with patient wishes.

Disclosure of Interest: None declared

PO-240 | EVALUATION OF MTHFR GENE C677T POLYMORPHISM IN PATIENTS WITH COLORECTAL CANCER IN AN AZERBAIJANI POPULATION

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Aim: Folate metabolism is important for maintaining genome stability due to its role in DNA synthesis, repair, and methylation (Levin and Varga 2016). The C677T (rs1801133) polymorphism in exon 4 of the MTHFR gene replaces an alanine to valine amino acid in a codon 222 (Haghighi and others 2009). This change affects the active site of the enzyme and reduces enzyme activity. Several studies have reported a controversial association between MTHFR C677T gene polymorphism and colorectal cancer risk among different populations (Guerreiro and others 2008). We evaluated MTHFR gene C677T polymorphisms in patients with colorectal cancer in a population-based case-control study in the Azerbaijan population for the first time.

Method: The genomic DNA of 155 patients with CRC and 155 healthy controls was isolated according to manufacturer instructions.

Genotyping was performed by polymerase chain reaction-restriction fragment length polymorphism (PCR-RFLP) to determine the frequency of the MTHFR C677T polymorphisms.

Results: The frequencies of the CC, CT, and TT genotypes of MTHFR (C677T) were 54%, 37%, and 9% in the patients with CRC and 65%, 29%, and 6% in the healthy control, respectively. Heterozygote CT (OR = 1.422, 95%CI = 0.883–2.289, $P = 0.147$) and homozygous mutant TT (OR = 1.440, 95% CI = 0.619–3.348, $P = 0.395$) genotypes were more frequent in CRC patients compared to controls. The frequency of the T allele was 27.4% (OR = 1.424, 95% CI = 0.983–2.062, $P = 0.061$) in the patients.

Conclusion: We have observed that individuals who had MTHFR C677T C/T genotypes were at an increased risk of developing CRC. We found no obvious association between recessive and dominant genetic comparison models and CRC. There was also no association between genotypes of MTHFR C677T and the tumor grade and stage.

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Disclosure of Interest: None declared

PO-241 | IMPLEMENTATION OF STANDARDIZED SURGICAL TECHNIQUE AND PERI-OPERATIVE CARE PATHWAYS IN MINIMALLY INVASIVE RESTORATIVE RECTAL CANCER RESECTION – THE DELANEY-PACKAGE. A SINGLE CENTER COHORT STUDY

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Aim: We aimed to describe implementation of technical surgical and combined peri-operative care protocols in an effort to reduce variability, decrease the risk of anastomotic leakage, and improve other

secondary outcomes for rectal cancer patients undergoing robot-assisted restorative rectal resection (RRR).

Method: We evaluated rectal cancer patients undergoing intended minimal invasive RRR at Aarhus University Hospital between 2017 and 2020. Six standardized surgical steps (the “Delaney-package”) directed to improve anastomotic healing were mandatory for all RRR. Additional changes were made during the period with prohibition of dexamethasone and limiting the use of endoscopic stapling technique.

Results: The use of the full Delaney-package, including all six surgical steps, increased from 40.3% (95% CI, 0.28–0.54) to 86.2% (95% CI, 0.68–0.95). The risk of AL decreased from 21.0% (95% CI, 0.12–0.33) to 6.9% (95% CI, 0.01–0.23). The mean length of hospital stay decreased from 8.9 days (range 2–50) to 6.6 days (range 2–26). The readmission rate decreased from 21.0% (95% CI, 0.12–0.33) to 6.9% (95% CI, 0.01–0.23).

Conclusion: The full Delaney-package was effectively implemented for rectal cancer patients undergoing robot-assisted RRR. The risk of AL, length of hospital stay and number of patients readmitted decreased during the study period. A team focus on high-reliability and peri-operative complications can improve patient outcomes.

Disclosure of Interest: None declared

PO-242 | SYSTEMATIC REVIEW OF SURVIVAL FOLLOWING LIVER METASTECTOMY FOR METASTATIC ANAL SQUAMOUS CELL CARCINOMA

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Aim: Metastatic anal squamous cell carcinoma (SCC) is associated with a poor prognosis. Mainstay of treatment for distant metastases is systemic chemotherapy, with little evidence for surgical resection. This review aims to review survival outcomes of resection for anal SCC liver metastases.

Method: This systematic review is reported according to PRISMA statement and pre-registered with the Propsero database CRD42021242289. A search of Medline, Embase, Cochrane and Pubmed was undertaken. Search terms included anal squamous cell carcinoma, liver resection, metastasectomy, and hepatectomy. Articles were included if they reported disease free and overall survival outcomes in patients treated surgically with curative intent for anal SCC liver metastases. Data extraction was performed by two authors using predefined data fields. Primary outcome was disease free survival. Secondary outcomes included overall survival and quality of life measures.

Results: A total of eight papers were included; six of which were case reports, one case series and one cohort study. These studies included an overall total of 37 patients. There was heterogeneity in the reporting of outcomes measures across all the studies. In 10 patients across seven studies, median disease free survival was 13.5 months and median overall survival of 23.5 months. A further study

which reported on 27 patients did not allow extraction of raw numbers, but described a median disease free survival of 9.6 months and a 5 year overall survival of 22.9%. No studies reported quality of life measures.

Conclusion: There is limited evidence for survival outcomes following liver metastectomy for anal squamous cell carcinoma, however the included studies show the prognosis is poor. This information may be useful when counselling patients for potential liver resection for potentially curative metastatic disease. Further collaborative studies are recommended to incorporate larger numbers of patients.

Disclosure of Interest: None declared

PO-243 | TRANSVERSE COLON CANCER: CLINICAL AND ONCOLOGICAL OUTCOMES, ON A PROSPECTIVE COHORT STUDY FOR OPEN, LAPAROSCOPIC AND ROBOTIC COLECTOMY

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Aim: There are fewer studies on the surgical management of transverse colon cancer (TCC), as many key trials excluded TCC. This study aims to evaluate clinical and long-term oncological outcomes comparing open, laparoscopic and robotic TCC resections.

Method: Consecutive patients who underwent elective surgery between May 2013 and January 2020 for TCC were included. Data is kept on an ethics approved prospective database. Primary outcome was represented by the overall (OS) and disease-free survival (DFS). Secondary outcomes included postoperative complications, operative time, length of stay (LOS) and lymph node harvest (LNH). Statistical analysis was corrected for age and tumour localization.

Results: 204 patients (36 robotic, 52 open and 116 laparoscopic resections) were recruited in this study. Operative time was significantly shorter in robotic vs laparoscopic procedures (195 vs 230 min, $P = 0.02$) and LOS was shorter in robotic vs laparoscopic and open group (7 vs 8 vs 15 days, $P < 0.001$). There was no difference in overall complications. There were 4 conversions during laparoscopic procedures. Oncologically, RO resections were similar; LNH was highest in the robotic group vs. laparoscopic or open (32 vs. 29 vs. 22, $P = 0.001$). Five-year OS was 97%, 84% and 62% ($P < 0.001$) and 5-year DFS was 91%, 78% and 60% ($P = 0.002$) for robotic, laparoscopic and open groups respectively.

Conclusion: Minimally invasive surgery for TCC is safe and offers good long-term outcomes. Robotic resection is associated with significantly shorter operating times, higher LNH, lower conversion rate and does not increase morbidity. Difference in long-term DFS and OS should be further explored in a comparative study on a larger cohort.

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Disclosure of Interest: None declared

PO-244 | TUMOR RESPONSE AFTER NEOADJUVANT TREATMENT IN YOUNG RECTAL CANCER

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Aim: The incidence of colorectal cancer in young adults is increasing worldwide and is associated with a more aggressive pattern on disease. This has implications on treatment options and prognosis, particularly in young adults presenting with rectal cancer (yRC). The aim of our study was to assess the tumor response following neoadjuvant treatment in yRC compared to the older patients as a surrogate marker of disease biology.

Method: A monocentric cohort study was undertaken including all adult patients (aged 18–80) with non-metastatic middle third and lower third rectal cancer requiring neoadjuvant treatment between 2005 and 2019. Patients were defined as yRC if they were age < 50 at time of diagnosis. The composite primary end-point was pathological complete (CR) and near-complete response (nCR). Secondary end-points were long-term oncological outcomes.

Results: 783 patients were included; with 114 patients were defined as yRC. Clinical, oncological and surgical data were comparable between yRC and older patients. There were no differences between neoadjuvant regimens used; with induction chemotherapy used in 22% and 16%, respectively. Pathological CR and nCR were achieved in 23% vs. 27% ($P = 0.326$). Younger patients were more likely to have distant recurrence at 5 years (26% vs. 18%, $P = 0.05$).

Conclusion: This study is the largest serie focused on the tumor response in yRC which is becoming a major concern in colorectal oncology. Our results suggest that there is no difference in tumour response rates to neoadjuvant treatment between young and older patients. However, the higher rate of distant metastases warrants further investigation.

Disclosure of Interest: None declared

PO-245 | COMPONENT BASED TRAINING IN ROBOTIC TME SURGERY: A PILOT STUDY

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Aim: The widespread adoption of robotic total mesorectal excision (TME) for rectal cancer has been driven through the delivery of standardised training programs for established surgeons. There is now increasing interest in training robotic novice surgeons. The aims of our study were to assess the feasibility of delivering a structured, component-based, training curriculum to surgical trainees and to assess whether dual robotic training can be achieved.

Method: A prospective pilot study was undertaken between January 2021 and April 2021. A training pathway was designed based on the recommendations from European Association of Robotic Colorectal Surgery. Two trainees were trained per each robotic case based on prior experience, training grade and skills-set.

All trainees were assessed using the Global Evaluative Assessment of Robotic Skills (GEARS) score to assess overall robotic proficiency and EARCS Global Assessment Score (GAS) forms to assess procedure-specific proficiency.

Results: Three trainees participated; performing 52 combined TME resections. Key components of all TME operations were performed by the trainees, including 49 (94.2%) IMA division, 37 (71.1%) IMV ligation, 38 (73.0%) lateral mobilisation, was 32 (94.1%) splenic flexure mobilisations and 47 (90.4%) TME.

Median operating time was 276 minutes. The conversion rate was 1.9%. There were no intra-operative complications. Post-operative complication rate was 21.1% and median length of stay of 7 days.

The GEARS score improved from a mean overall baseline score of 17.3 (95% CI 15.1 – 1.4) a mean score of 23.8 (95% CI 21.6 – 25.9), $P = 0.003$, at the end of the pilot. The GAS scores improved incrementally for all trainees at each candidate assessment ($P < 0.001$).

Conclusion: Employing a component-based approach to training in robotic TME surgery is safe and feasible and can be used to train multiple trainees of differing grades simultaneously, whilst maintaining high quality clinical outcomes.

Disclosure of Interest: None declared

PO-246 | ONCOLOGICAL OUTCOMES OF ANASTOMOTIC LEAKAGE AFTER RECTAL SURGERY

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Aim: Anastomotic leakage is one of the most feared and frequent complication of rectal surgery and its effect on oncological outcomes is still not clear. We try to determine the relevance of anastomotic leakage on oncological outcomes after rectal surgery.

Method: We studied retrospectively all patients who underwent TME for rectal adenocarcinoma with curative intent from 2011 to 2018 by Colorectal Surgery Unit of Campus Bio-Medico University of Rome. Anastomotic leakage was defined by clinical symptoms, laboratory examination and CT scan.

Results: Of a total of 135 patients, 19 were excluded and anastomotic leakage was observed in 24 (21% per cent). After a mean follow-up of 36 months, local recurrence was observed in 7 patients (5.18% per cent). Statistical analysis identified one independent risk factors for reduced local recurrence-free survival (LRFs) that is anastomotic leakage ($P = 0.002$) Other interesting finding is the statistically significant correlation between anastomotic leakage and pN+ ($P = 0.05$). Furthermore, correlation between anastomotic leakage and pT4a category ($P = 0.009$) is statistically significant but its correlation with pTb category is not significant ($P = 0.07$).

Conclusion: We found a statistically significant correlation between anastomotic leakage, disease local recurrence, pN+ and pT4a category, in patients underwent to rectal surgery for adenocarcinoma.

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Disclosure of Interest: None declared

PO-247 | OUTCOME OF COLORECTAL CANCER IN GERIATRIC PATIENT

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Aim: To evaluate outcome of patients diagnosed with Colorectal cancer in patients aged 80 years and over

Method: Retrospective study of all patients 80 years and above managed with colorectal cancer at the Luton and Dunstable University Hospital UK from January 2015 through December 2019. Data were retrieved by detailed review of the hospital case notes on ICE and Evolve Parameters recorded: age, gender, presentation, stage of the disease, MDT discussion, intervention, and outcome. Tumour locations were classified as the right colon, left colon and rectum.

Results: 278 patients were diagnosed with colorectal cancer, Male (143) Female (135) ratio 1:1.05. The mean age of 85.44 years 54.31% patients underwent surgical intervention. 36.69% patients deemed unsuitable for resection surgery were treated with best supportive care. ASA grade 57.19% patients were in grade III, 24.10% grade II and 12.23% grade 4. In the Right colon subset of patients there was a total of 43.16% patients 70 Female and 50 Male, In 38.48% patients with Left Colon cancer there were 64 Male and 43 Female. Of 17.26% Rectal cancer patients there were 25 Male and 23 Female. 15.10% had complications after surgery. 46.40% patients died during the study period. Incidence of colorectal cancer was greater for cancers of the left side of colon than right colon. (55.75% vs 43.16%).

Conclusion: Age on its own would not be taken as for less aggressive therapy; Careful assessment of the patient taking into consideration comorbidities, functional status and patient wishes are essential in decision making and choosing appropriate management plan. Curative surgery for colorectal carcinoma in the geriatric patients are well tolerated. Management of comorbidities preceding surgery may impact postoperative outcome.

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PO-248 | IMPACT OF FRAILTY AND MEDIUM-TERM OUTCOME OF EMERGENCY COLORECTAL CANCER SURGERY

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Aim: To investigate the effects of frailty on post-op mortality following emergency colorectal cancer surgery on short- and medium-term outcome.

Method: Data of patients who underwent emergency colorectal cancer operations between January 2013 and December 2016 was reviewed retrospectively. Collected data included demographic and operative data, clinical frailty scale (CFS), Charlson comorbidity index (CCI) and causes of death. Follow-up data was for a minimum of 3 years.

Results: Three-hundred and eight patients (median age 72, range 18-100 years) underwent emergency colorectal cancer surgery. Of the surgeries performed 173(56.2%) were with curative intent, and 119(38.6%) were palliative; 75(24.4%) patients had metastatic cancer at the time of emergency surgery. There were 78(25.3%) patients defined as vulnerable(CFS ≥ 4), while 119(38.6%) were comorbid(CCI of ≥ 8).

Thirty-day mortality was 4.2% (13 patients) and further 13 patients died within 90 days (8.4%). By 1 year 73(23.7%) patients had died, and by 3 years 154(50.0%) patients died. Deaths up to 90 days were largely attributed to infection(13), however metastasis was the dominant cause of death by 1 year(43) and 3 years(98). Vulnerable patients, compared to those of CFS ≤ 3 (well managed) had higher 3-year mortality rate(61.5% vs 46.1%, $P = 0.018349$) 1-year mortality rate(37.2% vs 19.1%, $P = 0.0012$) and 90-day mortality rate(17.9% vs 5.2%, $P = 0.0005$), while 30-day mortality differences were insignificant ($P = 0.27$). More comorbid patients(CCI ≥ 8) had higher 3-year mortality rate(76.5% vs 33.3%, $P < 0.00001$), 1-year mortality rate

(40.3% vs 13.2%, $P = 0.0001$) and 90-day mortality rate (14.3% vs 4.8%, $P = 0.0034$) but no such difference was seen in 30-day mortality ($P = 0.25$).

Conclusion: Frail and comorbid patients survive the first 30 days after emergency operation, but are significantly more at risk of dying at 90 days, 1 year and 3 years. At medium term, most deaths are due to metastasis.

Disclosure of Interest: None declared

PO-249 | LATERAL PELVIC LYMPH NODE RECURRENCE AFTER NEO-ADJUVANT CHEMO-RADIATION FOR LOCALLY ADVANCED RECTAL CANCER

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Aim: Lateral pelvic lymph node metastasis in adenocarcinoma of rectum is defined as distant metastasis traditionally. Lateral pelvic LN dissection is not conventionally done in our locality. The current study aims review the lateral pelvic LN recurrence in patient with locally advanced rectal cancer which were treated with long course CRT followed by standard TME surgery alone.

Method: All patient with locally advanced rectal cancers were seen by multi-disciplinary team. They were given long course neoadjuvant CRT followed by total mesorectal excision surgery with sphincter preservation or abdominoperineal resection. All patients were regularly followed up for recurrence and their information was collected prospectively.

Results: From March 2014 to Jan 2020, 88 patients with non-metastatic locally advanced rectal cancer treated with neoadjuvant CRT followed by curative surgery were included. The median follow-up was 37.7 months. 20 out 88 patients had enlarged lateral pelvic LN (short axis > 5 mm) on primary staging MRI. 9 of the 20 patients had persistent LN after CRT.

8 of 20 (38.1%) patients with persistent LN had recurrence. One was solitary pelvic LN, 2 were pelvic LN and systemic, 3 were systemic and 2 were local recurrence.

Among the 12 patients with PLN resolved after CRT, there was no PLN recurrence, 1 systemic recurrence and 2 local recurrence.

Among the 68 patients who had no PLN at presentation, no one developed PLN after CRT and there is no PLN recurrence detected. There were 13 systemic recurrences.

Conclusion: CRT can effectively control metastatic PLN. Routine pelvic LN dissection after long course CRT is not indicated. Further study with larger sample size is required for formal statistical analysis and to determine the benefit of lateral PLN for persistent LN after CRT.

Disclosure of Interest: None declared

PO-250 | SECOND-GENERATION COLON CAPSULE
ENDOSCOPY FOR DETECTION OF COLORECTAL POLYPS:
SYSTEMATIC REVIEW

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Aim: Colorectal cancer counts as the third prevalent type of cancer and the fourth cause of death worldwide. The second-generation colon capsule endoscopy (CCE-2) is a new technology for the diagnosis of colon cancer. The aim of this review was to provide information on the diagnostic accuracy (diagnostic effectiveness) of the second-generation colon capsule endoscopy compared to colonoscopy for the diagnosis of colon cancer and disorders.

Method: A systematic review of literature in PubMed, Scopus, Science Direct and Cochrane Library was conducted on February 30, 2018. Cochran's Q test and I² index were used to evaluate the heterogeneity of the studies. QUADAS-2 was used to assess the quality of the studies.

Using the same type of indicators extracted from the included studies, data pooling was done in MetaDiSc 14 software, which is usually used for the meta-analysis of diagnostic value studies. Results were plotted using the Forest plot and SROC curves.

Results: In this review 480 records was identified. Eight prospective cohort articles were included among which 7 entered the meta-analysis. For the diagnosis of colorectal polyps with a diameter of 6–10 mm, the pooled sensitivity and specificity were 84% (95% CI, 80–88%) and 88% (95%CI, 85–90%). For the diagnosis of 10 mm or bigger colorectal polyps, the pooled sensitivity and specificity were 84% (95% CI, 76–89%) and 96% (95% CI, 94–97%). The sensitivity and specificity of the capsule in the detection of any size polyps were 93% (95% CI, 97–84%) and 66% (95% CI, 48–81%), respectively.

Conclusion: This review showed that the second-generation colon capsule endoscopy has good accuracy in the detection of polyps and colorectal cancer among high and middle risk patients. However, the CCE-2 lacks the ability to biopsy or removal of polyps, which can be done by conventional colonoscopy. Nevertheless, more studies are needed to reach an accurate estimation of the sensitivity and specificity of the CCE-2.

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Disclosure of Interest: None declared

PO-251 | COMBINED TRANSANAL AND LAPAROSCOPIC APPROACH TO TREAT ANASTOMOTIC LEAKAGE AFTER ANTERIOR RESECTION FOR RECTAL CANCER

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Aim: The rate of anastomotic leakage after anterior rectal resection is 10–25%. Standard treatment remains laparotomy and terminal colostomy. This approach aims to reduce the rate of terminal colostomies, decrease hospital stay and the rate of permanent ostomies.

Method: Analysis of surgery to treat anastomotic dehiscence in patients operated for Rectal Cancer between January 2017 and June 2021 in a colorectal surgery department accredited for the treatment of advanced colorectal pathology. Analysis of the usefulness of incorporating transanal revision in emergency surgery.

Results: During this period, 327 patients with rectal cancer underwent radical surgery. In 74.6% of cases, sphincter-preserving surgery with colorectal anastomosis was performed. There were 21 cases of suture dehiscence (8.2%). 19 patients were reoperated (90%) and 2 of them were treated with antibiotics. The median days of diagnosis was 5 ° postoperative days (range 2–20) and on 3 occasions the PCR was less than 140 mg/l at the time of diagnosis.

In 12 cases, a minimally invasive combined transanal and transabdominal approach was performed (TAMIS + Laparoscopy), 2 laparoscopy, 2 laparoscopy with conversion to open surgery, 1 laparotomy and 2 perineal-only approaches. The 12 cases treated with the hybrid method were able to preserve the colorectal anastomosis and had a good recovery. Attached are 3 case videos with a hybrid approach (laparoscopy + TAMIS) to show the technique and the importance of the time elapsed between the initial surgery and the revision surgery.

Conclusion: The treatment of colorectal anastomotic leakage, if trained equipment is available, can be performed by minimally invasive surgery with a combination of laparoscopic and transanal

approach safely and effectively. It is also important to have strategies for early diagnosis.

Disclosure of Interest: None declared

PO-252 | EXTERNAL VALIDATION OF THE SURGICAL OUTCOME RISK TOOL (SORT) IN PATIENTS WITH COLORECTAL CANCER UNDERGOING SURGERY

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Aim: Surgical outcome risk tool (SORT) has been developed to provide enhanced and more feasible identification of high-risk surgical patients. Nonetheless, SORT has not been validated previously for patients with colorectal cancer (CRC) undergoing surgery. Our aim was to determine whether SORT can accurately predict mortality after surgery for CRC and to compare it with other risk models.

Method: We retrospectively incorporated 526 patients who underwent surgery by a single colorectal surgical team in a tertiary hospital (2011–2019). Five risk models were assessed: (i) SORT, (ii) Physiology and Operative Severity Score for the enumeration of Mortality and Morbidity (POSSUM), (iii) Portsmouth POSSUM (P-POSSUM), (iv) Colorectal POSSUM (CR-POSSUM), and (v) the Association of Great Britain and Ireland (ACPGBI) score. Model accuracy was assessed by observed to expected (O:E) ratios, and area under Receiver Operating Characteristic curve (AUROC).

Results: Ten patients (1.9%) died at 30 days postoperatively. SORT was associated with an excellent level of discrimination [AUC:0.81 (95% CI:0.68–0.94); $P = 0.001$] and provided the best performing calibration in the entire dataset analysis (H–L:2.82; $P = 0.83$). Nonetheless, SORT underestimated mortality. In subgroup analysis, SORT model demonstrated excellent discrimination and calibration predicting perioperative mortality in patients undergoing (1) open surgery, (2) emergency/acute surgery, and (3) in cases with colon-located cancer.

Conclusion: SORT is a friendly and easily adopted risk-assessment tool, associated with enhanced accuracy, that could be implemented in the perioperative pathway of patients undergoing surgery for CRC.

Disclosure of Interest: None declared

PO-253 | LAPAROSCOPIC VERSUS OPEN RIGHT HEMICOLECTOMY IN THE ERA OF COMPLETE MESOCOLIC EXCISION WITH CENTRAL VASCULAR LIGATION (CME-CVL): PATHOLOGY AND SHORT-TERM OUTCOMES

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Aim: Right hemicolectomies performed according to complete mesocolic excision with central vascular ligation (CME-CVL) principles have been associated with enhanced oncologic outcomes. However, laparoscopic CME-CVL right hemicolectomy has not been widely adopted. We aimed to compare the short-term and pathology outcomes of laparoscopic and open CME-CVL right hemicolectomy.

Method: We incorporated data from a prospectively collected database regarding patients who underwent either laparoscopic or open CME-CVL right hemicolectomy for nonmetastatic right colon cancer in a tertiary hospital, between January 2012 and December 2018.

Results: A total of 130 consecutive patients were included in the present study. Seventy-three patients underwent laparoscopic and 57 patients open right colectomy, following the CME-CVL principles. The laparoscopic approach was associated with reduced hospital stay (6.6 versus 9.1 days; $P < 0.001$) and fewer septic complications ($P = .046$), at a cost of an increased operative time (180 versus 125.1 minutes; $P < 0.001$). Patients treated with either open or laparoscopic approach presented similar outcomes regarding pathology endpoints. In fact, both groups demonstrated similar R0 resection rate ($P = 0.202$), number of harvested and positive lymph nodes ($P = 0.751$ and $P = 0.734$, respectively), number of harvested lymph nodes at the level of D1 and D2 lymph node dissection ($P > 0.05$), rate of vascular ($P = 0.501$), and perineural infiltration ($P = 0.956$). Furthermore, no difference was found regarding the rate of intact mesocolic plane ($P = 0.799$), along with the tumor diameter ($P = 0.154$) and the length of specimen ($P = 0.163$).

Conclusion: Laparoscopic CME-CVL right hemicolectomy appears to offer certain advantages regarding short-term outcomes compared to open approach. Pathology outcomes did not differ between the two approaches. Future studies should further evaluate their long-term outcomes.

Disclosure of Interest: None declared

PO-254 | SHORT TERM OUTCOME OF LAPAROSCOPIC SURGERY FOR ELDERLY PATIENTS WITH COLORECTAL CANCER

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Aim: The number of elderly patients with colorectal cancer has increased in Japan. Laparoscopic surgery has been performed more

frequently on elderly patients in our hospital. This study aimed to clarify the safety of laparoscopic surgery for elderly patients with colorectal cancer in our hospital.

Method: From January 2014 to March 2020, 1193 colorectal cancer surgeries were performed at our hospital. There were 118 patients who were 85 years or older. Among them, 65 underwent laparoscopic surgery.

Results: The average patient age was 88 years old. There were 29 male patients. There were 31 hypertensive patients, 19 diabetic patients, 17 patients with cardiovascular diseases. There were 37 cases with tumors localized in the right-sided colon, 13 cases in the left-sided colon, and 15 cases in the rectum. Preoperative stenosis was present in 14 patients (22%).

A total of 32 right colectomies, 16 partial colon resections, 9 rectal resections, 6 Hartmann's operations, and 2 Miles operations were performed. The median operation time was 147 minutes, and the median intraoperative blood loss was 30 ml. Six patients required to be converted to an open laparotomy, but no intraoperative complications occurred. Diverting ileostomy was constructed in two cases. In terms of the final staging, there were 15 stage I cases, 21 stage II cases, 23 stage III cases, and 6 stage IV cases.

Ten cases involved postoperative complications (15%). These included four cases of surgical site infections, one case of an intra-abdominal abscess, four cases of urinary tract infections, and one case of delirium. There was one Clavien-Dindo classification grade 3 complication. No anastomotic leakage or surgery-related death occurred.

The average time to soft food intake was four days after surgery. The median length of hospital stay after surgery was eight days.

Conclusion: In this study, the frequency of postoperative complications was feasible, and laparoscopic surgery was safely performed to treat colorectal cancer in old patients.

Disclosure of Interest: None declared

PO-255 | ANAEMIA IS NOT ASSOCIATED WITH DISTANT METASTATIC DISEASE IN COLORECTAL CANCER

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Aim: Iron deficiency anaemia (IDA) has been established as a referral criterion to colorectal cancer clinics in the UK for over 20 years¹ irrespective of symptoms. Although IDA is established as a diagnostic marker, its prognostic value has not undergone sufficient evaluation. Additionally, normocytic anaemia (NA) and microcytic anaemia's (MA) prognostic relationship with colorectal cancer is unknown. Recent reports have shown an association between preoperative anaemia and risk of overall mortality², however its relationship with metastasis is unqualified. The aim of this study was to evaluate if patients referred to clinics with IDA, NA and MA were associated with distant metastases at diagnosis and mortality.

Method: A retrospective cohort study was undertaken on referred to the fast track colorectal cancer clinic that were later diagnosed with colorectal cancer over a 10-month period. Data collected included patient demographics, referral criteria, haemoglobin levels, ferritin levels, presence of distant metastasis on referral and mortality status. Statistical analyses were performed. Univariate analysis was performed using the Chi Squared test for dichotomous variables. Multivariate analysis was performed using binary logistic regression and Cox's proportional hazard's regression analysis for time dependent variables.

Results: 100 patients were identified. Median age was 74 years with a male to female ratio of 65:35. 54 patients were found to have an anaemia. 20 patients were confirmed to have IDA, whilst 15 patients had a MA, and 19 had a NA. Univariate analysis determined that NA, MA and IDA were significantly associated with distant metastases. However, multivariate analysis did not confirm this significant association for any modality of anaemia. Cox's proportional hazard's regression also did not show significant findings for mortality.

Conclusion: Anaemia (of any modality) is not associated with the presence of distant metastases at time of referral nor related to time to mortality.

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Disclosure of Interest: None declared

PO-256 | RISK OF PERITONEAL RECURRENCE AFTER LAPAROSCOPIC VERSUS OPEN SURGERY FOR PT4 COLON CANCER. A PROPENSITY SCORE-MATCHED ANALYSIS FROM AN INTERNATIONAL COHORT

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Aim: Peritoneal carcinomatosis (PC) is an uncommon site of recurrence for colon cancer (CC), but it strongly affects prognosis with

poor survival after diagnosis. Since no standard treatment has been established yet, efforts should be addressed towards the prevention of its occurrence. In particular, some literature suggested a detrimental effect of laparoscopic surgery in case of pT4 CC. This study aimed to determine the impact of laparoscopy on the development of PC after potentially curative resection for pT4 CC.

Method: This was an international multicentre retrospective cohort study that analysed patients from 5 tertiary referral centres. 276 cases fulfilled the inclusion criteria and were selected for analysis. After 1:1 propensity score matching (PSM), 63 patients in the laparoscopic group (*LapGroup*) were compared with 63 patients in the open surgery group (*OpenGroup*).

Results: After PSM, the two groups were comparable for demographic and clinical parameters. Operative data as well as specimen characteristics did not differ between surgical approach. *OpenGroup* presented a higher estimated intraoperative blood loss ($P < 0.001$) and post-operative length of stay ($P < 0.001$). Overall survival, cancer-specific survival, and disease-free survival resulted to be comparable between groups. The 5-year probability of developing PC was 16.2 per cent after laparoscopic surgery and 19.5 per cent after open surgery ($P = 0.686$). Multivariate analysis confirmed laparoscopy not to be an independent risk factor for PC.

Conclusion: Elective laparoscopic surgery for pT4 CC does not increase the risk of metachronous PC after potentially curative surgery. Moreover, long term outcomes are not inferior to conventional open resections.

Disclosure of Interest: None declared

PO-257 | LONG-TERM FOLLOW-UP OF COLONOSCOPY VERSUS CT IN COLORECTAL CANCER AND EFFECT OF PRE-OPERATIVE CLEAN COLONS IN ENDOSCOPIC FOLLOW-UP

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Aim: Assessing the effect of pre-operative clean colon in endoscopic follow up and the comparable outcomes between colonoscopy and CT Colonogram (CTC).

Method: This retrospective study looked at patients who underwent a colorectal cancer resection between January 2010-June 2019. 1022 patients were identified with a median follow up of 1107 days. Patients were assessed for pre-operative synchronous lesions, Chi-Squared and Kaplan Meier analysis was used to assess time to event data for any positive finding on post-operative colonoscopy, in those with and without a pre-operative colonic investigation.

Results: 674 patients received pre-operative colonoscopy or CTC. On post-operative colonoscopy or CTC follow up, 23.4% had subsequent positive findings (including small polyps and synchronous tumour) vs un-screened patients (29.4%, $P < 0.05$). The cumulative findings for those who had a post-operative colonoscopy within 1, 2,

3, and then 5 years has the following P -values $P = 0.044$, $P = 0.013$, $P = 0.021$, $P = 0.037$ respectively, indicating repeated colonoscopies does not increase pick up of mucosal abnormalities.

Conclusion: Pre-operative synchronous findings confers a statistical significance in the positive findings on post-operative endoscopic follow-up. This supports BSG guidance that post-operative endoscopic follow up should be determined by findings at high quality index colonoscopy or at one-year post-operative colonoscopy.

Disclosure of Interest: None declared

PO-258 | INFLUENCE OF POSTOPERATIVE CHEMOTHERAPY ON SURVIVAL IN PATIENTS WITH LOCALLY ADVANCED RECTAL CANCER WITH COMPLETE REGRESSION (pT0N0)

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Aim: To analyse whether there are differences in survival in patients with completely regressed rectal cancer (pT0N0) after adjuvant chemotherapy.

Method: Retrospective study. All patients operated on for locally advanced rectal carcinoma between January 2004 and December 2019 were collected in a database. Inclusion criteria were: neoadjuvant treatment with chemoradiotherapy, total mesorectal excision and histological complete regression (pT0N0). Exclusion criteria were: emergency surgery, distant metastatic disease at the time of diagnosis or the presence of pathological lymphadenopathies in the surgical specimen (pT0N1). The following variables were studied and analysed: age, sex, location (head, body, tail), form of presentation, grade, stage, type of intervention, complications according to the Clavien-Dindo classification, and survival. The data were tabulated and analysed using the IBM SPSS Statisticã version 25 statistical program. In the case of categorical variables, the proportion of each variable with respect to the total number of patients was calculated. For the quantitative variables, the mean and standard deviation were studied. For the statistical calculation, the t student for independent samples was used.

Results: During this period 224 patients were treated, of whom only 32 showed complete regression (pT0N0). Of these, 17 patients received chemotherapy according to the stage prior to neoadjuvant treatment, based on the XELOX schedule. Six recurrences with subsequent exitus were described during follow-up, three in each group. (OR:1.13;(0.19–6.4)95%CI; $P = 0.888$. The median (months) survival of the group that received chemotherapy was 93.8 ± 41.7 months while the rest was 104.7 ± 64.2 months. ($P = 0.11$ (-86.7-(-12.62))95%CI).

Conclusion: In our series, despite postoperative chemotherapy, no significant increase in survival was observed in patients who regressed completely (pT0N0).

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Disclosure of Interest: None declared

PO-259 | PREDICTION OF INFECTIOUS COMPLICATIONS AFTER COLON SURGERY AN ENHANCED RECOVERY AFTER SURGERY (ERAS) PROGRAM: THE ROLE OF C-REACTIVE PROTEIN

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Aim: Infectious postoperative (PO) complications in colorectal surgery are frequent and can be life-threatening for the patient. "Enhanced Recovery After Surgery" (ERAS) program allows optimization of the patient, a faster recovery and promoting early discharge. The late recognition of complications compromises the prognosis of these patients. C-reactive protein (CRP) value has been referred in many studies as a predictor of postoperative complications. This study pretends to identify a CRP cut-off which predicts infectious PO complications in patients who underwent colon surgery in our hospital center.

Method: This retrospective study included all patients undergoing elective colon surgery with primary anastomosis, between May 2019 and February 2021, in ERAS program. All complications were recorded until postoperative day (POD) 30 and CRP values were measured on POD2, POD3 and POD4. Mann-Whitney tests were used to compare CRP values between patients who had complications and those who did not, and receiver operating characteristic (ROC) curves were calculated to find the predictive value of CRP to identify infectious PO complications.

Results: 198 patients were included in this study, 60,6% were males and the median age was 70 years. The incidence of infectious PO complications was 10,6%. These patients had CRP values significantly higher on POD 2, 3 and 4, comparing to the ones who did not have complications ($P < 0.05$). Patients that underwent laparoscopic



surgery had lower values of CRP on POD 2 and 3 ($P = 0.002$ e $P = 0.007$). A CRP value of 89,9mg/L on POD3 had an area under the curve (AUC) of 0,771, corresponding to a sensitivity of 80%, a specificity of 76,6% and a negative predictive value of 96%.

Conclusion: CRP value on POD 3 reveals to be a good predictor of post-operative complications after elective colon surgery. A patient with a CRP value under 89,9 mg/L in POD 3 seems to have lower risk of developing infectious complications in PO period.

Disclosure of Interest: None declared

PO-260 | CLINICAL CHARACTERISTICS AND ONCOLOGICAL OUTCOMES OF ANAL SCAMOUS CELL CARCINOMA: COMPARATIVE ANALYSIS OF INMUNOCOMPETENT AND IMMUNOCOMPROMISED PATIENTS

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Aim: Most of the evidence focusing on oncological outcomes of anal squamous cell carcinoma (SCC) patients do not consider immunocompromise patient population. The aim of this study was to compare clinical and oncological outcomes among immunocompetent and immunocompromised patients with anal SCC.

Method: Multicentric retrospective comparative study including 2 cohorts of consecutive patients, immunocompetent and immunocompromised, diagnosed with anal SCC from 2012 to 2017. Analyzed variables included patient's clinical characteristics, clinical response to radical chemoradiotherapy (CRT) and long-term oncological results including both local and distant recurrence, overall survival (OS) and disease-free survival (DFS).

Results: A total of 84 patients, 47 (55,6%) female, diagnosed with anal SCC from January 2012 to December 2017 were included, 22 (26%) and 62 (74%) patients in immunocompromised and immunocompetent groups respectively. Patients in immunocompromised group were significantly younger (53 vs. 61 years, $P = 0.001$), with smaller tumoral size ($P = 0.044$) and reported higher rates of substance abuse including tobacco use ($P = 0.034$) and parenteral drug consumption ($P = 0.001$). No differences were found in administered therapies ($P = 301$) neither in clinical response to chemoradiotherapy (83% vs. 100%,). Moreover, similar 5-year OS (60% vs. 64%, $P = 0,756$) and DFS (65% vs. 68%, $P = 0,338$) were observed.

Conclusion: With a similar oncological therapy regimen, the present study shows no significant differences in long-term oncological results among immunocompetent and immunocompromised patients diagnosed with anal SCC. This evidence might be influenced due to the close monitoring and adequate therapeutic control of HIV positive patients, achieving an acceptable immunologic status.

Disclosure of Interest: I. Aguirre-Allende Conflict with: Government of the Basque Country - Department of Health, Conflict with: Coloplast A/S, Y. Saralegui-Ansorena: None declared, J. M. Enriquez-Navascues: None declared, G. Elorza-Echaniz: None declared, N. Borda-Arrizabalaga: None declared, A. Etxart-Lopetegi: None declared, J. L. Elosegui-Aguirrezabala: None declared, C. Placer-Galan: None declared

PO-261 | SIGNIFICANCE OF STEM-CELL MARKER IN NON-ADENOMATOUS COLORECTAL POLYPS

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Aim: A colorectal polyp is the most commonly encountered intestinal colon pathology in patients over 50 years of age; in 5% of them, colorectal cancer (also known as bowel or colon cancer) develops. The early-stage polyps can be detected and removed endoscopically, which reduces the incidence of carcinoma. The chosen study aimed to assess the non-adenomatous polyps in the development of colorectal cancer

Method: The risk of colorectal carcinogenesis can be reduced by polypectomy and close medical supervision upon patients with the case of adenomatous polyps. However, this issue is defined as controversial in non-adenomatous polyps

Results: It has to be noted that stem cell evaluation in adenomatous polyps may provide information about the development of carcinoma. However, the presence of stem cells in non-adenomatous polyps is suspected. For this purpose, the study aims to analyze the usefulness of CD133, a stem cell marker, for the prognosis of non-adenomatous colon polyps. Previously pathologically assessed non-adenomatous 31 colorectal polyps at Azerbaijan Medical University were reevaluated at the Pathology Department of the Meram Medical Faculty. Hematoxylin - Eosin stained preparations were examined and the cases with and without dysplasia were determined

Conclusion: The preparations were re-assessed by the image analysis program, and CD133 positive stained cells in the unit area were automatically calculated by the same image analysis system. In the study, the statistical significance of CD133 expression was detected in 2 cases with dysplasia. During the investigation, sensitivity to C133 in non-adenomatous polyps was examined and found to have a cut-off value below 10. Thus, the study confirms that non-adenomatous polyps are less likely to develop cancer than adenomatous polyps

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Disclosure of Interest: None declared

PO-262 | CYTOREDUCTION AND HYPERTHERMIC CHEMOTHERAPY IN COLORECTAL CANCER-PERITONEAL METASTASIS: DOKUZ EYLUL UNIVERSITY EXPERIENCE

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Aim: Cytoreductive surgery(CRS) combined with hyperthermic intraperitoneal chemotherapy(HIPEC) is primary treatment approach of peritoneal metastasis(PM) of colorectal cancer, though there remain some controversies. This study was aimed to evaluate our experience in management of patients with colorectal-PM treated with CRS and HIPEC to assess post-operative complications and final oncologic outcomes.

Method: Prospectively recorded archival data of patients with colorectal-PM who underwent CRS/HIPEC were reviewed. The

clinico-pathologic characteristics, operative findings, and morbidity results were analyzed. Critical decision-making for treatment options were strictly made in MDT for all patients.

Results: The study database consisted of 205 patients. The median age was 54 (ranging, 16 to 86) years and 49.8% was of female. Median follow-up was 25(ranging, 1 to 135) months. Primary tumor location was rectum in 38(18.5%) and colon in 167(81.5%) patients. Median PCI was 10(2–25) and 41.5% had synchronous PM. Neoadjuvant chemotherapy was given to 61%(n = 125) of patients. Complete cytoreduction(CC-0 and CC-1) was achieved in 95.1% of patients. Severe complications(Dindo-Clavien grade III-IV) were occurred in 29(14.1%) (Overall D-C I-IV; 30.2%) patients and the mortality rate was 6.8%(14 patients). The main reason for failure-to-rescue was sepsis due to anastomotic leak. The median length of hospital stay was 18(ranging, 3–94) days. The 1-, 3-, and 5-year overall survival were 76.6%, 39.1%, and 24.9%, respectively. In Cox regression analysis, rectal origin (p = 0.013), PCI = 11–15 (P < .001), PCI > 15 (P < 0.001), and morbidity (P < .001) were associated with shorter overall survival.

Conclusion: Despite the fact that ongoing concerns and debates are still major issue in scientific society, our study revealed that multimodal treatment of colorectal-PM with CRS and HIPEC in carefully selected patients has a highly reliable prognostic effect on survival.

Disclosure of Interest: None declared

PO-263 | LOW INCIDENCE OF PELVIC SEPSIS FOLLOWING HARTMANN'S PROCEDURE FOR RECTAL CANCER – A RETROSPECTIVE MULTICENTRE STUDY

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Aim: This study aimed to investigate the incidence of pelvic sepsis after Hartmann's Procedure, identify risk factors and describe when as well as how pelvic sepsis was diagnosed and treated.

Method: Data were collected from the Swedish Colorectal Cancer Registry on all patients undergoing HP for rectal cancer in the county of Skåne from 2007–2017. Patients diagnosed with pelvic sepsis were compared with patients without pelvic sepsis and risk factors for developing pelvic sepsis were analysed in a multivariable model.

Results: A total of 252 patients were included in the study, with 149 (59%) males, and a median age of 75 years (range 20–92). Altogether, 27 patients (11%) were diagnosed with pelvic sepsis. Risk factors for developing pelvic sepsis were neoadjuvant radiotherapy (OR 7.96, 95% CI 2.54–35.36) and BMI over 25 kg/m² (OR 5.26, 95% CI 1.80–19.50). Median time from operation to diagnosis was 21 days (range 5–355) with 11 (40%) patients diagnosed beyond 30 days postoperatively. The majority of cases 19 (70%) were treated conservatively and none needed major surgery.

Conclusion: Pelvic sepsis occurred in 11% of patients. Neoadjuvant radiotherapy and high BMI were significant risk factors for developing pelvic sepsis. Forty percent of patients were diagnosed later than 30 days postoperatively and most patients were successfully treated conservatively. Our findings suggest that HP is a valid treatment option for rectal cancer when anastomosis is inappropriate, even in patients receiving neoadjuvant radiotherapy.

Disclosure of Interest: None declared

PO-264 | THE LYMPH NODE RATIO HAS PROGNOSTIC RELEVANCE IN PATIENTS WITH RECTAL CANCER

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Aim: The number of positive lymph nodes divided by the total number of lymph nodes in one sample is known as the lymph node ratio. The aim of this study was to compare the number of lymph nodes in patients who received and did not receive neoadjuvant therapy and to determine an alternative parameter to the total number of lymph nodes in these patients.

Method: Patients who underwent surgery for rectal adenocarcinoma between January 2008 and June 2016 were retrospectively analyzed. Emergency operations, recurrent or synchronous and metachronous tumors, local excisions, multi-visceral resections were excluded. Demographic, clinical, and histopathological parameters and overall survival of the patients were evaluated.

Results: A total of 386 male and 247 female patients were included in the study. Sixtyeight percent of patients were treated with sphincter sparing techniques and 54.7% of the patients were received neoadjuvant treatment. The mean number of dissected lymph nodes was 14.00 ± 8.86 . The mean number of lymph nodes in the neoadjuvant treatment group was 11.31 ± 6.53 and 17.24 ± 10.15 in the control group. When the lymph node ratio was classified as below 25%, 25–50%, or over 50%, the mean survival times were 76.7 ± 4.8 months, 54.6 ± 8.1 months and 45.3 ± 8.4 months, respectively. According to the result of the ROC analysis, the cut off value for the lymph node ratio was determined as 16%.

Conclusion: Neoadjuvant treatment negatively effects the number of resected lymph nodes in rectal cancer patients. In neoadjuvant rectum cancer patients, the lymph node ratio can be used as a prognostic factor.

Disclosure of Interest: None declared.

PO-265 | ELECTIVE COLORECTAL CANCER SURGERY AT THE ONCOLOGIC HUB OF LOMBARDY INSIDE A PANDEMIC COVID-19 AREA

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Aim: At the end of May 2020, 37% of individuals positive for SARS-CoV2 in Italy were living in Lombardy and 49% of overall COVID-19-related deaths occurred there. Lombardy healthcare system assigned patients affected by colorectal cancer, suitable for surgery, to designated oncologic Hub hospitals. National Cancer Institute of Milan has been identified as one of those oncologic hub centers. The aim was both to treat patients in the hub waiting list as soon as possible and, simultaneously, remain a "COVID-free" center.

Method: To manage patients from both, hub and institutional waiting list, prioritization criteria were defined and applied to each patient and internal protocol screening was carried out before treatment. All surgeons and healthcare workers were daily assessed too for symptoms.

Results: 1 of the institutional waiting list patients and 7 of the hub list patients failed to pass the pre-hospitalization triage. Within this group, 4 patients resulted negative for SARS-CoV-2; after a period of quarantine, they became negative and were admitted for hospitalization. 3 more patients resulted positive for SARS-CoV-2 and despite the quarantine, one deceased for pneumonia, while other 2 patients remained asymptomatic and were admitted for hospitalization after running another triage protocol. A shorter surgical time in the hub patients was observed.

Conclusion: Postoperative morbidity rates were similar in the two waiting list groups. In April 2020 all our staff members were tested for SARS-CoV-2, and none resulted positive. The centralized management of colorectal cancer patients in an oncologic hub was effective during the COVID-19 outbreak.

Disclosure of Interest: None declared

PO-266 | SURGICAL SHORT AND MID-TERM ONCOLOGICAL OUTCOMES IN TRANSANAL SURGERY FOR RECTAL CANCER. SHOULD WE STOP PERFORMING IT?

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Aim: Assessment of surgical short and mid-term outcomes in our transanal rectal cancer surgery (taTME).

Method: Between March 2017 and January 2021, 91 patients with mid and low rectal cancer underwent radical surgery with taTME procedure. Perioperative and pathological results, as well as mid-term oncological outcomes, were evaluated.

Results: The mean age was 63.2 ± 16.4 years, 72.5% were male. General characteristics, surgical and pathological outcomes are summarized in table 1. Rate of good quality (complete/almost complete mesorectum + CRM negative + negative DRM) was 91.2%. Mean follow-up time was 22.9 ± 11.6 months, with a progression rate of 21 (23.1%) cases and a mean time of 11.7 ± 8.0 months. Four patients (4.4%) had local recurrence with a mean time to progression of 15.5

+ 6.6 months (table 2). During the follow-up period, 12 (13.2%) patients died, 4 of them due to disease progression.

Table 1

BMI -- 27,6 ± 5,0
 ASA -- II-III 57 (62,7%)
 Circumferential risk margin -- 29 (31,9%)
 Distance to anal verge -- 7,3 ± 2,4
 cM1 -- 7 (7,7%)
 Neoadjuvant -- Long course 61 (67,0%) // Short course 11 (12,1%)
 Surgical time -- 285,9 ± 60,7 minutes
 Conversion -- 1 (1,1%)
 pT -- Complete response 10 (11,0%) // T1 13 (14,3%) // T2 29 (31,9%)
 // T3 35 (38,5%) // T4 4 (4,4%)
 Incomplete mesorectum -- 3 (3,3%)
 CRM+ -- 6 (6,6%)
 DRM+ -- 0

Table 2

Patient / gender / Age / cTNM / Height (cm) / cCRM+ / Neoadjuvantcy / pTN / Tumour deposits / Mesorectal quality/ pCRM+ / Systemic recurrence / time (months)
 1 / ♂ / 67 / T3N2M0 / 6 / yes / QMRDT* / ypT3N1 / yes / Almost complete / No / No / 10
 2 / ♂ / 62 / T3N2M0 / 5 / yes / QMRDT* / ypT3N2 / no / incomplete / yes / yes / 25
 3 / ♂ / 71 / T2N0M0 / 2.5 / yes / QMRDT* / ypT2N0 / no / complete / No / yes / 15
 4 / ♂ / 83 / T4N2M0 / 7,8 / yes / RDT** / ypT4N1 / yes / complete / yes / yes / 12
 * QMRDT: long course chemoradiotherapy / ** RDT: short course radiotherapy

Conclusion: Although the follow-up is limited, our short and mid-term outcomes with taTME surgery are comparable with other approaches.

Disclosure of Interest: None declared

PO-267 | SAFETY AND EFFICACY OF STENT PLACEMENT FOR MALIGNANT COLONIC OBSTRUCTION

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Aim: Self-expandable stents (SEMS) are used as a bridge to surgery in obstructive colonic cancer. Outcomes associated to stent-related perforation and the optimal timing to elective surgery remain unknown, and there are concerns about the oncological results. Our aim was to assess safety and efficacy of SEMS for left-sided obstructive colon cancer as a bridge to surgery.

Method: A prospective database of patients who underwent stent placement for left-sided colon cancer between 2005 and 2019 was retrospectively reviewed. A subgroup of stage I-III SEMS patients

were matched for sex, age, ASA, and oncological stage with patients who underwent elective surgery (ratio1:2). Patient's demographics, tumour characteristics, stoma formation, morbidity and oncological outcomes were analysed.

Results: A total of 45 SEMS patients were included and matched with 90 patients who underwent elective surgery. The median time from SEMS to surgery was 12.3+/6.5 days (4–36). There were no statistically significant differences between the SEMS and the elective group regarding the following: laparoscopic approach (71.7% vs 77.8%, $P = 0.4$), anastomotic leakage (6.7% vs 3.3%, $P = 0.4$), hospital stay (11.6 vs 9.8 days, $P = 0.36$), overall morbidity ($P = 0.85$), perforation rate (6.7% vs 4.4%, $P = 0.69$), and adjuvant chemotherapy (66.7% vs 64.4%, $P = 0.85$). A temporary protective ileostomy was performed in three patients in the SEMS group, while none of the elective group had a stoma (6.7% vs 0.0%, $P = 0.035$).

There were no statistically significant differences between groups regarding overall survival (Log Rank = 0.075) and the 3-and 5-year disease-free survival.

Conclusion: The use of SEMS as a bridge to surgery is a safe option with long-term oncological outcomes similar to non-occlusive colon cancer elective surgery. Timing of surgery after stent placement probably represents a crucial step and should be further investigated.

Disclosure of Interest: None declared

PO-268 | ENDOSCOPIC VACUUM-ASSISTED SURGICAL CLOSURE (EVASC) OF ANASTOMOTIC DEFECTS AFTER LOW ANTERIOR RESECTION FOR RECTAL CANCER; LESSONS LEARNED

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Aim: To determine efficacy of endoscopic vacuum assisted surgical closure (EVASC) for anastomotic leakage (AL) after low anterior resection (LAR) for rectal cancer over time and factors for success.

Method: This retrospective cohort study at a tertiary referral centre (July 2012 - April 2020) included all rectal cancer patients treated with EVASC for a leaking primary anastomosis after LAR. Early initiation (≤ 21 days) or late initiation of the EVASC protocol was compared. Primary outcomes were healed anastomosis and functional anastomosis at end of follow-up.

Results: Sixty-two patients with a leak after low anterior resection for rectal cancer were treated with EVASC. Median interval to start of the EVASC-protocol after primary surgery was 11 days in the early group and 70 days in the late group ($P = 0.000$). Median follow-up was 25 months. After early initiation, a higher rate of healed anastomosis was found, compared to late initiation (87% vs 59%, $P = 0.016$). Similarly, a higher functional anastomosis rate was seen in the early group compared to the late group (80% vs 56%, $P = 0.046$).

An end-colostomy was created in 7% of the early group and 28% in the late group ($P = 0.027$). After implementation of the transanal approach for LAR (TaTME), early detection and initiation of EVASC resulted in a 100% rate of functioning anastomosis.

Conclusion: EVASC for AL after LAR for rectal cancer, showed to be progressively successful with the implementation of TaTME, highly selective diversion and early diagnosis of the leaks within 2 weeks.

Disclosure of Interest: None declared

PO-269 | SURGICAL AND ONCOLOGICAL OUTCOMES OF COMPLETE VERSUS CONVENTIONAL MESOCOLIC EXCISION IN RIGHT HEMICOLECTOMY

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Aim: The aim of this study is to compare the short-term outcome of a group of patients with right-side colon cancer who underwent CME surgery with a similar group of patients who underwent non-CME surgery.

Method: We analyzed data from 136 consecutive patients from a prospective database who underwent right colectomy for right-side colon cancer between 2017 and 2021 at E. Agnelli Hospital. Patients were divided into two groups: those who underwent CME surgery (CME group, $n = 52$) and those who underwent non-CME surgery (non-CME group, $n = 84$). The two groups were matched according to pre-operative, intra-operative and post-operative parameters.

Results: The median follow-up was 21 months. Thirty patients died: 21 in Standard group (25%) and 9 in CME group (17.3%).

A laparoscopic approach was significantly more common in the CME-group (86.5% vs 45.2%, Chi-square: 23.0343, P value: 0.00001) but no significant differences were found between the CME and standard-CME groups in terms of operative time (172.40 vs 155.59, $P = 1.46$) and conversion to open approach (6 vs 4, $P = 0.337$). CME-group had more lymph nodes harvested (23 vs 17, $P = 0.002076$) but not significantly higher number of positive lymph-nodes compared to the non-CME group (48% vs 39.29%, Chi-square: 1.0148, P value: 0.31). There was no difference in Anastomotic leak between the two groups. The disease-free survival rate was better in CME group 90.2% than standard group 82.1% (Pearson Chi-Square :1.631).

Conclusion: Complete Mesocolic Excision technique in right colon cancer surgery is safe and has better surgical outcomes in terms of laparoscopic surgery and not significant difference in surgical complications, operation time and conversion to open than Non-CME technique. Oncological outcomes were greater in the CME group, where we have the largest number of lymph nodes harvested and significant difference in terms of better disease free survival than Standard Group.

Disclosure of Interest: None declared

PO-270 | THE ROLE OF PRE-OPERATIVE IMAGING IN THE DETECTION OF LATERAL LYMPH NODE METASTASES IN RECTAL CANCER: A SYSTEMATIC REVIEW AND DIAGNOSTIC TEST META-ANALYSIS

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Aim: Identification of lateral lymph node metastases (LLNM) in rectal cancer patients is key for optimal pre-operative planning. Our objective was to compare the diagnostic accuracy of pelvic magnetic resonance imaging (pMRI), 18F-fluorodeoxy-glucose positron emission computed tomography (FDG-PET/CT) and 18F-fluorodeoxy-glucose positron emission magnetic resonance imaging (FDG-PET/MRI) in the identification of LLNM in rectal cancer.

Method: A systematic search of PubMed, EMBASE, Cochrane Library, and Google Scholar was undertaken to identify relevant studies evaluating the diagnostic accuracy of Pelvic MRI, FDG-PET/CT and FDG-PET/MRI in the pre-operative detection of LLNM in patients with rectal cancer. Definitive histopathology was used as a gold standard. Data analysis was conducted using a bivariate model approach.

Results: A total of 20 studies (1,827 patients) were included, out of an initial search yielding 7,360 studies. The pooled sensitivities of pMRI, FDG-PET/CT and FDG-PET/MRI for the detection of LLNM were, respectively, of 0.88 (95%CI: 0.85 to 0.91), 0.83 (95%CI: 0.80 to 0.86) and 0.72 (95% CI: 0.51 to 0.87). The pooled specificities of pMRI, FDG-PET/CT and FDG-PET/MRI were, respectively, of 0.85 (95%CI: 0.78 to 0.90), 0.95 (95%CI: 0.86 to 0.98) and 0.90 (95%CI: 0.78 to 0.96). The areas under the curve were of, respectively, 0.88 (95%CI: 0.85 to 0.91) and 0.83 (95%CI: 0.80 to 0.86) for pMRI and FDG-PET/CT.

Conclusion: For the pre-operative identification of LLNM in rectal cancer, this review found compelling evidence that pMRI should constitute the imaging modality of choice. On the other hand, to confirm the presence of LLNM, FDG-PET/CT allows to discard false positive cases due to increased specificity.

Disclosure of Interest: None declared

PO-271 | EFFECT OF MULTIMODAL PREHABILITATION ON OUTCOMES AFTER RECTAL CANCER SURGERY: A PROPENSITY SCORE ANALYSIS

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Aim: Rectal neoplasia represents 30% of colorectal cancer. Surgery is the main curative treatment in most patients. This surgery is implicated in significant morbidity and mortality rates, which entails a prolonged hospitalization days and loss of functional capacity.

Prehabilitation aims to enhance physiological reserve and facilitate postoperative recovery. The aim of this study is to evaluate the effect of prehabilitation on outcomes after rectal cancer surgery.

Method: A single-center observational study of patients with rectal cancer, who underwent surgery with curative intent after prehabilitation protocol. We collected data of postoperative morbidity and hospital length of stay, which were compared with a historical matrix. Functional capacity data were collected before and after the application of prehabilitation protocol.

A propensity score (PS) was computed for the treatment variable using the covariates: Body mass index (BMI), age, Charlson comorbidity index (CCI), American Society of Anesthesiologists (ASA) classification, diabetes mellitus, smoking habit, gender and cancer stage. Treatment differences in complications were checked between both groups, through logistic regression using the PS as adjustment variable.

Results: We included 275 patients. Comparing the prehabilitation group with the historical series, patients with more comorbidities (CCI > 5) showed significant differences in hospital length of stay with 4.3 days less in the prehabilitation group (CI95%: 0.27 - 8.34; P-value = 0.037), and decrease in complications' number. We observed that non-prehabilitation patients had double risk of postoperative complications compared with prehabilitation group (adjusted OR = 2.22, CI95%: 0.86 - 5.74; P-value = 0.098).

Conclusion: Prehabilitation program is associated with decrease of complication rates and length of stay in patients with more comorbidities who underwent rectal cancer surgery.

Disclosure of Interest: None declared

PO-272 | EFFECT OF PARENTERAL IRON TREATMENT FOR PREOPERATIVE ANAEMIA IN COLORECTAL CANCER. PROSPECTIVE COMPARATIVE STUDY OF 1128 BETWEEN 2012-2018

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Aim: Treatment of Preoperative Anemia (PA) in Colorectal Cancer (CCR) is one of the main aspects of enhanced recovery pathways but its implementation is not being homogeneous. The aim of this study is to evaluate the effect of a Patient Blood Management (PBM) protocol implementation on a Colorectal Cancer (CCR) Department.

Method: Prospective non-randomized unicentric comparative cohort study of 1128 consecutive patients diagnosed with CCR and intended to undergo radical surgery. Description of PBM Protocol in our Centre. Comparative analysis of Haemoglobin (Hb) levels' improvement due to the administration of parenteral iron (PI) in anaemic patients (Group I) and non-anaemic patients (Group II). Patients which received ABT prior to diagnosis or that did not complete PA assessment were excluded. Correlation analysis between PI dosage,

timings and changes in Hb levels. Descriptive analysis of demographic characteristics and propensity score analysis were performed with Stata 15.1.

Results: 613 patients with PA (Group I) and 511 without PA (Group II). PBM Protocols and proper assessment of PI were completed in up to 99.6% of the patients. Demographical analysis showed greater mean age and larger proportion of comorbidities and anticoagulant therapy among Group I patients (P < 0.05). Mean Hb at the moment of diagnosis was statistically significantly lower in Group I than in Group II patients (9.9 +/- 2.3 and 14.5 +/- 1.8 respectively, P < 0.05). After PI treatment, mean Hb levels in Group I patients was 11 g/L immediately prior to surgery whilst Group II patients' was 13.9. It is estimated an approximated theoretical saving of up to 13% allogenic blood transfusions during preoperative assessment of PA.

Conclusion: Establishment of a PBM Protocol allows for an optimal treatment of PA with a significant increase in Hb values in anaemic patients diagnosed with CCR. Implementation of a PBM protocol is a simple, effective and easily reproduced measure.

Disclosure of Interest: None declared

PO-273 | INFLUENCE OF PROGNOSTIC SCORES ON POSTOPERATIVE MORBIDITY AND 30-DAY MORTALITY WITH COLORECTAL CANCER IN DGH

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Aim: The aim of this study was to investigate the value of different prognostic scores in the prediction of postoperative morbidity such as Anastomotic leak (AL), postoperative ileus (POI) following resection for colonic cancer.^{1,2}

Method: 180 patients underwent elective and emergency colon cancer surgery at Hairmyres Hospital from August 2016 to August 2019. They were divided in two groups. Group 1 were over 70 years old and Group 2 were under 70 years old. The variables collected from medical records included Age, gender, tumour site. TNM classification, surgical treatment and postoperative complications. The Score used were The American Society of Anaesthesiology (ASA) score, Glasgow prognostic score(GPS)1 and Charlson Comorbidity index(CCI). Statistical analyses was conducted to define variables associated with morbidity and mortality.

Results: Out of 180 resections 90 patients were ≥ 70 years (Group I) and 90 were < 70 years old (Group II). Male were 57.8% in Group II and 50% in Group I.

The common site of tumour in both groups was right colon (36.7%/34.4%) followed by rectum (24.4%).

Most resections 83% were performed electively. 30 day mortality was 1.7%. The average length of stay was 13.49 days in Group 1 and 16.66 days in Group 2.

Presence of higher ASA levels (Group I: 45%, Group II: 27.4%, P < 0.001) GPS(Gp1: 41.6%, Gp II: 36.6% and Charlson score of 3 and

This study aimed to describe the impact of SARS-CoV-2 on rectal cancer screening and staging.

Method: A two-year (March 2019 to March 2021) retrospective study concerning rectal cancer patients from a referral center was conducted. Patients clinical data from pre-COVID (March 2019 - February 2020) and COVID time (March 2020 - March 2021) was compared.

Descriptive and inferential analysis was performed (Chi-Square test).

Results: One hundred and sixty-five patients were discussed at the multidisciplinary meetings during the 2-year study period (mean age 69 years [\pm 11.1]; M: 64%; F:36%).

Upon comparative analysis both pre-COVID and COVID patients were found to have similar demographic characteristics, however during the pandemic a higher proportion of patients presented with low rectal cancers (36% vs. 42%; $P = 0.1$).

Moreover, during the COVID period, fewer patients (minus 26%; $n_{\text{pre-covid}} = 95$ vs. $n_{\text{covid}} = 70$) were referred to the hospital, and a larger number of patients presented in Stage IV of the disease (17,9% ($n = 17$) in pre COVID period vs. 28,6% ($n = 20$) in COVID period ($P = 0.07$)).

Lastly, the authors run a comparative sub-analysis between the above results and data from the 3 years prior to the pandemic (2017-2019) and still came across with lesser rectal cancer referrals during the pandemic year.

Conclusion: Our data clearly shows that, during the COVID period, fewer patients received in-hospital care and a higher number were referred in Stage IV. This represents a red flag for the community and should alert the government to implement public health policies to reestablish colorectal cancer standard of care.

Disclosure of Interest: None declared

PO-276 | AN EVALUATION OF THE IMPLEMENTATION OF THE SIGMOID TAKE-OFF LANDMARK IN THE NETHERLANDS

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Aim: Various definitions have been used to determine the recto-sigmoid junction. During an international Delphi consensus meeting, the sigmoid take-off was chosen as the standard landmark for the junction between the rectum and sigmoidal colon and was incorporated into the Dutch guideline in October 2019. The aim of this study was to evaluate the implementation of this new landmark one year after the national guideline implementation in the Netherlands and to perform a quality assessment of the sigmoid take-off training.

Method: Radiologists, surgeons, surgical residents, interns, PhD-students and physician assistants across the Netherlands were asked to complete a survey and assess 20 MRI cases before and after a training. Per case, a sagittal and axial view were shown and

participants were asked to classify the tumor as located below, on or above the sigmoid take-off. The outcomes were agreement with the expert reference and accuracy before and after the training.

Results: Eighty-six collaborators participated in this study. Six radiologists (32%) and 11 surgeons (73%) used the sigmoid take-off as the standard landmark during multi-disciplinary meetings (MDT). The overall agreement with the expert reference improved significantly from 53% to 70% ($P < 0.001$). The positive predictive value for diagnosing rectal tumors was high both before and after the training (92% vs 90%) and the negative predictive value for diagnosing sigmoidal tumors improved from 39% to 63%.

Conclusion: One year after incorporating the new definition of a rectal tumor into the Dutch colorectal cancer guideline, approximately half of the represented hospitals had implemented the definition into MDT meetings. The overall agreement with the expert reference and the accuracy for the tumors around the sigmoid take-off was low, yet this improved significantly after training. This study highlights that implementation of important landmarks should be accompanied with adequate training to ensure unambiguous assessment.

Disclosure of Interest: None declared

PO-277 | THE INCIDENCE OF HEPATIC METASTASES IN EARLY STAGE RECTAL CANCER

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Aim: We aim to identify the occurrence of hepatic metastases in early stage rectal cancer.

The current literature does not distinctly separate early stage T1 and T2 rectal cancer from advanced disease, and therefore data is lacking on the incidence of metastatic disease in early rectal cancer.

Method: We conducted a retrospective cohort study of all patients in Portsmouth Hospitals University NHS Trust with T1 and T2 coded rectal cancer between 2010 - 2020. This comprised 255 patients who had histologically staged T1 and T2 cancer, and 42 patients who did not undergo surgery but had radiologically staged T1 and T2 Cancer. We subsequently analysed our database for occurrence of liver metastases (either synchronous or delayed) and for evidence of extramural vascular invasion (EMVI).

Results: 6/255 (2.4%) developed liver metastases in the T1/T2 Rectal Cancer cohort that underwent surgery

No EMVI was detected in any of these specimens by histopathology. 4/42 (9.5%) developed liver metastases in the non-operative cohort of radiologically diagnosed T1/T2 Rectal cancer cohort. The reasons for non-operation were as follows:

1. Not fit for surgery: 22/42 (52.4%)
2. Advanced Disease: 4/42 (9.5%)
3. Patient Refused surgery: 1/42 (2.4%)
4. Other 14/42 (33.3%)

a. TEMS: 6/42 (14.3%)

b. Radiotherapy either followed by TEMS or full response: 8/42 (19%)

Conclusion: This data suggests a significantly lower incidence of liver metastases in both the operative and non-operative cohort than suggested by previous epidemiological studies, quoting rates of hepatic metastases of around 30%. There appears to be no association between EMVI status and hepatic disease and therefore we suggest a potentially different biology of disease for early rectal cancers.

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Disclosure of Interest: None declared

PO-278 | YEAR ONCOLOGICAL OUTCOMES AFTER INTRODUCTION OF A ROBOTIC RECTAL CANCER PROGRAMME: A RETROSPECTIVE ANALYSIS

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Aim: While minimally-invasive surgery for rectal cancer is now standard, robotic-assisted surgery for this condition has yet to be universally adopted. The platform offers advantages in the confined space of the pelvis, including improved image quality and enhanced precision of dissection facilitated by the articulated wrists. The literature suggests that short term outcomes such as TME quality, margin status, lymph node retrieval and 30-day morbidity and mortality are equivalent in robotic-assisted and laparoscopic rectal cancer surgery. (1,2) However, there is little data on the long-term oncologic safety of robotic-assisted surgery for rectal cancer.

Method: We conducted a retrospective review of all robotic-assisted ($n = 58$) and laparoscopic ($n = 43$) rectal cancer cases performed at our institution between January 2015 to December 2019. Inclusion criteria were patients with a histologically confirmed rectal cancer diagnosis scheduled electively for a minimally-invasive (laparoscopic or robotic) resection (either anterior resection or abdomino-perineal resection). Exclusion criteria comprised patients with distant metastases at presentation, those who underwent surgery as an emergency and those with a non-colorectal primary.

Results: A total of 101 ($n = 101$) cases met the inclusion criteria and were included in the final analysis. The median follow-up was 34 months. Of the 101, 33 patients received neoadjuvant chemoradiotherapy prior to definitive surgery.

No significant difference was detected in local recurrence rates ($P = 0.5$), overall survival ($P = 0.7$) or disease-free survival ($P = 0.8$) between the robotic-assisted and laparoscopic cohorts.

Conclusion: In this series, robotic-assisted rectal cancer resections demonstrated non-inferiority to laparoscopic procedures with respect to medium-term oncological outcomes.

However, given the small numbers in this cohort, outcomes from larger scale datasets will be required to confirm these results.

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Disclosure of Interest: None declared

PO-279 | EVALUATION OF INEQUALITIES IN NON-RESPONDERS TO FIT TESTING IN A SYMPTOMATIC PATHWAY FOR COLORECTAL CANCER

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Aim: We introduced Faecal Immunochemical Tests (FIT) for all symptomatic patients without rectal bleeding and/or palpable rectal mass. We aim to identify whether patient demographics, ethnicity or level of social deprivation affect test return.

Method: A postal FIT sample requested by Primary Care was mandatory for all colorectal referrals to secondary care and used to stratify risk of colorectal cancer (CRC) with a FBC and ferritin. A retrospective review of all referrals was undertaken from Nov 2017-Dec 2020 using electronic patient records. Socio-demographic factors affecting return of FIT tests were evaluated by univariate and multivariate logistic regression analysis.

Results: 29239 FIT requests were made in the study period. 24855 patients (85.7%) completed a FIT, whilst 4149 (14.3%) did not. Males accounted for 44.2% of all referrals and were significantly more likely not to return a FIT test in our multivariate analysis (OR 1.127, 95% CI 1.054–1.206, $P < 0.0001$). Older age was significantly associated with FIT return (OR 0.649, 95% CI 0.589–0.714, $P < 0.0001$), whilst social deprivation was significantly associated with FIT non-concordance (OR 1.936, 95% CI 1.762–2.128, $P < 0.0001$). Patients from Asian and Black ethnic groups were nearly twice as likely to not return their FIT kits when compared to the White ethnic group (30.3% and 26.6% respectively compared to 15.4%).

Conclusion: Use of FIT in Primary Care is acceptable with over 85% returning a kit. However, these data suggest that the population that do not return kits have specific characteristics related to gender, age, ethnicity, and socioeconomic deprivation. These patterns appear similar to those reported in screening programmes based on faecal testing and should be considered as FIT for symptoms continues to expand.

Disclosure of Interest: None declared

PO-280 | INCIDENCE AND MANAGEMENT OF BENIGN ANASTOMOTIC STRICTURES AFTER SPHINCTER PRESERVING ONCOLOGICAL RECTAL CANCER SURGERY

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Aim: Benign anastomotic strictures are not uncommon after rectal surgery, with some series showing an incidence of up to 30%. We aim to assess the incidence and the outcomes of patients who have developed a benign stricture following sphincter preserving surgery for rectal cancer.

Method: A retrospective analysis of the institutional database from January 2010 to December 2019 was done. Patients who were diagnosed with a stricture following a sphincter preserving rectal cancer surgery were included. The medical records of these patients were reviewed for age, sex, performance status, type of surgery, surgical approach, neoadjuvant therapy and immediate postoperative outcomes. The data were also analysed for the response to treatment and the consequences in these patients.

Results: 1476 patients had undergone sphincter preserving surgery, of which 110 had developed benign strictures (7.4%). 70% of patients underwent open surgery, with about 75% of patients undergoing anterior resection. 23% had undergone Intersphincteric Resection. 83% of patients had some form of neoadjuvant therapy i.e; either short course or long course radiation therapy. 60 of the 110 patients had their tumours within a distance of 6cm from the anal verge. Endoscopic dilation was the most common method used to treat rectal stricture, with 69% requiring multiple sessions of endoscopic dilation before reversal of stoma. Eight patients required surgical intervention, and a repeat anterior resection was the most common procedure performed. The stoma reversal rate was 70%. Median time to stoma closure was 12 months (range 3 to 52 months).

Conclusion: The strictures rates are comparable to that in published literature. The majority of patients had relief of symptoms with endoscopy and dilation. However, there is a subset of patients who will require surgery to relieve them of the symptoms.

Disclosure of Interest: None declared

PO-281 | THE ROLE OF THE EUMARCS SCORE FOR PREDICTING DIFFICULT LAPAROSCOPIC TOTAL MESORECTAL EXCISION ON SHORT AND LONG TERM OUTCOMES OF RECTAL CANCER SURGERY

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Aim: The EuMaRCS score could identify preoperatively difficult laparoscopic total mesorectal excision (LTME) on short and long term outcomes in rectal cancer surgery.

Method: 88 patients (62M–26F) with a mean age of 72 (range 64.2–79) years with mid-low rectal cancer underwent LTME from January 2016 to December 2018. The EuMaRCS score was calculated based on four variables: Body mass index ($> 30\text{kg/m}^2$), interspinous distance ($< 96.4\text{ mm}$), yCT stage $> T3$ and male sex. Each variable contributed to the score with a specific weight (3 points for BMI > 30 , 2 points for interspinous distance < 96.4 , 4 points for yCT stage $> T3$ and 1 point for males). Scoring 3 or more was classified as having high surgical difficulties in LTME. Univariate and multivariate analysis were used to study the relation between high surgical difficulties in LTME (EuMaRCS score $> \text{or} = 3$) and short and long term outcomes in rectal cancer surgery. Overall survival (OS) and disease free survival (DFS) were estimated by the Kaplan-Meier method and compared by the log-rank test.

Results: Mean EuMaRCS score was 5 (range 4–5). 72 (81.8%) patients scoring 3 or more. High (3 or more EuMaRCS score) and low (< 3 EuMaRCS score) surgical difficulties in LTME groups were homogeneous in terms of age, gender and ASA score. There were not significant differences between two groups in postoperative morbidity, complete TME rate, positive distal and radial circumferential margins rates. After a median follow up of 34.7 (18.6–35.9) months overall survival (OS) and disease-free survival (DFS) were 90.9 and 83.9% respectively. Differences concerning OS (88.9%vs100%, $P = 0.168$) and DFS (81.7%vs81.3%, $P = 0.792$) were not significant between the high and low surgical difficulties in LTME groups.

Conclusion: In our study, high difficulties in LTME for rectal cancer defined as 3 or more EuMaRCS score could not modify postoperative morbidity, complete TME rate, positive distal and radial circumferential margins rates, OS and DFS.

Disclosure of Interest: None declared

PO-282 | NO BENEFIT AFTER NEOADJUVANT CHEMORADIATION IN STAGE IV RECTAL CANCER: A PROPENSITY SCORE-MATCHED ANALYSIS ON A REAL-WORLD POPULATION

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Aim: Stage IV rectal cancer occurs in 25% of patients and locoregional control of primary tumor is usually poorly considered, since priority is the treatment of metastatic disease. This study evaluates impact of neoadjuvant chemoradiation followed by surgery (nCHRTS) vs. upfront surgery on locoregional control and overall survival in stage IV rectal cancer.

Method: All patients diagnosed with stage IV rectal carcinoma between 2009 and 2019, undergone elective surgery at the National Cancer Institute of Milan (Italy), were included. Propensity score-based matching was performed between the two study groups.

Loco-regional recurrence-free survival (LRRFS) and overall survival (OS) were analysed using Kaplan-Meier method.

Results: A total of 139 patients were analyzed. After propensity score matching, 88 patients were included in the final analysis. The 3-yr LRRFS rates were 80.3% for nCHRTS vs. 90.4% for upfront surgery patients ($P = 0.35$). The 3-yr OS rates were respectively 81.8% vs. 58% ($P = 0.36$). KRAS mutation (HR 2.506, $P = 0.038$) and extra-liver metastases (HR 4.308, $P = 0.003$) were both predictive of worse OS in univariate analysis.

Conclusion: The present study failed to demonstrate a significant impact of nCHRTS on LRRFS or OS in stage IV rectal cancer.

Disclosure of Interest: None declared

PO-283 | REVERSE COURSE? A HIDDEN LEGACY OF THE PANDEMIC FOR PATIENTS WHO UNDERWENT COLORECTAL CANCER RESECTIONS

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Aim: A comparative analysis of short term outcome of colorectal resections undertaken before and during COVID-19 pandemic.

Method: A retrospective analysis of prospective database of colorectal cancer resections pre and post COVID-19 (2019 vs 2020) in a DGH. The cohort had 106 patients (60 in 2019;46 in 2020). Outcome parameters analysed were, Length of stay (LOS), stoma formation, resection margin, Clavien-dindo classification of complications, 30 day re-admission rate and 30 day mortality. Demographic data included age, gender and type of resection

Results: A total of 60 resections were performed in 2019, 53% being female and median age 68 years In 2020 there were 46 resections, median age 70.5yrs and 43% female. In 2019 15/60 (25%) of resections were performed as an emergency and in 2020 10/46 (22%) ($P = 0.65$). Median LOS was 8 days in 2019 and 7 in 2020 ($P = 0.25$). 5/60 patients were readmitted within 30days in 2019 and 9/46 in 2020 ($P = 0.045^*$). In both arms 30 day mortality was 0. In 2019 8 patients suffered Clavien-dindo complications rated at 2 or greater and 11 in 2020 ($P = 0.08$). Stomas were formed in 26/60 in 2019 and 28/46 in 2020 ($P = 0.037^*$). Finally in 2019 7/60 resections had R1 resection and 4/46 in 2020 ($P = 0.62$).

Conclusion: The analysis found no significant difference in short term outcome of the two periods including length of stay or days in ICU. Comparatively little statistical difference was found between the two years despite COVID-19. The only parameters notably different were the stoma rate rising from 43% to 61%, and 30 day re-admission rate increasing from 8% to 20%. This data-set is too small to infer if problems related to stoma care were responsible. This analysis would suggest that there was not a significant difference in occupancy of ICU beds despite increasing stoma formation at a local level. Many of these patients will need reversal and the pandemic

is likely to continue, therefore should stomas be formed as readily? Larger multicentre audit may validate such observations.

Disclosure of Interest: None declared

PO-284 | SHORT TERM OUTCOMES OF BLOOD TRANSFUSION IN ELECTIVE RECTAL CANCER RESECTION

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Aim: Perioperative blood transfusion is known to have a negative effect on long term prognosis after colorectal cancer operations. However, there is a significant lack of data looking specifically at rectal cancer operations. This study aims to evaluate the short-term outcomes of blood transfusion in elective rectal cancer resections.

Method: A retrospective review of patients undergoing resectional surgery of a rectal malignancy from September 2017 to November 2019 in a tertiary colorectal unit was performed. Demographic data, operative information and post-operative complications were collected from electronic patient records and anaesthetic charts. Patients who received a perioperative allogenic blood transfusion were compared with patients who did not.

Results: 179 patients (81 female, median age 67) had rectal cancer surgery, including 14 patients who had beyond total mesorectal excision exenterations. 16 patients had a perioperative blood transfusion. 2 patients were transfused pre-operatively, 3 intraoperatively, 7 postoperatively and 4 patients had both an intraoperative and post-operative transfusion. There was no difference in age (median age 75 vs. 67, $P = 0.09$), sex (7/16 vs. 74/163, $P = 1$), preoperative haemoglobin (median Hb 134.5 vs. 138, $P = 0.1$) or ASA grade (1 or 2: 8/11 vs. 112/124, $P = 0.1$) between the two groups. Surgical site infection (8/16 vs. 27/163, $P = 0.004$) and longer post-operative stay (median length of stay 19 ($n = 16$) vs. 8 ($n = 158$) days, $P = 0.0004$) were more likely in the blood transfusion group, even after controlling for the extent of the resection (5/11 vs. 25/154, $P = 0.03$ & 15 ($n = 11$) vs. 8 days ($n = 149$), $P = 0.02$).

Conclusion: Patients who received a perioperative allogenic blood transfusion at the time of rectal cancer surgery have a longer post-operative stay, regardless of the extent of the operation. Our data also suggests there is an association with surgical site infection and further analysis of potential confounding factors is on-going.

Disclosure of Interest: None declared

PO-285 | THE FEASIBILITY OF IMPLEMENTING AN ENHANCED RECOVERY PROGRAMME IN PATIENTS UNDERGOING PELVIC EXENTERATION

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Aim: Pelvic exenteration (PE) is a complex operative procedure, reserved for patients with locally advanced and recurrent pelvic malignancies. PE is associated with a high index of post-operative morbidity. Enhanced Recovery After Surgery (ERAS) programmes have been successful in improving postoperative outcomes, however, its application in PE has not been studied. The aim of our study is to assess the feasibility and short-term impact of ERAS on PE.

Method: A dedicated PE ERAS programme was developed reflecting the complexity of differing subtypes of PE. A prospective cohort study was undertaken to evaluate the feasibility of implementing our PE ERAS between 2016 and 2020.

The primary endpoint of this study was overall compliance with the ERAS programme. An overall compliance rate of 70% across all components was considered to be successful implementation of the ERAS programme.

Results: 145 patients were enrolled into our PE ERAS programme, with 86 (56.2%) patients undergoing a soft tissue PE, 27 (17.6%) a vascular PE and 32 (20.9%) a bony PE. The median overall compliance to the PE ERAS programme was 70% (IQR 55.5 – 88.8). There were no observed differences between overall compliance to the PE ERAS programme between different subtypes of PE ($P = 0.60$). Patients with higher compliance with the PE ERAS programme had a shorter LoS ($P < 0.001$), less post-operative morbidity ($P < 0.001$), reduced severity of Clavien-Dindo grade of morbidity ($P < 0.001$) and fewer readmissions ($P = 0.03$).

Conclusion: The principles of ERAS can be readily applied to patients undergoing PE, with high adherence to the ERAS programme associated with improved clinical outcomes.

Disclosure of Interest: None declared

PO-286 | PREDICTION OF R0/R+ SURGERY BY DIFFERENT CLASSIFICATIONS FOR LOCALLY RECURRENT RECTAL CANCER

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Aim: A widely adopted classification system for locally recurrent rectal cancer (LRRC) is currently missing, and indication for surgery is not standardized. Thus, the aim of the study is to evaluate all the published classifications systems in a large monocentric cohort of LRRC patients, assessing their capability to predict a R0 resection.

Method: A total of 152 consecutive LRRC patients treated at the National Cancer Institute of Milan (NCIM) from 2009 to 2017 were classified according to Pilipshen, Mayo Clinic, Memorial Sloan-Kettering Cancer Center (MSKCC), Wanebo, Yamada, Boyle, Dutch TME Trial, Royal Marsden and National Cancer Institute of Milan (NCIM) classification systems.

Results: Central location of LRRC was significantly predictive of R0 resection across all classification systems. R+ resection was predicted by: the "anterior" category of MSKCC (OR 2.66, $P = 0.007$), the "S2b" (OR 3.50, $P = 0.04$) and the "S3" (OR 2.70, $P = 0.01$) categories of NCIM, "pelvic disease through anastomosis" of Pilipshen (OR 2.89, $P = 0.002$), "fixed at 2 sites" of Mayo Clinic (OR 2.68, $P = 0.019$), and "TR4" of Wanebo (OR 3.39, $P = 0.002$).

Conclusion: The NCIM classification seems to best predict R0 surgery in comparison of all the other classification systems. Lateral-invasive and high sacral-invasive relapses are associated with reduced probability of R0 surgery and unfavorable outcomes.

Disclosure of Interest: None declared

PO-287 | RADIOLOGICAL AND CLINICAL CHARACTERISTICS OF PATIENTS WITH SUSPECTED ANASTOMOTIC LEAKAGE AFTER LOW ANTERIOR RESECTION FOR RECTAL CANCER

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Aim: Several radiological and clinical indicators for anastomotic leakage (AL) have previously been identified. The purpose of this study was to compare radiological and clinical characteristics in patients undergoing CT imaging for suspected AL after low anterior resection (LAR) for rectal cancer, with or without eventually proven AL.

Method: A consecutive retrospective cohort study was performed between April 2015 and December 2020 in a tertiary referral center with inclusion of all patients that underwent a CT-scan for suspicion of AL after LAR without routine diverting ileostomy. The primary outcome of this study was to compare radiological and clinical characteristics of patients with AL (AL+) compared to the patients without AL (AL-).

Results: During the study period 48 patients were included, of which 25 had an eventually proven AL. In the AL+ group, contrast extravasation, (72% vs 0%, $P = 0.000$), air around the anastomosis (44% vs 9%, $P = 0.009$) and intra-abdominal free air (76% vs 39%, $P = 0.010$) were seen more often. Clinical characteristics seen more in the AL+ group were tachycardia (46% vs 17%, $P = 0.037$), abnormal temperature (46% vs 17%, $P = 0.037$) and need for oxygen (25% vs 0%, $P = 0.022$). Postoperative serum CRP levels were higher in the AL+ group on day 3, 4 and 5, but only significant on day 4 (241 mg/L vs 115 mg/L, $P = 0.001$). Median interval between index surgery and CT imaging was 5 days (IQR 4–12) for the AL+ group, compared to

12 days (IQR 5–25) in the AL- group ($P = 0.031$) and median interval between CT and reintervention for AL was 5 hours (IQR 2–22).

Conclusion: This study showed radiological and clinical characteristics specific for AL after LAR for rectal cancer. Without routine diverting ileostomy and a pro-active diagnosis and treatment strategy, the first clinical signs appear as early as day 3 and first CT-scan and subsequent reintervention on day 5. These findings can be valuable to further improve early diagnosis and optimize treatment.

Disclosure of Interest: None declared

PO-288 | COMMUNITY OPERATED RIGHT COLON CANCERS: OUTCOMES AND PATTERNS OF RECURRENCE AFTER INADEQUATE COLECTOMY

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Aim: Patients of colon cancer operated in community settings often fail to undergo the adequate surgery (Complete mesocolic excision with D-3 lymphadenectomy) in less experienced hands. Traditionally, chemotherapy forms the mainstay of treatment of these inadequately operated patients.

Method: Patients of right colon adenocarcinomas operated outside between January 2013 to December 2018 in community non-oncological setups and then referred to Tata Memorial Hospital were screened and then analysed to study the patterns of relapse and the survival outcomes.

Results: There were 107 patients with a mean age of 50 years. Median delay in presentation to the hospital was 1 month (1–27 months). Mean 12.6 nodes harvested per surgery, with 52 patients (48.6%) having suboptimal nodal staging (less than 12 nodes harvested). Chemotherapy was given to 85 patients (79.4%) mainly for inadequate surgery. Patients with adequate nodal staging had relatively superior overall survival (59.9 versus 43.8 months, $P = 0.103$). With a mean follow up of 32.6. months, the overall survival and disease-free survival of the cohort at 2 years was 65.4% and 40.8%. 40 patients (37.4%) had peritoneal relapse of which only 5 patients could undergo cytoreduction surgery. 16 patients had locoregional relapse of which only 7 could be salvaged with a R-0 surgery.

Conclusion: Patients of colon cancers operated in community settings often undergo inadequate surgery as reflected by inadequate lymphadenectomy. These patients have higher relapse, especially peritoneal recurrences with inferior survival outcomes. Chemotherapy as the sole adjuvant therapy may not be sufficient for treatment of inadequately operated patients.

Disclosure of Interest: None declared

PO-289 | PROGNOSTIC FACTORS IN PATIENTS WITH LOCALLY ADVANCED RECTAL CANCER WITH COMPLETE OR NEAR-COMPLETE RESPONSE AFTER NEOADJUVANT THERAPY

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Aim: Neoadjuvant therapy in locally advanced rectal cancer has been considered a significant part of treatment in recent years. However, we do not know why some patients show different tumour regression than others at the same tumour stage. Several factors have been analysed and in our work we have analysed some of these factors to establish the relationship with complete or near-complete tumour response.

Method: Retrospective observational study. All patients undergoing surgery for locally advanced rectal adenocarcinoma who underwent neoadjuvant radiochemotherapy and subsequent surgery (mesorectal excision) were included. Tumour regression response was measured on histological specimen using the AJCC classification for tumour regression (grade 0 and 1, complete or near complete response respectively). All variables were collected and analysed according to SPSS software (IBM Version 23).

Results: A total of 223 patients were analysed. Of these, only 39 patients had a complete response (Grade 0), while almost complete response (Grade 1) was described in 77 patients. The mean age of the series was 61.95 ± 11 months. The following variables were analysed in relation to the degree of complete or near complete response: age ($P = 0.47$), sex ($P = 0.157$), radiotherapy interval longer than 10 weeks ($P = 0.006$), distance to the anal margin ($P = 0.125$) and preoperative tumour marker (CEA) values ($P = 0.87$).

Conclusion: Only in our study did we find significant differences in the time interval between the end of preoperative radiotherapy and surgery, with a higher rate of complete or near-complete responses in those patients who underwent surgery within 10 weeks or more.

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Disclosure of Interest: None declared

PO-290 | ROBOTIC COLORECTAL SURGERY USING SENHANCE® ROBOTIC SYSTEM: SINGLE CENTER EXPERIENCE

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Aim: The aim of the study was to evaluate initial single robotic center experience with Senhance® robotics in colorectal surgery.

Method: Over the period of two years since the adoption of Senhance® robotic surgery, November 2018 to November 2020, 57 colorectal procedures were performed. Perioperative, intraoperative and short-term postoperative data was assessed.

Results: 28 patients were female and 29 men, age range 23–84, on an average 61.7±6.2 year. 48 (84.2%) patients were operated for colorectal cancer (22 colon and 26 rectal), rest nine (15.8%) for benign reasons. Operating time was 194 minutes ± 57.8 min (range 90 minutes to 380 minutes). 27 (47.4%) operations were performed on the colon and 30 (52.6%) – rectum. Postoperative hospital stay was 8±6.2 days (ranging from 3 to 48 days). There were two (3.4%) conversions to open surgery. No intraoperative complications occurred. Seven (12.3%) postoperative complications were recorded, and in three (5.3%) of them intervention under general anesthesia was necessary. No postoperative deaths occurred. In 48 patients operated for colorectal cancer average lymph-node harvest was 18±7.9 (range 7 to 38). In a rectal cancer group of 26 patients, distal resection margin was 3.3±1.8 cm.

Conclusion: In our experience, surgery using Senhance® robotic system was safe and feasible in surgery both on colon and rectum. In future, a randomized controlled trial comparing this type of colorectal surgery with laparoscopic and/or other type of robotic surgery is needed.

Disclosure of Interest: None declared

PO-291 | COMPARISON OF LAPAROSCOPIC VERSUS ROBOT-ASSISTED VERSUS TATME SURGERY FOR RECTAL CANCER: A RETROSPECTIVE PROPENSITY SCORE MATCHED COHORT STUDY OF SHORT-TERM OUTCOMES

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Aim: Laparoscopic total mesorectal excision (TME) surgery for rectal cancer has important technical limitations. Robot-assisted and

transanal TME (TaTME) were developed to overcome these limitations, potentially leading to lower conversion rates and reduced morbidity. However, comparative data between the three approaches is lacking. The aim of this study was to compare short-term outcomes for laparoscopic TME, robot-assisted TME and TaTME in expert centres.

Method: Patients undergoing rectal cancer surgery between 2015 and 2017 in expert centres for laparoscopic, robot-assisted or TaTME were included. Outcomes for TME surgery performed by the specialized technique in the expert centres were compared after propensity score matching. Primary outcome was conversion rate. Secondary outcomes were morbidity and pathological outcomes.

Results: A total of 1078 patients were included. In rectal cancer surgery in general, the overall rate of primary anastomosis was 39.4%, 61.9% and 61.9% in laparoscopic, robot-assisted and TaTME centres respectively ($P < 0.001$). For specialized techniques in expert centres excluding abdominoperineal resection (APR), the rate of primary anastomosis was 66.7% in laparoscopic, 89.8% in robot-assisted and 84.3% in TaTME ($P < 0.001$). Conversion rates were 3.7%, 4.6% and 1.9% in laparoscopic, robot-assisted and TaTME respectively ($P = 0.134$). Number of incomplete specimen, CRM involvement rate and morbidity rates did not differ significantly.

Conclusion: The results of this study showed similar and acceptable short-term results for all three techniques in expert centres. In centres with robot-assisted or TaTME technique, more primary anastomoses were made.

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PO-292 | PELVIC VOLUMETRIC MEASUREMENT ON ASSESSMENT OF DIFFICULTY OF ROBOTIC TOTAL MESORECTAL EXCISION – A PILOT STUDY

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Aim: To evaluate a new perspective on assessing the difficulty of performing robotic total mesorectal excision

Method: Pelvic volumes of consecutive patients undergoing robotic total mesorectal excision (TME) were recruited. Patients with previous colorectal resection and locally advanced tumours requiring multivisceral resection were excluded. 3D reconstruction of the



preoperative MRI scans were performed and the pelvic volumes including bony pelvic volume, inner pelvic volume and mesorectal volume were measured. Primary outcome will be difficulty of surgery, which was measured by console time, blood lost and number of staples to transect the rectum. Two independent observers measured the pelvic volumes to identify any inter-observer bias.

Results: 37 patients from Jan 2018 to March 2021 were recruited including 27 male and 10 female patients. Mean age was 67.2 years with average BMI 23.84kg/m². 56.8% of the patient has neoadjuvant treatment. The mean pelvic bone volume, inner pelvic volume and mesorectal volume were 637.41ml, 369.76ml and 212.60ml respectively. Pearson's correlation test showed significant correlation of these volume to console time, blood lost and number of staples used. Comparisons of pelvic volumes measured by two independent observers did not show significant difference.

Conclusion: Pelvic volumetric measurement is a novel method that can assess the difficulty of TME surgery. It is reproducible. Prospective validation study is necessary to determine the cut off value for difficult surgery.

Disclosure of Interest: None declared

PO-293 | SOCIOECONOMIC AND DEMOGRAPHIC FACTORS AND STAGE AT PRESENTATION OF RECTAL CANCER IN A STABLE POPULATION

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Aim: The aim of this study is to determine whether socioeconomic status, gender and age are associated with the tumour stage of rectal cancer patients at presentation, in a stable population.

Method: Between January 2014 and December 2017, data were collected prospectively on all patients who had a positive histological diagnosis of rectal cancer in Central Scotland. Patients' socioeconomic status, age, gender and tumour stage at presentation were recorded. The socioeconomic status (deprivation category, DEPCAT) was determined from the Scottish Index of Multiple Deprivation and based on the post code. Patients were stratified in descending order of social deprivation into five groups, according to the quintiles of DEPCAT score. Group 1 was the lowest score, comprising of people with the greatest socioeconomic disadvantage. The Dukes stage at presentation was determined from the pathology records and the initial staging CT and MRI scans.

Results: A total of 214 patients were diagnosed with rectal cancer during this 4 year period, out of a population of about 300,000. There was no significant association between the tumour stage and deprivation category (Cramer's V 0.15, $P = 0.3$). The correlation between age at presentation and tumour stage was -0.22 ($P = 0.004$) and between tumour stage and gender was 0.21 ($P = 0.005$). 31% of

female patients presented with Dukes D disease versus 17% of male patients and 22% of females presenting with Dukes A disease versus 29% of males.

Conclusion: The results demonstrate that females and younger patients are more likely to present with advanced rectal cancer than males and older patients. In contrast, socially deprived individuals do not present with more advanced rectal cancer than affluent patients. This is probably due to uniformity in the access to and the provision of health care services in the community, irrespective of socioeconomic status. The provision of screening in younger age groups may allow for an earlier diagnosis.

Disclosure of Interest: None declared

PO-294 | SURGICAL VOLUME AND SURGICAL SUBSPECIALIZATION AND OUTCOMES IN EMERGENT COLON CANCER RESECTION

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Aim: To evaluate the impact of surgical volume and surgical subspeciality on postoperative complications and mortality after emergent colon cancer surgery

Method: A retrospective analysis of all patients who underwent elective and emergent surgery for colon cancer between 2011 and 2019 at the secondary care hospital of Helsingborg, Sweden. The most senior surgeon participating in the surgical procedure was noted and classified as colorectal surgeon if working regularly at the colorectal unit. The senior surgeons were divided into 4 groups based on the average yearly number of elective and emergent colon cancer resections (< 1 , 1-5, 5-10 or > 10).

Results: In total 915 patients underwent colon resection for colon cancer, of which 184(20%) were emergently resected. Twenty-nine different senior surgeons performed emergent resection during the study period, 14 of which were defined as colorectal surgeons. Surgeons performed a median of 2.31 (range 0.12-28) colon resections (elective and emergent) per year. The overall 90-day mortality after emergent resection was 7.0% for non-colorectal surgeons vs. 8.6% for colorectal surgeons ($P = 0.70$). Complications occurred in 51% of cases for both colorectal and non-colorectal surgeons ($P = 0.942$).

For patients operated by surgeons performing < 1 , 1-5, 5-10 and > 10 colonic resections yearly; 90-day mortality was 10.0%, 3.2%, 9.8%, 10.0% and complications occurred in 65%, 44%, 46% and 62.5% respectively. There was no correlation between yearly surgical volume and 90-day mortality (OR = 1.01 95% CI 0.94-1.09, $P = 0.754$) or complications (OR = 1.02 95% CI 0.98-1.06, $P = 0.330$) in logistic regression. Furthermore, yearly surgical volume did not correlate with length of hospital stay ($r^2 = 0.003$, $P = 0.446$).

Conclusion: Short-term outcome after emergent resection for colon cancer was similar for patients operated by colorectal- and non-colorectal surgeons. Good short-term outcomes is feasible after emergent resection by non-colorectal surgeons with low yearly surgical volumes.

Disclosure of Interest: None declared

PO-295 | THE IMPORTANCE OF TUMOR BUDDING ON NON-METASTATIC COLON CANCER

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Aim: Recent literature suggests that tumor budding (TB) may have a significant clinical impact on colorectal cancers. Our study aims to reveal the effect of TB on the long-term outcomes of patients and to reveal whether there is a difference in tumor location and TB in colonic cancers.

Method: A cohort of 100 patients with non-metastatic colon cancer was included in the study. The clinicopathological information of the patients was reviewed. Patients' preparations were re-evaluated to identify TB as: low, medium, and high and represent 0–4 buds, 5–9 buds, and 10 or more buds per 0.785 mm², respectively. Long-term oncological outcomes of patients were measured. The recurrence, metastasis, and final status of the patients were determined during the follow-up period.

Results: High TB was associated with higher pT and tumor stage; also, with the presence of lymph node metastasis, lymphatic and perineural invasion ($P < 0.05$, all). Additionally, right-sided tumors had a high TB score ($P = 0.011$). Patients with high TB had shorter recurrence times and overall survival, but these were not statically significant. According to the multiple regression analysis, the mortality risk was found to increase 0.969 times in patients over 65 years of age ($P = 0.046$), 0.423 times in patients with high pN values ($P = 0.003$), 3.308 times in patients without received chemotherapy ($P = 0.012$), and 1.775 times in patients with high TB ($P = 0.040$).

Conclusion: The results of this study showed that advanced age (> 65 years of age), lymphatic metastasis, and high TB affect mortality of colon cancer. Also, high TB is more common in right side cancers. New studies are required to investigate whether the genetic changes that play a role in the etiology of colon cancer and show regional differences affect TB.

Disclosure of Interest: None declared

PO-296 | A RETROSPECTIVE REVIEW OF A LARGE PROSPECTIVELY MAINTAINED DATABASE OF LARGE AND RECURRENT POLYPS AND THE ADVANCED ENDOSCOPIC MANAGEMENT OF THESE IN THE SOUTH EASTERN TRUST NORTHERN IRELAND SINCE 2018

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Aim: High rate of malignancy and recurrence has been reported in large polyps. The aim of this study was to review a case series of all advanced endoscopic management of large and recurrent polyps since 2018, to identify outcomes of patient's, follow up and any adverse outcomes.

Method: A retrospective review of a large prospectively maintained database of large and recurrent polyps and the advanced endoscopic management of these within the South Eastern Trust Northern Ireland since 2018.

Results: Results to date have shown that there no significant adverse outcomes as a result of this management. A small number went on to require formal surgical resection, but that a significant number have been saved the potential morbidity associated with colonic and rectal resections

Conclusion: Advanced endoscopic polypectomy remains a safe and effective method of management of large, recurrent or potentially malignant polyps. This is particularly true for those patients in which surgical intervention would prove to have a significant risk of morbidity.

Disclosure of Interest: None declared

PO-297 | OUTCOMES AFTER COLONIC STENTING

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Aim: To review indication, natural history, complications and their risk factors, long term outcomes and need for surgery following insertion of colorectal stent (CS) for large bowel obstruction (LBO).

Method: Retrospective review of all CS from 2013–2021.

Results: 114 patients underwent CS from 2013–2021. Male (49.1%), mean age 73.8 years. Left sided obstruction was most common- 45.6% sigmoid ($n = 52$), rectosigmoid 17.5% ($n = 20$), rectal 9.6% ($n = 11$), splenic flexure 9.6% ($n = 11$), descending colon 8.7% ($n = 10$) and 8.7% ($n = 10$) other.

Primary colorectal cancer (CRC) was the most common cause of LBO-88.6% ($n = 101$) followed by non-CRC 7% ($n = 8$), benign causes 2.6% ($n = 3$), 2 were uncertain (1.8%). CS indication-88.6% palliative, 11.4% curative. Admission type- 59.6% emergency presentation, 41.4% planned CS.

Complication rate- obstruction 13.2% ($n = 15$), perforation (PF) 7.9% ($n = 9$), stent migration 7% ($n = 8$), haemorrhage 0.9%. Successful



deployment of CS was achieved in 88.7%. PF was more common in the emergency cohort 11.8% vs 2.2% for planned ($P = 0.06$) and for benign/non-CRC vs CRC-23-38% vs 4.0% ($P < 0.01$).

26.3% ($n = 30$) patients went on to have surgery- 38.7% ($n = 12$) loop colostomy, 29% ($n = 9$) resection and anastomosis, 25.9% ($n = 8$) resection and end stoma, 3.2% ($n = 1$) had a loop ileostomy. Patients stented as a bridge to surgery were more likely to undergo surgery 84.7% ($n = 11$) vs 18.8% ($n = 19$) than palliative patients ($P < 0.01$).

Mean stent patency in the palliative cohort was 223 days to occlusion, surgery or death (range 3 days- 3 years, 5 months). 75% ($n = 68$) stent patency < 1 year, 18.2% ($n = 16$) patency 1-2 years, 2.3% ($n = 2$) patent 2-3 years and 2.3% patent 3-4 years. 5 patients needed 1 further CS, 1 needed 2 further CS.

Conclusion: Perforation is more common in the emergency setting and for non-CRC obstruction. 88.6% of CS were performed for palliation of whom 18.8% went on to have surgery. Stenting is a valuable palliative procedure-22% pts stoma free survival > 1 year avoiding operative morbidity.

Disclosure of Interest: None declared

PO-298 | EVALUATING POTENTIAL DELAYS AND OUTCOMES OF PATIENTS UNDERGOING SURGICAL RESECTION FOR LOCALLY ADVANCED AND RECURRENT COLORECTAL CANCER DURING A PANDEMIC

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Aim: The COVID-19 pandemic resulted in a significant disruption of colorectal cancer (CRC) care pathways. This study evaluates the management and outcomes of patients with primary locally advanced or recurrent CRC during the pandemic in a single tertiary referral center.

Method: Patients undergoing elective surgery for advanced or recurrent CRC with curative intent between March 2020 - March 2021 were identified. Following first MDT discussion patients were broadly classified into two groups: straight to surgery ($n = 22$, 45%) or neoadjuvant therapy followed by surgery ($n = 27$, 55%). Primary outcome was COVID-19 related complication rate.

Results: 49 patients were included with a median age of 66 years (IQR:54-73). No patients developed a COVID-19 infection or related complication during hospital admission. Significant delays were identified in the treatment pathway of patients in straight to surgery group, mostly due to delays in referral from external centers. 9/22 in the straight to surgery group had evidence of tumour progression vs 3/27 in neoadjuvant group, ($P = 0.015839$). 7/27 in the neoadjuvant group showed evidence of tumour regression. During the study, surgical waiting times were reduced

and more operations were performed during the second wave of COVID-19.

Conclusion: This study suggests that it is possible to mitigate the risks of COVID-19 related complications in patients undergoing complex surgery for locally advanced and recurrent CRC. Delay in surgical intervention is associated with tumour progression, particularly in patients who may not have neoadjuvant therapy. Efforts should be made to prioritize resources for patients requiring time-sensitive surgery for advanced and recurrent CRC.

Disclosure of Interest: None declared

PO-299 | THIRTY-YEAR EXPERIENCE OF MANAGING FAMILIAL ADENOMATOUS POLYPOSIS IN SOUTH EAST SCOTLAND

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Aim: Management of familial adenomatous polyposis (FAP) can be challenging without an established program to ensure timely surveillance and surgery. We reviewed our experience of over 30 years to determine patient outcomes and our overall success in the management of these cases.

Method: All patients seen at our specialist FAP clinic from 1984 to the present day have been recorded on an electronic spreadsheet. Retrospective review of this database allowed us to collect several data points, including patient demographics, surveillance intervals, imaging and operative interventions.

Results: Since 1984, 101 patients (51 male) were included in our database. Forty-five patients were from 18 families and 51 patients were probands. Seventy-eight patients had classical phenotype and 8 had attenuated FAP. Sixty-four patients had an operation at mean age of 37 years (range 16-85), the commonest operation was proctocolectomy and ileal-pouch anal anastomosis ($n = 40$). Seven patients were diagnosed with malignancies; 3 cancers were due to delayed surveillance (2 at external hospital) and 1 was interval cancer. Twenty-one patients are known with desmoid, of whom 7 patients required excision for symptoms. Six patients died due to FAP-related malignancy. A total of 196 surveillance scopes were performed. Of those who required repeat scopes, almost half ($n = 66$, 49.6%) received these at intervals of 1-3 years in line with recommended guidelines.

Conclusion: FAP is a complex disease which requires a careful approach to surveillance and surgery. Integration of clinical and genetic information through the development of a dedicated regional network may further improve patients' care.

Disclosure of Interest: None declared

PO-300 | FACTORS PREDICTING DIFFICULTY IN LAPAROSCOPIC TOTAL MESORECTAL EXCISION: SHORT AND LONG-TERM OUTCOMES

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Aim: This study analysed if factors predicting difficulty in laparoscopic total mesorectal excision (LTME) were associated with short and long-term outcomes in patients with rectal cancer.

Method: 88 patients (62M-26F) with a mean age of 72 (range 64.2-79) years with mid-low rectal cancer underwent LTME from January 2016 to December 2018. Univariate and multivariate analysis were used to assess the relation between factors predicting difficulty in LTME (male, obesity, cT3-4, bulky tumors, low rectal cancer and neoadjuvant therapy) and short and long term outcomes. Overall survival (OS) and disease free survival (DFS) were estimated by the Kaplan-Meier method and compared by the log-rank test.

Results: Mean operative time was 290 (232-320) min, intraoperative complications rate 9%, postoperative morbidity 46.5%, conversion rate 12.5%, complete TME rate 82.9%, free distal and radial circumferential margin rates 96.6 and 82%. Male sex was associated with operative time (298vs243, $P = 0.001$), conversion rate (18%vs0%, $P = 0.018$) and postoperative morbidity (54.1%vs29.6%, $P = 0.034$). Low rectal cancer (303vs269, $P = 0.022$) and neoadjuvant therapy (296vs252, $P = 0.004$) were associated with operative time. In multivariate analysis revealed that male [OR = 3.5(IC95%1.326-9.761), $P = 0.012$] and neoadjuvant therapy [OR = 2.634(IC95%1.030-6.734), $P = 0.043$] were risk factors for prolonged operative time and male for postoperative morbidity [OR = 2.799(IC95%1.064-7.365), $P = 0.037$] in LTME for rectal cancer. After a median follow-up time of 34.7(35.9-18.6) months OS and DFS were 90.9 and 83.9% respectively. There were not significant differences between OS and DFS and male, obesity, cT3-4, bulky tumors, low rectal cancer and neoadjuvant therapy.

Conclusion: Male sex was associated with prolonged operative time and postoperative morbidity. Neoadjuvant therapy was correlated to prolonged operative time. Adverse technical conditions for LTME were not related to OS and DFS in rectal cancer.

Disclosure of Interest: None declared

PO-301 | LAPAROSCOPIC SURGERY CAN BE SAFELY PERFORMED IN ELDERLY PATIENTS WITH COLORECTAL CANCER

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Aim: Surgery is the mainstay treatment in colorectal cancer. It is considered as a disease of the elderly due to its tripled incidence in people

over 75 years of age. In the elderly population, performing a surgery can be challenging due to accompanying comorbidities higher perioperative risk, presentation at advanced stages. Laparoscopic surgery is expected to be the gold standard due to proven advantages such as decreased pain, shorter hospital stay, better pain control, and improved cosmesis across all ages. Nonetheless, it remains underresearched and underutilized especially in the elderly population.

Method: This study included patients > 75 years of age with colon cancer operated at Koc University Hospital between October 2014 and December 2019. 68 patients were eligible for this study with 34 patients in both laparoscopic and open surgery group. The two groups were compared in terms of patient demographics, pathologic outcomes, perioperative results, and short-long term oncologic outcomes.

Results: All patients underwent R0 resection regardless of technique. Laparoscopic surgery proved to decrease the length of hospital stay ($P = 0.042$). Patients in open surgery group had larger tumors ($P = 0.02$). Laparoscopic surgery yielded higher numbers of lymph nodes ($P = 0.03$). No difference was observed regarding 30-day postoperative complication rate ($P = 1$). Overall and disease free 30-month survival rates were 86.1% and 84.7% in the laparoscopic surgery group and 76.2% and 72.7% in the open surgery group respectively.

Conclusion: Our study verified the safety and feasibility of laparoscopic surgery in the elderly population. We also found that laparoscopic surgery might provide additional advantages over an open surgical approach. Taking already known merits of laparoscopic surgery such as improved pain control, better cosmetic results, and decreased tissue trauma into account, our findings stress the importance of laparoscopic colon surgery especially in the more complication-prone elderly population.

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Disclosure of Interest: None declared

PO-302 | INFLUENCE OF THE APPROACH PROCEDURE ON ONCOLOGICAL OUTCOMES IN COLORECTAL CANCER AFTER RIGHT HEMICOLECTOMY

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Aim: Colorectal cancer is the third leading cause of death worldwide. Since 1991, when the first laparoscopic colectomy was published, this approach has shown great benefits. However, through our work we wanted to analyse whether there are long-term differences in survival and recurrence comparing the open approach with the laparoscopic approach.

Method: Retrospective observational study. Patients who underwent right hemicolectomy with histological findings of adenocarcinoma between January 2004 and December 2019 were analysed. They were divided into two groups: Group A (conventional surgery), Group B (laparoscopic access). All variables were collected in an IBM SPSS database (V.23). Age, overall survival, recurrence time and disease-free interval were analysed as variables for each group.

Results: A total of 452 patients (204 men and 248 women) were collected. A total of 354 patients underwent conventional surgery (Group A) and 98 patients underwent laparoscopic surgery (Group B). The mean age (Group A) was 70.9±11 years while that of Group B was 69.9±11 ($P = 0.366$). Overall survival in Group A was 47.4±33 months while in Group B it was 23.1±16.9 months ($P = 0.001$; 95%CI(37.5–10.9)). The time to recurrence in group A (59 patients) was 21.5±21.2 months and in group B (10 patients) was 13.6±8 months ($P = 0.50$; 95%CI (15.9–0.11)). The disease-free interval in group A was 60.2±42 months compared to group B, 33.8±27 months ($P = 0.00$; 95%CI(18.3–34.4)).

Conclusions:

Conclusion: In our work we found no significant differences in relation to time to recurrence. However, we observed significant differences in survival and disease-free interval, being higher in the conventional approach.

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Disclosure of Interest: None declared

PO-303 | SARCOPENIA AS A RISK FACTOR FOR MORBIDITY AND ANASTOMOTIC LEAKAGE AFTER RESECTION FOR RECTAL CANCER: A PROPENSITY MATCHING ANALYSIS

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Aim: The purpose of this study was to evaluate if sarcopenia assessed by the area of the psoas muscle through CT images was associated to complications after surgery in patients with rectal cancer following neoadjuvant chemoradiation.

Method: This is a retrospective analysis from a prospectively collected database. Patients had a diagnosis of rectal cancer and underwent neoadjuvant treatment followed by rectal resection from June 2016 to June 2020. A manual trace delineating the psoas area was estimated (mm²) on CT scans after neoadjuvant therapy and cut off values were adopted for women and men, as previously reported, to define sarcopenia. A propensity score analysis was done based on the "inverse probability weighting" method to pair the data, which makes it possible to use the entire data set based on weightings. Data was adjusted to estimate the relative risks regarding complication, severe complication and dehiscence.

Results: After comparison by PSM, matching for gender, age and BMI, having sarcopenia raised 24% the chance of having post-operative complications, but without statistical significance (RR 1.24; CI 0.66–2.33). Sarcopenia did not impact on severe complications (RR 1.02; CI 0.31–3.35) nor anastomotic leakage (RR 0.87; CI 0.17–4.59).

Conclusion: In a subgroup of patients with rectal cancer, treated by neoadjuvant therapy plus surgery, sarcopenia does not seem to influence post-operative morbidity, including anastomotic leakage.

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Disclosure of Interest: None declared

PO-304 | WHICH GUIDELINES BEST PREDICT RESIDUAL DISEASE IN PATIENTS WITH COLORECTAL CANCER POLYPS FOLLOWING INITIAL POLYPECTOMY?

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Aim: The management of resected colorectal cancer polyps remains controversial. In the UK two separate guidelines exist: Association of Coloproctology for Great Britain and Ireland (ACBGPI) and Scottish guidelines. The study aims to identify which UK Colorectal Cancer polyp guideline best predicts residual vs. no disease and need for resection following a colorectal cancer polypectomy.

Method: A retrospective review of 100 consecutive patients diagnosed with a colorectal cancer polyp between 2014 and 2017 were reviewed. Polyp cancer risk factors were recorded for each patient and used to assess how the patient should be managed with regard to the respective guidelines. Patient outcomes included: segmental resection performed, presence of residual disease and development of recurrent disease (local / metastatic) with 3 years of diagnosis

Results: Thirty patients underwent a colonic resection; this was less than suggested by either guideline due to patient choice. Of those who received a resection 90% had residual disease. When patient suggested management was assessed against subsequent outcome (residual / development of recurrent disease), the ACPGPI and Scottish guidelines would have accurately identified 82% and 64% of patients who required surgery respectively. The ACPGPI and Scottish guidelines would have suggested surgery in 78% and 88% of patients who subsequently had either no residual disease or remained disease free at 3 years.

Conclusion: In our consecutive series of 100 patients both guidelines over treat colorectal cancer polyps, however the ACPGPI guidelines appear to more accurately predict residual disease and the need for a surgical resection.

Disclosure of Interest: None declared

PO-305 | KHANS SURGICAL TECHNIQUE – STEPWISE DESCRIPTION, AND PATIENTS OUTCOMES IN A PROSPECTIVE COHORT STUDY OF ROBOTIC-ASSISTED TOTAL MESORECTAL EXCISION FOR RECTAL CANCER

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Aim: A proximal diverting stoma is made to protect the rectal anastomosis, to minimize the risk of a potential serious postoperative complication - anastomotic leak. We describe a novel technique that reinforces the colorectal anastomosis and rectal staple line with sutures, and rectal resection and assessment of the anastomotic perfusion, using our Portsmouth protocol.

Method: During robotic rectal cancer surgery with the da Vinci® robotic platform (Intuitive Surgical), establishing the level of transection and checking the vascularity of the circular anastomosis are done with indocyanine green. The distal transverse staple line and circular staple line of the colorectal anastomosis are reinforced with absorbable interrupted stitches (KHANS technique – Key enHancement of the Anastomosis for No Stoma). The integrity of the colorectal/anal anastomosis is 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 within 5 cm of the anal verge. Median length of stay was 5 (3–34) days, with two 30-day readmissions; no 90-day mortality, and no 30-day reoperations.

Conclusion: The KHANS technique appears feasible, successful, and safe in decreasing the incidence of diverting stomas in rectal resections.

Reference:

1. anastomosis; diverting stoma; rectal cancer; rectal resection; robotic-assisted surgery.

Disclosure of Interest: None declared

PO-306 | DEMOGRAPHIC AND CLINICOPATHOLOGICAL PATTERNS OF COLORECTAL CANCER AT THE NATIONAL CANCER INSTITUTE SUDAN

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Aim: To assess the demographic, clinical and pathological patterns in patients with colorectal cancer at National Cancer Institute, University of Gezira, Sudan.



Method: This retrospective, cross-sectional study analyzed the data of all colorectal cancer patients who presented to National Cancer Institute, University of Gezira, between January 2016 and December 2017. National Cancer Institute, University of Gezira, is one of the two National Cancer Institutes in Sudan and receives patients from across Sudan. The demographic, clinical and pathological information were extracted from the patients' files.

Results: A total of 163 colorectal cancer patients who presented to National Cancer Institute during the study period and met the inclusion criteria were included in this study. Most patients were aged > 40–69 years (58.8%), were male (53.4%) and from Central Sudan (65.6%). About 44% of the patients were diagnosed 6–12 months from the disease onset and 26.8% after > 12 months. Change in bowel habits (51.5%), rectal bleeding (42.3%) and abdominal pain (32.5%) were the most common clinical presentations. About 58% of the patients did not undergo per rectal examination during their initial presentation. Rectum was the most common site of tumor (58.9%), and the majority of patients had Grade I adenocarcinoma (50.3%). Duke's Class B (38%) and Class C (31%) were the most common stages of the patients' tumor, and signet ring carcinoma was found in 4.9% of the patients.

Conclusion: This study found that in Sudan, colorectal cancer patients most commonly present late after the onset of symptoms, with an advanced stage and aggressive pattern as well as the proportion of younger patients is high. Further, per rectal examination is often not performed during the initial presentation.

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Disclosure of Interest: None declared

PO-307 | PRIMARY MELANOMA OF ANORECTAL REGION: CLINICAL AND HISTOPATHOLOGICAL REVIEW OF 17 CASES. A RETROSPECTIVE COHORT STUDY

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Aim: The aim of our study was to scrutinize diagnostic and treatment encumbrances, which may contribute to low survival rate of this disease while including 17 more rare cases into global research database.

Method: We carried out a retrospective analysis of 17 anorectal melanoma cases treated at a single institution from 2000 up to 2020. The data on patient's age, sex, complaints, treatment, survival as well as tumour size, resection margins, histological and immunohistochemical features were assessed.

Results: Median age was 72±12.49 (45–92) years. Most of the patients were females $n = 11$ (64.71%). Three (17.65%) patients underwent no radical treatment. Out of eight patients treated initially with radical surgery (either TME or APR), six (75%) were discovered to have positive lymph nodes. Mean survival was 20±23.46 (1–84) months. Average diameter of the resected tumors was 5.43± cm (1.3–10 cm). Most tumours had epithelioid or spindle cell morphology, were positive for one or more melanocytic markers (S100, HMB-45 or MITF). More than half of tumours had no or very little melanin pigment. None of the tumours had significant lymphocytic infiltration. Three tumours showed positivity for keratins (PANCK or CAM5.2) and one tumour showed positivity for C-KIT stain.

Conclusion: Aggressive surgical approach may have effect on survival in most early stages while the more advanced disease benefits from more conservative approach. Attention to sentinel lymph node and further systemic therapy research is required. For now, treatment and diagnostic modalities seem to be inconsistent, requiring further investigation for further common points.

Disclosure of Interest: None declared

PO-308 | DYNAMICS OF INTRA-ABDOMINAL PRESSURE IN PATIENTS WITH COLORECTAL CANCER COMPLICATED BY ACUTE OBSTRUCTION AFTER THE FORMATION OF ILEO- AND TRANSVERSOSTOMY

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Aim: To study the efficiency and dynamics of intra-abdominal pressure indices in patients with acute malignant intestinal obstruction after the formation of ileo- and transversostomy.

Method: The presented study included 107 patients with colorectal cancer complicated by acute obstruction. For the purpose of decompression, all patients underwent mini-access stoma formation

at the first stage, including 44(41,1%) patients with ileostomy and 63(58,9%) patients with transversostomy.

Results: After the imposition of ileostomy through a mini-access and artificial evacuation of sequestered fluid and gases from the intestine, normalization of IAP parameters is observed in 92,9% of patients within 12 hours, in the remaining 7,1% within 24 hours. After spontaneous emptying of the small intestine, normalization of IAP values after 12 hours was detected in 37,5% of patients. In another 25,0% of patients IAP remained elevated for 24 hours, in the remaining 37,5% only by the end of the second day. After the formation of unloading transversostomy and forced removal of intestinal contents within 12 hours, 86,1% of patients showed normalization of IAP parameters, after 24 hours in 11,1%. After spontaneous emptying of the large intestine, normalization of IAP values after 12 hours was observed only in 70,4% of patients, after 24 hours in 22,2%.

Conclusion: Emergency hospitalization of patients with acute malignant intestinal obstruction in 95 (88,8%) patients is accompanied by an increase in IAP over 12 mm Hg. The most effective are decompression ileo and transversostomy with forced evacuation of intestinal contents. All patients with involvement of the small intestine obstruction showed a slower decrease in IAP parameters.

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Disclosure of Interest: None declared

PO-309 | EFFECT OF INTRODUCTION OF ROBOTIC SURGERY ON THE ENHANCED RECOVERY AFTER COLORECTAL SURGERY

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Aim: Robotic surgery has become increasingly commonplace in colorectal cancer surgery. This study aims to compare robotic and laparoscopic surgery in terms of surgical outcomes.

Method: All patients undergoing robotic and laparoscopic left colonic cancer (high and low anterior resection) surgery at a single tertiary referral centre over 3 years were included.

Results: A total of 184 consecutive patients from July 2017 to December 2020 were included in this study of whom 40.2% ($n = 74/184$) underwent robotic surgery. The median age at the time of surgery was 68 years (IQR 60–73 years). The robotic group had a shorter length of median stay of 3 days and 5 days for the laparoscopic group ($P < 0.001$). The robotic group had a significantly lower rate of conversion to open (0% vs 16.4%, $P < 0.001$). The median operative time was also shorter in the robotic group (308 minutes) compared to the laparoscopic group (326 minutes, $P = 0.019$). The overall rate of any complication was 16.8% with the robotic group experiencing a lower complication rate

(12.2% vs 20.0%, $P = 0.041$). Additionally, there was no difference in anastomotic leak rates between the groups (4.0% vs 5.5%, $P = 0.673$). There was no significant difference between the two groups in terms of RO rate (robotic 98.6%, laparoscopic 100%, $P = 0.095$).

Conclusion: Robotic surgery delivers equivalent oncological resection to laparoscopic surgery with the added benefits of a significantly reduced operative time, reduced length of stay and lower rates of conversion to open surgery. This has both clinical and healthcare economic ramifications.

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Disclosure of Interest: None declared

PO-310 | EXPLORING TIME TO REACH THE PLATEAU BY THE EXPERIENCED LAPAROSCOPIC COLORECTAL SURGEON TO PERFORM SAFE AND EFFECTIVE ROBOTIC ONCOLOGICAL RESECTIONS FOR THE RECTUM AND ANAL CARCINOMA

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Aim: In this study, we explore the learning curve to perform safe and effective oncological resections, mainly for rectal and anal malignancies using the Da Vinci robot by a single laparoscopic trained colorectal surgeon.

Method: This was a retrospective review of prospective colorectal surgery data which was done in the university hospital, Coventry. All 48 consecutive cases performed by a single surgeon (39 for rectal cancers, 4 for anal cancers, 4 for colon cancers, and 1 for sigmoid diverticulosis) were included in our study. All 48 cases were divided into 4 different periods based on time. Both console and total operative time were recorded in each case and analysis was performed using the SPSS version. A graph was plotted against time and every 6th operative case. This graph showed performance over time and time required to reach plateau on learning curve. Comparison was made between 4 different periods on basis of demographics, tumor burden and site, type of resection, perioperative complications, oncological outcomes (lymphnodes yield and resection status) and length of hospital stay.

Results: In our study, cases performed in 4 different periods (each period consisted of 12 cases) were comparable, based on demographics, tumour stage, location, and complexity of the operation. Our study results showed a significant decline in both mean console and total operative time as surgeon received more experience. Moreover, after 30 cases learning curve developed plateau phase suggestive of attainment of maximum proficiency of skills required for robotic resections aimed particularly for rectal and anal neoplasia. Further, Complications rate and length of hospital stay also decreased over time.

Conclusion: The learning curve in robotic colorectal resections flattens much earlier and develops plateau if the surgeon was previously trained in minimally invasive surgery. Complication rates also decrease with time in robotic oncological resections for rectum and anal carcinoma.

Disclosure of Interest: None declared

PO-311 | DELAYED "ROUTINE" COLONOSCOPY DUE TO THE PANDEMIC – COULD IMPORTANT DIAGNOSIS BEEN MISSED?

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Aim: "Routine" colonoscopies are delayed due to the pandemic; with more than 300 colonoscopies outstanding at Chesterfield Royal Hospital, UK. These colonoscopies were requested as "routine" for patients who did not have "red flag" colorectal cancer (CRC) symptoms. This is the first of a two-parts quality improvement project that aim to prioritise patients who are at risk of colorectal cancer using biochemical markers.

Method: Patient's gender, age, and biochemical results including faecal immunochemical test (FIT), haemoglobin, mean cell corpuscular volume (MCV), platelet, ferritin level was recorded and analysed. Faecal calprotectin was recorded as reference.

Results: 304 colonoscopy requests were outstanding in January 2021. Two patients have deceased. The median (interquartile range) age of patient is 54 (40 – 68). Female to male ratio is 168:134. Only 34 patients had fit test and 5 were abnormal. 41 patients were anaemic and 10 of them were microcytic. 13 patients had low ferritin level. However, only two patients had iron deficient anaemia. 9 patients had low platelet count. 62 patients had their faecal calprotectin measured.

Conclusion: The clinical indications of these colonoscopies were not always clear. Some of these requests are for surveillance and assessment of inflammatory bowel disease. Delay investigation is a common problem in the post-pandemic era. It is possible that by prioritising patients using biochemical markers can prevent delayed diagnosis. The second part of the project will investigate endoscopic and histological findings of these requests.

Disclosure of Interest: None declared

PO-312 | C-REACTIVE PROTEIN AS A PREDICTOR OF ANASTOMOTIC LEAK AFTER RECTAL SURGERY IN ENHANCED RECOVERY AFTER SURGERY (ERAS) PROGRAM

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Aim: Anastomotic leak (AL) is a serious and life-threatening complication in colorectal surgery. Early diagnosis is essential within an

Enhanced Recovery After Surgery (ERAS) program due to the short length of hospital stay. C-reactive protein (CRP) seems to be a reliable inflammatory biomarker of complications and has been used to ensure a safe discharge. The aim of this study was to assess the accuracy of CRP values in detection of AL following an ERAS program for rectal surgery.

Method: A retrospective study was performed between May 2019 and February 2021. Consecutive patients who underwent rectal surgery with a primary anastomosis within an ERAS program were selected. All complications, including AL, were recorded until postoperative day (POD) 30. The diagnosis of AL was based on clinical and radiological findings. CRP was measured on POD2, POD3, POD4 and POD5. Comparisons were performed with Mann-Whitney method and the predictive value of CRP with receiver operating characteristic (ROC) curves.

Results: A total of 74 patients were included and diverting stoma was found in 35 patients (47,3%). AL was detected in 9 patients (12,2%), independently of the presence of diverting ileostomy. The median levels of CRP were significantly lower in patients without AL between POD2 and POD5 ($P < 0.005$). According to ROC curves, the best area under the curve (AUC) was achieved on POD4 (AUC 0,889, $P < 0.001$). A cutoff of 150,9 mg/L yielded 86% sensitivity, 93% specificity and 98% negative predictive value for the detection of AL.

Conclusion: CRP is a powerful and relevant biomarker and patients with CRP under 150,9 mg/L on POD4 could be discharge with low risk of AL in our ERAS program.

Disclosure of Interest: None declared

PO-313 | C-RP LEVELS IN PREDICTING EARLY POSTOPERATIVE COMPLICATIONS AFTER ELECTIVE LAPAROSCOPIC COLONIC RESECTIONS FOR COLON CANCER

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Aim: Prediction of postoperative complications is crucial in reduction of length of hospital stay. We aimed to assess prognostic value of C-reactive protein (CRP) in predicting early postoperative complications after elective laparoscopic colonic resections.

Method: A retrospective set of 157 patients who underwent laparoscopic colonic resections for colon cancer from 01.01.2016 to 01.01.2021 at N.N. Alexandrov National Cancer Centre of Belarus was analyzed. To assess prognostic value of different factors we performed univariate binary logistic regression analysis using following factors: sex, age, BMI, tumor location (left or right-sided), stage, lymph-node metastases, surgery duration, blood loss, and CRP levels on 1–3 and 4–7 postoperative days. ROC-analysis was used to determine the cut-off value of CRP in predicting postoperative complications.

Results: Mean patients age was 60,4 years (28–84). Sixty-four (40,7%) male patients and 93 (59,3%) female patients were included

in the analysis. Mean BMI was estimated to be 25,8 kg/m² (17,2–42,0). Median surgery duration was 230 min (120–435), mean blood loss was 51 ml (0–250). Postoperative complications were registered in 10,3% of patients, Clavien-Dindo grade IIIB-IV complications were registered in 11 patients (7%). CRP levels on 1–3 postoperative days were estimated to have prognostic value in predicting early postoperative complications. Other assessed factors had no significant predictive value.

Conclusion: CRP levels on 1–3 postoperative days have prognostic value in predicting early postoperative complications after elective colonic resections for colon cancer. Cut-off value of 12 mg/ml was estimated to have 78% diagnostic sensitivity, 86% diagnostic specificity and 83% diagnostic efficacy.

Disclosure of Interest: None declared

PO-314 | POTENTIAL MISSED DIAGNOSIS OF RIGHT-SIDED COLON CANCER: OBSERVATIONAL STUDY

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Aim: Diagnosis of right colon cancer can be potentially missed due to several factors, including inadequate assessment, suboptimal investigations, or lack of patients' compliance. This study aims at evaluation of the clinical practice and boosting the diagnostic ability through highlighting possible contributing factors.

Method: Electronic clinical records of patients diagnosed with right-sided colon malignancy between 2015 till 2020 were screened for missed diagnostic opportunities in the 3 years preceding their cancer diagnosis. Reasons were categorised as: a critical miss, which includes inadequate investigations of a significant clinical encounter with suggestive symptoms, lost follow up or declined investigations, and a potential miss defined as having encounters with less suggestive symptoms or less optimal investigations.

Results: Data pooled from 235 valid records showed that most of patients were diagnosed in their 70s and 80s, and most of them had Dukes' B and Dukes' C malignancy on diagnosis. While 116 patients (49%) had at least 1 previous encounter with suggestive symptoms, 83 (71.5%) of them were investigated. 56 patients had at least one previous colorectal investigation, with CT imaging being the most frequent test requested, and performed for approximately half of the patients.

30 (13%) incidents of critical diagnostic miss, and 28 (12%) incidents of potential diagnostic miss were identified.

Conclusion: Clinicians should adequately investigate patients with suggestive symptoms of right colon cancer, including patients older

than 40 diagnosed with appendicitis. Our results conform with the reported less than optimal sensitivity of non-targeted CT to pick up early colonic cancer, and with the probable false sense of reassurance after unremarkable flexible sigmoidoscopy used to investigate symptoms that may suggest right-sided colon cancer.

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Disclosure of Interest: None declared

PO-316 | CYTOREDUCTIVE SURGERY +/- HIPEC: 5-YEAR EXPERIENCE OF THE IMPERIAL COLLEGE ADVANCED CANCER

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Aim: The National Institute for Health and Care Excellence in the UK supports cytoreductive surgery (CRS) and hyperthermic intraperitoneal chemotherapy (HIPEC), but requires specialist centres offering this procedure to carefully audit their outcome data. This retrospective study aimed to review outcome measures after CRS +/- HIPEC undertaken at the Imperial College Advanced Cancer Service.

Method: A retrospective analysis of a prospectively maintained database was undertaken to review surgical and cancer specific outcome measures for patients undergoing CRS +/- HIPEC at the Imperial College Advanced Cancer Service between July 2016 and May 2021.

Results: Total of 48 (83%) patients underwent CRS with HIPEC and 10 (17%) underwent CRS without HIPEC. Repeat cytoreductive procedure were performed for 1 (1.7%) patient. Primary tumour sites were: colorectal 43 (74.1%); appendiceal 6 (10.3%); small bowel 2 (3.5%); gastric 2 (3.5%); ovarian 2 (3.5%); cancer of unknown primary 3 (5.1%). The median surgical PCI score was 7 (1-37) with complete excision of all disease (CC-0) achieved for 48 (82%) patients. 7 patients (12%) had synchronous liver resection. Median length of ICU stay was 4.9 (0-26) and length of hospital stay was 13.8 (8-90) days. Clavien-Dindo ≥ 3 complications occurred in 5 (8.6%) cases with 1 (1.8%) anastomotic leak. No 30 day mortalities occurred while 90 day mortality was encountered in 1 (1.9%) case. Median follow up for the cohort was 9.5 (1-61) months. 31 (53%) were alive at last follow up with 25 (43%) developing recurrence within a median of 5 (2-36) months. 2 (3.4%) patients required repeat cytoreductive procedures.

Conclusion: The presented data demonstrate that outcome measures comparable with international centres of excellence can be achieved by new services, provided care is delivered by appropriately trained health care teams.

Disclosure of Interest: None declared

PO-317 | ELECTIVE COLORECTAL CANCER RESECTIONS DURING THE FIRST COVID-19 WAVE; EXPERIENCE IN CHESTERFIELD ROYAL HOSPITAL

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Aim: The SARS-Cov-2 pandemic has been undoubtedly overwhelming for elective colorectal cancer resections. However, early establishment of a green pathway has enabled our trust to operate in a clean, covid-19 free environment and this project aims to demonstrate this pathway.

Method: Elective colorectal cancer resections have been included in this cohort from January until July 2020. Emergency and benign resections have been excluded from this study. The main procedures that have been performed were laparoscopic right hemicolectomies and high anterior resections. Complication rate was classified using the Clavien-Dindo scale. Patients from March 2020 onwards were operated and nursed post-operatively on a green covid-19 pathway.

Results: A total of 62 patients were included in this study. Resections were mainly performed laparoscopically (85%) and these were mainly right hemicolectomies (41%) and high anterior resections (31%). There has been a single Covid19 positive resection and that was before the pathway has been established. The median length of stay was 5 days for all resections. The main post-operative complication was ileus and there were no anastomotic leaks.

Conclusion: Elective colorectal resections during a respiratory pandemic are safe and feasible with appropriately established pathways.

Disclosure of Interest: None declared

PO-318 | PERMANENT STOMA AFTER LAPAROSCOPIC TOTAL MESORECTAL EXCISION FOR RECTAL CANCER: RISK FACTORS AND OVERALL AND DISEASE-FREE SURVIVAL

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Aim: The aim is to analyze risk factors associated with permanent stoma after laparoscopic total mesorectal excision (LTME) for rectal.

Method: 88 patients (62M-26F) with a mean age of 72 (range 64.2-79) years with mid-low rectal cancer underwent LTME from January 2016 to December 2018. Permanent stoma was defined as a stoma presents until patients last follow-up. Univariate and multivariate regression models were used to search risk factors for permanent stoma after LTME. Overall survival (OS) and disease free survival (DFS) were estimated by the Kaplan-Meier method and compared by the log-rank test.



Results: 59 patients underwent low anterior resection, 24 abdominoperineal resection and 5 Hartmann's operations. 64 stomas were performed at the time of initial LTME including 29 terminal colostomies and 35 diverting ileostomies. After a median follow-up time of 34.7 (18.6–35.9) months one secondary stoma was created because of anastomotic leak and we described 6 cases of non-reversal ileostomies because of tumoral progression (3 cases), anastomotic leak (1 case) and death (2 cases). There were not significant differences between permanent stoma rate and age, ASA score, obesity, cT3–4, bulky tumors, neoadjuvant therapy, conversion, anastomotic leak and local recurrence rates. Permanent stoma was associated with tumor distance from external anal verge (8.2vs4.6, $P = 0.001$), low rectal cancer (63.9%vs23.8%, $P = 0.001$) and postoperative morbidity after LTME (58.3%vs33.3%, $P = 0.040$). On multivariable analysis low rectal tumor [OR = 5.662(IC95%2.118–15.133), $P = 0.001$] and postoperative morbidity [OR = 2.888(IC95%1.113–7.042), $P = 0.029$] were independent risk factor of permanent stoma. OS (83.3%vs100%, $P = 0.004$) and DFS (71.4%vs90.5%, $P = 0.023$) decreased in patients with permanent stoma

Conclusion: Permanent stoma was associated with low rectal tumor and postoperative morbidity after LTME and decreased OS and DFS in patients with rectal cancer.

Disclosure of Interest: None declared

PO-319 | LEARNING CURVE IN ROBOTIC ANTERIOR RECTAL RESECTION. DOES AN EXPERT LAPAROSCOPIC SURGEON NEED IT? A SINGLE CENTER RETROSPECTIVE ANALYSIS

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Aim: Robotic anterior rectal resection (RARR) is a complex surgical procedure. No clear data exist about the exact number of procedures needed to achieve a surgical proficiency. Studies report a minimum of 17 procedures up to 65 to face more complex cases and complications usually decrease over time.

The aim of our study is to investigate whether an expert laparoscopic colorectal surgeon really need a training period to improve results

Method: A retrospective analysis at a single center was performed. RARR from the beginning of the experience in 2015 to 2020 were analyzed. All the resections were conducted with the Da Vinci Xi system by a single surgeon with an experience of more than 1000 laparoscopic colorectal resections. Cases were divided into 5 consecutive groups (3 of 23 pts and 2 of 22 pts) over time. Operative time, length of stay and complications were analyzed

Results: 113 cases of RARR were extracted from our database. Patients were 43 female and 80 male. Mean age and BMI were 65 and 25,1 respectively. 3 pts were ASA 1, 86 ASA 2 and 24 ASA 3.

Multiple linear regression for operative time and length of stay, adjusted for BMI and ASA, was conducted and did not show any difference in the 5 groups ($P = 0.856$ and $P = 0.270$). Multivariate binary logistic regression, adjusted for BMI and ASA, was conducted for complications and did not show any difference as well ($P = 0.697$).

No perioperative death occurred

Conclusion: RARR could be conducted by a very experienced laparoscopic colorectal surgeon without the need of a defined learning curve

Disclosure of Interest: None declared

PO-320 | THE USE OF THE FAECAL IMMUNOCHEMICAL TEST DURING THE COVID-19 PANDEMIC TO TRIAGE URGENT COLORECTAL CANCER REFERRALS

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Aim: During the first wave of the Covid19 pandemic in 2020, elective GI endoscopy services were abbreviated for fear of viral transmission. However, primary care continued to refer patients on the NG12 pathway. Serendipitously, a national study suggested that a new Faecal Immunochemical Test might be helpful in triaging patients with colorectal alarm symptoms.

Method: A single centre observational study of patients referred using NG12 referral criteria between March and August [pb1] 2020. Patients were triaged to the urgent cancer pathway if FIT ≥ 10 mg/ml and investigated using latest NHS England guidance. Demographic data, method of investigations, cancer and polyp detection rates were compared to those observed in a cohort of patients who had been referred in the previous six months prior when FIT was not used as the triage tool (September 2019 to February 2020) when Covid 19 was not prevalent.

Results: A total of 1192 patients with a median age of 70 years (IQ range 58–79) of which 53.9% were male, were referred using NG12 guidelines during the pandemic period compared with 1592 patients with a median age of 72 years (IQ range 59.5–91) of which 49.2% were male, in the prior six months. Colorectal cancer was detected in 45 patients, (3.2%) compared with 38 patients (2.8%) in the pre pandemic period (NS). There were two patients who turned out to have CRC despite a negative FIT. After the introduction of FIT as a triage tool, there was a significant reduction in the use of endoscopy ($n = 463$, 42.3% vs. $n = 1186$, 74.5%, $P = 0.035$) with a significant increase in CT scanning ($n = 677$, 61.2% vs. $n = 750$, 47.1%, $P = 0.035$).

Conclusion: The use of FIT in NG12 patients triaged during the first wave of the Covid 19 pandemic reduced endoscopy but not CT scanning and did not compromise CRC detection rates. The use of FIT triage for endoscopic investigation is a safe method that aids in reducing the burden on services greatly. A negative FIT test does not absolutely exclude CRC.

Disclosure of Interest: None declared

PO-321 | ROBOTIC RECTAL SURGERY VS TaTME: PATHOLOGIC QUALITY AND MEAN HOSPITALIZATION OUTCOMES

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Aim: This study aimed to compare robotic surgery and TaTME outcomes in pathologic quality and mean hospitalization stay among patients who underwent rectal surgery.

Method: All Robotic and TaTME cases for rectal adenocarcinoma operated between January 2018 and July 2021 were retrieved from a prospective database. The main endpoints were mesorectal quality, harvested lymph nodes and hospitalization days.

Results: A total of 36 TaTME and 31 Robotic cases were included, consisting of predominantly males (63%) with a mean age of 69 [41–82 years].

Regarding TaTME cases, mean harvested lymph nodes and hospitalization days were 15.1 and 9.25 respectively. Complete, nearly complete and incomplete mesorectal excision included 20, 9 and 6 cases respectively.

The robotic cases had a mean harvested lymph nodes and hospitalization days of 15.6 and 5.2 respectively. Complete and nearly complete mesorectal excision were 23 and 8 cases. No incomplete mesorectal excision cases in this group.

Conclusion: These findings support that robotic rectal surgery provides better pathologic specimen quality with a shorter hospital stay, compared to TaTME surgery.

Disclosure of Interest: None declared

PO-322 | ANALYSIS OF THE CLINICAL PRESENTATION, HISTOPATHOLOGY AND MANAGEMENT OF COLORECTAL NEUROENDOCRINE NEOPLASMS

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Aim: Neuroendocrine tumours are a relatively rare and heterogeneous tumour type which arise from the neuroendocrine cell system. We analysed the incidence, presentation, pathophysiology, staging and treatment of neuroendocrine neoplasms of the colon and rectum (CR NENs) over a six-year period in a teaching general hospital.

Method: Data were collected from dedicated databases on patients with CR NENs who presented to our hospital between January 2015 and February 2021.

Results: 13 patients with CR NEN were identified, 9 male and 4 female, representing about 40% of the total gastrointestinal neuroendocrine tumours diagnosed during this period. The median age was 77 years (range 50 to 85). The most common presenting symptom

was abdominal pain (7 patients). 2 patients were asymptomatic and presented via the colorectal cancer screening programme. 3 patients (23%) had metastatic disease at presentation. The rectum was the most common tumour site (5 patients), followed by the caecum (4 patients). At presentation, 10 patients exhibited well differentiated NENs. The 3 patients who presented with poorly differentiated tumours or high-grade neuroendocrine carcinomas with distant disease survived less than a year after diagnosis. Surgical intervention was the mainstay of treatment where 9 patients underwent resection, 6 with curative intent.

Conclusion: Poorly differentiated disease, hepatic metastases and diffuse lymphadenopathy were associated with a poor prognosis and a high mortality. Diagnosis and management is challenging in this rare disease. Multidisciplinary management is key.

Disclosure of Interest: None declared

PO-323 | LATERAL LYMPH NODES IN RECTAL CANCER: DO WE ALL THINK THE SAME? A REVIEW OF MULTIDISCIPLINARY OBSTACLES AND TREATMENT RECOMMENDATIONS

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Aim: Lateral lymph nodes in low, locally advanced, rectal cancer patients have proven implications for local recurrence rates, with rates increasing drastically in the presence of persistently enlarged lateral lymph nodes. There is however, still no consensus for the standardized treatment of lateral nodal disease. Considering the clinical implications, a thorough understanding of lateral nodal disease is warranted with awareness and knowledge from all three specialties involved – radiology, radiation oncology and surgery to ensure proper treatment is provided.

Method: All relevant literature was investigated to create a broad overview of the problem. Subsequently, all perspectives and current treatment paradigms were described and compared between the specialties, such as the diverse definitions for the anatomical compartments.

Results: Each discipline works according to available evidence from their field, but relevant data for lateral lymph nodes are scarce, limiting the ability of multidisciplinary consensus regarding diagnostics and treatment. The majority of radiology literature is based on research regarding mesorectal, not lateral, lymph nodes, while the current surgical and radiation oncology guidelines describing the anatomical borders of the lateral compartments differ significantly from each other. These differences can cause challenging communication and misinterpretations.

Conclusion: Standardised international guidelines and recommendations for the diagnostics and treatment of lateral lymph nodes are missing. This study presents the current evidence and practices per specialty and highlights where the interpretations differ from each other. Considering the vast differences between disciplines, suggestions are made for each phase of the diagnostic and treatment process for patients with lateral nodal disease. By doing this, steps are taken towards achieving international consensus and collaboration.

Disclosure of Interest: None declared

PO-324 | TERMINAL ILEOSTOMY AFTER LAPAROSCOPIC LOW ANTERIOR RESECTION FOR RECTAL CANCER

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Aim: Terminal ileostomy after laparoscopic low anterior resection (LLAR) for rectal cancer could mitigate potential clinical consequences following anastomotic leak because of the total absence of stool through the colorectal anastomosis due to the complete fecal exclusion of the bowel until the stoma closure. The aim of this study is compare surgical outcomes of LLAR with terminal and loop ileostomies.

Method: 38 patients (23M–15F) with a mean age of 73 (range 65.2–78.8) years with mid-low rectal cancer underwent LLAR and protective ileostomy with posterior stoma closure from January 2017 to December 2020. Indications of protective stoma creation were sex male, low colorectal anastomosis, neoadjuvant therapy and major comorbidities. 17 terminal ileostomies (TI) and 21 loop ileostomies (LI) were created. Stoma closure was performed with a side-to-side intestinal anastomosis. Patients were classified according to the type of ileostomy. Clinicopathological features and surgical outcomes were analysed between two groups.

Results: TI and LI groups were homogeneous in terms of sex, age, ASA score and tumor stage. Postoperative morbidity rate after LLAR was higher in TI group (37%vs9.5%, $P = 0.024$). One patient in the TI group presented an anastomotic leak requiring non-surgical treatment. Mean time to stoma closure was 8.1 (5–11.2) months without significant differences between two groups (8.2vs7.8, $P = 0.654$). After stoma closure there were not significant differences between two groups in terms of postoperative morbidity (11.7%vs9.5%, $P = 0.823$), postoperative ileus rate (5.9%vs9.5%, $P = 0.679$), first bowel movement (1.88 POD vs 1.47 POD, $P = 0.215$), first oral fluid intake (1.94 POD vs 1.95 POD, $P = 0.959$) and major low anterior resection syndrome (5.9%vs9.5%, $P = 0.401$).

Conclusion: LAAR with terminal ileostomy for low rectal cancer is safe and secure.

Disclosure of Interest: None declared

PO-325 | END-TO-SIDE ILEOTRANSVERSE MECHANIC REINFORCED ANASTOMOSIS: AN OPTION AFTER RIGHT HEMICOLECTOMY. SINGLE-CENTRE, PROSPECTIVE, OBSERVATIONAL, DESCRIPTIVE AND COMPARATIVE STUDY

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Aim: Bowel reconstruction after right hemicolectomy has always been a subject of discussion. Nowadays there are different teams and studies that have tried to clarify the predisposing factors and which surgical technique could provide the best outcomes although it is still a controversial issue. The aim of this study is to analyze the results and present our experience with an end-to-side mechanic reinforced anastomosis.

Method: Single-centre prospective, observational, descriptive and comparative study of 452 patients which underwent right hemicolectomy for cases of Colorectal Cancer (CRC). Bowel reconstruction was carried out with reinforced mechanical ileotransverse anastomosis. Demographic data, conditions (elective or emergency), the incidence of postoperative ileus or complications are described, underlining the anastomosis leak. The need for surgical treatment is analyzed. The literature is reviewed in this report. Descriptive analysis carried out with SPSS 20.2.

Results: Between 2010 and 2017, a total of 452 patients underwent surgery for CRC. 40.6% of these were women and 59.4% men, with a mean age of 72.1 years and mean BMI of 26 (+/- 7.1). Surgery was elective in 89.6% of cases, and a laparoscopic approach could be used in 61.7% (6% of conversion). Only 10.6% (41 patients) had major complications (Clavien-Dindo III-IV). The incidence of paralytic ileus was 13.9%. 5 patients (1.1%) required reoperation due to the presence of anastomotic leak, and only 3 (0.7%) of these patients belonged to the elective surgery group, while in 4 patients (0.8%) an expectant behavior could be taken. The mean hospital stay was 8.2 days (+/- 2.8) and mortality up to 30 days after intervention was 2%.

Conclusion: End-to-side ileotransverse mechanic reinforced anastomosis is a safe technique, with a low anastomosis leak or dehiscence rate. Although our results seem promising, the incidence of paralytic ileus remains high, as reported in the literature.

Disclosure of Interest: None declared

PO-326 | POSTOPERATIVE MORBIDITY OF LAPAROSCOPIC TOTAL MESORECTAL EXCISION FOR RECTAL CANCER AND LONG-TERM OUTCOMES

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Aim: The aim is to analyse if postoperative morbidity of laparoscopic total mesorectal excision (LTME) for rectal cancer is associated with long-term outcomes.

Method: 88 patients (62M-26F) with a mean age of 72 (range 64.2-79) years with mid-low rectal cancer underwent LTME from January 2016 to December 2018. Univariate and multivariate regression models were used to search associations between postoperative morbidity and clinical characteristics of tumor and patient, operative time, conversion rate, overall (OS) and disease free survival (DFS). OS and DFS were estimated by the Kaplan-Meier method and compared by the log-rank test.

Results: 59 patients underwent low anterior resection, 24 abdominoperineal resection and 5 Hartmann's operations. Postoperative morbidity rate was 46%, according to Clavien-Dindo classification: 12% grade I, 20.4% grade II, 7.9% grade IIIA, 5.7% grade IIIB. There were not significant differences between postoperative morbidity and age, ASA score, obesity, cT3-4, bulky tumors, low rectal cancer and neoadjuvant therapy. Postoperative morbidity was associated with male sex (80.5%vs59.6%, $P = 0.034$), conversion rate (21.9%vs4.2%, $P = 0.021$) and operative time (263vs302, $P = 0.007$). Multivariate analysis demonstrated sex male [OR = 2.799(IC95%1.064-7.365), $P = 0.037$] and conversion rate [OR = 6.328(IC95%1.280-31.275), $P = 0.024$] were independent risk factors for postoperative morbidity in LTME for rectal cancer. After a median follow-up time of 34.7(35.9-18.6) months, OS (82.9%vs97.9%, $P = 0.016$) and DFS (72.5%vs89.4%, $P = 0.038$) were lower in patients who presented postoperative morbidity.

Conclusion: Postoperative morbidity after LTME for rectal cancer was associated with male sex and conversion rate and could diminished OS and SLE.

Disclosure of Interest: None declared

PO-327 | ASSESSING THE ONCOLOGIC SAFETY OF SEGMENTAL COLECTOMY IN COLON CANCER

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Aim: Segmental resection is increasingly used in the era of minimally invasive surgery, as such comparison of outcomes to classic

anatomical resection, and further analysis of the role of specimen length as prognosticator is necessary.

Method: The authors here assess retrospectively a cohort of 342 patients aiming at defining the impact of segmental resection on recurrence and survival and further delineating the complex relation of specimen length and nodal ratio in this dilemma.

Results: Interestingly although specimen length differs significantly between anatomical and segmental colectomy (median 25 VS. 17.5cm), the final outcomes [recurrence rate overall survival (OAS) and disease-free survival (DFS)] were comparable. In addition, specimen length correlates with nodal count retrieved, but did not affect the outcomes.

Conclusion: segmental resection is safe option for resection of colon cancer, specimen length correlates with nodal yield, but does not affect survival.

Disclosure of Interest: None declared

PO-328 | HAND-SEWN VERSUS STAPLED COLORECTAL ANASTOMOSIS: DIFFERENT SKILLSETS - DIFFERENT RESULTS. A RETROSPECTIVE REVIEW OF OUTCOMES IN A RURAL BASE HOSPITAL

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Aim: Colorectal anastomoses can either be performed with the use of a surgical stapling device or via a hand-sewn approach. Current literature is conflicting, with limited evidence to suggest superiority of one technique over the other [1]. The aim of this retrospective audit was to compare outcomes of hand-sewn, stapled and hybrid (stapled reinforced with sutures) anastomosis following colonic resections for malignancy in the rural health setting.

Method: A retrospective evaluation was undertaken of all patients undergoing elective bowel resections for colonic malignancy within our surgical department between 2017 and 2018. Both quantitative and qualitative data were collected. Age, gender, nutritional assessment, clinical or radiological evidence of anastomotic leak, time to leak, and details of the type of primary anastomosis were collected.

Results: A total of 57 resections were performed within the 12month period. There were 31% hand-sewn, 31% stapled and 38% hybrid anastomoses. Anastomotic leak was identified in 10% of stapled, 8% of hybrid and none among the hand-sewn anastomotic group. A multivariate logistic regression analysis was performed; independent of age, gender and nutritional status. The results suggest that a stapled technique carries a higher rate of anastomotic leak when compared with hand-sewn anastomoses. The use of hand-sewn anastomosis, and its integrity, is in direct correlation with surgical expertise.

Conclusion: Within our series leak rates are seen more frequently when performed using surgical stapler devices. This is perhaps indicative of the surgeon's skillset and technical proficiency within hand-sewn techniques within our department. The data

demonstrates the choice of technique depends on the surgeon's technical abilities and the available resources within that institution. However, consideration of outcomes in emergency cases, diverticulitis or inflammatory bowel disease for example should be explored.

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Disclosure of Interest: None declared

PO-329 | RISK FACTORS FOR LYMPH NODE METASTASES AND RESIDUAL DISEASE IN MALIGNANT POLYPS OF THE COLON AND RECTUM

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Aim: Following the diffusion of colorectal cancer screening programs, a rising number of asymptomatic patients who have a submucosal adenocarcinoma (malignant polyp-MP-). If limited to the submucosa, endoscopic polypectomy could be curative, with International guidelines indicating "salvage" surgery only for high risk polyps (by histopathology). Low risk ones can be followed-up. We reviewed our experience with malignant polyps to analyze factors associated to lymph node metastases (LNM) and residual disease in either colon and rectal carcinoma.

Method: We retrospectively selected patients who received a completion surgery for malignant polyp during the period 2010 - 2020 in the Colorectal Surgery Unit of Pisa Hospital (Pisa, Italy).

Results: We found 76 salvage resections. 39 were for rectal MP, 3 of whom had LNM and 4 had both LNM and RD. No significant risk factors for LNM were detected. 37 had colonic MP: 6 had LNM, 9 had RD (none had both). No significant risk factors for LNM were detected, but we found two features associated to RD: piecemeal polypectomy (OR 12 - IC 95% 68.6-2.1) and sessile morphology (OR 11 - IC 95% 120.4 -1.1).

Conclusion: Piecemeal polypectomy and sessile polyps could be risk factors for residual disease on the bowel wall, but further, larger studies are needed to verify this hypothesis.

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Disclosure of Interest: None declared

PO-330 | RESPONSE AND SAFETY OF THE BEVACIZUMAB-AWWB IN PATIENTS WITH METASTATIC COLORECTAL CANCER: A SINGLE-INSTITUTION EXPERIENCE AND REVIEW OF THE LITERATURE

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Aim: Anti-vasculoendothelial growth factors has been used to metastatic colorectal cancers with relative better progression-free survival and overall survival since 2004. There are three kinds of anti-VEGFs applied for mCRC, they are bevacizumab, aflibercept, and ramucirumab. But the accumulated clinical experience of bevacizumab has been well documented by many journals, its relative high price impaired the budget of reimbursement application in Taiwan, also in many nations. Therefore, bevacizumab-awwb become a cost-effective target therapy, but it's extrapolation was still a problem. Thus, we would like to present our real world experience of bavecizumab-awwb to understand response rate and safety for mCRC patients.

Method: We collected patients in mCRC from May, 2020 up to June,2021 received bavecizumab-awwb, recorded sex and age, the primary colorectal cancers location, primary resection or not, metastatic-organ resection, chemotherapy backbone, response condition, and possible adverse effect.

Results: We had 15 patients received bavecizumab-awwb, median age 58, male:female = 7:8, 13 patients in left side colon (86.7%) and 2 patients in right side (13.3%), 14 patients received primary mCRC resection (93%), only one not. There are 6 patients received mets-organ resection (40%), and chemotherapy are 11 patients with FOLFIRI, 2 patients with FOLFOX and 2 patients with other regiment. There are 5 patients with stable disease, 5 patients with partial response, the calculated disease control rate (DCR) was 67%. The median treatment of duration was 4.6 months. Four patients switched from bavecizumab to bavecizumab-awwb revealed same treatment outcomes.

Conclusion: Bavecizumab-awwb launched to provide an additional, economic choice, efficacy and more affordable option improve mCRC patient treatments. From our clinical experience, patients tolerate Bavecizumab-awwb very well and their treatments had acceptable response and less adverse effect, and the clinical treatment is still ongoing.

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Disclosure of Interest: None declared

PO-331 | THE EXPRESSION OF THE TISSUE FACTOR IN ADENOCARCINOMA COLO-RETAL: RELATION WITH ANGIOGENESIS AND CLINICAL-PATHOLOGICAL ASPECTS

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Aim: The aim of this study is to describe the expression of tissue factor in colorectal adenocarcinomas of patients undergoing surgical treatment at our institution and relate the intensity of tissue factor expression to the microvascular density of colorectal tumors.

Method: Immunohistochemical marking for tissue factor was performed in 43 patients with colorectal adenocarcinoma who underwent surgical treatment at our institution and the intensity of its expression was compared with microvascular density, pathologic staging, gender, age, and overall survival.

Results: 88,3% percent of the tumors presented high expression of tissue factor, with a statistically significant relationship between it and the higher microvascular density ($P = 0.02$). Patients with intense expression of tissue factor were significantly older than the ones with lower expression of this protein ($P < 0.01$).

Conclusion: The high intensity of tissue factor expression in colorectal carcinoma correlates with tumoral angiogenesis. Individuals with colorectal tumors with high tissue factor expression are, on average, older patients.

Disclosure of Interest: None declared

PO-332 | RECTAL NEOPLASMS - TRANSANAL MINIMALLY INVASIVE SURGERY (TAMIS) MANAGEMENT: EXPERIENCE IN A THIRD LEVEL HOSPITAL

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Aim: Minimally-invasive-surgery using the transanal-approach(TAMIS) uses conventional laparoscopic-instruments through a transanal single port-platform. Its indications are for both benign and malignant-lesions. The criteria for treating malignant-lesions are not entirely clear, thus we performed this review and presented our experience in the management of rectal-neoplasms using TAMIS-approach.

Method: Retrospective-study, we've included patients with rectal-tumours who underwent local resection using TAMIS-approach, between 2014–2020.

Results: 46 patients underwent resection via TAMIS. Men: 27(58.7%). Age: 73 ± 8.9 years. ASA-classification: I(2.2%), II(37%), III(52.2%), IV(8.7%). Type of lesion: Scar: 13(28.3%), Adenoma: 16(34.8%), Carcinoma: 17(37%). Location: Anterior: 11(23.9%), Antero-Lateral: 8(17.4%), Posterior: 12(26.1%), Postero-Lateral:11(23.9%), Lateral:4(8.7%). Pre-operative diagnosis: Fibrosis: 1(2.2%), Low-grade dysplasia: 8(17.4%), High-grade dysplasia: 11(23.9%), pTis: 10(21.7%), pT1:9(19.6%), pT2:6(13%), pT3:1(2.2%). Tumor distance from the anal verge:6(IQR: 4–8.25 cm).

Platform used: GelPOINT:35(76.1%), Separator:8(17.4%), TEO:2(4.3%), SILS:1(2.2%). Lesion size: 22.75(IQR:9–30.5 mm). Surgical time: 70(IQR: 45–120 min). Mucosa closure: 40(87%). Reconversion to laparoscopy: 4(8.7%). Overall complications: 15(32.6%). Major complications (CD \geq III): 2(4.3%). Type of complications: Pain: 2(4.3%), Dehiscence: 2(4.3%), Haemorrhage: 8(17.4%), Cardiac: 2(4.3%). LOS: 3.5(IQR:2–5.25 days). Resection type: R0:41(89.1%), R1:3(6.5%), R2:2(4.3%).

Histopathological diagnosis: Fibrosis:15(32.6%), Low-grade dysplasia:7(15.2%), High-grade dysplasia:2(4.3%), pTis:13(28.3%), pT1:2(4.3%), pT2:5(10.9%), pT3:2(4.3%). Need for major resection:7(15.2%).

Follow-up: 49.5(IQR:31.75–67.5 months). Recurrences:4(8.7%).

Conclusion: TAMIS-approach to rectal tumours is a good surgical option that avoids aggressive surgeries in selected patients. In our environment, it's a safe approach, with low rates of complications and recurrences, even in selected patients with T2-T3 tumours with high surgical risk.

Disclosure of Interest: None declared.



PO-333 | FEATURES OF COLORECTAL CANCER COMPLICATED BY PERITONITIS

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Aim: To elucidate the features of colorectal cancer complicated by peritonitis.

Method: During the period from 2017 to 2020, 18 patients with colorectal cancer complicated by peritonitis were operated at Brovary Multidisciplinary Clinical Hospital. There are 14 men among them (77,8%), 4 women (22,2%). Tumor localization: ascending colon - 1 (5,6%) case, hepatic angle - 2 (11,1%) cases, transverse colon - 4 (22,2%), spleen angle - 2 (11,1%), sigmoid colon - 8 (44,4%), rectosigmoid connection - 1 (5,6%) case.

Results: Common forms of peritonitis were observed in all patients: diffuse - in 5 (27,7%) patients, widespread - in 10 (55,6%) and general - in 3 (16,7%) patients. Reactive stage of peritonitis was in 4 (22,2%) patients, toxic - in 10 (55,6%) and terminal - in 4 (22,2%) patients. By the nature of the exudate in the abdominal cavity in 7 (38,9%) cases peritonitis was serous-fibrinous, in 4 (22,2%) - fibrinous-purulent, in 6 (33,3%) - fecal and in 1 (5,6%) of hemorrhagic cases. The patients underwent the following surgical interventions: right hemicolectomy - in 4 (22,2%) cases, resection of the transverse colon - in 3 (16,7%), left hemicolectomy - in 1 (5,6%), Hartmann's operation - in 9 (50,0%), subtotal colectomy - in 1 (5,6%) case. Repeated surgical interventions were performed in 4 (22,2%) patients. In the postoperative period, the following complications were observed: suppuration of the wound - in 2 (11,1%) cases, abdominal abscess - in 1 (5,6%) case, eventration - in 3 (16,7%) cases. The Mannheim index of peritonitis in all patients was grade III. 3 (16,7%) patients died.

Conclusion: Peritonitis, which has complicated the course of colorectal cancer, significantly worsens the prognosis of the disease, necessitates urgent surgery and causes high mortality, which according to our data in the postoperative period was 16,7%.

Disclosure of Interest: None declared

PO-334 | ANALYSIS OF POSTOPERATIVE COMPLICATIONS IN PATIENTS OLDER THAN 70 YEARS UNDERGOING SURGERY FOR CANCER COLORECTAL IN A TERTIARY HOSPITAL

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Aim: The increase in life expectancy in our society means that a large proportion of our patients are geriatric patients with advanced ages. With this study, we seek to analyze the results in colorectal cancer surgery among patients older and younger than 70 years.

Method: from January 2019 to March 2020 we have analyzed 243 operated patients colorectal cancer surgery, of which 132 (54%) are

older than 70 years. We have compared both groups in variables such as anesthetic risk (ASA), hospital stay, onset of oral tolerance, percentage of fistula, readmissions and death.

Results: 62% of the patients under 70 years of age presented an ASA of II or less in the preoperative, while in the older group this subgroup was reduced to only 42.4% of the patients. In the case of the onset of oral tolerance, an earlier onset was evidenced in the group with less 70 years (1.8 vs 2.7 days) with a shorter hospital stay (9.2 vs 13.6 days). At the same time the. The percentage of anastomotic fistula among those older than 70 years has been higher (8.1% vs 11.4%), as well as in the reoperation rate (9% vs. 10.6%), with a death rate of 2.7% vs. 4.5%. Paradoxically with a rate of slightly higher re-admission in the group under 70 years of age (7.6 vs 9.3%)

Conclusion: In view of these data, age is a determining factor that limits the results and increases the complexity of these patients. However, studies of greater statistical relevance are necessary to reach definitive conclusions in our environment.

Disclosure of Interest: None declared

PO-335 | ISOLATED PERINEAL METASTASIS OF A COLONIC CANCER; A STRANGE AND UNCOMMON OBSERVATION

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Aim: cutaneous and subcutaneous metastases of colo-rectal cancer are uncommon findings usually related to advances and multi-metastatic disease. The perineal region is one of the most cited and recognized sites of metastatic involvement in this respect.

Method: we wish to report and illustrate the situation of a patient presenting with an isolated perineal metastasis of colorectal origin with particular emphasis on the clinical and radiological features.

Results: a 74 years-old patient presented to our emergency department complaining of a painful perineal swelling appeared 4 months before. On clinical examinations we noticed an extensive tumoral infiltration of the perineal region with signs of necrosis and infection. A CT scan showed an exophytic and partially necrotic abscessed perineal lesion with a concomitant significant and suspicious thickening of the wall of the rectosigmoid junction. Multiples surgical biopsies of the perineum were performed while draining the abscess, showing, astonishingly, an adenocarcinoma with characteristics of intestinal type. Colonoscopy confirmed a circumferential tumor involving the lumen of the distal sigmoid colon and proximal rectum, biopsies of which also showed histological confirmation of an invasive colonic adenocarcinoma. In this setting a chemotherapy was proposed to the patient.

Conclusion: metastatic cutaneous infiltration of the perineal region may herald a more or less hidden colonic cancer and requires a full colonoscopy.

Disclosure of Interest: None declared

PO-336 | "FLUORESCENCE LYMPHATIC MAPPING TECHNIQUE" IN RIGHT SIDED COLON CANCER SURGERY

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Aim: Fluorescence imaging(FI) technology makes intraoperative lymphangiography and lymphatic mapping possible. There are several studies demonstrating peritumoral indocyanine green(ICG) injection makes lymphatic flow and lymph nodes(LN) visible in the mesocolon. Pure peritumoral injection of ICG may not be sufficient for demonstrating whole lymphatic drainage of the right colon and lymphatic mapping may not be reliable since lymph vessels might be blocked by tumoral cells. In this report, we present our fluorescence lymphatic mapping(FLM) technique for right sided colon cancer surgery proposing maximal LN harvesting with selective D3 lymphatic dissection.

Method: 15mg of indocyanine green (ICG) was dissolved in 8ml of water for injection. Subserosal injection of ICG was performed to the anterior and posterior colonic wall at caecum, mid-ascending colon and hepatic flexure in addition to the two peritumoral injections. After injection, mobilization of the right mesocolon was started in lateral to medial fashion. When separation of the visceral plane from the parietal plane was completed, FI was performed with SPY Elite(Stryker, Kalamazoo, MI, USA) before central ligation of the blood vessels. The time between the ICG injection and the first FI was median 28 minutes. This first FI was done for making sure that ICG was drained to the lymphatics and LN's of the right mesocolon. Then, right colectomy was completed and repeat FI was done before creating the ileotransversostomy. The second FI was performed to identify whether fluorescing LN were left at the resection site. When all fluorescing LN were removed, stapled side-to-side ileotransversostomy was created.

Results: FLM technique was utilized in five patients who underwent right colon resection. Residual fluorescing LN's were demonstrated during FI in two patients who underwent conventional right colectomy.

Conclusion: FLM technique may offer reduced morbidity by removing only fluorescing D3 LN's without comprising oncological quality of the right colon cancer surgery.

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Disclosure of Interest: None declared

PO-337 | FUNCTIONAL OUTCOMES AND QUALITY OF LIFE AFTER MINIMALLY INVASIVE ANTERIOR RECTAL RESECTION WITH TOTAL MESORECTAL EXCISION: A PROSPECTIVE SINGLE-CENTER LONGITUDINAL STUDY. PRELIMINARY RESULTS AFTER 18 MONTHS

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Aim: The aim of the study is to prospectively evaluate the occurrence of anterior rectal resection syndrome, the genitourinary function and the quality of life in rectal cancer patients undergoing minimally invasive RAR with TME.

Method: From January 2020 all patients undergoing minimally invasive RAR with TME were enrolled in the study. The following questionnaires were administered to each patient 1-3-6 and 12 months after surgery: the LARS score to assess the incidence of anterior rectal resection syndrome, the IIEF-5 in men and the FSFI in women for sexual function, the IPSS for urinary function, and the EORTC QLQ-C30 and QLQ-CR29 to assess quality of life. The study is currently ongoing.

Results: 19 patients (10 men e 9 women) have been currently enrolled in the study. Analysis of preliminary data showed a significant increase in the LARS score 1 and 3 months after closure of the ostomy. A significant improvement of the score emerged 6 months after surgery, with function almost comparable to preoperative function one year after surgery. The same trend was observed for the sexual function in males with an improvement of the IIEF-5 score 6 months after surgery. In women, a progressive downward trend in sexual function was observed, with the nadir one month after surgery. A sharper recovery was found in younger patients with fewer comorbidities. In term of QoL the EORTC QLQC29 has shown a

significant improvement 6 months after surgery. There was no statistically significant difference in quality of life (EORTC QLQ-C30 score) and genitourinary function in both sexes.

Conclusion: After minimally invasive RAR with TME most patients shown transient LARS and worsening of sexual function with negative impact on QoL. A significant improvement was evident 6 months after surgery. On the other hand, there was no negative impact of surgery on urinary function. These encouraging results will have to be confirmed by further analysis at the end of the planned 3-year study when a larger study population is reached

Disclosure of Interest: None declared

PO-338 | NECROTIZING FASCIITIS SECONDARY TO LATE ANASTOMOTIC DEHISCENCE AFTER COLOANAL ANASTOMOSIS

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Aim: A late anastomotic leak (beyond 30 days postoperatively) after colorectal anastomosis can occur between 1.3- 31.6% of patients and may be identified as pelvic abscesses or anastomotic fistula (anastomotic-vaginal fistula, anastomotic-ureteral, etc). There is a few information in the literature that analyzes this complex complication.

Method: We present a clinical case of a patient who developed a Fournier gangrene secondary to anastomotic complication

Results: A 72 years old man with diabetes and hypertension was treated in 2014 for a cT3N1M0 low rectal cancer (5 cm from anal verge) after chemoradiotherapy. A low anterior resection with coloanal anastomosis and diverting ileostomy was made with a pre-sacral abscess as postoperative complication, which was treated conservatively. The ileostomy was closed posteriorly without any kind of short or long term complication. 6 years after the patient describes anorexia, weight loss and perineal pain. Physical exploration and CT scan show a gangrene Fournier which require multiple surgical interventions for debridement with exposure of the perineal and testicular region and the performance of a lateral colostomy. The patient evolved correctly after two months of admission with a correct epithelialization of the debrided area.

Conclusion: Patients with a vague and atypical abdominal or perineal pain may have a delayed leak, even years after colorectal resection. The diagnosis should be suspected as soon as possible to avoid lifethreatening sepsis

Disclosure of Interest: None declared

PO-339 | LAPAROSCOPIC VENTRAL MESH RECTOPEXY AND DE-NOVO PELVIC PAIN; LONG-TERM OUTCOME AND RISK FACTORS

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Aim: To assess de-novo pelvic pain (DNPP) after Laparoscopic ventral mesh rectopexy (LVMR).

Method: All patients who underwent a LVMR between 2004 and 2017 at our unit were contacted by telephone to record DNPP and its outcome using a standardised questionnaire in addition to a review of patients' medical notes. The Numeric Rating Scale was used to assess PP severity.

Results: Out of 478 patients who were contacted successfully, 61% (291/478) had no pre-LVMR PP. Mean age at the time of LVMR was 59 years.

DNPP which lasted for more than 3 months after LVMR was reported by 15% (43/291) of patients. Of those patients, 6% (17/291) scored their PP as severe, 5% (14/291) moderate and 4% (12/291) mild using NRS. DNPP and its severity was unrelated to symptoms for which LVMR was indicated ($P = 0.09$, $P = 0.50$).

In group without pre-existing PP, 42% (1843) of patients with DNPP underwent further surgery after LVMR compared to 21% (53/248) in pain-free group ($P = 0.004$). In DNPP group, 16% (7/43) of patients had mesh erosion compared to 0.4% (1/248) in pain-free group ($P < 0.05$). In addition, 27% of patients who were younger than 50 years experienced DNPP compared to 12% aged between 51-70 years and 5% in those > 70 years of age ($P = 0.001$).

Conclusion: After LVMR, 15% of patients developed DNPP which lasted for more than 3 months. This seems to be more common in younger patients, associated with mesh erosion and the use of further surgical procedures

Disclosure of Interest: None declared

PO-340 | PATIENT-REPORTED OUTCOME MEASUREMENT-HAEMORRHOIDAL IMPACT AND SATISFACTION SCORE (PROM-HISS): DEVELOPMENT, RELIABILITY AND CONSTRUCT VALIDITY

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Aim: Haemorrhoidal disease (HD) is a frequently occurring disorder with a significant negative impact on a patient's quality of life. We

describe the development and validation of the Patient-Reported Outcome Measurement-Haemorrhoidal Impact and Satisfaction Score (PROM-HISS).

Method: The development of the PROM-HISS followed recommended guidelines and the items were based on patient interviews, literature review and expert input. Face and content validity were evaluated by conducting individual cognitive interviews with 10 patients. Structural properties, reliability and construct validity were measured in a cross-sectional HD population. Reliability was tested by assessing the test-retest reliability, defined by the Intraclass Correlation Coefficient (ICC), and internal consistency measured with Cronbach's alpha. Construct validity was evaluated using confirmatory factor analysis (CFA) and hypotheses testing.

Results: The PROM-HISS consists of three domains: (1) HD symptoms, (2) impact of symptoms on daily life, and (3) satisfaction with treatment. The first domain includes five items evaluating the experienced burden of blood loss, pain, prolapse, soiling and itching. The PROM-HISS showed good face and content validity. The PROM-HISS was completed by 102 patients (65% male), with a mean age of 58 years (23–81 years) and primarily diagnosed with HD grade III (39%). The ICCs of the different items in the domain HD symptoms ranged between 0.56 and 0.79 and were interpreted as good. The Cronbach's alpha value was 0.80 and considered satisfactory. The CFA provided further evidence for construct validity with a good model fit. A high score on the symptoms of HD correlated with a high impact of HD on daily life (Pearson's $r = 0.632$, $P < 0.01$) and a low degree of satisfaction (Pearson's $r = 0.378$, $P < 0.01$).

Conclusion: The PROM-HISS is a reliable and valid instrument to evaluate symptoms of HD, impact on daily life and satisfaction with treatment.

Disclosure of Interest: None declared

PO-341 | IMPACT OF ADHERENCE TO A FAST-TRACK RECOVERY PROGRAM IN COLORECTAL SURGERY ON SURGICAL OUTCOMES IN PATIENTS TREATED AT A HIGH VOLUME PUBLIC ACADEMIC HOSPITAL

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Aim: To evaluate the impact of compliance to overall and individual interventions of a ERAS protocol on morbidity rates, length of stay (LOS) and 30-day readmission in a group of patients undergoing oncological colorectal surgery.

Method: This is a retrospective study of a consecutive series of patients, within a prospectively collected database. All patients have undergone colorectal cancer surgery from July 2015 to July 2020. Good adhesion to the protocol was considered if at least 75% of interventions were followed, as recommended by the ERAS Society.

Results: Between 2015 and 2020, 231 patients were included, but 14 excluded due to incomplete information. One hundred and twenty-three (56.7%) were women, and median age was 62 years (range 25–91); 113 patients (52%) underwent colonic resections, 98 (45.1%) total mesorectal excision and 6 (2.7%) total proctocolectomy; 96% of procedures were laparoscopic. Median compliance rate to all interventions of the protocol was 75% (46.4 to 92.9%). Interventions with the lowest compliance were preoperative nutritional therapy and mobilization for more than 4 hours in second postoperative day, 9.7% and 23.6% respectively, and those with the highest were prophylaxis for nausea and vomiting and not using nasogastric tube (99.5% each). Median length of stay was 4 days (2–34) and overall morbidity was 25.4%. Patients who complied to more than 75% of interventions of the protocol had a lower rate of overall complications – Clavien-Dindo 2–5 ($P = 0.012$) and also a shorter LOS ($P < 0.005$), but it did not impact 30-day readmission rate ($P = 0.6$). Some interventions were significant in reducing LOS and readmission rates: thrombosis prophylaxis, no abdominal drainage, use of epidural analgesia and avoidance of opioids.

Conclusion: Overall compliance to a ERAS protocol can reduce morbidity and LOS, but individual interventions of the protocol may play a more significant role than others on post-operative results.

Disclosure of Interest: None declared

PO-342 | FACTORS DETERMINING THE RETURN TO NORMAL ACTIVITY AFTER ABDOMINAL SURGERY IN LOW AND MIDDLE INCOME COUNTRIES

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Aim: The ability of a patient to return to their normal activities is an important outcome after an operation, especially in the Global South. This study within a trial (SWAT) was designed to identify factors that are important in determining return to normal activity after abdominal surgery.

Method: This is a secondary analysis of the FALCON trial, an international multicentre factorial design trial assessing two interventions (skin preparation and fascial closure) to prevent surgical site infection. 5788 patients were followed up 30 days after their operation and return to normal activity was recorded. Statistical analysis was performed using binary logistic regression analysis.

Results: 5256 randomised patients (median age 32, range 0–89 years, male: female ratio 37:63) completed the follow up form at 30 days, 1682 (32%) obstetrics and 68% (3574 non-obstetrics). In total, 1901 (37%) of patients completely returned to normal activities 30d after operation, 725 (43.1%) in obstetrics and 1176 (32.9%) in non-obstetrics. In non-obstetrics, factors associated with return to normal activity are younger age: child vs adult (OR 1.32 [1.03 – 1.69, $P = 0.03$]), elective surgery: elective vs emergency (OR 1.53 [1.15

- 2.05, $P = 0.004$), clean contaminated surgery: clean-contaminated vs contaminated/dirty (OR 1.53 [1.17 - 2.00, $P = 0.002$]), lower ASA grade: grade 1-2 vs grade 3-5 (OR 1.44 [1.15 - 1.80, $P = 0.002$]) and benign disease: benign disease vs malignant disease (OR 1.48 [1.07 - 2.05, $P = 0.002$]).

Conclusion: Return to normal activity rates 30 days after abdominal surgery are low. Patients who may require extra support include older patients, those undergoing emergency surgery, and those undergoing larger and more complex operations.

Disclosure of Interest: None declared

PO-343 | PROFILE OF MALE PATIENTS UNDERGOING LAPAROSCOPIC VENTRAL MESH RECTOPEXY AND THEIR LONG-TERM OUTCOME

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Aim: To describe male patients' profile who underwent laparoscopic ventral mesh rectopexy (LVMR) and report their outcome.

Method: Medical records of all male patients who underwent LVMR between 2004 and 2017 were analysed for demographic factors, indication and further surgery (FS) for recurrent symptoms. Those identified were contacted by telephone to record their outcome.

Results: Number of male patients identified were 33. Mean age at the time of LVMR was 52 years. Median follow-up (FU) time was 8 years. The symptoms for which primary LVMR was indicated were obstructed defaecation syndrome (ODS) in 52% (17/33) of patients, faecal incontinence (FI) in 15% (5/33) and mixture of both ODS/FI in 12% (4/33).

After primary LVMR, 39% (13/33) of patients had FS for recurrence of symptoms; 46% (6/13) of them had redo-LVMR, 46% (6/13) underwent perineal procedures and 8% (1/13) needed a temporary de-functioning colostomy which was reversed later. No mesh related complications were reported at the time of our FU.

Functional outcome improved in 85% (28/33) of patients and worsened in 3% (1/33). Additionally, 50% of patients with pre-existing pelvic pain (PP) prior to LVMR were pain free at FU and 24% reported de-novo PP after LVMR. Overall, 73% (24/33) of patients were satisfied with their outcome and 82% (27/33) would recommend this procedure to others with similar indication

Conclusion: Majority of carefully selected male LVMR patients report improvement in their functional outcome and are satisfied after long-term FU, with no reported mesh erosions. However, 39% of patients needed FS and a 24% develop de-novo PP.

Disclosure of Interest: None declared

PO-344 | QUALITY OF LIFE AND FUNCTIONAL OUTCOME OF RECTAL CANCER PATIENTS FOLLOWING A WATCH-AND-WAIT APPROACH

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Aim: The Watch-and-Wait approach (W&W) has been widely adopted for rectal cancer patients with a clinical complete response following neoadjuvant therapy. The presumed main advantages of W&W are both a better quality of life (QoL) and functional outcome compared to patients treated with total mesorectal excision (TME). The aim of this study is to evaluate the QoL and functional outcome of rectal cancer patients managed by W&W.

Method: Since 2014, QoL and functional outcome of patients included in the Dutch W&W registry have been assessed by validated questionnaires at 3, 12, and 24 months following inclusion. QoL was evaluated by the European Organization for Research and Treatment of Cancer QLQ-C30, -CR38 (before March 2017), -CR29 (since March 2017), and Short Form 26 (SF36). Bowel function was assessed by the Vaizey incontinence score and low anterior resection syndrome (LARS) score, urinary function by the International Prostate Symptom Score (IPSS), and sexual function by the International Index of Erectile Function (IIEF) and Female Sexual Function Index (FSFI).

Results: Of 300 included patients, 68.3% were male, and the median age was 66 years (range 34-85). In the majority of QoL domains no difference over time was observed, however, patients reported improved emotional-, social-, and physical functioning at 24 months. Major incontinence and major LARS was observed in 15.3% and 24.9% of patients at 24 months. An increase in urinary dysfunction was observed over time. In males, no difference in sexual function was observed over time, however about 40% reported severe erectile dysfunction. Besides a decrease in total FSFI score, no difference in sexual function reported by women was observed.

Conclusion: Generally, patients managed by W&W reported on a good QoL. Although functional problems are seen, these appear less common when compared to patients treated with TME as described in literature. These results are essential in daily clinical practice to counsel patients on the benefits of W&W.

Disclosure of Interest: None declared

PO-345 | ORGAN SPECIFIC ADVERSE EFFECTS AFTER CYTOREDUCTIVE SURGERY WITH HYPERTHERMIC INTRAPERITONEAL CHEMOTHERAPY - A SCOPING REVIEW

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Aim: We conducted a review in order to describe type and extent of organ specific adverse effects after cytoreductive surgery (CRS) + hyperthermic intraperitoneal chemotherapy (HIPEC) for gastrointestinal (GI) cancers and pseudomyxoma peritonei (PMP).

Method: In November 2020, a systematic literature search was done using 6 databases to identify studies reporting organ specific adverse effects developed after CRS+HIPEC for GI cancers and PMP. We categorized organ specific adverse effects into gastrointestinal, urological dysfunction, sexual dysfunction, pain and others. We extracted data on type and extent of these over short-term (0–5 months following surgery), medium-term (6–11 months) and long-term (12 months).

Results: In total, we screened 2451 papers. 18 studies fulfilled the eligibility criteria: 12 prospective cohort studies, three retrospective cohort studies, two cross-sectional studies and one study, which reported data on a prospective cohort as well as a cross-sectional population. The studies reported on a total of 2081 patients. The majority of studies reported an increase in organ specific adverse effects 3–6 months after surgery with a return to preoperative level already within the first year after surgery. Three areas did not follow this trend: diarrhea, constipation and sexual dysfunction. Diarrhea was still worse than preoperative, 12 months after surgery for majority of the studies and improved later only. For constipation, symptoms improved shortly after surgery. Sexual dysfunction did not seem to improve long-term. Furthermore, we found that literature was very sparse on aspects such as stoma-related issues, urological and sexual dysfunction and other adverse effects such as weight loss, dry mouth and hair loss.

Conclusion: This review showed an increase in organ specific adverse effects 3–6 months after surgery with a return to preoperative level within the first year after surgery. Three areas did not follow this trend. Diarrhea, constipation and sexual dysfunction.

Disclosure of Interest: None declared

PO-346 | REOPERATION FOR COMPLICATIONS AFTER COLORECTAL SURGERY – A POPULATION-BASED MULTICENTER COHORT STUDY

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Aim: As complications inevitably occur, minimizing failure-to-rescue (FTR) rate is important. Earlier studies have focused on elective surgery and anastomotic dehiscence and rarely on reoperations in general. This study aimed to characterize and compare emergency reoperations performed after elective- and emergency colorectal operation.

Method: Patients undergoing a reoperation within 30 days after colorectal operation between 2006 and 2017 in 10 hospitals in Helsinki University Hospital district were included. Outcome was measured as FTR which was defined as mortality within 90 days after reoperation.

Results: Altogether 862 (5.8%) patients of all 14,290 patients having a colorectal resection underwent emergency reoperation within 30 days. The reoperation rate after elective operation was 4.3% (438) and 10.4% (424) after emergency operation ($P < 0.001$). FTR rate was 17.4% (35 (8.0%) after elective and 115 (27.1%) after emergency operation, $P < 0.001$). The most common complications were anastomotic dehiscence (36.6%, 316 patients), fascial rupture (23.5%, 203 patients), intra-abdominal bleeding (15.3%, 131 patients) and bowel obstruction (10.2%, 88 patients). In multivariable analyses, independent risk factors for FTR were increasing age, high Charlson Comorbidity Index, malnutrition, anticoagulant medication as a permanent medication before operation, resection type, perioperative organ failure at the time of reoperation and emergency index operation.

Conclusion: FTR rate is over three times higher after emergency colorectal operation than elective operation. Four complication types constitute three fourths of the complications suggesting a target for further actions.

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PO-347 | PATIENT REPORTED OUTCOMES AFTER PELVIC EXENTERATION FOR COLORECTAL CANCER: A SYSTEMATIC REVIEW

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Aim: The treatment of locally advanced and recurrent colorectal cancer carries high morbidity. Our aim was to analyse the use of patient reported outcome measures (PROMS) in pelvic exenteration patients.

Method: After registration in PROSPERO, PubMed, EMBASE, Cochrane Library, Google Scholar, Web of Science and ClinicalTrials.gov were searched under guidance of a librarian with the terms 'patient reported outcomes', 'pelvic exenteration' and 'colorectal cancer'. Studies were considered eligible if published between 1980–2020 and if PROMS were reported for at least 10 pelvic exenteration patients. Study selection, data extraction, rating of certainty of evidence (GRADE) and risk of bias (ROBINS-I) were performed independently by 2 reviewers.

Results: 173 studies were identified. Nineteen studies were included (13 retrospective, 7 prospective). All studies were low to very low quality according to GRADE, with an overall moderate/serious risk of bias. Studies included data on 817 patients; 354 patients with locally advanced and 329 for recurrent colorectal cancer, for 134 subtype was not reported. Thirteen studies used validated questionnaires, 4 used non-validated measures and 2 used both. Questionnaires included the Functional Assessment of Cancer Therapy-Colorectal questionnaire ($n = 7$), the Short Form Health Survey ($n = 6$), the European Organization for Research and Treatment for Cancer (EORTC) Quality of Life Questionnaire C30 ($n = 6$), EORTC-CR38 ($n = 4$), EORTC-CR29 ($n = 1$), EORTC-CR30 ($n = 1$), EORTC-BLM30 ($n = 1$), Brief Pain Inventory ($n = 2$), Assessment of Quality of Life ($n = 1$), Short-Form Six-Dimension ($n = 1$), Memorial Sloan-Kettering Cancer Center Sphincter Function Scale ($n = 1$), Cleveland Global Quality of Life ($n = 1$) or other ($n = 4$). The number of measurements and timing of data collection varied between studies.

Conclusion: The use of validated questionnaires increased over time. There is a need for uniform use of validated questionnaires at pre-determined time points to enable comparative multicentre studies.

Disclosure of Interest: None declared

PO-348 | COLORECTAL CANCER LIVER METASTASES WITHIN THE CENTRAL AND PERIPHERAL SEGMENTS: PARENCHYMAL SPARING SURGERY ADAPTATION

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Aim: The debate over the surgical strategy optimization in colorectal cancer patients with liver metastases (mCRC) has been ongoing in the last 20 years. However, parenchyma sparing surgery (PPS) in cases of hard to reach liver sites (HTRLC) remain to be controversial.

Method: A prospective analysis of 185 mCRC patients performed who were divided in two groups depending by predominant liver site localization. Peripherally localized metastases (PLM) ($n = 107$) (S2, S3, S6, S7, Spiegel lobe and subcapsular area 1–2 cm below the liver surface). Group 2 included those with metastases localized in HTRLC ($n = 78$) - metastatic lesions of the "right venous core", portal and caval hilum, paracaval part of S1, "deep" parenchyma sites of S5, S8 and S4.

Results: In 26 (33,3%) and 32 (29,9%) patients of HTRLC and PLM, respectively, performed one liver re-resection (0,62). In HTRLC group 2 and more re-resection were performed in 7 (8,9%) cases while in PLM in 11 (10,3%), $P = 0,76$. Postoperative major morbidity was 24,4%, 21,8% ($P = 0,15$) and mortality 8,9%, 4,6% for HTRLC and PLM groups, respectively. R1v principles were implemented in 24 (30,7%) cases with centrally located metastases and in only 6 cases (5.6%) with peripheral localized metastases ($P = 0.001$). Cumulative 3-year disease-free survival (DSF) for PLM and HTRLC groups was 63% and 41% ($P = 0.008$). DFS for R1v ($n = 24$) and R0 (54) cohorts in HTRLC group was 33% and 43%, respectively ($P = 0,44$).

Conclusion: Principles of the PPS tactic provides an adequate removal of metastatic lesions in hard to reach liver sites allowing to maintain organ functions and increases the feasibility of the repeated liver resections in case of the initial disease progression.

Disclosure of Interest: None declared

PO-349 | QUALITY OF LIFE OF PATIENTS INCLUDED IN A PROSPECTIVE OBSERVATIONAL COHORT STUDY TO INVESTIGATE COMPREHENSIVE COLORECTAL ANASTOMOSIS TESTING

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Aim: To analyze the long-term functional and quality of life (QoL) outcomes in patients who were included in the comprehensive testing of colorectal anastomosis study.

Method: Functional outcomes and QoL were assessed using standard LARS and EORTC QLQ-C30 questionnaires at baseline and 1 year after colorectal resection in 60 patients who were included in the prospective observational cohort study. This multicentre study included 60 patients who underwent colorectal resection with an anastomosis ≤ 15 cm from the anal verge. Comprehensive trimodal testing consisted of indocyanine green fluorescent angiography, tension, air-leak, and methylene blue leak tests to evaluate the perfusion and mechanical integrity of the anastomosis. QoL and LARS scores before and after surgery were compared. Further, anastomotic leakage impact on outcomes was analysed.

Results: Role and social function scores at 1 year after colorectal resection were significantly lower compared to baseline ($P < 0.05$). Surgery increased the proportion of patients with major LARS from 18.5% at baseline to 45.8% at 1 year after the surgery ($P = 0.021$). Ten (16.7%) patients developed anastomotic leakage, although, it had no impact on global health status, functional and symptoms scales by EORTC QLQ-C30 and LARS questionnaires.

Conclusion: Colorectal resection with an anastomosis ≤ 15 cm from the anal verge impairs QoL by role and social function scale scores at 1-year after surgery. Further, such intervention is associated with a high risk of major LARS. Anastomotic leakage has no impact on functional outcomes.

Disclosure of Interest: None declared

PO-350 | LONG-TERM QUALITY OF LIFE AFTER ELECTIVE COLORECTAL CANCER SURGERY: A PROSPECTIVE COHORT STUDY

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Aim: to identify main surgical factors affecting long-term Quality of life (QoL) among colorectal cancer (CRC) patients after surgery.

Method: QoL was prospectively evaluated in patients, undergoing elective CRC resection operations in three colorectal surgery centers of Lithuania using EORTC generic (QLQ-C30) and disease specific (QLQ-CR29) questionnaires at the time of preoperative admission and at 1, 24 and 72 months after surgery.

Results: 88 consecutive CRC patients from three institutions were included in the study over three months inclusion period. The largest number of patients had stage III cancer. 50 patients (86.36%) responded to the questionnaire 6 years after their operation. 29 patients died – 6-year survival rate was 67%. Evaluating changes in QoL at 72 months after surgery with assessments before surgery both QLQ - C30 and QLQ - CR29 questionnaire responses revealed good long-term colorectal cancer surgical treatment results. Improved general and functional scales estimates, decreased symptoms scale ratings. The multivariate analysis found that age, stoma formation and having rectal cancer are independent risk factors in the full poorer quality of life six years after surgical intervention

Conclusion: 6 years after surgery quality of life returns to preoperative levels. Age, stoma formation and having rectal cancer reduce long term quality of life.

Disclosure of Interest: None declared



PO-351 | IS PATIENT AND DISEASE FACTOR MORE IMPORTANT THAN SURGEON-RELATED FACTOR IN SEPSIS PREVENTION IN COLORECTAL SURGERY?

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Aim: Postoperative infection is an important complication of colorectal surgery and continued efforts are needed to minimize the risk of surgical site infection (SSI). Immune response and metabolic regulation are highly integrated as minor operations may stimulate the immune response while the effect of major surgery is immunosuppression. The aim of the study is to determine the relative contributions and impact of patient, disease and surgeon-related factors on sepsis prevention in colorectal surgery.

Method: A retrospective literature review and qualitative analysis of published studies on sepsis prevention in colorectal surgery was performed. The effects of non-steroidal anti-inflammatory drugs (NSAIDs), life-style (smoking, alcohol abuse), bacteria- host interactions, immune deficiency, and enhanced recovery after surgery (ERAS) on colorectal sepsis were ascertained.

Results: Sepsis prevention in colorectal surgery depends upon the degree of contamination of the peritoneal cavity (*disease factor*), the preoperative status of the patient (*patient factor*) and surgical technique (*surgeon factor*). The most important prognostic factors in emergency colorectal surgery are the preoperative status, age and faecal peritonitis. The empiric choice of the surgical technique/ procedure is predominantly determined by the patient status and the disease.

Conclusion: The patient and disease factor are thus more important than the surgeon-related factor in the prognosis of sepsis in emergency colorectal surgery. Surgeon-related factors can influence the morbidity and mortality from sepsis in both elective and emergency colorectal surgery.

Reference:

1. Weledji EP, Ngowe MN. The challenge of intraabdominal sepsis. 2013;11(4):290-5

Disclosure of Interest: None declared

PO-352 | 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 the 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, who underwent surgery at the

Department of Abdominal and General Surgery and Oncology, National Cancer Institute for

CRC surgery, were involved. In the study the following questionnaires were used: EORTC QLQ-

C30, EORTC QLQ-CR29, EORTC QLQ-INFO25 and Modified Short Assessment of Patient

Satisfaction (SAPS) questionnaire. Demographic and clinical data were collected too. All statistical

analyses were conducted using Microsoft Excel and SPSS v27.

Results: The 100 of 115 participating patients (response rate of 89%), who fully completed the questionnaires, were included in the study. There were 44 men and 56 women, and the median age of the patients was 65,09 years (64,02 years in men group, 65,92 years in women group). CRC stages of the patients were as following: Tis - 5 (5%), I - 21 (21%), II - 21 (21%), III - 38 (38%), IV - 15. There were no significant correlation between the quality of life with the amount of information received ($P = 0,366$). However, there was a significant correlation between the patients' satisfaction about their treatment and the amount of information received ($P = 0.007$). Moreover, 66% of all the patients with different levels of satisfaction about their treatment (of which 100% of very unsatisfied, 58% of unsatisfied, 83% of satisfied and 31% of very satisfied patients) wished to have received more information about their disease, treatment, rehabilitation, diet and social aid.

Conclusion: The amount of information received does not influence the quality of patient's life, however, it does

influence the patients' satisfaction level. Moreover, a significantly higher proportion of patients wished to have received more information.

Disclosure of Interest: None declared

PO-353 | EFFICIENCY & PATIENT SATISFACTION OF COLORECTAL TELEPHONE CONSULTATION DURING THE COVID-19 PANDEMIC

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Aim: COVID-19 has necessitated a new approach to consult patients due to requirement for social distancing and avoiding unnecessary contact. This study aimed to assess the feasibility and patients' satisfaction of virtual clinic (VC) appointment compared to face-to-face (F2F) appointment. This study aimed to assess the feasibility and patients' satisfaction of virtual clinic (VC) appointment compared to face-to-face (F2F) appointment.

Method: Patients referred under routine referral to the service between 09/10/2019 and 31/12/2019 and waiting for an appointment for more than one year were screened and allocated to VC or F2F according to set criteria based on symptoms and pathology. Demographic data, symptoms, pathology and waiting time were collected retrospectively. Structured telephone interviews were conducted to evaluate patients' satisfaction.

Results: 559 patients were referred in the study period. Of this, 33.6% and 49.4% were triaged to attend a VC, or F2F clinic, respectively. Of the VC patients, 53.9% patients were discharged after an initial appointment, whereas 37.3% patients required a follow-up F2F appointment due to persistent symptoms or patient preference. Of the F2F patients, 82.8% were from the initial triage due to requirement for clinical examination or patients' preference. 90.5% of patients who underwent VC reported being either satisfied or very satisfied with their experience, in contrast to 86.0% of patients who underwent a F2F appointment ($P < 0.05$).

Conclusion: VC appointments significantly reduced waiting times and only 1/3 of VC patients required a further F2F appointment. Patient were more satisfied with VC than an F2F appointment, and it may be a useful approach for service efficiency, particularly during ongoing COVID pandemic.

Disclosure of Interest: None declared

PO-354 | RETRORECTAL TERATOCARCINOMA: AN UNCOMMON CONDITION SCARCELY KNOWN BY THE SURGEON

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Aim: The aim of this abstract is to emphasize the difficulties found in the diagnosis and treatment of retrorectal tumours.

Method: A 55-year-old woman presented with a 6-month history of constipation and intermittent pelvic pain. Physical abdominal exam did not show any abnormalities. However, digital rectal exam revealed a mass that compressed externally the rectal wall. Blood tests including tumoral markers were under normal ranges. A Computered Tomography found a 7-centimetre diameter cystic mass in the retrorectal space, which squeezed laterally the rectum. Magnetic Resonance was done to further characterize the lesion and found a large cystic lesion at S2-S3 level. Colonoscopy revealed no disruption of the mucosae nor other abnormalities.

Results: The patient was evaluated by a colorectal multidisciplinary team and underwent surgery. A combined laparoscopic and perineal approach was performed. The laparoscopy showed a retrorectal cystic mass that infiltrated the low rectal wall. An abdominoperineal amputation was required to ensure a complete resection. The patient was discharged at postoperative 7 day. The anatomopathological

study of the specimen revealed a malignant sacrococcygeal teratoma with foci of mucinous adenocarcinoma infiltrating rectal wall.

Conclusion: Retrorectal tumours constitute an uncommon condition with heterogenous aetiology. Their incidence is estimated at one in every 40.000 hospital admissions⁽¹⁾. Cystic lesions accounts for 60% of all congenital lesions and include epidermoid and dermoid cysts, cystic hamartoma, enterogenic cyst, teratoma and teratocarcinoma⁽²⁾. Preoperative biopsy should be considered only when neoadjuvant therapy is an option; otherwise, it is an unnecessary risk. Surgery is the standard treatment⁽³⁾. It is estimated that approximately 10% of teratomas that present in or after second decade of life undergo malignant transformation. As a result, malignant retrorectal teratoma become a diagnostic challenge in the absence of distant disease.

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3. Woodfield JC, Chalmers AG, Phillips N, Sagar PM. Algorithms for the surgical management of retrorectal tumours. *Br J Surg* 2008 Feb;95(2):214-21.

Disclosure of Interest: None declared

PO-355 | SHORT- AND LONG- TERM OUTCOMES FOLLOWING ANASTOMOTIC LEAK FROM RECTAL RESECTIONS

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Aim: Anastomotic leak is an uncommon but potentially devastating complication after rectal resection. We do not yet know the ideal management of these patients. We aim to provide an updated assessment of short- and long-term outcomes after anastomotic leak, particularly regarding bowel function and quality of life.

Method: A retrospective audit of all rectal resections performed at a colorectal unit and associated private hospitals over the past ten years was performed. Medical records were examined to identify those with an anastomotic leak. Relevant demographic, operative and histopathological data was collected. A prospective survey of these patients was then performed, regarding patient quality of life and faecal continence. These patients were then matched with patients who did not have an anastomotic leak.

Results: One hundred patients (out of 1394 resections) met the study criteria. Anastomotic leak was contained in 66%, not contained in 10%, and only anastomotic stricture in 24%. Management was antibiotics only in 39%, percutaneous drainage in 9%, operative abdominal drainage in 19%, transrectal drainage in 6%, combination of percutaneous drainage and transrectal drainage in 2%, and combination of abdominal and transrectal drainage in 1%. The 1-year stoma rate was 10%. Overall, mean Faecal Incontinence Severity Instrument (FISI) scores were higher for anastomotic leak

patients than their matched counterparts (8.06 +/- 10.5, versus 2.92 +/- 4.92, $P = 0.002$). Patients with an anastomotic leak had a mean EQ-VAS (visual analogue scale) of 76.23 +/- 19.85; this was lower than the matched mean EQ-VAS for non-anastomotic leak patients of 81.64 +/- 18.07, although not statistically significant ($P = 0.18$).

Conclusion: The majority of anastomotic leak patients in this study were managed with antibiotics only. Anastomotic leak was associated with higher faecal incontinence scores in the long-term, however this did not necessarily equate to lower quality of life scores.

Disclosure of Interest: None declared

PO-356 | IS COLONOSCOPY SCREENING RECOMMENDED EARLIER OR BETTER AN INVESTIGATION OF CHOICE FOR COLORECTAL SYMPTOMS?

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Aim: To determine and compare the incidence of crc in early and late onset colorectal carcinoma(CRC).

To determine and compare the incidences in age cohorts/decades.

To determine and compare clinicoepidemiological features of early and late onset CRC.

To establish the leading causes for colonoscopic examination and their positivity rates.

Method: Restrospective assessment of records of 2020 in the departments of medical gastroenterology and colorectal surgery.

1236 and 480 patients were studied respectively.

Age and subtype (side, benign/malignant and presentation) cohorting was done and patterns established.

Assessment in comparison to world statistical analysis 2020 done

Results: 1236 patients admitted for colonoscopic procedures were assessed retrospectively.

142(11%) were malignancies.

463(37%) were labelled normal.

115(9%) were f/u operated cases.

383(30%) were benign diseases.

9 were peadiatric age group PT.

124(10%) were deffered due to poor prepration or repeated later.

bleeding pr(65%), anaemia/ weakness(47%), alteration of bowel habits(35%)

and obstruction(4%) were leading causes for colonoscopic examination.

Conclusion: Apparently female are have a higher positivity rates of an colonoscopic examination and incidence of early onset malignancy though not statistically significant.

Distal colorectal malignancies followed by rt. sided crc are the predominant subset.

Early onset crc appears to be in continuum in the already existing profile of the disease.

Screening should be extended to the young subset with complaints.

CRC no longer fits in the nomenclature of maturity onset carcinomas.

Disclosure of Interest: None declared

PO-357 | THE ROLE OF SPHINCTER TONE IN THE HEALING OF ANAL CANAL WOUNDS AFTER HEMORRHOIDECTOMY

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Aim: Investigate the role of sphincter tone in the healing of anal canal wounds after hemorrhoidectomy.

Method: The study included 647 patients who underwent hemorrhoidectomy from 2012 to 2020. The average age of patients was $38 \pm 0,8$ years. The ratio of men to women was 1: 1. All patients are divided into 2 groups. The first (main) included 453 patients. They were prescribed basic therapy with mandatory daily divulsion of the anal sphincter in the postoperative period, due to which there was a temporary insufficiency of the anal sphincter of the first degree (gas incontinence).

The second (control) group included 194 patients. Basic therapy was prescribed without affecting the tone of the anal sphincter.

Results: The results were evaluated by proctological examination of patients during the first month weekly and once a year from 1 to 9 years. The maximum pain syndrome in the main group was at the level of 5 points, and did not require drugs, in the control - 8-9 points on a ten-point visual-analog scale using drugs. In the main group, the duration of healing was 21 ± 0.9 days, and in the control group - 35 ± 0.5 days. In the main group in 18 patients (4.5%) complications were detected in the form of bleeding, which was treated conservatively and recurrence, and in the control group in 19 patients (9.8%) - bleeding, stenosis, suppuration and the formation of pararectal fistulas.

Complete return to normal life in the main group after 7 days, in the control group after 21 days.

Conclusion: Reducing the tone of the anal sphincter in the postoperative period reduces the healing time by 30%, reduces pain by 30% and reduces the number of complications by 2 times.

Disclosure of Interest: None declared

PO-358 | META-ANALYSIS OF TRANSANAL TOTAL MESORECTAL EXCISION VERSUS LAPAROSCOPIC TOTAL MESORECTAL EXCISION IN MANAGEMENT OF RECTAL CANCER

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Aim: To evaluate comparative outcomes of transanal total mesorectal excision (TaTME) and laparoscopic TME (LaTME) in patients with rectal cancer.

Method: We systematically searched multiple databases and bibliographic reference lists. A combination of free text and controlled vocabulary search adapted to thesaurus headings, search operators, and limits were applied. Overall intraoperative complications, overall postoperative complications, anastomotic leak, surgical site infections (SSIs), completeness of mesorectal excision, R0 resection, distal (DRM) and circumferential resection margin (CRM), number of harvested lymph nodes, and procedure time were the evaluated outcome parameters.

Results: We identified 18 comparative studies reporting a total of 2048 patients evaluating outcomes of TaTME ($n = 1000$) and LaTME ($n = 1048$) in patients with rectal cancer. TaTME was associated with significantly higher number of R0 resection (OR 1.67, $P = 0.01$) and harvested lymph nodes (MD 1.08, $P = 0.01$), and lower rate of positive CRM (OR 0.67, $P = 0.04$) and conversion to an open procedure (OR 0.17, $P < 0.00001$) compared with LaTME. However, there was no significant difference in intraoperative complications (OR 1.18, $P = 0.54$), postoperative complications (OR 0.89, $P = 0.24$), anastomotic leak (OR 0.88, $P = 0.42$), SSIs (OR 0.64, $P = 0.26$), completeness of mesorectal excision (OR 1.43, $P = 0.19$), DRM (MD 1.87, $P = 0.16$), CRM (MD 0.36, $P = 0.58$), and procedure time (MD - 10.87, $P = 0.18$) between TaTME and LaTME. For low rectal tumours, TaTME carries significantly lower rate of anastomotic leak and higher number of lymph nodes (MD 2.06, $P = 0.002$).

Conclusion: Although the meta-analysis of best available evidence (level 2) demonstrated that TaTME may be associated with better short-term oncological outcomes and similar clinical outcomes compared with LaTME, the differences between the two groups were small questioning their clinical relevance. No solid conclusions can be made due to lack of high quality randomised studies.

Disclosure of Interest: None declared

PO-359 | TREATMENT OF POSTOPERATIVE LEAKAGE OF RECTAL ANASTOMOSES WITH THE USE OF MINIMALLY INVASIVE AND ENDOSCOPIC TECHNIQUES

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Aim: The treatment of postoperative leakage of rectal anastomoses it is still a challenge. One of the solution can be endoluminal vacuum therapy (EVT) supported by hemostatic clips, tissue adhesives or local supply of cellular growth factors. The aim of this study is to present a strategy for the treatment of postoperative leakage of rectal anastomoses with minimally invasive techniques

Method: In the years 2015–2020, 17 patients, 14 men and 3 women were enrolled for minimally invasive treatment of postoperative

anastomotic fistulas after rectal surgery. The indication for minimally invasive treatment was anastomotic rupture not exceeding $\frac{1}{2}$ of the circumference and the absence of septic complications requiring urgent relaparotomy. In all patients, the fistula was healed with an EVT dressing, and then, depending on the clinical situation, an attempt was made to completely close the fistula with hemostatic clips, tissue adhesives or cell growth stimulators.

Results: In all patients, the diameter of the fistula was shrunk by at least $\frac{1}{3}$, leakage of the intestinal contents was reduced and purulent discharge were successfully evacuated. A fistula was completely closed in 4 patients, and in the next 5 patients, it was limited to a narrow ($< 4\text{mm}$) fissure. The prognostic factors for complete healing of the fistula were time of the beginning the therapy up to 7 days after the procedure ($P = 0.0294$) and anastomotic dehiscence less than $\frac{1}{4}$ of the circuit ($P = 0.0223$). In turn, low rectal rupture and preoperative radiotherapy attenuated healing and significantly intensified fibrosis, limiting the effectiveness of minimally invasive techniques.

Conclusion: Treatment of rectal anastomotic lesions using minimally invasive techniques improves drainage of intestinal leakage and reducing the diameter of the fistula. Early detection of the rupture and its diameter up to $\frac{1}{4}$ of the circumference increase the chance of complete healing of the fistula and restoration of intestinal continuity in the future.

Disclosure of Interest: None declared

PO-360 | DEVELOPMENT OF A MINIMUM DATASET FOR MRI REPORTING OF ANAL FISTULA: A MULTI-DISCIPLINARY, EXPERT CONSENSUS APPROACH

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Aim: There are a range of sphincter preserving procedures available to treat anorectal fistula, some of which can be precluded, or rendered more optimal by specific features of fistula anatomy. Magnetic Resonance Imaging (MRI) is the gold standard modality for assessing anorectal fistula. To maximise clinical utility, the MRI report should



accurately describe these clinically relevant features. We aimed to develop a minimum dataset for reporting MRI of anorectal fistula, in order to improve the assessment and management of these patients.

Method: A longlist of potential items was generated through systematic review. This longlist was presented to radiologists, surgeons and gastroenterologists in an online survey to understand the features that shape current clinical practice. The longlist and survey results were presented to an expert consensus panel to generate the final minimum dataset through discussion and anonymous voting.

Results: Some 70 anatomical features were included in the longlist extracted from systematic review. These were presented to clinicians in an online survey completed by 87 respondents (74% completion rate). Through expert consensus, the final minimum dataset details the general characteristics, features of the internal and external openings, path of the fistula through the sphincters and any associated extensions and collections that should be described in all MRI reports for anal fistula. Additional surgical and perianal Crohn's Disease subsets were developed to indicate the features that aid decision-making for these patients, in addition to a minimum dataset for the clinical request.

Conclusion: This study represents a multi-disciplinary approach to developing a minimum dataset for MRI reporting of anal fistula. Use of the dataset and associated subsets should improve the standard of reporting and facilitate multi-disciplinary management of these patients.

Disclosure of Interest: None declared

PO-361 | EXROID DIRECT CURRENT ELECTROTHERAPY: A LOW RISK TREATMENT FOR ALL GRADES OF INTERNAL HAEMORRHOIDS

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Aim: Haemorrhoids can cause significant morbidity, and place a significant burden on healthcare systems. Low dose direct current electrotherapy, is a NICE-approved (the UK's National Institute for Health and Care Excellence), out-patient based treatment option for haemorrhoids. This study aimed to prospectively analyse patients presenting to 10 clinics around the United Kingdom.

Method: All patients undergoing electrotherapy treatment over 21 months were included in this prospective observational study. Patient demographics, haemorrhoid grade, disease duration, previous treatments tried, and complications/return-to-normal activity were captured via an online patient management system and subsequent questionnaire. Patients on anticoagulants and antiplatelet agents were excluded in this study.

Results: 758 consecutive patients (456 men, 302 women; median age 53yrs, range 18–96) were treated between March 2019 and November 2020, with confirmed internal haemorrhoids grades

1–4, excluding those patients taking oral anticoagulants/antiplatelet agents. > 50% had used topical treatments previously and 28% had at least one previous intervention, including: banding (129;17%), sclerotherapy (53;7%), Rfaelo (52;7%) and haemorrhoidectomy (52;7%). The commonest presenting symptoms were bleeding (65%), prolapsing (63%), swelling/soreness (49%) and itching (36%). 57% of patients (434) had had symptoms for > 5yrs. Mean number of direct current electrotherapy treatments/patient undertaken was 1.45. Treatment was well-tolerated, with 0 serious adverse events (SAEs). Patients all left the clinic immediately following treatment, with no need for immediate post treatment recovery.

Conclusion: Direct current electrotherapy treatment is a safe option for patients seeking treatment of haemorrhoids, irrespective of grade. In this cohort of 758 patients, there were 0 SAEs, compared with the common treatment options of rubber band ligation and haemorrhoidal artery ligation, which have published SAEs of 1% and 7% respectively¹.

Reference:

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Disclosure of Interest: M. Hudson-Peacock Conflict with: Shareholder, Conflict with: Chairman/Medical Director, T. Tajmilur Khemlani Conflict with: Summer student intern, N. Hudson-Peacock: None declared, P. Mackey Conflict with: Shareholder, Conflict with: eXroid accredited consultant surgeon, C. Macklin Conflict with: eXroid accredited consultant surgeon, L. Ellerker Conflict with: Shareholder, Conflict with: Finance and Commercial Director

PO-362 | THE DEVELOPMENT OF A CRYPTOGLANDULAR ANAL FISTULA CORE OUTCOME SET (AFCOS)

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Aim: There is great variability in the outcomes that are reported in studies of cryptoglandular anal fistula treatment. This hampers systematic evidence synthesis to identify the best treatment. We aimed to address this heterogeneity by developing a Core Outcome Set (COS): a minimum set of outcomes that should be measured in all studies of cryptoglandular anal fistula treatment

Method: This study followed guidance from the Core Outcome Measures in Effectiveness Trials (COMET) initiative and consisted of three stages. Candidate outcomes were generated through systematic review of the literature and qualitative patient interviews. These were prioritized by key stakeholders, including patients, surgeons, gastroenterologists and radiologists in a two-round online Delphi consensus process. The shortlisted outcomes were further discussed in a consensus meeting where invited clinicians and patients determined the final COS.

Results: Some 64 outcomes were presented to participants in the Delphi survey. A total of 191 participants from over 30 countries ranked the outcomes according to their importance in defining treatment success (58% surgeons & gastroenterologists, 9% radiologists, 34% patients). Fifty-three outcomes were found important and discussed in the consensus meeting attended by 12 clinicians and 10 patients. A final 10 outcomes were voted into the COS: clinical fistula healing, radiological healing, recurrence, development of additional fistulas, fistula symptoms, incontinence, psychological impact of treatment, complications and reinterventions, patient satisfaction and quality of life.

Conclusion: The final COS represents an international, multi-disciplinary, patient-centered attempt to establish consistency in fistula research, with a substantial focus on patient priorities for treatment. The next stage is to assess the most appropriate measurement instruments to determine these outcomes, through the development of a core measurement set.

Disclosure of Interest: None declared

PO-363 | LONG-TERM OUTCOME OF RADICAL EXCISION VS. PHENOLISATION OF THE SINUS TRACT IN PRIMARY SACROCOCCYGEAL PILONIDAL SINUS DISEASE; A RANDOMIZED CONTROLLED TRIAL

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Aim: The aim of this randomized trial was to compare the long-term outcome between phenolisation of the sinus tracts vs. radical excision with primary wound closure as treatment for sacrococcygeal pilonidal sinus disease (SPSD).

Method: Between 2013 and 2017, 100 patients with primary SPSP were randomized and eventually, 50 patients underwent phenolisation and 46 radical excision. After a follow-up of at least two years, all patients were contacted to participate in this long-term follow-up. Long-term outcome was obtained by an online questionnaire, including quality of life (Short-Form-36), recurrence of SPSP, SPSP-related complaints (pain, fluid discharge and itch) and patient's satisfaction. Patients were scored as no recurrence if they never had a recurrence objectified by a physician or a second procedure for recurrent SPSP, and in addition, if they denied the impression of recurrent SPSP in the questionnaire.

Results: A total of 74 patients (77.1%) completed the questionnaire; 36 patients after phenolisation and 38 after excision. Mean (\pm standard deviation) time to follow-up was 48.4 (\pm 12.8) and 47.8 (\pm 13.5) months, respectively. There was no significant difference between both groups with regard to quality of life and SPSP-related symptoms at the natal cleft. In the phenolisation group, two patients (5.6%) developed a recurrence and one patient (2.6%) in the excision group ($P = 0.604$). The impact of the whole treatment was significantly less after phenolisation ($P = 0.010$).

Conclusion: No significant difference in recurrence rate and quality of life between phenolisation of the sinus tracts and radical excision with primary wound closure for primary SPSP was found after a follow-up of four years. Therefore, due to the previously shown favorable short-term results and comparable long-term recurrence rate and quality of life as shown in this study, phenolisation of the sinus tracts should be considered primary treatment option in patients with pilonidal sinus disease.

Disclosure of Interest: None declared

PO-364 | PILONIDAL SINUS DISEASE: A 25-YEAR EXPERIENCE AND LONG-TERM RESULTS OF DIFFERENT SURGICAL TECHNIQUES

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Aim: The aim of this study was to evaluate recurrence rates in long-term follow-up and postoperative wound complications in patients with chronic pilonidal disease. We were interested in differences between 5 surgical groups: excision and primary midline closure, excision and marsupialisation, Karydakis flap, Dufourmental flap, Bascom I procedure.

Method: This study was designed as a retrospective single centre cohort study with prospective phone follow-up and was conducted at the Department of Surgery of the Medical University of Vienna. Adult patients who underwent surgery for both primary and recurrent pilonidal disease from November 1994 to May 2019 were included. Exclusion criteria were: patients under the age of 18 years, patients with emergency surgery for pilonidal abscess, simultaneous Hidradenitis Suppurativa, Sinus pilonidalis squamous cell carcinoma, and fistulizing rectal cancer.

Results: Median follow-up was 85.8 months in 286 patients. The overall recurrence rate of 16.1% was observed at 24 months, 21.4% at 60 months, and 47.4% at 303 months. There was a range from 10.5% for excision with primary midline closure to 30.0% for Bascom I procedure 24 months postoperatively. Recurrence in excision with midline closure was 71.8% 268 months postoperatively. No statistically significant differences were observed between 5 groups ($P = 0.54$). The highest prevalence of wound complications (46.3%) was



in excision with midline closure. Cox regression showed that previous pilonidal operations are an independent prognostic factor for developing recurrence ($P = 0.006$). Multivariate logistic regression revealed that previous pilonidal operations have significant predictive value for developing postoperative wound complications OR = 4.04 (95%CI 1.61–10.18), $P = 0.003$.

Conclusion: The emphasis should be given on adoption of techniques with high success rates. To date, many studies reported outstanding results using off-midline methods^{1,2,3}.

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Disclosure of Interest: None declared

PO-365 | META-ANALYSIS OF LAPAROSCOPIC MESH RECTOPEXY VERSUS POSTERIOR SUTURED RECTOPEXY FOR MANAGEMENT OF COMPLETE RECTAL PROLAPSE

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Aim: To evaluate comparative outcomes of laparoscopic mesh rectopexy (LMR) and laparoscopic posterior sutured rectopexy (LPSR) in patients with rectal prolapse.

Method: We conducted a systematic search of electronic databases and bibliographic reference lists with application of a combination of free text and controlled vocabulary search adapted to thesaurus headings, search operators, and limits. Recurrence, Cleveland Clinic Incontinence Score (CCIS), Cleveland Clinic Constipation Score (CCCS), surgical site infections, procedure time, and length of hospital stay were the evaluated outcome measures.

Results: We identified 5 comparative studies reporting a total of 307 patients evaluating outcomes of LMR ($n = 160$) or LPSR ($n = 147$) in patients with rectal prolapse. LMR was associated with significantly lower recurrence rate (OR: 0.28, $P = 0.009$) but longer procedure time (MD: 23.93, $P < 0.0001$) compared to LPSR. However, there was no significant difference in CCIS (MD: -1.02, $P = 0.50$), CCCS (MD: -1.54, $P = 0.47$), surgical site infection (OR: 1.48, $P = 0.71$), and length of hospital stay (MD: -1.54, $P = 0.47$) between two groups. No mesh erosion was reported in any of the included studies at maximum follow-up point. Sub-group analyses with respect to ventral mesh rectopexy, posterior mesh rectopexy, randomised studies, and adult patients were consistent with the main analysis.

Conclusion: LMR seems to be associated with lower recurrence but longer procedure time compared to LPSR. Although no mesh-related complications have been reported by the included studies, no definitive conclusions can be made considering that the included studies

were inadequately powered for such outcome. Future high-quality randomised studies with adequate sample size are required.

Disclosure of Interest: None declared

PO-366 | EXROID ELECTROTHERAPY: A LOW RISK TREATMENT FOR INTERNAL HAEMORRHOIDS FOR THOSE TAKING ANTICOAGULANTS

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Aim: Haemorrhoids can cause significant morbidity, with those on anticoagulants presenting a particular challenge because of the risk of post procedural bleeding. Low dose direct current electrotherapy (DCE) is a NICE-approved, out-patient based treatment option for haemorrhoids which can be used in patients taking anticoagulants. This study aimed to prospectively analyse patients presenting to 10 clinics around the United Kingdom with particular emphasis on post-procedural complications.

Method: Consecutive patients taking anticoagulants and undergoing low dose DCE treatment were included in this prospective observational study. Patient demographics, haemorrhoid grade, number of treatments and complications were captured via a patient management system and questionnaires.

Results: 52 consecutive patients (44 men, 8 women; median age 73 yrs, range 49–92) were treated from March 2019 to November 2020, with confirmed internal haemorrhoids: grade 1 (4 = 7.7%); grade 2 (17 = 32.7%); grade 3 (23 = 44.2%); grade 4 (8 = 15.4%). Mean treatments per patient: 1.5.

The medications taken by the 52 patients, included: 10 on warfarin with target INR of 3 or less, 11 on Aspirin (A), 8 on Rivaroxaban, 8 on Apixaban (Ap), 3 on Edoxaban, 6 on Clopidogrel (C), 1 on Prasugrel, 3 were on two drugs: A+Ap(2), A+C(1), 2 not stated.

The commonest presenting symptoms were bleeding (58%) and prolapsing (58%). One patient experienced post-treatment bleeding after his second treatment. There were no other post-treatment complications. Treatment was well-tolerated, with one serious adverse event (SAE) from 79 treatment episodes.

Conclusion: DCE treatment is a safe option for patients seeking treatment for haemorrhoids, irrespective of grade, including those on anticoagulants. In this study of patients taking concomitant anticoagulants, there was only one SAE in this higher risk group, compared with the treatment options of rubber band ligation and haemorrhoidal artery ligation, which have published SAEs of 1% and 7% respectively¹.

Reference:

1. Haemorrhoidal artery ligation versus rubber band ligation for the management of symptomatic second-degree and third-degree haemorrhoids (HubBLE): a multicentre, open-label, randomised controlled trial. Steven R Brown, et al. *Lancet*. 2016 Jul 23;388(10042):356–364.

Disclosure of Interest: M. Hudson-Peacock Conflict with: Shareholder, Conflict with: Chairman/Medical Director, T. Tajmilur Khemlani Conflict with: Intern student working for eXroid for the summer, N. Hudson-Peacock: None declared

PO-367 | EFFECTIVENESS AND SAFETY OF LAPAROSCOPIC THREE-DIMENSIONAL VENTRAL RECTOPEXY VERSUS 2D-LAPAROSCOPY IN PATIENTS WITH RECTOCELE AND RECTAL PROLAPSE: A PROSPECTIVE, RANDOMIZED, SINGLE CENTER STUDY

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Aim: To compare direct and remoted anatomical and functional outcomes of 3D laparoscopic ventral rectopexy with conventional 2D laparoscopy in terms of effectiveness and safety in patients with posterior pelvic prolapse.

Method: This study was registered on Clinicaltrials.com, N° NCT04817150. 18–70 years old female patients with symptomatic stage 3 rectocele and/or rectal prolapse were included in prospective randomized single center study. The patients were divided into two groups for 3D or 2D laparoscopic ventral rectopexy. The primary outcome was objective cure rate. Secondary outcomes included obstructive defecation and incontinence symptoms according to Wexner and Cleveland Clinic scales, and satisfaction rate according to Patient Global Impression of Improvement questionnaire. Operative times, intraoperative blood loss, length of hospital stay, postop pain severity, urinary incontinence, as well as surgical and mesh complications were also assessed. The specific point of interest was also surgeon's tiredness after the operation assessed with Profile of Mood States questionnaire.

Results: 61 patients were included in this study. Average surveillance period was 2,71±1.15 years. At one year follow-up the cure rate for rectocele and rectal prolapse was 100% with both approaches. There were no significant differences between groups in secondary outcomes with the exception of operative time, blood loss and postoperative pain. Overall surgical time was imperceptible shorter in 3D-group due to more precise pelvic spaces dissection. Significant differences were found in point of surgeon's tiredness after the operation, where the results were much better in 3D-group.

Conclusion: Three-dimensional laparoscopy provides outcomes comparable to conventional laparoscopy in terms of efficacy and safety. 3D-laparoscopy allows better vision in narrow pelvic spaces, more precise dissection, without significantly increasing the economic costs.

Disclosure of Interest: None declared

PO-368 | LIVING WITH CRYPTOGLANDULAR ANAL FISTULA: A QUALITATIVE INVESTIGATION OF PATIENT EXPERIENCES AND DESIRABLE TREATMENT OUTCOMES

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Aim: Cryptoglandular anal fistula continues to be a subject of extensive clinical research due to the lack of effective and enduring treatments in complex and recurrent cases. However, the patient experience of the disease has seldom been reported. The aims of this study are to understand the impact of living with a fistula and how it affects quality of life (QoL), in addition to understanding the treatment outcomes that are valued by patients.

Method: Patients with cryptoglandular anal fistula were recruited using purposive sampling from two referral centres in the UK and the Netherlands. Audio-recorded, semi-structured interviews were transcribed verbatim and translated into English. Transcripts underwent independent, coding and thematic analysis by native Dutch and English speaking members of the study management team, using open coding to identify common themes, sub-themes and outcomes.

Results: Twenty interviews were conducted before reaching saturation (11 male, mean age 47 years, range 30–68). Four broad themes emerged: 1) the physical symptoms of having a fistula, 2) the patient's journey towards understanding the condition, which includes seeking information from clinicians and online networks, 3) living with a fistula, in which patients detailed the impact on work, relationships, daily activities and the psychological impact and 4) treatment, describing aspects of surgery and after care, in addition to desirable treatment outcomes focused on symptom resolution, improving QoL and going back to 'normal'. Several interrelated sub-themes were found, reflecting the extensive impact and adjustment that the disease involves.

Conclusion: The impact of cryptoglandular anal fistula extends beyond the physical symptoms of pain and discharge, requires significant readjustment and often has negative impact on psychosocial wellbeing. These aspects of disease should receive greater attention in future assessment of treatment and QoL.

Disclosure of Interest: None declared

PO-369 | EMERGING DATA ON FISTULA LASER CLOSURE (FILAC) FOR THE TREATMENT OF PERIANAL FISTULAS; PATIENT SELECTION AND OUTCOMES

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Aim: Fistula laser closure (FiLaC) is a relatively new sphincter sparing technique in fistula surgery that was initially reported in 2011. Early adopters suggest minimal impact on continence and tout the advantage of minimal morbidity with potential of repeat procedures if the technique fails initially. However, ten years on, questions remain on the technique, patient selection and long-term outcomes. In this study we review the evidence available on this novel technique and assess its emerging role in fistula surgery.

Method: A systematic search of all articles published in the English literature in peer-reviewed journals on FiLaC™ in patients with anorectal fistulae were considered. MeSH terms “fistula” “laser” “surgery” “fistula tract laser closure” including relevant sub-classifications. All relevant studies on FiLaC describing the patient population were included in this review. Their data were analysed to ascertain any possible conclusions from their collective information.

Results: Thirteen studies spanning 2011–2021 were included in this review. Study numbers varied from 10 – 117 with follow up ranging from 2 – 87 months. Predominantly male patients were included in the studies and reported median/mean ages were similar between studies. Success rates, i.e. primary healing (mostly assessed clinically) varied from 20% (4/20) at a median follow-up of 10months to 89% (24/27) median follow-up of 22months. There were no reports of any deterioration in faecal continence.

Conclusion: The laser procedure is demonstrably feasible and appears a relatively easy to learn technique and has been demonstrated to be safe with no reports of faecal incontinence. Target patient population that would derive most benefit appear to be those with more complex or recurrent fistulas where a lay-open cannot be considered. Longer term data in larger numbers will determine whether some initially high reports of success will be corroborated.

Disclosure of Interest: None declared

PO-370 | THE EXROID CLOCKFACE ASSESSMENT TOOL (ECAT): A NEW TOOL TO ASSIST IN RECORDING PROCTOLOGICAL EXAMINATION

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Aim: Assessing and documenting what is found on proctological assessment is not currently recorded in a standardised way in primary

or secondary care. We have developed the eClockface Assessment Tool (eCAT), which has proved to be a useful way to achieve this in clinics that manage internal haemorrhoid disease (HD), a condition which is frequently associated with other problems, including external haemorrhoids, fissures, fistulas, polyps and tags.

Method: The eCAT was used in 10 treatment clinics around the United Kingdom to document the examination findings during initial and subsequent consultations, together with a symptom questionnaire. All patients were included in this prospective observational pilot study.

Results: 1366 consecutive consultations (781 new consultations including haemorrhoid disease (HD) treatment; 399 follow up HD treatments; 186 consultations only) presented between March 2019 and November 2020. The median age was 54yrs (range 18–96), 62% male, 38% female. The commonest presenting symptoms were bleeding (65%), prolapsing (63%), redness/soreness (49%), itching (35%) and pain (28%). The eCAT was used to document the initial findings, including HD, tags, polyps, fissures and fistulas, and proved especially useful in those 399 returning for follow up treatments. The eCAT enabled documentation of haemorrhoid changes over time, including: change in position, change in size, and change in the number of haemorrhoids since the first visit, plus observed healing of concomitant fissures. Patients like it as well.

Conclusion: The eCAT is a novel tool, liked by patients, enabling a standardised approach to the assessment and documentation of proctological disease and is useful both at initial examination and as a follow-up assessment tool.

Disclosure of Interest: M. Hudson-Peacock Conflict with: Shareholder, Conflict with: Chairman/Medical Director, N. Hudson-Peacock: None declared, J. Whittaker Conflict with: eXroid Technology Ltd, B. Munns Conflict with: eXroid Technology Ltd

PO-371 | EVALUATION OF PAIN IN PATIENTS AFTER COMBINED OPERATIONS FOR COMBINED PATHOLOGY OF THE ANAL CANAL AND RECTUM USING MODERN SURGICAL TECHNOLOGIES

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Aim: To compare the pain in patients with combined pathology of the anal canal and rectum after operations using modern high-frequency electrosurgical and radio-surgical devices and a conventional metal scalpel.

Method: The results of treatment of 635 patients with combined pathology of the anal canal and rectum using high-frequency electrosurgery and radiowave surgery, which were divided into 4 study groups, as well as 112 patients using a metal surgical scalpel were analyzed.

Results: Assessing the pain syndrome on the first day of the postoperative period, it was found that it was most pronounced in control

group patients, where the need for analgesia 2% promedol solution was 4 ± 1 ml, and in the first, third and fourth study groups patients needed for analgesia 2 ± 1 ml of 2% promedol solution when using "Surgitron" radiowave surgery device, "EFA" and "KLS Martin" high-frequency electrosurgical devices, respectively. When using device "ERBE ICC 200", the need for a 2% promedol solution for analgesia was 3 ± 1 ml.

Conclusion: The use of these modern devices of high-frequency electro-surgery and radio-wave surgery is much better compared to the use of a surgical metal scalpel because they cause much less pain due to the formation of a thin layer of coagulation necrosis, promoting the formation of a delicate elastic scar and preventing of scar stricture of the anal canal in post surgery period.

Disclosure of Interest: None declared

PO-372 | OBSTETRIC ANAL SPHINCTER INJURIES (OASIS) IN PRIMIGRAVIDA: ARE WE UNDERESTIMATING THE PROBLEM?

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Aim: The incidence of OASIS (Obstetric Anal Sphincter Injuries) has increased in the past two decades despite improved risk factors awareness. This study aimed to define the specific risk factors and incidence in primipara.

Method: A PRISMA systematic review was performed with the primary outcome being the incidence and risk factors for OASIS in primipara. Databases used for the research were Medline, Embase, CINAHL and "Maternity and infant care".

Results: 300 studies published between 1971 and 2021 were included in the final analysis. The median OASIS incidence was estimated to be about 7.5%. Primiparity was identified as a main risk factor in 79/220 studies. Within 72/79 studies, examining primipara specifically, the main risk factors for OASIS included: child birth-weight $> 3,5\text{Kg}$; instrumental assisted vaginal delivery (forceps and/or vacuum or spatula), longer 2nd labour stage (> 120 minutes); occipito-posterior presentation of the fetal head, fetal head circumference > 35 cm; longer gestational age (> 40 weeks); maternal asian ethnicity. Protective factors included: use of mediolateral episiotomy during instrumental delivery, regular strenuous exercise and hands on the infant head.

Conclusion: Primiparity is an unavoidable risk factor for OASIS. Careful use of instrumentation may reduce its incidence but women with risk factors need to be informed antenatally.

Disclosure of Interest: None declared

PO-373 | SINUS LASER-ASSISTED CLOSURE (SILAC®) FOR PILONIDAL DISEASE: RESULTS OF A MULTICENTRE, COHORT STUDY

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Aim: An emerging and promising minimally-invasive treatment for pilonidal disease (PD) is the sinus laser assisted closure (SiLaC®). Previous studies have shown encouraging results concerning safety, patient satisfaction, wound healing and acceptable recurrence rates. The objective was to investigate outcomes for a large cohort of PD patients treated with SiLaC®.

Method: This was a multicentre, cohort study with a prospective design and partial retrospective data collection in three non-academic, teaching hospitals in the Netherlands performing SiLaC® for PD between January 2017 and March 2020. The primary outcome was recurrence. Secondary outcomes were incidence of complete wound closure, time until wound closure, postoperative complications, ability to perform daily activities and reported patient satisfaction.

Results: A total of 311 patients were included with a median follow-up of 10 months (1–52). Recurrence rate after one SiLaC® treatment was 26% and 16% of patients had delayed wound closure. Mean time until wound closure was 6 weeks (1–24). Seven patients (2.3%) were still unsuccessfully treated after three SiLaC® treatments and required additional and extensive surgery. Mean time to perform regular daily activities including working was 6 days (0–42) and the vast majority of patients (84%) did not require painkillers or only paracetamol. Twelve patients (4%) developed a post-operative wound infection. The mean satisfaction was 9 (5.0–10.0).

Conclusion: SiLaC® is a promising minimally-invasive treatment for PD with high patient satisfaction and an acceptable recurrence rate; 74% of patients were successfully treated after one SiLaC® procedure, rising to 98% after three SiLaC® procedures. These results suggest that SiLaC® could be used as a safe and effective primary treatment for PD.

Disclosure of Interest: None declared

PO-374 | SELF-MANAGEMENT EDUCATION FOR OSTOMIZED PATIENT WITH VIRTUAL REALITY

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Aim: Development of a virtual reality (VR) application (app) to improve the adaptation of stoma patients and the acquisition of skills necessary for adequate self-care.



Method: A multicenter multidisciplinary group working in a coordinated way in the care of patients with colorectal cancer and engineers from a Technological Center specialized in digital developments are designing an app as part of a project for the implementation of a multimodal rehabilitation program.

VR glasses are used as hardware for the design of the app and as software, Blender, a multiplatform computer program that facilitates modeling, lighting, rendering, animation and creation of three-dimensional graphics and Unity3D, a multiplatform video game engine.

Results: In a first design phase the possible scenarios with add-ons, the type of patient (sex and phenotype) and some other elements have been defined: normal and complicated stoma, bags and utensils. In a second phase of app development, the scenario has been modeled and the virtual interaction with the user has been programmed, including tests with patients to improve and adapt the demonstrator to their more specific needs

The demonstrator consists of VR glasses connected to the control PC. The main novelty of this development lies in the use of a VR interface for self-care training of patients with digestive ostomies. The app will allow them to see themselves in the new daily situation through an immersive experience, to learn how to perform stoma care (cleaning, pouch placement, etc.) and to practice autonomously, without risk of injury and without expenditure on disposable materials.

Conclusion: VR glasses achieve that the design and modeling of a VR interface allow ostomized patients to perform self-care simulations in an immersive way.

Disclosure of Interest: None declared

PO-375 | ENDOSCOPIC PILONIDAL SINUS TREATMENT VS. LASER-ASSISTED ENDOSCOPIC PILONIDAL SINUS TREATMENT: A RETROSPECTIVE CASE-MATCH STUDY

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Aim: To investigate whether the addition of laser to the EPSIT procedure (laser-assisted endoscopic pilonidal sinus treatment; LEPSIT) has an effect on the method and clinical results in the treatment of pilonidal sinus disease (PSD).

Method: Between 2019 and 2020, patients who underwent LEPSIT procedure and EPSIT procedures for PSD were matched 1:3. Data obtained from the prospectively maintained retrospective database were compared by performing case-match analysis with 4 specific criteria (age, pit location and number, body mass index (BMI), and gender). The primary end-point of the study was denoted by complete wound healing, whereas the secondary end-point comprised quality of life assessment, cosmetic results, and cost.

Results: Ninety-six patients were selected (24 LEPSIT and 72 EPSIT) based on matching process. Wound healing rates (LEPSIT; 95.8% vs

EPSIT; 93%; $P = 0.99$) were similar in both groups. In patients who underwent LEPSIT, the operative time ($P = 0.00086$) was significantly shorter, time taken to return to work ($P = 0.03572$) and wound closure ($P < 0.00001$) were significantly lesser. However, the time taken to return to daily activities ($P = 0.242$) and wound complications ($P = 0.99$) were similar. In the patients who underwent EPSIT, the postoperative 1th day ($P = 0.0083$), 7th day ($P = 0.00054$), and 14th day ($P = 0.0479$) pain scores were higher. The postoperative analgesic requirement ($P = 0.01492$) was more in those who underwent EPSIT. The total hospital cost was lesser in patients who underwent LEPSIT ($P < 0.00001$). Better cosmetic improvement was observed in LEPSIT procedure ($P = 0.00694$). First month quality of life (SF-36) was similar except for bodily pain. Bodily pain ($P = 0.0024$) was lesser in patients who underwent LEPSIT. The median follow-up time was 9(3-15) months.

Conclusion: Although the LEPSIT procedure had a similar success rate as the EPSIT procedure, it appeared to be an effective treatment method that increased postoperative patient comfort, where the wounds closed faster and individuals returned to work sooner.

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Disclosure of Interest: None declared

PO-376 | LASER HEMORRHOIDOPLASTY VERSUS BAND LIGATION AND EXTERNAL HEMORRHOIDECTOMY A CLINICAL CASE CONTROL STUDY

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Aim: To compare the results of the two types of treatment by taking into account the Euroqol 5L scale and the Visual Pain Scale (VPS) during the first 2 weeks after the treatment completion.

Method: We compared two similar groups of patients with stage III haemorrhoids (HL for laser therapy and HBh for combined band ligation and surgery). Both groups included 15 patients, 2/3 male and 1/3 female, patients. The mean age was 46.8 years for HL and 47.1 for HBh group, with a body mass index (BMI) of 28.2 and 28.6 respectively. Laser treatment was performed using the Leonardo Dual 45 by Biolitec (Germany) while banding was performed with standard suction banding ligator. In the HBh group 3 to 6 months after ligation, the remaining prolapsed tissue was resected using the standard hemorrhoidectomy technique. Postoperative surveillance included an objective evaluation of the external piles performed by the same surgeon, and the assessment of the postoperative pain and quality of life using the Visual pain scale and the Euroqol 5L scale. Statistics were performed using the IBM SPSS 21 software.

Results: Patients in group HL had a mean value on the VPS of 5.21 after the first week and 3.11, two weeks after the procedure, while one week after surgery the Hbh patients had a value of 6.12 and 3.34 another week later. One week after the procedure patients in group HL were less painful than those in group Hbh ($P = 0.042$), while at two weeks there was no difference. Almost similar results have been recorded for the life quality, with a P one week after the procedure of 0.056. At two weeks patients in group HBh still presented with open wounds and small secretions, while those in group HL had moderately inflamed external piles, with a volume remission of almost 50%.

Conclusion: Laser haemorrhoidoplasty seems to have better subjective results than banding associated to surgery for prolapsed piles in patients with stage III haemorrhoids.

Disclosure of Interest: None declared

PO-377 | RANDOMIZED PROSPECTIVE STUDY OF PERIOPERATIVE PAIN MANAGEMENT IN PROCTOLOGICAL SURGERY

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Aim: Postoperative pain is the most common complication following hemorrhoidectomies. Multiple analgesic protocols have been proved its effectiveness in reducing this symptom, however, a Gold Standard

has not been established in the literature. The aim of the study was determine whether there is a reduction in post-hemorrhoidectomy pain when adding postoperative metronidazole (500 mg/8h) or intraoperative pudendal nerve block with bupivacaine (0.25 mg) without adrenaline to the current analgesic protocol.

Method: Randomized prospective double-blinded study distributed into three groups with different analgesic protocol. The main outcome was the pain reduction assessed with a visual analogue scale (VAS) at 0h, 48h, 7 days and 30 days post-op. Secondary outcomes evaluated the correct use of analgesic medication by patients, use of rescue medication (tramadol 50 mg/8h), visit to an emergency unit due to pain, first stool post-surgery, pain associated with stools and whether usual lifestyle was resumed 48h, 7 days and 30 days post-op. **Results:** A preliminary analysis of the study included 23 patients. No significant differences were found between groups in terms of pain levels at 0h, 48h, 7 days and 30 days post-hemorrhoidectomy. Patients in the group receiving bupivacaine in addition to the baseline analgesic protocol experienced better pain management 48h after surgery, lower pain levels associated with bowel movements and higher use of rescue medication, however differences were not statistically significant.

Conclusion: Even no significant differences were found between the three treatment groups in terms of pain management post-hemorrhoidectomy, the majority of patients experienced high levels of discomfort during the first two days after surgery. A multimodal analgesic should be considered, as adding intraoperative pudendal nerve blockage.

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Disclosure of Interest: None declared

PO-378 | LHP FOR THD TREATMENT OF HEMORROIDAL DISEASE. CONSIDERATIONS AFTER 450 CASES

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Aim: Laser hemorrhoidal procedure (LHP) is a new minimally invasive technique to treat symptomatic hemorrhoids.

The aim of this study was to draw some preliminary conclusions regarding the treatment of hemorrhoidal disease by laser, using the LHP technique, after performing more than 450 interventions of this type.

Method: Indications for LHP included patients with symptomatic hemorrhoids resistant to medical therapy, with low-medium-high grade of prolapse. Clinical efficiency was evaluated assessing resolution of symptoms and patient satisfaction. We compared the acceptability, postoperative evolution and levels of pain, hospitalization, and overall short time results after more than three years of experience with LHP. It is important to mention that in our practice we apply a large palette of interventions for the treatment of hemorrhoidal disease, including Doppler, Ferguson or even more classical techniques.

Results: The good short term results, confirmed also by other studies already published, rise the question if the LHP would not be a major breakthrough in the treatment of hemorrhoidal disease, especially if associated to mucopexy

Conclusion: The LHP procedure seems to be safe and effective in patients with symptomatic hemorrhoids, even high graded. It is simple, minimally invasive, and relatively pain free. It can be performed in an ambulatory setting, and it achieves high patient satisfaction.

Disclosure of Interest: None declared

PO-379 | THE USE OF INTRANODAL LASER COAGULATION IN PATIENTS WITH CHRONIC HEMORRHOIDS OF THE 3RD DEGREE

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Aim: to evaluate the results of intranodal laser coagulation (INLC) in patients with chronic hemorrhoids of the III degree.

Method: in our study, we analyzed the results of treatment of 62 patients with chronic internal hemorrhoids of the III degree,

without an external component. The patients were aware of the technology of intranodal laser coagulation and gave their voluntary consent to its implementation. The selection for the implementation of INLC was carried out on the basis of high-resolution anoscopy data.

Results: the data of the postoperative examination of patients showed the absence of pain syndrome requiring the appointment of analgesics on the 3rd day in 52 (83.9%) patients. Complete disappearance of symptoms of hemorrhoidal disease after 12 months was noted in 51 (82.3%) patients. Relapse was noted in 7 (11.3%) patients, and itching and discomfort were noted in 8 (12.9%) patients.

Conclusion: The use of INLC made it possible to carry out treatment on an outpatient basis in 61 (98.4%) patients. The effectiveness of this procedure was 83.9%. Intranodal laser coagulation is one of the effective minimally invasive methods of treatment of chronic hemorrhoids, subject to strictly individual selection, including on the basis of high-resolution anoscopy data. The use of intranodal laser coagulation in patients with chronic hemorrhoids of the 3rd degree.

Disclosure of Interest: None declared

PO-380 | EXPERIENCE IN NEUROSTIMULATION OF SACRAL ROOTS IN A THIRD-LEVEL CENTER

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Aim: The importance of neurological pathways that control continence mechanisms is increasingly important in the management of patients with fecal incontinence (FI). Sacral neuromodulation (SNS) plays a very important role in these patients today. However, it is not a cheap technique, so its success and cost-effectiveness will depend on the careful selection of patients based on strict criteria.

AIM

Present the results of patients with SNS in our center.

Method: A cohort of NHS candidate patients treated by the Coloproctology Unit of the Virgen de la Arrixaca Hospital from October 2011 to January 2020 has been evaluated.

Results: Of 212 patients, 22% (n = 48) were rejected because they did not meet the criteria for the trial phase. 164 patients were tested, of which a favorable result was obtained in 68% (n = 112) who underwent definitive implantation. Table 1 shows the causes of FI in both groups in detail.

Table 2 shows the percentage of implanted patients according to the pathology of origin of the FI. The group with the highest percentage of implantation after the test was the obstetric one (83.33%, n = 35) followed by the pain (75%, n = 3) and the lowest, constipation with only 1 implanted patient (16.6%). The most frequent causes of FI in the group of implanted patients were obstetric and neurological (31.3%, n = 35).



After evaluating the evolution of 92 patients in consultations, 77.1% presented a favorable or very favorable evolution ($n = 71$) and only 3.2% of the patients presented poor evolution ($n = 3$).

Conclusion: The SNS is a technique that, well indicated, can be very useful and cost-effective in the management of patients with fecal incontinence.

Disclosure of Interest: None declared

PO-381 | A COMPARISON OF OUTCOMES FOLLOWING ENDOSCOPIC AND SURGICAL MANAGEMENT OF SIGMOID VOLVULI: A SINGLE-CENTRE'S SIX-YEAR EXPERIENCE

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Aim: Sigmoid volvulus is a common cause of colonic obstruction, especially in the elderly age group. While sigmoid colectomy can provide a curative treatment, it is not commonly offered due to patient comorbidities. This study aimed to examine the outcomes of the management of sigmoid volvulus at a large tertiary centre in the United Kingdom.

Method: All patients admitted with sigmoid volvulus over six years (2015–2020) were included in the study. All patients' electronic records were reviewed. Collected data included patient demographics, comorbidities, the management they received, and the associated outcomes.

Results: A total of 99 patients (mean age 75.9 years, 60% males) were diagnosed with sigmoid volvulus during the study period and included in this study with a total number of 291 admissions. Flexible sigmoidoscopy was the first-line management in 239 out of 291 admissions (82.1%). Surgery was offered for 15 patients, 10 of them underwent surgery, 2 are still waiting for elective surgery and 3 patients declined surgery. The commonest performed procedure was sigmoid colectomy with end colostomy (70%). 4 patients underwent percutaneous endoscopic colostomy.

Almost half of the patients (48.5%) included in this study were readmitted with recurrent sigmoid volvulus with an average of 5 readmissions per patient. There were no postoperative readmissions in the surgically treated group. Overall 30-day and 1-year mortality rates were 6.1% and 26.3% respectively. 61% of those who died within 1 year had a neuropsychiatric pre-existing condition. There were no 30 days postoperative mortality.

Conclusion: Sigmoid colectomy provides a definitive treatment of sigmoid volvulus in fit patients and was feasible in at least 10% of patients in the current study. While endoscopic decompression remains the standard appropriate first-line management, it is important to start thinking of surgery after the first readmission in patients with sigmoid volvulus.

Disclosure of Interest: None declared

PO-382 | ASSESSMENT OF SURGICAL TREATMENT STRATEGIES FOR PILONIDAL SINUS DISEASE IN THE NETHERLANDS

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Aim: Pilonidal Sinus Disease is a common disease in which an infection of the sacrococcygeal region occurs due to hair entrapment. There are many different surgical treatments, but international guidelines tend to advise minimal invasive techniques and off mid-line closure. Currently, there are no guidelines for the treatment of Pilonidal Sinus Disease in the Netherlands. Our objective was to perform a national survey to test the hypothesis that the surgical treatment of Pilonidal Sinus Disease in our country is variable and possibly outdated.

Method: An online medical survey was sent by e-mail to all surgeons and surgical residents of the Dutch Society for Surgery. Respondents were asked to report on their current treatment for Pilonidal Sinus Disease, their perceived satisfaction with this treatment and the necessity for a national guideline.

Results: A total of 615 respondents completed the survey. Excision with secondary wound healing was the most frequently performed surgical treatment for all types of PSD (39.8%). Off-midline closure techniques and minimal invasive techniques were applied less frequently. Of the responders only 22.6% was completely satisfied with the current treatment and 82% reported the need for a guideline.

Conclusion: A large variety of surgical treatments for Pilonidal Sinus Disease are performed in the Netherlands. The majority of surgeons and surgical residents is not satisfied with the current treatment and expressed the need for a national guideline. Surgical techniques advocated by international guidelines are used less frequently in our country.

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PO-383 | FOURNIER'S GANGRENE IN TURKISH POPULATION: ANALYSIS OF TWO DECADES

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Aim: Fournier's gangrene is a rare, devastating disease. Its nature and rarity limit conducting clinical studies with large patient population. In the present study, we aimed to determine risk factors, predictors of mortality and the natural course of FG among the Turkish population.

Method: A literature search was conducted by using Pubmed with the keywords "Fournier's gangrene" and "Turkey". The search revealed 95 published articles between January 2000 and December 2020. Studies including less than 20 patients, consecutive studies of the same author were excluded. In total, 41 studies were included in the analysis. Data regarding patient demographics, etiology, comorbidities and mortality rate were collected. The correlation between mortality and the other variables were analyzed. The differences between the first and the second decade were compared.

Results: There were 1919 patients reported by the 41 studies. Patient number was median 38 per study. Majority of the patients were male (83.11%) with a median age of 55. Overall, median mortality was 17.39%. Sixteen studies were published between 2000 and 2010 (first decade). Mortality rate was lower in the studies published between 2010 and 2020 (14.72%±7.1 vs. 22.46%±11.62, $P = 0.011$). Cutaneous origin was negatively correlated with mortality ($r = -0.615$, $P = 0.033$) while chronic renal failure (CRF) ($r = 0.705$, $P = 0.005$) and fecal diversion ($r = 0.371$, $P = 0.037$) were positively correlated.

Conclusion: Although FG is still associated with a significant mortality in the last decade, it seems to be reduced comparing the past decade. Avoiding unnecessary fecal diversion, proper assessment of comorbidities and origin of the disease may have impact on the mortality.

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PO-384 | PLATELET RICH PLASMA IN RECTOVAGINAL FISTULAS

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Aim: There is a need for other than surgical methods of therapy for small and low rectovaginal fistulas (RVF), such as application of fibrin sealants, stem cells, biological therapy, or Platelet Rich Plasma. The aim of this study was to evaluate the results of the treatment after local application of PRP in the patients with RVF in the course of inflammatory bowel diseases (IBD).

Method: Medical records of 15 patients with small and low-lying, active RVF in the course of IBD were evaluated. Curettage of fistulous tracts was performed with the following application of PRP in all patients.

Results: Complete closure of RVF was achieved after the first injection in 3 patients, 4 women healed their fistulas following the second application, and another 3 patients closed RVF after 3 injections. To sum up, the complete closure of RVF was achieved in 10 (67%) patients. Fistulas remained closed from 6 to 12 months. No complications were reported.

Conclusion: The application of PRP in small, low, and recurrent IBD anal fistulas is effective, simple, and safe with an acceptable rate of healing. This therapy might also precede any further, surgical methods of treatment.

Disclosure of Interest: None declared

PO-385 | ELIGIBILITY OF PATIENTS WITH FAECAL INCONTINENCE FOR SACRAL NEUROMODULATION THERAPY: A TARGET POPULATION ANALYSIS

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Aim: Faecal incontinence (FI) is a common anorectal problem that can produce a devastating impact on quality of life (QoL).¹ The disease is often underestimated due to a lack of screening campaigns and to patient's reserve.

Several treatments are available but at present no uniform care pathway exists. Interventions can include non-surgical options (rehabilitation, drugs etc.) and surgical options, such as Sacral Neuromodulation (SNM). The aim of this analysis is to estimate the prevalence of patients (pts) with FI eligible for SNM.

Method: An indication tree was built to identify the prevalence of eligible pts with FI to SNM. Starting from adult's population residing

in Italy on 1st January 2021, prevalence data by the international literature and expert opinions were applied.

Results: The number of pts with FI in Italy resulted to be 3.848.854 pts.^{2,3} Then, we considered pts with almost a weekly incontinence episode (7% out of total).² Just treatable ones (50%) can be then included, by considering a different etiology from neurological, congenital, idiopathic bowel disease and prolapse (almost 107.000 patients) also. Out of 107.000 patients, 80% are not responders to conventional treatment and undergo to rehabilitation.³ The 80% is split into: 40% who responds to rehabilitation, 20% non-responders and 20% who refuses it. Non responders and pts refusing rehabilitation are eligible to SNM therapy and just 85%⁴ out of those ones are responders (almost 36.000 pts).

Conclusion: Annually SNM is implanted for approx. 0.5% (less than 150) out of potentially eligible pts. Such a low rate is due to several factors: lack of a standardized and optimized pathway to select pts, poor knowledge of SNM benefits from physician's side, sparse awareness of dedicated centers from pts' side. To work about these topics could have a positive effect on the clinical outcomes, ensuring in the medium-long term a greater number of pts with the normal anorectal function and a better QoL.

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PO-386 | TREATMENT OF PERIANAL ABSCESSSES WITH MULTISTAGE MINIMALLY INVASIVE TECHNOLOGIES

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Aim: The aim of this study was to improve the results of treatment of acute paraproctitis, which was achieved by using navigational ultrasound methods and free ligature to prepare the fistula for subsequent laser coagulation.

Method: we conducted a cohort retrospective-prospective study of the results of multi-stage treatment of 54 patients with acute paraproctitis. At the first stage, an autopsy was performed using ultrasonic navigation, which made it possible to detect congestion and conduct a free ligature through the internal opening of the fistula passage. At



the second stage, after the formation of the fibrous capsule of the fistula, laser coagulation of the fistula course was performed.

Results: In 29 (53.7%) patients, caudal subcutaneous-submucosal migration of free ligature was noted. Of these, 8 patients had a complete eruption with subsequent healing, and 21 patients underwent a simple fistulectomy, which did not affect the fibers of the sphincter. Intra- and transsphincter fistulas were formed in 25 (46.3%) patients, they were subjected to laser coagulation. Complete healing was observed in 19 (76%) patients within 1 month, and 6 (24%) patients required repeated laser coagulation. Of the 6 patients after repeated laser coagulation, complete healing was noted in 2 (8%) patients, and a relapse was detected in 4 (16%) patients. Taking into account the predicted inefficiency, 1 patient underwent excision of the fistula passage into the lumen of the intestine with the flap being lowered into the anal canal, and LIFT technology was used in 3 patients.

Conclusion: The use of a free ligature made it possible to perform a one-stage treatment in 14.8% due to complete caudal eruption of the ligature, and in 38.8% of patients to perform a simple fistulectomy. In the remaining patients, the use of a free ligature made it possible to form an "ideal" fistula course within 10–14 weeks, in which laser coagulation was effective in 83.3%, in the absence of a violation of the function of the anal pulp.

Disclosure of Interest: None declared

PO-387 | A METHOD OF FORMING INTESTINAL ANASTOMOSIS AFTER LOW ANTERIOR RESECTION

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Aim: to reduce complications after application of low colorectal and coloanal anastomosis and the cost of treatment of patients after low anterior resection.

Method: In our clinic was developed and used a new method of applying coloanal and low colorectal anastomosis. This method has been used in the treatment of 54 patients, including 46 patients after low anterior resection for rectal cancer, 3 patients after resection previously imposed and complicated fistula or stricture low colorectal anastomosis in 3 patients about the gunshot wounds of the rectum and 2 patients with rectal hypogangliosis complicated megacolon. This method was carried out in 14 patients under the guise of the proximal transversostomia.

Results: Postoperatively, 3 (5.6%) patients partly formed anastomotic leakage. Two patients it does not require additional surgery. A third patient required surgical correction of the fistula. Not in one case, we did not have marked the development of strictures.

Conclusion: Proposed method of applying coloanal and low colorectal anastomosis when the low anterior resection of the rectum is an alternative hardware anastomoses, while not increasing the number

of anastomotic leakage, reduced the number of strictures and the costs of treatment of patients.

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Disclosure of Interest: None declared

PO-388 | EVALUATION OF EXPERIENCE IN PERFORMING ANORECTAL SPHINCTEROMETRY IN AN OUTPATIENT SETTING

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Aim: Evaluation of the application anorectal sphincterometry in an outpatient setting. Determination of reference manometric and point criteria for normal rectal sphincter indicators and Fecal Incontinence (FI) according to anorectal sphincterometry data using Peritron 9600.

Method: The retrospective study was based on the results of anorectal sphincterometry using Peritron 9600 on 1200 patients with various proctological diseases, who were examined and treated at the Center for Outpatient Proctology of the surgical department of NHI "Railway Clinical Hospital «Rzhd Meditsina» Rostov-on-Don" from 2015 to 2020. All patients were divided into 4 groups in accordance with the clinical classification of Fecal Incontinence (FI) developed at the National Coloproctology Research Center and the results obtained. As a subjective assessment, the Cleveland Fecal Incontinence Scale (Wexner) was used, and objectively, the results of anorectal sphincterometry using Peritron 9600.

Results: The data obtained enabled a reliable reference indicator scale of normal sphincter function and various degrees of fecal incontinence according to anorectal sphincterometry data from Peritron 9600, and allowed to recommend Peritron 9600 for its wider introduction into clinical practice, in particular in coloproctology, when conducting anorectal sphincterometry.

Conclusion: Peritron 9600 can be recommended for its wider introduction into clinical practice, in particular in coloproctology, when conducting anorectal sphincterometry.

Disclosure of Interest: None declared

PO-389 | PROVIDING COLOPROCTOLOGICAL CARE IN CONDITIONS OF COVID-19: SURGICAL TREATMENT METHODS, CLINICAL AND MORPHOLOGICAL CHARACTERISTICS OF PATIENTS WITH EXACERBATION OF CHRONIC HEMORRHOIDS, AFTER A PREVIOUS CORONAVIRUS INFECTION (COVID-19)

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Aim: to compare and evaluate the experience gained in the surgical treatment of patients with complicated forms of chronic hemorrhoids, after suffering from Covid-19, taking into account the clinical and morphological picture, and justifying pre- and postoperative rehabilitation programs.

Method: This study presents our own research results, analysis of experts, and rehabilitation documentation obtained from 12 persons with medium and severe Covid-19, stage 3–4, who underwent pre- and postoperative rehabilitation with transrectal low-intensity laser therapeutic device ALP-01 "Laton"; intravenous ozone therapy using the "TEOZON" medical Ozonator.

Macroscopically - fixed in a buffered formalin solution, hemorrhoids from 1 to 4 cm in diameter, dense elastic consistency, gray-brown in color, t-sections show subtotal acutely dilated vessels filled with dark brown, dryish, crumbling blood convolutions.

The signs of endotheliitis and destructive-productive thrombovasculitis in hemorrhoids identified in all cases confirmed systemic endothelial dysfunction in Covid-19 with damage not only to important organs and systems but also leading to an exacerbation of chronic processes in any region of the human body.

Results: The observation results allowed not only to confirm the good effect of minimally invasive technologies for surgical treatment of hemorrhoids with pre- and postoperative rehabilitation programs, but also to study the morphological picture of chronic hemorrhoid exacerbation in patients who underwent COVID-19.

Conclusion: COVID-19 has a rather frequent, yet scarcely described complication in the form of exacerbation or manifestation of chronic hemorrhoids. Pathomorphological examination of hemorrhoids following a hemorrhoidectomy confirms the correctness of the patient-oriented approach using minimally invasive surgical treatment technologies with pre- and postoperative rehabilitation programs in patients with exacerbations of chronic hemorrhoids after suffering from COVID-19.

Disclosure of Interest: None declared

PO-390 | RESTORATIVE PROCTOCOLECTOMY WITH "J" ILEAL RESERVOIR. 10 YEARS OF EXPERIENCE IN A THIRD LEVEL CENTER

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Aim: Restorative proctocolectomy with anal anastomosis of the ileal bag was first performed in 1978 by Parks et al. and it has become the treatment of choice in multiple pathologies with risk of presenting dysplasias and development of neoplasms, this because it eradicates colonic disease, maintains continence and avoids permanent ileostomies. Objective: to present the functional results, the morbidity of the patients submitted to restorative proctocolectomy with ileal reservoir in "J" in a tertiary center in 10 years of experience Restorative proctocolectomy with anal anastomosis of the ileal bag was first performed in 1978 by Parks et al. and it has become the treatment of choice in multiple pathologies with risk of presenting dysplasias and development of neoplasms, this because it eradicates colonic disease, maintains continence and avoids permanent ileostomies. Objective: to present the functional results, the morbidity of the patients submitted to restorative proctocolectomy with ileal reservoir in "J" in a tertiary center in 10 years of experience

Method: Series of cases reported from March 2011 to March 2020, inclusion criteria: patients with chronic ulcerative colitis and familial adenomatous polyposis with restorative proctocolectomy with "J" pouch

Results: The results of this study showed that restorative proctocolectomy with ileal reservoir in "J" offers patients good quality of life in the long-term follow-up, compared with the colectomy anastomosis, a lower morbidity and good functional results.

Conclusion: The results of this study showed that restorative proctocolectomy with ileal reservoir in "J" offers patients good quality of life in the long-term follow-up, compared with the colectomy anastomosis, a lower morbidity and good functional results.

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Disclosure of Interest: None declared



PO-391 | ANORECTAL ELECTROSTIMULATION OF THE ANAL SPHINCTERS IN PATIENTS WITH CHRONIC HEMORRHOIDS

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Aim: Literature references state that the process of retention of gases and feces is multifactorial. It depends on the coordination of the following factors, including "ideal stool" formation factors. But many authors mostly attribute the retention of gases and feces to the proper functioning of the rectal sphincters due to the pressure created by the smooth muscles of the internal sphincter (70–80%), and striated muscles of the external sphincter (20–30%). Hence the interest to study the effect of anorectal electrical stimulation on the state of the anal sphincters in patients with chronic hemorrhoids.

Method: The study was carried out in 2 stages. At the first stage, 623 (51.9%) women and 577 (48.1%) men aged 31 to 40 years underwent anorectal sphincterometry using the Peritron 9600 apparatus (Laborie, Australia) with a built-in biofeedback function (BFF). All patients were divided into four groups in accordance with the clinical classification of Fecal Incontinence (FI) and the measurement results obtained.

Results: To restore the correct functioning of the pelvic floor muscles and improve the existing physiological skills, a course of anorectal electrical stimulation of the anal sphincters - biofeedback therapy was performed during the 2nd stage, using Peritron 9600 perineometer by teaching the patient to relax or contract the muscles of the anal sphincter of the pelvic floor, which greatly reduced the degree of fecal insufficiency.

Conclusion: Biofeedback therapy with Peritron 9600 perineometer and self-regulated training is an effective treatment option for Fecal incontinence.

Disclosure of Interest: None declared