

## Free Paper 01 (11:50 – 12:00)

### GREENING THE OPERATING ROOM: A NARRATIVE REVIEW OF GLOBAL FRAMEWORKS FOR SUSTAINABLE SURGICAL PRACTICE

**Presenter:** Miss Vivien Ngo

**Author(s):** Dr Manuela Mastronardi<sup>1</sup>, Dr Stefano Fracon<sup>2</sup>, Mr Manish Ahuja<sup>3</sup>, Miss Vivien Ngo<sup>4</sup>, Dr Elizabeth Westwood<sup>5</sup>, Miss Marina Yiasemidou<sup>6</sup>

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**Aims:** Climate change is a much discussed global health issue, and healthcare contributes 4–5% of global greenhouse gas emissions. Operating rooms (ORs) are particularly resource-intensive, producing high levels of waste and emissions. Sustainable surgical practices are essential to reduce the environmental impact of healthcare. This review aims to summarise and compare key international initiatives that promote sustainability in the OR.

**Methods:** A narrative review was conducted between January and March 2025. Resources were identified through searches of PubMed, Google Scholar, and professional society websites. Inclusion criteria included publication or endorsement by recognised academic or professional bodies, availability in English, and provision of practical guidance on surgical sustainability. No formal quality assessment was performed due to the heterogeneity of sources.

**Results:** Four major frameworks were identified: the Intercollegiate Green Theatre Checklist, which offers actionable perioperative recommendations including reusable equipment, waste reduction, and energy savings; the EAES/SAGES Taskforce, which focuses on leadership, education, and international collaboration; the Harvard COAST Group, which promotes equity-focused, low-cost, and scalable solutions suitable for varied healthcare settings; the WFSA Global Consensus, which outlines sustainable anaesthetic practices and education. These frameworks align with the “5R” model—Reduce, Reuse, Recycle, Rethink, and Research—and highlight the OR as a key area for intervention.

**Conclusion:** Despite implementation barriers, these frameworks provide practical, scalable strategies for surgical teams to reduce emissions. Embedding sustainability in surgical practice is critical for achieving healthcare decarbonisation and improving planetary health.

**Key statement:** To support the transition, several priorities can guide action. Surgical teams should adopt tools like the RCS Green Theatre Checklist and form multidisciplinary Green Teams to improve OR practices. Hospitals must invest in reusable equipment, implement waste segregation, and embed sustainability in quality improvement. Policymakers and medical societies should promote sustainability education, fund implementation research, and develop adaptable, resource-sensitive guidelines. Collaboration across surgical, anaesthetic, and administrative teams is vital to embed sustainability as a core value in healthcare. These steps can drive meaningful change toward environmentally responsible surgical practices.

**Free Paper 02 (12:00 – 12:10)**

**ROBOTIC EMERGENCY GENERAL SURGERY, FUTURE OR FALLACY? CASE-MATCHED COHORT STUDY OF OPERATIVE AND CLINICAL OUTCOMES**

**Presenter:** Miss Kirsty Cole

**Author(s):** Miss Kirsty Cole<sup>1</sup>, Miss Azita Shahdoost-Rad<sup>1</sup>, Mr Youssef Ibrahim<sup>1</sup>, Miss Grace Chaplin<sup>1</sup>, Mr Philip H Pucher<sup>1,2,3</sup>

**Institution:** <sup>1</sup>Department of General Surgery, Portsmouth University Hospitals NHS Trust, United Kingdom. <sup>2</sup>Imperial College London, United Kingdom. <sup>3</sup>Division of Pharmacy and Biosciences, University of Portsmouth, United Kingdom

**Aims:** This study aims to evaluate the safety and feasibility of robotic surgery in emergency general surgery (EGS) within a high-volume NHS hospital in the UK. As robotic surgery continues to expand rapidly in elective settings, its role in emergency care remains uncertain. By comparing clinical outcomes between robotic and non-robotic EGS cases, this study seeks to assess the implications of the broader adoption of robotic surgery in the emergency setting.

**Methods:** All robotic EGS cases performed between 2019 and 2024 at a large UK district general hospital were identified and case-matched 1:3 to non-robotic cases based on operation type, age, gender, and pathology. Data on demographics, operative details, and outcomes—including operative time, major complications and mortality—were collected, and comparative analysis was performed.

**Results:** A total of 369 patients were included, with 95 (25.7%) undergoing robotic surgery. There were no significant differences between matched groups for demographics, procedures, or pathology. There were comparable rates of major complications (10.5% vs 9.1%,  $p=0.688$ ), conversion to open surgery (1.1% vs 3.9%,  $p=0.174$ ), post-operative length of stay (4 vs 3 days,  $p=0.814$ ), and 6-month mortality (0.00% vs 2.9%,  $p=0.092$ ) between robotic and non-robotic groups. Adjusted analyses showed no independent association between robotic surgery and increased operative time (OR 0.60,  $p=0.274$ ), major complications (OR 1.47,  $p=0.337$ ), nor post-operative stay (OR -0.016,  $p=0.774$ ).

**Conclusion:** Robotic emergency general surgery appears safe and feasible with comparable short-term outcomes to non-robotic approaches. Further research is needed to explore the impact of robotics on long-term outcomes, patient and surgeon-reported outcomes.

**Key statement:** Robotic surgery in emergency general surgery appears safe and feasible, showing comparable short-term outcomes to non-robotic approaches. This study supports the potential for broader adoption of robotic techniques in emergency settings, though further research is needed to assess long-term and patient-centered outcomes.

### **Free Paper 03 (12:10 – 12:20)**

#### **COMPARING QUALITY OF LIFE AFTER ROBOT ASSISTED VERSUS OPEN RADICAL CYSTECTOMY: A SYSTEMATIC REVIEW**

**Presenter:** Mr Daniel Hawkins

**Author(s):** Mr Daniel Hawkins, Dr Mauro Camacho, Ms Gauri Godbole, Mr Md Rezaul Karim, Professor Bijendra Patel

**Institution:** Barts Cancer Institute, Queen Mary University of London, United Kingdom

**Aims:** To systematically compare Health Related Quality of Life (HRQoL) and functional outcomes following robot-assisted versus open radical cystectomy (RARC vs ORC) in bladder cancer. Additionally, to standardise and compare 6-month HRQoL outcomes across studies.

**Methods:** A systematic search of randomised and non-randomised trials using CENTRAL, Embase, PubMed, and Scopus (2000–2025) was performed using keywords such as “robot-assisted,” “radical cystectomy,” and “quality of life”. Studies comparing ORC and RARC with reported HRQoL patient reported outcome measures (PROMs) were included. Data was extracted based on patient characteristics and outcomes, then analysed with descriptive statistics using Microsoft Excel.

**Results:** Nine studies comprising 1,575 patients were included. In these studies, 18 PROMs were identified, most commonly the EORTC QLQ-C30 (4 studies). HRQoL was typically assessed at 3, 6, and 12 months postoperatively; only one study extended beyond 12 months. The IIEF questionnaire was used in one study to assess male erectile function; no study directly assessed female sexual function. One study reported objective continence measures. Among 5 studies with 6-month data, standardised scores showed no significant difference between RARC and ORC. Comparability was limited by heterogeneity in PROMs, inconsistent outcome reporting, and high risk of bias.

**Conclusion:** Multiple tools assess HRQoL between 3–12 months post radical cystectomy, but few directly evaluate urological function. Differences in 6-month scores appear clinically insignificant between RARC and ORC. Standardised PROMs given at consistent timepoints are likely to benefit reliability and comparability of HRQoL outcomes.

**Key statement:** This systematic review highlights ongoing methodological inconsistency in comparing quality of life between radical cystectomy approaches. Standardised assessment tools, timepoints, and outcome domains are essential to improve comparability and strengthen the evidence base for RARC as a potential new gold standard.

**Free Paper 04 (12:20 – 12:30)**

**SEGMENTAL RESECTION VS. SURVEILLANCE: EVALUATING OUTCOMES IN POLYP CANCERS FROM A SINGLE-CENTER STUDY**

**Presenter:** Miss Rena Al-Zubaidy

**Author(s):** Miss Rena Al-Zubaidy, Mr William Garrett

**Institution:** Medway Maritime Hospital, Kent, United Kingdom

**Aims:** The incidence of polyp cancers has increased since the start of the national bowel screening programme in 2006. These pose a management dilemma for surgeons. There are currently no clear guidelines on their management, with care left up to the individual multidisciplinary team. This study aims to evaluate the management of polyp cancers in our hospital through a retrospective cohort analysis.

**Methods:** Our aim is to assess recurrence rates in patients that underwent surveillance versus surgery for polyp cancers. A list of all polyp cancers diagnosed at histology from January 2015 until December 2023 was obtained. Data was collected from Sunrise, Endoweb and Telepath systems. Relevant clinical data, including polyp size, Kikuchi/Haggitt classification, margin involvement, management strategies, follow-up protocols, and patient outcomes were collected and included in an anonymised excel sheet.

**Results:** 75% of all polyp cancers were referred from the national bowel screening programme. 29% had clear resection margins post-polypectomy, 50% had inadequate or involved margins, and 21% had uncertain margins.

20% of patients that were conservatively managed with surveillance recurred with either lymph node involvement or distant metastases. Only 1 patient that underwent segmental resection recurred, although this patient already had vascular and nodal involvement at diagnosis.

**Conclusion:** Our results show that a segmental resection is beneficial in reducing the risk of recurrence especially in those with involved or undetermined margins, this supports the findings of the few other studies published on this topic. Given these results, our future strategy is to recommend a management algorithm to standardise care for patients with malignant colorectal polyps.

**Key statement:** Segmental resection significantly reduces recurrence in malignant polyp cases with involved or uncertain margins, supporting a shift toward standardised surgical management.

**Free Paper 05 (14:30 – 14:40)**

**DEVELOPMENT OF A ROBOTIC TRAINING CURRICULUM FOR GASTROINTESTINAL SURGERY TRAINEES: AN INTERNATIONAL DELPHI STUDY**

**Presenter:** Mr Michael G Fadel

**Author(s):** Mr Michael G Fadel<sup>1</sup>, Miss Josephine Walshaw<sup>2</sup>, Professor Hans F Fuchs<sup>3</sup>, Mr Christos Kontovounisios<sup>4</sup>, Professor Nader K Francis<sup>5</sup>

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**Aims:** The rapid adoption of robotic surgical systems across Europe has led to a critical gap in training, assessment and certification for gastrointestinal (GI) surgical trainees. At present, the majority of industry robotic programmes are designed for experienced surgeons, rather than specifically focusing on the needs of trainees. This study aims to develop a European consensus on a standardised robotic training curriculum for GI surgical trainees.

**Methods:** A 113-item Delphi questionnaire was finalised by an international Steering Committee of robotic experts, trainees, educationalists and patient representatives. The questionnaire was disseminated via Qualtrics XM platform to a multidisciplinary panel of 83 robotic GI surgeons, trainees, robotic theatre team members (including anaesthetists, scrub nurses, robotic practitioners), human factors experts and robotic industry providers. Two Delphi rounds were conducted, with a priori consensus standard set at  $\geq 70\%$  for agreement. Re-voting took place in round two if statements did not reach consensus in round one. A hybrid consensus meeting was subsequently held to finalise the robotics curriculum for GI surgery trainees.

**Results:** Seventy-one (86%) participants, from 15 countries, completed round one. Responses were obtained from general (n=16, 23%), upper GI/hepatopancreato-biliary (n=15, 21%) and lower GI surgeons (n=15, 21%), of which 31 (67%) performed more than 50 robotic cases independently. Responses were also received from GI trainees (n=10, 14%), robotic industry providers (n=8, 11%), theatre team members and human factors experts (n=7, 10%). A total of 85 items (75%) reached consensus, with 33 new statements generated based on free-text comments. Seventy participants (99%) completed the 60-item round two questionnaire, with 34 items (57%) reaching consensus and two new items added.

**Conclusion:** Consensus was reached in the following areas on a robotic training curriculum for GI surgery trainees: (i) core learning skills of a bedside assistant and console surgeon (including non-technical skills); (ii) key components of a robotic training curriculum (including required e-learning modules, wet and dry lab simulation metrics); (iii) performance assessment (including technical skills assessment and clinical metrics); (v) requirements for certification and supervision and (vi) assessment of the long-term impact or success of a GI robotic training curriculum.

**Key statement:** To our knowledge, this study provides the first European curriculum in robotic training, assessment and certification for GI surgery trainees. This consensus will potentially help shape the future of robotic surgical education, promote standardised training practices and ultimately improve patient safety and outcomes.

#### **Free Paper 06 (14:40 – 14:50)**

#### **FACTORS ASSOCIATED WITH TIME TO STOMA REVERSAL AFTER ANTERIOR RESECTION ACROSS ENGLAND: AN OBSERVATIONAL STUDY USING ADMINISTRATIVE DATA**

**Presenter:** Mrs Naomi Olagunju

**Author(s):** Mrs Naomi Olagunju<sup>1</sup>, Mr Mark Cheetham<sup>2,1</sup>, Dr Katrein Savage<sup>2</sup>, Professor Tim W R Briggs<sup>2,3</sup>, Dr William K Gray<sup>2</sup>

**Institution:** <sup>1</sup>Shrewsbury and Telford Hospital NHS Trust, Shrewsbury, United Kingdom.  
<sup>2</sup>Getting It Right First Time programme, NHS England and NHS Improvement, London, United Kingdom. <sup>3</sup>Royal National Orthopaedic Hospital, London, United Kingdom

**Aims:** A diverting stoma (DS) has been shown to reduce the impact of anastomotic leak following anterior resection for rectal cancer. While these are designed to be temporary, patients may wait over 18 months for reversal. This impacts quality of life, long term bowel function, health care costs and resource utilization. The National Bowel Cancer Audit (NBOCA) highlights stoma reversal within 18 months of anterior resection as a performance indicator. Our study aims to compare stoma closure rates across various service providers in England, trends over time and determine the factors associated with unreversed stoma beyond 18 months following anterior resection.

**Methods:** This was an exploratory analysis of administrative data from the Hospital Episode Statistics (HES) database for England of patients who had anterior resection procedures with stoma creation during the same admission for rectal cancer. The study covered the period from 1st April 2016 to 30th September 2024. A subset of data up to 31st March 2023 for the index procedure were used for some analyses allowing all patients to have 18 months of follow-up. The primary outcome was stoma closure within 18 months of stoma creation. The secondary outcomes were 30-day emergency readmission, post-operative complications and death after surgery.

**Results:** 5,275 patients had anterior resections with DS and 3,338 (63.5%) had stoma reversal within 18 months. Patients who had stoma reversal > 18 months had higher rates of anastomotic leak during their index stay, 30-day readmission and death within 1 year of discharge. Socio-economic deprivation (odds ratio (OR) for highest vs lowest quintile 1.67 (95% confidence interval (CI) 1.34 to 2.09),  $p < 0.001$ ), and frailty (OR for severe vs no frailty 3.03 (95% CI 1.08 to 8.53),  $p = 0.035$ ) were associated with stoma reversal > 18 months. Stoma closure within 18 months fell from 70.5% in 2016/17 to 62.0% in 2022/23.

**Conclusion:** More patients are waiting longer to have their stoma reversed. Frailty and socioeconomic deprivation were associated with stoma closure after 18 months. There was no association between age, sex, ethnicity or hospital volumes and time to stoma reversal.

**Key statement:** This study highlights a need for reviewing the current stoma closure pathways across England, provision of equitable access to stoma reversal and improvement in shared decision-making between clinicians and patients.

#### **Free Paper 07 (14:50 – 15:00)**

#### **VAGUS NERVE BLOCK POST-LAPAROSCOPIC GASTRIC BYPASS: A RANDOMISED PROSPECTIVE DOUBLE-BLINDED STUDY**

**Presenter:** Mr Mark Portelli

**Author(s):** Mr Mark Portelli<sup>1,2</sup>, Dr David Gatt<sup>1</sup>, Dr Emma Hunter<sup>1</sup>, Mr Benedict Axisa<sup>1</sup>

**Institution:** <sup>1</sup>Mater Dei Hospital, Msida, Malta. <sup>2</sup>University of Malta, Msida, Malta

**Aims:** Postoperative nausea and vomiting (PONV) is one of the most common complications following upper gastrointestinal surgery, significantly affecting patient recovery and satisfaction. Stimuli transmitted via the vagus nerve play a pivotal role in activating the central vomiting centre. Blocking these afferent pathways may reduce the incidence of PONV, especially in high-risk bariatric populations.

This study aims to evaluate whether perioperative infiltration of local anaesthetic around the vagus nerve reduces postoperative nausea and vomiting in patients undergoing elective laparoscopic gastric bypass surgery.

**Methods:** A randomized, double-blinded, prospective trial was conducted at Mater Dei Hospital. Forty-two adult patients scheduled for primary laparoscopic gastric bypass were randomized into two groups: a treatment group receiving 10ml of 0.5% bupivacaine and a control group receiving 10ml of saline around the abdominal branches of the vagus nerve at the level of the diaphragmatic crura. Patients and care providers were blinded to group allocation. PONV was assessed over three days using the Rhodes Index of Nausea, Vomiting, and Retching (RINVR). Analgesic and antiemetic usage, pain scores, and duration of hospital stay were also recorded. Data was analysed using SPSS.

**Results:** Recruitment and data collection are ongoing. To date, preliminary feedback suggests the study protocol is well tolerated with no adverse events related to the nerve block procedure. Interim analysis is planned upon reaching 50% enrolment. Full results are expected to be analysed and available by July 2025.

**Conclusion:** If shown to be effective, vagus nerve block could become a valuable adjunct in reducing PONV in bariatric surgery patients especially in the immediate post-operative phase. This study seeks to provide evidence for incorporating this technique into routine practice.

**Key statement:** This study explores the potential of perioperative vagus nerve blockade using local anaesthetic as a targeted intervention to significantly reduce postoperative nausea and vomiting in patients undergoing laparoscopic gastric bypass. By interrupting emetogenic vagal signalling at the diaphragmatic crura, this technique may improve postoperative recovery, reduce reliance on antiemetics, and enhance patient satisfaction in high-risk bariatric populations.

#### **Free Paper 08 (15:00 – 15:10)**

#### **THE IMPACT OF WORKPLACE CULTURE AND CLINICIAN PERSONALITY ON EXPOSURE TO DISRUPTIVE INTRAOPERATIVE BEHAVIOUR**

**Presenter:** Dr Alexander Villafranca

**Author(s):** Dr Alexander Villafranca<sup>1</sup>, Mr Brett Adams<sup>1</sup>, Dr Alan Rosenstein<sup>2</sup>

**Institution:** <sup>1</sup>University of the Fraser Valley, Chilliwack, Canada. <sup>2</sup>Practicing Internist and Consultant in Physician Behavior Management, San Francisco, USA

**Aims:** Disruptive intraoperative behaviour ranges from uncivil actions to egregious abuse. This behaviour undermines clinician wellbeing and patient care. While workplace culture is believed to affect the risk of disruptive behaviour, it is unclear whether clinician personalities or workplace culture are greater drivers of reported exposure. Furthermore, identifying the concrete working conditions most predictive of exposure would provide managers with practical interventions. The study purpose was to quantify the prevalence of disruptive intraoperative behaviour, including recent exposure to commonplace behaviours, and career-long exposure to egregious behaviours, and examine the effect of workplace culture and personality on clinician exposure.

**Methods:** A questionnaire was distributed by four perioperative associations in Canada, the British Isles, and New Zealand. Exposure to disruptive intraoperative behaviour was measured using psychometrically verified scales. Workplace culture was measured via the Safety Attitudes Questionnaire (safety climate, teamwork climate subscales), and 11 novel questions measuring working conditions. Clinician personality was measured using the brief Big Five Personality Inventory. The effect of culture and personality on exposure was modelled using a mixed effects negative-binomial regression (random intercept = referring association). Missing



predictors were imputed (20 chained-equation datasets). Spearman correlations explored which working conditions most strongly predicted exposure.

**Results:** Among 471 clinicians, 98% recently encountered  $\geq 1$  disruptive behaviour, while 78% encountered an egregious act over their careers (verbal threats 60%, physical assault 26%). The risk of exposure decreased with better teamwork climate (11% per 10-point increase, IRR=0.89,  $p < 0.001$ ), working conditions (6% per 10-point increase, IRR=0.94,  $p < 0.001$ ), and clinician agreeableness (5% per 1-point increase, IRR=0.95,  $p = 0.018$ ). The other personality traits and safety climate did not independently predict exposure. The working conditions most predictive of exposure included operating theatres having inadequate resources, non-functioning equipment, and an uncomfortable environment.

**Conclusion:** Disruptive intraoperative behaviour remains prevalent. Better teamwork climate and favourable working conditions substantially lowered clinician exposure, whereas personality had a more modest effect, with only agreeableness levels being protective. After controlling for these factors, improving safety climate offered no additional benefit to preventing exposure. Neuroticism showed no link to higher reporting, suggesting the findings reflect real environmental differences rather than heightened sensitivity. Concrete actions that managers can take to safeguard against disruptive behaviour include ensuring adequate resources, functioning equipment, and appropriate lighting, temperature, and noise levels.

**Key statement:** Disruptive behaviour reaches almost all operating-room clinicians, with nearly all respondents reporting recent exposure and over three-quarters recalling egregious episodes across their careers. However, strengthening teamwork and fixing tangible issues with working conditions could reduce exposure to disruptive intraoperative behaviour substantially. Specific working conditions are more associated with reduced disruptive behaviour, including operating theatres with adequate resources, functioning equipment, and appropriate lighting, temperature, and noise levels.

#### **Free Paper 09 (15:10 – 15:20)**

### **OUTCOMES OF MULTI-VISCERAL ADVANCED (GRADE IV) ENDOMETRIOSIS: IS CONSERVATIVE SURGERY THE BEST OPTION?**

**Presenter:** Mr Khurram Siddique

**Author:** Mr Khurram Siddique, Mr Farhan Akram

**Institution:** Northern Care Alliance NHS Trust, Manchester, United Kingdom

**Aims:** The aim of this study was to assess if the conservative approach of treating multivisceral endometriosis associated with the best outcomes.

**Methods:** All cases were reviewed at the endometriosis MDT prior to undergoing surgery. The data is prospectively entered into the BSGE national registry for the last 10 years. The data were analysed to assess the following outcomes; primary being peri-operative complications

following rectal treatment and secondary included improvement in pain, fertility, conversion, iatrogenic injuries, and return to theatre. Appropriate statistical tests were applied to calculate the outcomes.

**Results:** The total number of joint procedures were 365. Majority had rectal shaving (97%), disc resection in 4 (1.3%) and anterior resection 2(0.6%), & three stomas formed. Regarding stomas, one patient had bowel injury a few years ago, leading to stoma formation which was reversed later, second one had planned stoma whilst the third one was formed secondary to a delayed iatrogenic injury to bowel, awaiting reversal. Two patients had ureteric injury managed conservatively and 01 open conversion with no unplanned return-to-theatre. Pelvic pain improved in 70-80%, & pregnancy was achieved in 40-50%.

**Conclusion:** Tertiary center MDT with experienced radiologists, gynaecologists', colorectal surgeon, & nurse specialists adhering to the core GIRFT principles are essential for high quality patient outcomes. Our study highlights that laparoscopic non-resectional approach for grade IV endometriosis; incorporating the GIRFT is feasible and safe with high success rate and patient satisfaction.

**Key statement:** The application of the 'GIRFT Principles' can help to improve the real-world experiences, understand surgical nuances, and optimize the surgical outcomes for the patient. It is imperative high standards of care are maintained across various centers providing care for advanced endometriosis. Collaborative efforts should help optimize the care and quality of life for affected individuals

#### **Parallel free paper 01 ((11:50 – 12:00))**

#### **SHOULD AN EARLY COLONIC EVALUATION BE RECOMMENDED FOR PATIENTS WITH CT-PROVEN UNCOMPLICATED ACUTE DIVERTICULITIS WHO ARE MANAGED CONSERVATIVELY?**

**Presenter:** Mr Dhiman Kanti Sikder

**Author(s):** Mr Dhiman Kanti Sikder<sup>1</sup>, Mr Mohammed Arifuzaman<sup>2</sup>, Mr Moustafa Mansour<sup>1</sup>

**Institution:** <sup>1</sup>North Manchester General Hospital, United Kingdom. <sup>2</sup>James Cook University Hospital, North Yorkshire, United Kingdom

**Aims:** To assess local practice regarding early colonoscopic evaluation following CT-confirmed uncomplicated diverticulitis and compare it against current national and international guideline recommendations. Traditionally, routine colonoscopy after an episode of acute diverticulitis was recommended to exclude underlying malignancy. However, modern CT imaging offers high diagnostic accuracy, and recent guidelines from the WSES and ACPGBI suggest that early endoscopic evaluation may not be necessary in cases of CT-confirmed uncomplicated diverticulitis, particularly in the absence of red flag symptoms.

**Methods:** A retrospective audit was conducted at a district general hospital, reviewing all patients diagnosed with acute diverticulitis from January 2023 to January 2025. Inclusion criteria included patients aged  $\leq 50$  with CT-confirmed uncomplicated diverticulitis managed conservatively. Data collected included patient demographics, colonoscopy rates, and findings. Compliance was assessed against the ACPGBI consensus statement and the WSES 2020 guidelines. Chi-square analysis was used to assess compliance rates relative to the guideline standards.

**Results:** A cohort of 209 patients diagnosed with CT-confirmed acute diverticulitis was studied. Of these patients, 55% were female and approximately 89% were White British. A total of 117 patients (56%) underwent colonoscopy. Among those aged  $\leq 50$  with uncomplicated disease, 36 patients (75%) received a colonoscopy despite guideline recommendations advising selective use. No malignancies were detected in this subgroup. The cost of potentially avoidable colonoscopies exceeded £13,000, as each procedure costs the NHS £372, according to NHS England. This project highlights opportunities to reduce unnecessary spending and avoid colonoscopy-related complications in cases where the procedure is not clinically indicated.

**Conclusion:** Routine early colonoscopy in patients with CT-confirmed uncomplicated diverticulitis—particularly those under 50—demonstrates low diagnostic yield and carries significant cost implications. Moreover, colonoscopy is associated with a small risk of complications (including bleeding and/or perforation), which can be avoided for patients who do not actually need the procedure. Follow-up colonoscopy should be reserved for patients with complicated diverticulitis or suspicious features of malignancy on initial CT imaging.

**Key statement:** This audit evaluated local practice regarding colonoscopy following CT-confirmed uncomplicated diverticulitis in patients aged  $\leq 50$ , comparing it against WSES and ACPGBI guidelines. Despite recommendations for selective use, 75% of eligible patients underwent colonoscopy, with no malignancies detected. This resulted in over £13,000 in avoidable costs and exposed patients to unnecessary procedural risks. The findings support a more evidence-based, guideline-driven approach to follow-up, reserving colonoscopy for patients with complicated disease or suspicious CT features. Adopting this strategy can reduce healthcare costs, minimize patient harm, and optimize resource allocation—key principles for sustainable and safe surgical practice.

**Parallel free paper 02 (12:00 – 12:10)**

## **TEN YEARS OF ROBOT-ASSISTED VERSUS LAPAROSCOPIC TOTAL MESORECTAL EXCISION FOR RECTAL CANCER (SHORT-TERM RESOLUTION)**

**Presenter:** Dr Rauand Duhoky

**Author(s):** Dr Rauand Duhoky<sup>1,2</sup>, Dr Ritch Geitenbeek<sup>3,4</sup>, Professor Jim Briggs<sup>2</sup>, Professor Esther Consten<sup>3,4</sup>, Professor Jim Khan<sup>1,2</sup>

**Institution:** <sup>1</sup>Portsmouth Hospitals University NHS Trust, United Kingdom. <sup>2</sup>University of

Portsmouth, United Kingdom. <sup>3</sup>University of Groningen, Netherlands. <sup>4</sup>Meander MC, Amersfoort, Netherlands

**Aims:** Total mesorectal excision is the gold standard for rectal cancer surgery, with laparoscopic and robot-assisted approaches commonly employed. While robot-assisted surgery may offer technical advantages, there is limited evidence comparing short-term outcomes of laparoscopic and robot-assisted techniques, particularly in Western European populations. This study aimed to assess the short-term outcomes of laparoscopic vs robot-assisted total mesorectal excision for rectal cancer.

**Methods:** This multicenter, international, retrospective cohort study included 1749 patients who underwent laparoscopic or robot-assisted total mesorectal excision from January 2014 to January 2024. Inverse probability of treatment weighting was applied to minimize confounding. Primary outcomes were length of stay, operative time, and conversion rates. Secondary outcomes included complications and pathological outcomes within 90 days, and readmissions and reinterventions within 30 days.

**Results:** The final cohort included 680.9 laparoscopic and 1057.5 robot-assisted cases after weighting. Robot-assisted surgery showed lower conversion rates (6.1% vs 3.5%,  $P=.025$ ), higher rates of primary anastomosis (80.1% vs 92.1%,  $P<.001$ ), and fewer stoma formations (78.4% vs 63.7%,  $P<.001$ ). Pathological outcomes indicated a higher rate of complete mesorectal excision in the robot-assisted group (77.2% vs 86.0%,  $P<.001$ ), though these data were not available for all centers. Operative time was longer in the robot-assisted cohort (181.0 vs 220.0 minutes,  $P<.001$ ), but no significant differences were observed in postoperative complications, length of stay, anastomotic leakage, or 30-day reintervention rates.

**Conclusion:** Robot-assisted surgery low anterior resection demonstrated improved short-term outcomes with lower conversion rates, higher rates of complete mesorectal excision, and higher restorative procedure rates, which may be linked to technical advantages.

**Key statement:** Robot-assisted surgery low anterior resection shows short-term improvements compared to laparoscopic low anterior resection.

**Parallel free paper 03 (12:10 – 12:20)**

**BREAKING THE HABIT: CUTTING ROUTINE BLOODS IN COLORECTAL SURGERY TO ALIGN WITH ERAS, IMPROVE PATIENT EXPERIENCE AND REDUCE WASTE**

**Presenter:** Mr Kapil Agrawal

**Author(s):** Mr Kapil Agrawal, Dr Merene Varghese, Dr Sawdah Mogra, PA Jemima Valariyil, Ms Rahi Karmarkar, Mr Wadah Abdelazim

**Institution:** The Royal Wolverhampton NHS Trust, United Kingdom

**Aims:** Routine postoperative blood tests are frequently ordered following elective colorectal surgery, despite ERAS (Enhanced Recovery After Surgery) guidelines recommending limited testing. This audit aimed to quantify the frequency and cost of such blood tests, assess their clinical utility, and determine whether a targeted intervention could safely reduce unnecessary testing. The goal was to promote evidence-based, cost-effective and environmentally responsible postoperative care without compromising outcomes. Reducing low-value investigations not only aligns with ERAS but may also improve patient satisfaction by minimising discomfort from phlebotomy and contribute to greener surgical practice through lower resource utilisation.

**Methods:** A retrospective audit of 31 patients who underwent elective colorectal resections over a 3-month period was conducted at our NHS trust. Data were collected on the number and types of postoperative blood tests performed, including FBC, U&Es, CRP, LFTs, bone profile, magnesium, phosphate, bicarbonate, and coagulation screen. Associated costs were calculated using NHS national reference tariffs. A targeted intervention consisting of staff education and the display of ERAS-compliant recommendations on the surgical ward was implemented. A re-audit over the subsequent 3 months evaluated changes in practice, focusing on reductions in unnecessary blood tests and potential cost and environmental savings.

**Results:** In the first cycle (n = 31), 28 patients (90%) received routine blood tests on postoperative day (POD) 2, with 23 FBCs, 23 U&Es, and 18 CRPs done without clear clinical indication. Numerous tests not recommended by ERAS—such as LFTs, bone profiles, magnesium, phosphate, bicarbonate, and coagulation—were also performed, with 265 unnecessary tests costing an estimated £617–£864. Only 5 patients (16%) had a clear indication for repeat testing on POD2. Following an educational intervention, test frequency reduced significantly. Anecdotally, patients reported less discomfort from phlebotomy, and fewer tests translated to reduced plastic and chemical waste.

**Conclusion:** Routine daily postoperative blood testing is ingrained in surgical care but frequently offers little clinical benefit. Our audit showed that simple, ERAS-aligned education effectively reduced unnecessary testing, yielding financial and environmental benefits while maintaining patient safety. Patients welcomed the reduction in repeated blood draws, reporting improved satisfaction during recovery. Beyond cost savings, this change supports the Green Surgery agenda by reducing plastic usage, lab processing energy, and biomedical waste. This model of value-based care encourages rational, personalised postoperative management and supports the NHS's goals of sustainability, patient-centredness, and high-quality care. Multicentre studies could help embed this approach nationally.

**Key statement:** Postoperative blood testing in colorectal surgery is often excessive and poorly targeted. Our audit demonstrated that aligning testing with ERAS principles is not only clinically safe and cost-effective, but also improves patient experience and supports environmentally sustainable practice. A simple intervention led to fewer blood draws, with patients appreciating the reduced discomfort and unnecessary procedures. This small change reduced healthcare waste and contributed to Green Surgery goals without compromising quality or safety. These

findings emphasise how low-resource, education-based strategies can improve care holistically—financially, environmentally, and in terms of patient satisfaction—supporting NHS efforts toward a more sustainable surgical future.

**Parallel free paper 04 (12:20 – 12:30)**

**INTEGRATING THE DEXTER® ROBOTIC SURGERY SYSTEM IN VISCERAL SURGERY: OUTCOMES OF A “MID-TIER-DRIVEN” TRAINING MODEL AFTER 400 CASES**

**Presenter:** Mr Nico Seeger

**Author(s):** Mr Nico Seeger<sup>1</sup>, Mr Lukas Gantner<sup>2</sup>, Dr. med. Thomas Bächler<sup>1</sup>, Dr. med. Felix Grieder<sup>1</sup>, Professor Dr med Stefan Breitenstein<sup>1</sup>

**Institution:** <sup>1</sup>Cantonal Hospital Winterthur, Switzerland. <sup>2</sup>Centre for Surgery Zurich, Switzerland

**Aims:** As new robotic systems emerge and expand the scope of minimally invasive visceral surgery, structured training and exposure to robotic surgery become essential. The DEXTER Robotic Surgery System is a modular, open platform featuring two robotic instrument arms, a robotic camera arm, and an ergonomic, open surgeon console. Its integration into standard laparoscopic workflows enables seamless switching between robotic and laparoscopic techniques, supporting a smooth transition to robotic surgery. This study describes the implementation of DEXTER using a mid-tier-driven training model and reports results from the first 400 robotic procedures.

**Methods:** We applied a structured training approach led by mid-tier surgical staff to integrate DEXTER into our visceral surgery department. Laparoscopy-trained team leaders, attending surgeons, and residents joined the robotic program. After completing the manufacturer’s curriculum – including theoretical modules, simulator training, three dry labs and one wet lab – participants assisted in 10 robotic cases and performed at least 10 supervised robotic surgeries. Trained team leaders and attendings then progressed to independent operations and mentoring of colleagues. Initial clinical use focused on cholecystectomy and inguinal hernia repair, later expanding to complex procedures. All cases and outcomes were prospectively documented and retrospectively analysed.

**Results:** Between December 2022 and June 2025, 12 surgeons (two team leaders, eight attending surgeons, two residents) were trained on the DEXTER system and collectively performed 400 robotic procedures (Table 1). No device-related postoperative adverse events occurred. No conversion to laparotomy was required, supported by the flexibility to easily switch to laparoscopy if needed. The open, sterile console enabled unobstructed patient access, efficient teamwork, and real-time mentoring. Operative times demonstrated a brief learning

curve, stabilising after 10-15 cases in procedures like cholecystectomy – even among surgeons new to robotic surgery.

**Conclusion:** This cohort represents the largest dataset on training and implementation of DEXTER in visceral surgery. Our experience demonstrated safe and effective integration of the robotic system into routine clinical practice using a mid-tier-driven, structured training model. This approach emphasizes safety, scalability, and supervised robotic skill development. Continued use of this model at our institution helps sustain team engagement and supports long-term growth in robotic capabilities across diverse procedures, including bariatric, hepatobiliary, foregut, and colorectal procedures.

**Key statement:** DEXTER can be safely and effectively implemented through a structured training model that enables early involvement of residents and empowers younger surgeons to teach robotic skills, supporting long-term integration of robotic surgery into surgical education, and accelerating its adoption. This accessibility makes DEXTER a valuable tool for high-volume surgical centers aiming to expand robotic capabilities efficiently.

#### **Parallel free paper 05 (14:30 – 14:40)**

#### **FROM EXPERIENCE TO EXPERTISE: AN ANALYSIS OF NATIONAL TRENDS IN GENERAL SURGICAL TRAINEES' OPERATIVE NUMBERS (2013–2022)**

**Presenter:** Ms Lara Rimmer

**Author(s):** Ms Lara Rimmer<sup>1</sup>, Ms Jessica Tan<sup>1</sup>, Ms Nayaab Abdul Kader<sup>1,2</sup>, Mr Matthew Boal<sup>1</sup>, Ms Tamsin Morrison<sup>1</sup>

**Institution:** <sup>1</sup>Association of Laparoscopic Surgeons of Great Britain and Ireland (ALSGBI) Academy Research Group, London, United Kingdom. <sup>2</sup>Imperial College London, United Kingdom

**Aims:** Over the past two decades, surgical training in the United Kingdom has evolved substantially, driven by cultural change, laparoscopic and robotic technologies, healthcare reforms and a global pandemic. Anecdotally, all of these have potentially contributed to a decline in trainee operative volume and independence.

This study aimed to examine trends in operative numbers and supervision levels of UK General Surgery trainees from 2013–2022, from CT1 to ST8, across a range of index procedures.

**Methods:** The Joint Committee for Surgical Training (JCST) provided an anonymised database of trainee operative numbers from 2013–2022. Those with a national training number in General Surgery between 2013 – 2022 were included. Surgeons not on a training programme, such as locally employed doctors, were excluded.

The data was analysed using Alteryx before being exported to Excel. Analyses were generated and analysed using GraphPad. Differences over time were compared using Spearman rank correlation (noted as Spearman  $r$ ), Pearson's rank correlation (noted as Pearson's  $r$ ) and proportion of a whole. Statistical significance was set at a  $p$ -value less than 0.05.

**Results:** The total number of procedures recorded declined significantly from 209,661 to 147,026 (Spearman's  $r = -0.9758$ ,  $p < 0.0001^{****}$ , Pearson's  $r = -0.9188$ ,  $p = 0.0002$ ). There was a greater shift to consultant presence, with reduced levels of supervised-trainer unscrubbed (STU) and above recorded. For ST6 trainees, the number of inguinal hernias recorded as STU and above decreased from 1256 in 2013 to 669 in 2022 (Spearman's  $r = -0.9758$   $p < 0.0001^{****}$ , Pearson's  $r = -0.9722$   $p < 0.0001^{****}$ ). For ST8 trainees, cholecystectomies recorded as STU and above decreased from 2862 in 2013 to 1554 in 2022 (Spearman's  $r = -0.9273$   $p = 0.0003^{***}$ , Pearson's  $r = -0.9191$   $p = 0.0002^{***}$ ).

**Conclusion:** A significant decline in total operative procedures was recorded across all General Surgery training levels, with senior trainees particularly affected by reduced independent operating. These findings underscore the need to adapt training to ensure trainees attain sufficient surgical expertise to become the consultants of the future.

**Key statement:** This study highlights the change of general surgical training over the examined decade, marked by a significant decline in total operative procedures. A reduction in cases reported as STU and above conceivably reflects reduced independent operating. This, coupled with the reduction in logbook numbers, presents several complex challenges: how to provide high-quality care to patients, whilst balancing the training of today's trainees to allow for continual progression and success as an independent day-one consultant.

**Parallel free paper 06 (14:40 – 14:50)**

## **ACCREDITATION PROTOCOL FOR ROBOTIC SETUP: AN INTERNATIONAL DELPHI CONSENSUS**

**Presenter:** Mr Taner Shakir

**Author(s):** Mr Taner Shakir<sup>1,2</sup>, Mr Matt Boal<sup>2</sup>, Miss Gita Lingam<sup>2</sup>, Mr Manish Chand<sup>1</sup>, Professor Nader Francis<sup>2</sup>

**Institution:** <sup>1</sup>University College London, United Kingdom. <sup>2</sup>The Griffin Institute, Harrow, London, United Kingdom

**Aims:** This research aims to create a protocol for certification of the pre-console setup phase in robotic surgery using a Delphi consensus process. Currently there are heterogeneous training modalities and no formal accreditation methods for robotic cart setup and docking, highlighting the need for standardisation.

**Methods:** Six robotic experts (two surgeons and four expert assistants) developed initial statements for the da Vinci Xi system, supported by industry documentation. An online Delphi



consensus over three-rounds was employed with international proctors, expert assistants, and robotic surgeons from specialty subcommittees (EAES, SAGES, ACPGBI). The survey was also shared on social media with individuals who had performed 500 or more cases. Statements were divided into: pre-operative, port placement, driving in, docking, instrument insertion and changes, undocking, driving out and troubleshooting. Opinions on methods of accreditation, competency cut-offs and assessors were also surveyed. The duration of each round was four weeks.

**Results:** Round 1 received 63 responses (73% experts, 19% first assistants, 8% fellows) from 13 countries. The second and third rounds had 54 and 52 responses respectively (86% and 96% inter-round response rates respectively). Consensus was defined as over 80% agreement. Key findings with consensus in round one included knowledge of port placement, the need for reverse communication with instrument changes and standardised emergency undocking workflows. 85% of respondents supported certification for bedside assistants, preferably assessed by experienced robotic surgeons or assistants (82%). Competency was deemed to be demonstrated by a score of 80% or 90% by 81% of respondents.

**Conclusion:** The lack of in-person, formal accreditation for robotic trainees is required to improve the generalisability and safety of robotics training. Our standardised protocol provides a structured approach to the setup and docking of the da Vinci Xi system, which has the ability to form foundations of an accreditation process for training and revalidation.

**Key statement:** This international Delphi consensus has established best practice for setup and docking, and has been adapted to a freely usable online form to help guide training and accreditation.

**Parallel free paper 07 (14:50 – 15:00)**

## **AN INTERNATIONAL CONSENSUS FOR ENHANCEMENT OF LAPAROSCOPIC SURGICAL TRAINING**

**Presenter:** Dr Andreas Konstantinou

**Author(s):** Dr Andreas Konstantinou<sup>1</sup>, Professor Bijendra Patel<sup>2</sup>, Professor Tan Arulampalam<sup>3</sup>, Professor Nader Francis<sup>4</sup>, Miss Marina Yiasemidou<sup>1</sup>

**Institution:** <sup>1</sup>The Royal London Hospital, United Kingdom. <sup>2</sup>Queen Mary University London, London, United Kingdom. <sup>3</sup>University of East Anglia, Norwich, United Kingdom. <sup>4</sup>The Griffin Institute, Harrow, United Kingdom

**Aims:** Although surgical practice has largely rebounded from the COVID-19 pandemic, a two-year deficit in training persists among current residents. A global trainee survey identified key barriers, informing a practical four-point recovery framework. Successful implementation relies on the active involvement of surgical trainers. Building on these findings, the authors conducted

a mixed-methods study to develop a pragmatic, step-by-step approach to enhance surgical training.

**Methods:** This was a mixed qualitative and quantitative study. Semi-structured interviews were conducted with trainers and analysed thematically. Based on the findings, a Delphi-style questionnaire (DSQ) was developed. The draft questionnaire was validated by the steering committee (consensus <sup>3</sup>80%) and then distributed to specialist surgeon members of the European Association for Endoscopic Surgery.

**Results:** Thematic analysis identified ten themes, which informed the DSQ. This was followed by three rounds of a Delphi-style survey, with 164, 178, and 228 responses, respectively. 17/19 questions reached consensus (<sup>3</sup>80%) after the third round. Six areas were highlighted as priorities: (i) structured mentorship and dedicated training lists; (ii) working within a consistent surgical team; (iii) training beyond the operating theatre (iv) personalised training pathways tailored to each trainee's unique needs; (v) integration of technology, including virtual teaching and simulation and (vi) clearer guidance and standardisation of training and teaching modalities.

**Conclusion:** The international expert consensus proposes a multi-tiered framework through interventions at national, local, and individual levels. At a national level, the development of guidelines promoting a more flexible training pathway and innovative methods for learning is recommended. Locally, training should be individualised, extending beyond technical skills. The consensus supports mentorship, peer-assisted learning, and consistent team-based training is encouraged. At the individual level, trainees should be empowered to take ownership of their learning. Crucially, the findings of the consensus suggest that a broader cultural shift is needed to foster an environment where trainees feel safe seeking support without fear of stigma.

**Key statement:** Flexible, individualised surgical training supported by mentorship and innovative learning methods. A cultural shift is needed to foster a safe, stigma-free learning environment for trainees.

**Parallel free paper 08 (15:00 – 15:10)**

## **FUTILITY IN EMERGENCY GERIATRIC SURGERY**

**Presenter:** Ms Isobel BurrIDGE

**Author(s):** Ms Riem Alkaissy<sup>1</sup>, Ms Isobel BurrIDGE<sup>2</sup>, Ms Marina Yiasemidou<sup>3</sup>, Mr Dimitrios Damaskos<sup>1</sup>

**Institution:** <sup>1</sup>Royal Infirmary of Edinburgh, United Kingdom. <sup>2</sup>St James University Hospital, Leeds Teaching Hospitals, United Kingdom. <sup>3</sup>The Royal London Hospital, Barts Health NHS Trust, United Kingdom

**Aims:** To explore the concept of surgical futility in emergency laparotomy among elderly patients, with a focus on its definition, quantification, and associated ethical dilemmas. The review aims to highlight the limitations of current risk assessment tools, examine the influence of frailty on outcomes, and advocate for more patient-centred decision-making in high-risk surgical scenarios.

**Methods:** A narrative review was conducted by systematically searching PubMed and Google Scholar for studies published in the last 10 years up to April 2025. Keywords included “futility in surgery,” “geriatric surgery,” and “ethical considerations.” Studies were selected for relevance in defining futility, assessing risk, and exploring ethical and cultural dimensions.

**Results:** Twenty-nine studies were reviewed. Quantitative futility is commonly defined as death within 72 hours of surgery; however, this narrow measure overlooks longer-term recovery and quality of life. Tools such as the NELA risk score estimate short-term mortality but fail to account for frailty or whether post-operative outcomes are acceptable from the patient’s perspective. Functional assessment tools like the Clinical Frailty Score may offer additional insight and improve prognostic accuracy. The “surprise question” has also shown value in anticipating longer-term outcomes. Cultural and ethical factors also play a key role in decision-making, particularly in diverse healthcare systems like the NHS.

**Conclusion:** Current definitions of surgical futility are overly focused on early mortality and do not account for functional decline, loss of independence, or the patient’s lived experience post-surgery. Tools like NELA are helpful but limited without integration of frailty assessments and qualitative measures. Communication about risk and benefit is often hindered by time pressures, lack of cultural sensitivity, and outdated paternalistic models. A shift towards shared decision-making, informed by holistic risk assessments and ethical awareness, is essential. Future frameworks should encompass long-term outcomes, patient values, and social context to enable ethically responsible and patient-centred surgical decision-making in elderly populations.

**Key statement:** Surgical futility in elderly patients undergoing emergency laparotomy must be reframed beyond binary outcomes such as survival. While only a small proportion of cases meet the strict 72-hour mortality criterion, many survivors experience significant functional decline, institutionalisation, or poor quality of life. Risk assessment tools should not be used in isolation; instead, they must be complemented by frailty scoring, patient preferences, and culturally competent communication. Clearer definitions and broader outcome measures are vital to ensure that surgery serves the patient’s best interests. Incorporating these elements into clinical practice supports more nuanced, compassionate, and ethically appropriate care decisions.

**Parallel free paper 09 (15:10- 15:20)**

**REVISITING ACPGBI GUIDELINES: OUTCOMES OF MANAGEMENT FOR MALIGNANT COLORECTAL POLYPS**

**Presenter:** Mr Farhan Akra  
**Author(s)** Mr Farhan Akra, Mr Khurram Siddique  
**Institution:** Northern Care Alliance NHS Trust, Manchester, United Kingdom

**Aims:** The 2013 ACPGBI position statement provides guidance on the management of malignant colorectal polyps based on risk stratification. This study aims to assess the real-world outcomes of laparoscopic management in such cases within our cancer network, comparing actual clinical results to risk estimates generated by the ACPGBI assessment tool.

**Methods:** We conducted a retrospective analysis of prospectively collected data on patients diagnosed with malignant colorectal polyps between January 2020 and December 2023. Each case was categorized according to the ACPGBI risk tool. Residual disease rates were calculated within each risk group and compared with the predicted probabilities. Surgical outcomes—including complication rates, length of stay, and stoma formation—were also evaluated.

**Results:** 95 patients were included in the study, 25 (24%) had a predicted residual disease risk of less than 5% and were managed conservatively through surveillance. None of these patients developed recurrence or residual disease during follow-up. Seventy patients were classified as high-risk ( $\geq 20\%$  likelihood of residual disease); histological analysis following surgical resection confirmed residual malignancy in 25% of this group.

**Conclusion:** Our findings support the predictive validity of the ACPGBI risk assessment tool in stratifying malignant polyp cases. However, the morbidity associated with surgery in high-risk groups emphasizes the need for judicious patient selection.

**Key statement:** Refinement of the risk prediction model of ACPGBI—potentially incorporating factors such as polyp size and morphology—may enhance its utility and reduce unnecessary surgical intervention.

## Poster 01

### POSTOPERATIVE BLOATING AND QUALITY OF LIFE IN REFLUXSTOP VERSUS NISSEN FUNDOPLICATION IN THE MANAGEMENT OF GASTRO-ESOPHAGEAL REFLUX DISEASE - SYSTEMATIC REVIEW

**Author(s):** Miss Nawal Rashid<sup>1</sup>, Mr Shameen Jaunoo<sup>2</sup>  
**Institution:** <sup>1</sup>Brighton and Sussex Medical School, United Kingdom. <sup>2</sup>Department of Upper GI Surgery, East Sussex Healthcare NHS Trust, United Kingdom

**Aims:** Gastroesophageal reflux disease (GERD) is a highly prevalent chronic condition reported in healthcare. Nissen fundoplication (NF) is the gold standard surgical intervention, but it is associated with bothersome postoperative side effects such as gas bloating. Rising number of cases and unmet surgical needs have led to the development of RefluxSTOP. This systematic

review aims to evaluate the incidence of gas bloating in the two interventional management options. Quality of life (QoL) post the procedures was also measured.

**Methods:** MEDLINE, Embase, and Scopus databases were interrogated from inception to January 2025. Search strategy was limited to English language and humans. PICOS framework was used to structure eligibility criteria. Quality assessment of articles was conducted using various risk of bias tools depending on the type of study.

**Results:** Out of 1721 articles screened, 13 articles met the eligibility criteria, 11 observational studies and 2 randomised controlled trials including 891 participants. There were 250 in RefluxSTOP group and 641 with NF. Postoperative bloating decreased significantly in RefluxSTOP - a decreasing trend from 6 months postoperatively to 4 years follow-up. Contrastingly, higher percentage of bloating postoperatively in NF was seen. QoL improved in both interventions.

**Conclusion:** The outcome of bloating within the two surgical interventions shows favourable outcomes in RefluxSTOP over NF. Similarly, QoL is also seen to be improved in both however conclusive results in relation to the improvement of QoL in NF are not feasible due to the heterogeneity of tools and the lack of direct comparison trials between the two. There is a notable gap in the literature comparing the effectiveness between the two techniques highlighting the need for high quality trials comparing them directly to aid the possible introduction of novel interventions such as RefluxSTOP into wider clinical practice.

**Key statement:** This systematic review shows the effectiveness of RefluxSTOP in reducing postoperative gas bloating and improving quality of life. However direct comparisons to traditional Nissen fundoplication are limited by the lack of high quality randomised controlled trials, thus warranting the need for further research to aid widespread implementation of the new intervention in clinical practice to optimise surgical GERD management.

## Poster 02

### STANDARD DISTAL PANCREATECTOMY VS RADICAL ANTEGRADE MODULAR PANCREATOSPLENECTOMY: A SYSTEMATIC REVIEW AND META-ANALYSIS OF THE LITERATURE

**Author(s):** Mr Mark Portelli, Ms. Cressida Gauci, Mr Jo-Etienne Abela

**Institution:** Mater Dei Hospital, Msida, Malta

**Aims:** Distal pancreatectomy is a common procedure for resectable distal pancreatic tumors. In 2003, Radical Antegrade Modular Pancreato-splenectomy (RAMPS) introduced a novel approach for resection, differing from the standard distal pancreatectomy (SDP). This meta-analysis aims to comprehensively evaluate perioperative aspects and post-operative outcomes associated with RAMPS and SDP.

**Methods:** A systematic literature search was conducted in PubMed, MEDLINE, EMBASE, and Google Scholar from January 1, 2003, to December 31, 2023, using the keywords 'distal pancreatectomy' and 'Radical Antegrade Modular Pancreatosplenectomy.' Eligible studies, including randomized control trials, cohort studies, and prospective studies, were selected for comparison using RevMan 5.3. Outcomes, such as operative time, intraoperative blood loss, length of hospital stay, harvested lymph nodes, complications, residual margins, and recurrence, were analysed with 95% confidence intervals, utilizing a random-effects model.

**Results:** Among the nine selected studies involving a total of 1662 patients, our analysis revealed no significant differences in length of hospital stay (MD 4.69; 95% CI -2.30, 11.68;  $p=0.00001$ ), complications (OR 1.59; 95% CI:0.52, 4.88,  $p<0.00001$ ), achievement of R0 Resection (OR 0.70; 95% CI:0.31, 1.57;  $p=0.008$ ), or recurrence rates (OR 1.02; 95% CI 0.52, 1.99;  $p = 0.16$ ) between RAMPS and SDP. However, RAMPS demonstrated reduced operative time (MD 60.44; 95% CI:55.67, 65.20;  $p=0.00001$ ) and intraoperative blood loss (MD 197.13; 95% CI:169.56, 224.70;  $p=0.42$ ). SDP demonstrated a higher number of harvested lymph nodes (MD -5.91; 95% CI: -8.17, -3.66;  $p=0.26$ ).

**Conclusion:** In the context of resectable distal pancreatic tumors, RAMPS and SDP exhibited comparable perioperative and post-operative outcomes. While RAMPS showed significant improvement in operative time and reduced intraoperative blood loss, SDP notably yielded a higher number of harvested lymph nodes. Further investigation and larger studies are warranted to validate these findings and provide more robust guidance for selecting the appropriate surgical approach for distal pancreatic tumors.

**Key statement:** While the RAMPS procedure may provide advantages in terms of reduced operative time and intraoperative blood loss, our analysis indicates that the clinical outcomes, especially concerning R0 resection and lymph node retrieval, are comparable in both RAMPS and SDP. At present the selection of surgical methods remains subject to surgeon preference and experience, thus introducing an element of variability which complicates the evaluation of outcome measures from the procedure. Further high-quality, high-powered, multicentre, randomised controlled trials are required to adequately assess the long-term efficacy and safety of the RAMPS procedure as compared to SDP.

### Poster 03

#### ESTABLISHING SUSTAINABILITY IN UROLOGICAL ROBOTIC SURGERY SERVICE: STRATEGIES, PRACTICAL INSIGHTS, AND HUMAN FACTORS - A LITERATURE REVIEW

**Author(s):** Mr Ihab Barsoum<sup>1,2</sup>, Dr. Shady Girgis<sup>3</sup>, Mr. Jacques Roux<sup>1</sup>

**Institution:** <sup>1</sup>West Hertfordshire Teaching Hospitals -NHS Trust, Watford, United Kingdom.

<sup>2</sup>Anglia Ruskin University, Cambridge, United Kingdom. <sup>3</sup>Airforce Specialized Hospital, Cairo, Egypt

**Aims:** Robotic surgery has transformed contemporary practice in urology over the past few years. Improved functional outcomes, precision while operating, and faster recovery times makes it an increasingly favoured modality. This paper explores the pertinent components required for a sustainable implementation of a robotic urology programme in the NHS.

**Methods:** This report relied on publicly available NHS data, national guidance (RCS, NICE), and an in-depth literature review to explore how robotic systems such as da Vinci, Versius, and Hugo platforms are being integrated into modern urological practice. It compared outcomes between robotic, laparoscopic, and open surgery, while also examining real-world challenges related to training, leadership structures, infrastructure requirements, and some human factors that shape team dynamics in theatre.

**Results:** In robotic prostatectomy, blood transfusion rates decreased from 11.2% (in open surgeries) to 0.6%, and the length of hospital stay halved (2.8 to 1.4 days). Conversion rates (3.7%) and 30-day mortality (0.4%) were significantly lower with the robotic modality. Functional outcomes—continence and potency—improved postoperatively due to precise nerve-sparing techniques and enhanced visualisation. Seven implementation pillars were identified: leadership, structured console-based training, ergonomic theatre layout, standardised perioperative pathways, outcome auditing, patient engagement, and sustainable funding. Programmes reported cost recovery in 3–5 years through reduced complications, shorter admissions and increased surgical throughput.

**Conclusion:** Robotic surgery in urology delivers significant clinical, functional, and economic benefits. Long-term sustainability depends on pre-emptive strategic planning, continuous training, and appropriate governance frameworks. Tailored implementation, supported by continuous, personalized evaluation and adaptation, can establish robotic surgery as a safe, efficient, and enduring pillar of modern NHS urology services.

**Key statement:** This literature review outlines the foundational elements of a safe and effective robotic surgery programme. It explores essential equipment including consoles, robotic arms, and vision systems; emphasises clinical governance, staff training, and standardised protocols; and highlights measurable outcomes such as reduced blood loss, shorter hospital stays, and enhanced precision. Benefits like ergonomic advantages and patient satisfaction are critically appraised. Practical implementation strategies are proposed, and evidence from leading surgical systems (da Vinci, Versius, Hugo) is synthesised. Overall, it demonstrates how structured adoption enhances surgical care while addressing economic, infrastructural, and educational challenges within modern healthcare systems.

## **Poster 04**

### **ADVANCING ROBOTIC SURGERY IN GYNAECOLOGY: EVIDENCE-BASED STRATEGIES, IMPLEMENTATION CHALLENGES, AND SYSTEM-LEVEL IMPACT**

**Author(s):** Mr Ihab Barsoum

**Institution:** West Hertfordshire Teaching Hospitals - NHS, Watford, United Kingdom. Anglia Ruskin University, Cambridge, United Kingdom

**Aims:** Robotic surgery is increasingly used in benign gynaecology and gynaecological oncology, particularly in complex endometriosis and early-stage endometrial cancer. This paper critically analyses the current evidence to assess the safety, feasibility, and effectiveness of robotic-assisted interventions, while also exploring the systemic considerations required for sustainable integration into NHS practice.

**Methods:** This review synthesised evidence from NICE, RCOG, BIARCS, and peer-reviewed literature. Comparative outcomes between robotic, laparoscopic, and open surgery were assessed. Technical advantages, oncological safety, recurrence rates, and fertility outcomes were discussed. Health economic models, training initiatives, and governance frameworks were examined to evaluate scalability and sustainability.

**Results:** Robotic platforms enhanced surgical precision in deep pelvic dissections, particularly in obese or complex patients. In endometrial cancer, robotics offered lower conversion rates, faster recovery, and reduced complications, without compromising oncological outcomes. However, benefits over laparoscopy were modest. Cost-effectiveness improved with appropriate patient selection and case volume. Centralised services and structured training were identified as key enablers of success.

**Conclusion:** Robotic-assisted gynaecological surgery provides a safe, ergonomic, and minimally invasive alternative for selected patients, particularly in anatomically complex or high-risk cases. Its value lies in improving access to MIS, expanding eligibility, and supporting surgeon well-being. Strategic planning, robust training, and governance structures are essential for equitable and cost-effective implementation.

**Key statement:** This review evaluates robotic surgery as a safe and feasible advancement in gynaecological practice. Evidence from endometriosis and endometrial cancer cases demonstrates clinical parity with laparoscopy and clear advantages in ergonomics and surgical precision. It highlights implementation drivers such as case selection, economic modelling, surgical training, and the role of fluorescence imaging. As NHS adoption grows, the importance of structured training pathways, centralisation of complex cases, and governance frameworks becomes paramount to ensure high standards of care and sustainable practice.

## **Poster 05**

### **A CURIOUS CASE OF AIR WITHOUT AGONY: ASYMPTOMATIC OCCULT VISCUS PERFORATION POST FALL**



**Author(s):** Dr Malcolm Irem, Mr Mohammad Badr Almoshantaf

**Institution:** Ealing Hospital, London, United Kingdom

**Aims:** To highlight the diagnostic and therapeutic challenges of asymptomatic pneumoperitoneum in elderly patients and to demonstrate that conservative, non-operative management can be a safe and effective approach in the absence of clinical deterioration or peritonitis.

**Methods:** We conducted a detailed review of a 103-year-old male patient who presented following a mechanical fall. Clinical assessment, laboratory testing, and full-body trauma protocol CT imaging were undertaken. Multidisciplinary discussions guided the management approach, with emphasis on clinical monitoring in lieu of surgical intervention, given the absence of abdominal symptoms and stable vital parameters.

**Results:** CT imaging revealed free intraperitoneal gas without an identifiable perforation site. The patient remained haemodynamically stable and entirely asymptomatic throughout admission. Conservative treatment including bowel rest, intravenous fluids, antibiotics, and close observation was successful. No surgical intervention was required, and the patient was safely discharged following an uneventful recovery.

**Conclusion:** This case supports the growing evidence that non-operative management may be appropriate for selected elderly patients with radiological evidence of pneumoperitoneum but no clinical signs of peritonitis. It underscores the importance of integrating clinical judgment with imaging findings to optimise outcomes.

**Key statement:** Asymptomatic pneumoperitoneum in elderly patients can represent a sealed or self-limited viscus perforation. CT imaging, while sensitive, may not always localise the perforation site. Conservative management, comprising of bowel rest, antibiotics, and observation, can be both safe and effective in stable patients. This case reinforces the importance of clinical context in guiding treatment decisions and highlights that elderly patients may present atypically despite significant pathology.

## **Poster 06**

### **AUDIT OF COMPLICATIONS AND MORTALITY OF COLORECTAL CANCER SURGERY: A RETROSPECTIVE COHORT FROM A DISTRICT GENERAL HOSPITAL**

**Author(s):** Mr Adel Assiri, Mr Mohamed Mohamed, Mr Alistair Myers, Mr Yasser Mohsen, Mr Alistair Slessor

**Institution:** Hillingdon Hospital, London, United Kingdom

**Aims:**

- To measure compliance with the national guidance and the KPIs including mortality rates and LOS
- To identify areas of non-compliance and develop an action plan to improve our performance.

**Methods:** Retrospective data collection of all patient referred to colorectal MDT between 2021 and 2024 who had resection in a District General Hospital.

**Results:** This audit included 170 Patients, 84 of them were females and 63 were males. With mean age of  $68.72 \pm 13.64$ , and average BMI of  $27.39 \pm 6.23$ . Our 30-day, 90-day, and 1-year mortality rates were 3.3%, 4.7%, and 10%, respectively exceeding rates reported in similar cohorts (e.g., 30-day mortality of 0.6% in a 299-patient study; NBOCA 90-day mortality target: <2.4%). 92.5 Percent of our patients stayed less than 21 days, and only 7.5 percent stayed for longer than 21 days.

**Conclusion:** While LOS outcomes at our institution compare favourably with national standards, i.e. more patients staying less than 21 days. our short- and long-term mortality rates indicate a need for targeted quality improvement. Future efforts will focus on data completeness and pathway optimization, particularly for elderly and high-risk patient.

#### **Key statement:**

- (ASA) grade and Tumour, Node and Metastasis (TNM) stage are predictors of mortality in patients with colorectal cancer.
- Although a majority of patients are diagnosed with mild symptoms or at an early stage after a positive FIT, 9% to 13% of patients present with acute colonic obstruction, which accounts for 85% of the emergency colectomies for colon cancer.
- A BTS strategy using DS was independently associated with a lower risk of mortality if compared to acute resection<sup>1</sup>.

#### **Poster 07**

### **TIMELY MANAGEMENT OF COLORECTAL CANCER: A RETROSPECTIVE AUDIT ON DIAGNOSTIC AND SURGICAL DELAYS IN A DISTRICT GENERAL HOSPITAL**

**Author(s):** Mr Adel Assiri, Mr Mohamed Mohamed, Mr Alistair Myers, Mr Yasser Mohsen, Mr Alistair Slessor

**Institution:** Hillingdon Hospital, London, United Kingdom

#### **Aims:**

- To measure compliance with the national guidance and the KPIs including Timeframe between referral to MDT and Time from MDT to Surgery
- To identify areas of non-compliance and develop an action plan to improve our performance.

**Methods:** Retrospective data collection of all patient referred to colorectal MDT between 2021 and 2024 who had resection in DGH.

**Results:** A total of 170 patients (mean age:  $68.7 \pm 13.6$  years; 84 females, 63 males) were included.

- Mean time from referral to MDT discussion: 17.14 days (median: 6 days, range: 1–115)
- Mean time from referral to surgery: 51.13 days (median: 48 days, range: 0–238)
- While average MDT discussion time is within guideline recommendations, the time from referral to surgery exceeds the optimal timeline in a significant proportion of cases, suggesting delays post-MDT.

**Conclusion:** While LOS outcomes at our institution compare favorably with national standards, i.e. more patients staying less than 21 days. our short- and long-term mortality rates indicate a need for targeted quality improvement. Future efforts will focus on data completeness and pathway optimization, particularly for elderly and high-risk patients.

#### **Key statement:**

- The FDS aims to provide a faster diagnosis and ensure people are told they have cancer, or that cancer is excluded, within a maximum of 28 days from referral.

Intentions:

- Reduce the time between referral and diagnosis of cancer.
- Reduce anxiety for the cohort of people who will be diagnosed with cancer or receive an 'all clear'.
- Reduce unwarranted variation in England by understanding how long it is taking people to receive a diagnosis or 'all clear' for cancer
- Represent a significant improvement on the current two-week wait to first appointment target, and a more person-centred performance standard

## Poster 08

### POSTOPERATIVE FOLLOW-UP AFTER COLORECTAL CANCER RESECTIONS: A RETROSPECTIVE AUDIT OF COMPLIANCE WITH NATIONAL GUIDELINES

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**Institution:** Hillingdon Hospital, London, United Kingdom

#### Aims:

- To measure compliance with the national guidance and the KPIs including total follow up period, performed follow up investigations.
- To identify areas of non-compliance and develop an action plan to improve our performance.

**Methods:** Retrospective data collection of all patient referred to colorectal MDT between 2021 and 2024 who had resection in DGH.

#### Standards:

1. Follow up after surgery for 3 years at least
2. 6-monthly CEA
3. 2 CT CAP in 3 years after surgery
4. 1-year colonoscopy

**Results:** Out of 170 patients, postoperative follow-up data were available for 75. Of 19 patients eligible for full 3-year follow-up:

- Only 25% had documented continuous follow-up
- Just 5% received both recommended CT CAPs
- Only 34.5% of patients (N=81) underwent colonoscopy at 1 year
- 63% (N=76) had at least one postoperative CEA test

**Conclusion:** The audit reveals significant gaps in adherence to postoperative CRC follow-up guidelines. Given that regular surveillance is associated with earlier detection of resectable recurrence, a robust follow-up protocol is essential. Key recommendations include improving

data completeness, actively monitoring recently treated patients, and embedding NICE-compliant pathways into clinical workflows.

**Key statement:**

- Evidence showed that recurrent disease was more likely to be resectable when patients received regular follow-up tests than with minimal or no follow-up.
- Recurrent disease was more likely to be resectable when follow-up tests included CEA and liver imaging.

Since 2011, NICE guideline on colorectal cancer recommended CEA and CT testing in the first 3 years after treatment with curative intent

**Poster 09**

**WHEN SCORING SYSTEMS COLLIDE: PREDICTING LAPAROTOMY OUTCOMES WITH NSQIP & NELA – A RETROSPECTIVE ANALYSIS FROM TWO CENTRES**

**Author(s):** Dr Malcolm Irem<sup>1</sup>, Dr Jessica Wean Yang Ping<sup>2</sup>, Mr Panagiotis Drymouisis<sup>1</sup>, Dr Asantha Jayaweera<sup>2</sup>, Mr Hemant Sheth<sup>1</sup>

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**Aims:** This study set out to compare the predictive performance of the ACS NSQIP and NELA surgical risk prediction tools, for estimating 30-day mortality following emergency laparotomies at Ealing Hospital. Additionally, this study aimed to investigate how each model performs in older and frailer patients, especially those with higher ASA scores, aiming to determine which offers the most accurate mortality risk predictions in a real-world clinical setting.

**Methods:** A retrospective double centre cohort study was carried out at Ealing Hospital and Northwick Park Hospital, including 138 adult patients that underwent emergency laparotomy procedures over a 12-month period between November 2023 and October 2024. Mortality predictions were calculated using ACS-NSQIP, pre-operative NELA and post-operative NELA, based on information available at the time of surgical decision making. The primary outcome assessed was mortality at 30 days post-operatively. Predictive accuracy was evaluated using the area under the receiver operating characteristic curve (AUC) and brier score. Statistical significance of differences between models was evaluated using DeLong's test.

**Results:** Post-operative NELA achieved the highest AUC (0.878) and the lowest Brier score (0.077), indicating slightly superior performance compared to both Pre-op NELA and ACS-NSQIP (AUC 0.863 and 0.826, Brier scores 0.078 and 0.094 respectively). However, DeLong's test between Post-op NELA and NSQIP (p=0.616) indicated no statistical significant difference. Post-op NELA also showed higher sensitivity (0.94) but lower specificity (0.73), at 10% threshold,

than ACS-NSQIP (0.81 and 0.76, respectively). Among ASA IV patients (n=25), pre-op NELA more closely approximated actual 30-day mortality (21.5% vs. 28%). Overall 30-day mortality was 11.6% (16/138).

**Conclusion:** While Post-operative NELA demonstrated the highest predictive performance in terms of AUC and Brier score, the lack of statistically significant difference with ACS-NSQIP suggests that both tools remain viable for estimating 30-day mortality after emergency laparotomy. Pre-op NELA may offer practical advantages in high-risk groups such as ASA IV patients, where timely preoperative risk stratification is critical. However, the small cohort size limits the generalisability of these findings. Further multicentre prospective studies with larger and more diverse populations are essential to determine the optimal risk assessment tool in varied clinical and demographic settings.

**Key statement:** Accurate risk stratification in emergency laparotomy remains critical, particularly in frail and elderly patients. This study demonstrates that both ACS-NSQIP and NELA offer clinically useful mortality predictions, with post-operative NELA achieving slightly better discrimination. However, pre-operative NELA may be more applicable for high-risk patients requiring early decision-making. While no tool significantly outperformed the other, understanding their relative strengths enhances surgical planning and resource allocation. These findings underline the need for context-driven application of scoring systems and call for larger prospective datasets to inform future clinical guidelines and policy surrounding emergency surgical care.

## Poster 10

### COMPARISON OF TWO-STAGED LAPAROSCOPIC FOWLER- STEPHEN AND TRACTION ORCHIDOPEXY FOR HIGH INTRA-ABDOMINAL TESTES IN CHILDREN

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**Institution:** <sup>1</sup>Good Hope Hospital, University Hospital Birmingham, United Kingdom. <sup>2</sup>MH, Rawalpindi, Pakistan

**Aims:** To compare outcomes of laparoscopic Fowler-Stephen and Traction Orchidopexy in patients presenting with high intra-abdominal testes.

**Methods:** A prospective cross-sectional study done at PEMH, from January 2024, till December, 2024, for a period of 11 months, including seventy males with cryptorchidism, evaluated by paediatric surgeons and enrolled for either Fowler-Stephen (FS) or Traction Orchidopexy (TO).

**Results:** Mean age was  $2.8 \pm 0.90$  years. Redo rate was present in 20 percent of the patients who underwent TO compared to no redo case in FS. On the other hand, retraction rate was 14.3% in FS group, higher than TO with no cases. As far as atrophy is concerned, 5.7% patients underwent atrophy compared to no atrophy in TO group.

**Conclusion:** Both procedures have merits and demerits and patients should be evaluated as case based to opt for surgical procedure.

**Key statement:** Fowler Stephen is newer method compared to older Traction Orchidopexy and both have merits and demerits. This research aimed to provide our experience and to share it with surgical fraternity.

## Poster 11

### EXPERIENCE, OUTCOMES, AND INSIGHTS ON ENDOSCOPIC COLONIC POLYP EXCISION: A RETROSPECTIVE COHORT STUDY

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**Institution:** MTW NHS Trust, Maidstone, United Kingdom

**Aims:** This retrospective study aims to evaluate the outcomes of large polyp excision within a single NHS trust. By analysing patient demographics, polyp characteristics, procedural details, and clinical outcomes, this study seeks to provide comprehensive data on the efficacy and safety of endoscopic polyp excision.

**Methods:** This retrospective cohort study was conducted at Maidstone and Tunbridge Wells NHS Trust, a district general hospital in Tunbridge Wells, England, with data collected for all patients who had endoscopic polypectomy from 2010 to 2022. Data collected from medical records included age, sex, polyp size and characteristics, and previous polyp removal attempts.

**Results:** A total of 350 participants were included in this study. The cohort comprised 224 males (64%) and 126 females (36%), with a mean age of  $70 \pm 12$  years. Complications were observed in eight participants (2.3%), while 340 participants (97.7%) did not experience any complications. Participants who experienced complications had a mean polyp size of  $49.38 \pm 7.3$  mm, whereas those without complications had a mean polyp size of  $44.85 \pm 16.5$  mm ( $p = 0.440$ ). All complications occurred in participants with polyps  $\geq 40$  mm. However, this association was not statistically significant ( $p = 0.352$ ).

**Conclusion:** Our study has shown that large polyps can be safely excised in a local district hospital. The incidence of complications is related to the polyp size. A cutoff size of 40 mm was found to be related to increased complications. However, this was still statistically insignificant and won't affect the efficacy and safety of these procedures being carried out in a local district hospital, decreasing the load on tertiary and specialised hospitals.

**Key statement:** Cold snare polypectomy, colon polypectomy, colonoscopy, colorectal cancer, conventional endoscopic mucosal resection (cemr), hot snare polypectomy.

## Poster 12

# DETERMINANTS OF BURNOUT AND SATISFACTION AMONG UROLOGY TRAINEES IN THE UK: A THEMATIC ANALYSIS AND CRITICAL EVALUATION OF AVAILABLE DATA

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**Aims:** Burnout is a growing concern in surgical training, with urology trainees in the UK facing unique pressures such as increasing service demands, academic expectations, and perceived disparities in support. While broader surgical data suggest burnout prevalence exceeding 50%, UK-specific urology data remain scarce. This review aims to critically evaluate the prevalence and drivers of burnout among UK urology trainees, assess the factors contributing to trainee satisfaction, and examine any existing interventions. A secondary aim is to contrast these findings with international cohorts and to highlight gaps in research that must be addressed to inform systemic improvements in training environments.

**Methods:** A systematic literature review was conducted in accordance with PRISMA guidelines across six databases including PubMed, EMBASE, and Scopus. Search terms targeted burnout, job satisfaction, and UK urology training. Inclusion criteria required studies reporting data specific to UK urology trainees. Three studies met inclusion following rigorous screening, highlighting a major lack of focused data. Data were analysed thematically, examining prevalence rates, contributing factors, and intervention outcomes. The Oldenburg Burnout Inventory and GMC National Training Survey were frequently used assessment tools. Broader UK and international surgical data were used to supplement thematic gaps and triangulate findings from limited UK-specific sources.

**Results:** Burnout among UK urology trainees ranged from 56% to 63%. Core contributors included rota gaps, excessive workload, inadequate remuneration, limited access to subspecialty training, and toxic workplace culture. Nearly half of trainees reported seriously considering leaving the specialty, with burnout cited as the primary reason. Despite these pressures, 69% indicated they would still choose urology, valuing operative experience (92%), team camaraderie (86%), and patient impact (71%). The Reboot-C coaching intervention reduced burnout scores by 12%, demonstrating short-term efficacy. However, its impact was contingent on complementary system-level changes. Trainees also highlighted mentorship and protected training time as vital but inconsistently delivered.

**Conclusion:** Burnout is highly prevalent among UK urology trainees and is driven by multifactorial, system-level issues. While individual-level interventions such as coaching showed promise, their benefits are limited without broader cultural and structural reforms, including improved rota management, mentorship, and financial support. Trainee satisfaction persists despite adversity, rooted in intrinsic motivation and team support. The limited number of studies—only three in 25 years—reflects an urgent need for more robust, longitudinal, and intersectional research. Addressing burnout requires coordinated action across policy,



institutional, and individual levels, with greater transparency around the realities of urology training to manage expectations and foster resilience.

**Key statement:** This review reveals that over half of UK urology trainees experience burnout, primarily due to service pressures, limited training time, and poor organizational support. Yet a paradox persists: most would choose the specialty again, citing passion for surgery and strong team dynamics. These findings challenge the “lifestyle specialty” narrative often associated with urology and underscore the need for accurate career guidance and structural reform. Interventions such as Reboot-C are promising but insufficient alone. Without addressing root causes—rota gaps, inadequate pay, and toxic culture—burnout will remain entrenched. These results demand urgent attention from policymakers, educators, and training bodies alike.

### Poster 13

#### ROBOTIC SURGERY FOR BENIGN COLORECTAL CONDITIONS: A RETROSPECTIVE REVIEW

**Author(s):** Miss Selena Tsz Wai Chang, Dr Chamaldi Chethana de Silva, Mr Richard Boulton, Mr Joseph Huang, Mr Nirooshun Rajendran

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**Aims:** The landscape of colorectal surgery has transformed substantially with the introduction of robotic technologies, which provide better precision, faster recovery, and reduced blood loss. Despite the broadening implementation of these techniques, there remains a paucity of research on their impact, particularly in benign colorectal conditions. In this case series, we aim to evaluate the clinical outcomes of patients who underwent robotic-assisted colorectal surgeries for various benign conditions to establish their role and validate their safety in colorectal disease treatment.

**Methods:** A retrospective analysis was conducted on 79 patients who underwent robotic colorectal procedures for benign indications (elective and semi-elective) including multiquadrant procedures. Data collected included demographics, referral pathways, comorbidities, surgical histories; most common being diverticular disease (n=36), and inflammatory bowel disease (n=26). Procedures included anterior resection (n=40), ventral mesh rectopexy (n=12), subtotal colectomy, Hartmanns, panproctocolectomy, completion proctectomy, and J-pouch constructions. Data on stoma formation, anastomosis, anticoagulation, and complications were analysed. Statistical analysis was performed to assess outcomes including duration of hospital stay, complications of class III, IV and 30-day readmission.

**Results:** Mean age and BMI were 51.9 years and 27.6 respectively. 79 patients (F=50, M=29) were included, majority being White British/Irish (n=68). 28 patients had prior abdominal surgery. The median length of stay was 6 days. 23 patients required stoma formation.

Postoperative complications were seen in 19 patients (23.7%) from whom only 9 (11.4%) had class III, IV complications (no class V). 5 required interventional radiology drainages. Mean estimated blood loss was less than 200ml. Only 1 patient required readmission. It is accepted that there is significant heterogeneity across the cases.

**Conclusion:** This case series shows that robotic-assisted surgeries for benign colorectal disease are safe and feasible, with a low complication rate of 11.4%. The most common complications were surgical site infection, intra-abdominal collection and prolonged ileus, all of which were successfully managed. These findings suggest that good overall clinical outcomes are achievable, underlining the potential of robotic-assisted surgery for benign colorectal conditions.

**Key statement:** We found that robotic surgery is safe and feasible, even in complex benign and semi-elective colorectal conditions. However, high costs, longer initial operation times, the need for specialised surgical training and a steep learning curve for multiquadrant procedures remain significant limiting factors to the wider implementation of such techniques. With increased uptake of robotic surgery, we would expect these to diminish. Higher level evidence is required to evaluate patient outcomes and assess cost-effectiveness to optimise the implementation of robotic techniques in clinical practice in the field of colorectal surgery.

#### **Poster 14**

#### **LAPAROSCOPIC RESECTION OF CECAL DUPLICATION CYST IN A 28 YEARS OLD MALE**

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**Aims:** Cecal duplication cyst is a congenital anomaly that is rarely observed in adults. It has diverse clinical presentation with different treatment approaches. This article sheds light on a case of cecal duplication cyst in an adult patient where it was laparoscopic surgically resected.

**Methods:** A 28-year-old male presented with a one-week history of right lower quadrant pain without other symptoms. Initial CT suggested epiploic appendagitis or cecal diverticulitis, and conservative treatment with antibiotics and analgesics was started. After 10 days, a follow-up CT showed an increase in the size of a cystic mass with surrounding fat stranding. Due to lack of clinical and radiological improvement, diagnostic laparoscopy was performed. Intraoperative findings revealed a cystic lesion, which was resected. Histopathological examination confirmed a non-communicating cecal duplication cyst, a rare congenital anomaly often mistaken for inflammatory or neoplastic conditions on imaging.

**Results:** Enteric duplication cyst is rare congenital anomaly. They can be found anywhere in gastrointestinal tract with the small intestine being most commonly involved mainly in its distal part. In our case, the patient was a male aged 28 years, thus considered out of the common age and gender group of this presentation. Presenting feature may differ depending on site, size and morphology of CDC. Duplication cysts may have malignant transformation, and cases of adenocarcinoma from cyst wall have been reported.

**Conclusion:** Duplication cyst is a rare finding in the pathologies of the gastrointestinal tract, and is even rarer when occurring in adults and affecting the cecum. This is a study showing this unique presentation, which was treated laparoscopically.

**Key statement:** This study highlights the rare presentation of a cecal duplication cyst in a 28-year-old adult—an uncommon diagnosis typically seen in pediatric populations. Initially mistaken for more common abdominal pathologies, the lesion was ultimately identified and successfully managed through laparoscopic resection. This case underscores the importance of considering rare congenital anomalies in adult patients and demonstrates the efficacy of minimally invasive surgery in treating such uncommon gastrointestinal conditions adding a unique perspective to gastrointestinal anomaly literature.

## Poster 15

### SURGICAL SEQUENCING IN COMPLEX OBESITY PATIENTS: OUTCOMES OF SEQUENTIAL LAPAROSCOPIC BARIATRIC PROCEDURES AND GALLBLADDER INTERVENTIONS

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**Aims:** Bariatric surgeries have evolved drastically over the years, increasing in complexity, and diversity. At the same, the stories of revisional procedures have become part of the routines of bariatric surgeons, with gallbladder diseases presenting an important associated factor of repeated surgeries. Our study focuses on the outcomes of sequential bariatric procedures and their association with gallbladder pathologies, hence cholecystectomy.

**Methods:** Our study applied a retrospective cohort design, where 3000 Lebanese patients who underwent bariatric surgery, were selected from a single center, at Al Zahraa University Hospital from the years 2008 till 2018. Our investigation was centered around 144 patients who had undergone revisional surgery. Surgical combinations such as Sleeve Gastrectomy (SG) with Roux-en-Y Gastric Bypass (RYGB) or RYGB with Mini Gastric Bypass (MGB) were observed in comparison regarding rates of post-operative cholecystectomy.

**Results:** Our study showed that SG with RYGB cases were the ones experiencing the highest incidence of cholelithiasis, thus requiring cholecystectomy (29.3%) with a statistical significance of  $p = 0.021$ , unlike other combinations. These results propose the risk of gallstone occurrence with some bariatric surgical sequences, probably related to the synergistic effects between bile saturation and motility.

**Conclusion:** Bariatric surgical sequencing may have different influences on the risk of incidence of gallbladder diseases. SG+RYGB was shown to have a greater risk in our study and may raise concern about the requirements of prophylactic strategies such as concomitant cholecystectomy during redo surgery, or improved monitoring. Our findings are of added value in helping professionals personalize bariatric strategies toward better outcomes and fewer complications.

**Key statement:** This study provides critical insight into the overlooked link between sequential laparoscopic bariatric procedures and gallbladder disease, identifying SG followed by RYGB as significantly associated with increased cholelithiasis (29.3%,  $p = 0.021$ ). As one of the few large-scale analyses in a Middle Eastern population, it offers high clinical value by informing surgical decision-making, advocating for prophylactic strategies, and ultimately aiming to reduce morbidity and improve outcomes in the growing field of revisional bariatric surgery.

## Poster 16

### CONCOMITANT CHOLECYSTECTOMY WITH REVISIONAL BARIATRIC SURGERY: A NECESSARY STANDARD OR CASE-BY-CASE DECISION?

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**Aims:** One of the most controversial discussions in bariatric surgery is centered around the management of gallbladder pathology during revisional bariatric surgery. Alongside the high incidence of gallbladder stones post-bariatric surgery as a result of rapid weight loss, some professionals may advocate for prophylactic cholecystectomy, while others may suggest more selective approaches. Our paper focuses on. Studying the necessity of concomitant cholecystectomy during revisional bariatric surgery.

**Methods:** Our study applied a retrospective cohort design, where 3000 Lebanese patients who underwent bariatric surgery, were selected from a single center, at Al Zahraa University Hospital from the years 2008 till 2018. 44 of those patients underwent revisional bariatric surgery. Our study compared the outcomes between patients who had a concomitant cholecystectomy (n=6) against those who needed such a procedure later (n=20). Associations

between comorbidities such as Hypertension (HTN), Body Mass Index (BMI), Iron Deficiency Anemia (IDA), and symptomatic cholelithiasis were also evaluated.

**Results:** Our findings concluded that only 4.16% of cases received a concomitant cholecystectomy, while 13.88% required the procedure postoperatively. Statistically significant associations were observed between symptomatic cholelithiasis and hypertension ( $p=0.021$ ), BMI > 40 ( $p=0.013$ ), and iron deficiency anemia ( $p=0.046$ ). Worth noting, Roux-en-Y Gastric Bypass (RYGB) was analyzed to have a greater risk concerning the occurrence of gallbladder stones ( $p=0.051$ ). Our results add to the discussion that considering prophylactic cholecystectomy is not always warranted and that many risk factors come into play for such a surgical decision.

**Conclusion:** Prophylactic cholecystectomy during revisional bariatric surgery remains a controversial discussion, however, our study leans more toward a case-by-case decision as many factors become intertwined, from risk factors to surgical decisions, and preferences. We believe a multifactorial case-by-case evaluation with risk stratification can aid in improving patient outcomes and preventing unnecessary complications or interventions.

**Key statement:** Our study tackles one of the most debated and clinically relevant challenges in bariatric surgery today: should cholecystectomy be performed during revisional procedures, or reserved for select cases? Drawing from a large 10-year dataset of 3,000 patients in a high-volume Lebanese center, we provide new evidence that moves the conversation beyond blanket approaches. By uncovering key predictors—such as hypertension, BMI > 40, and iron deficiency anemia—for postoperative gallbladder complications, our findings advocate for a smarter, risk-stratified surgical decision-making model. This research brings practice-changing insights to the global bariatric community and offers a data-driven roadmap for more efficient revisional surgeries.

## Poster 17

### EXPLORING THE CORRELATION BETWEEN LYMPHOCYTE-TO-NEUTROPHIL RATIO AND EXTRAMURAL VENOUS INVASION STATUS IN COLORECTAL CANCER

**Author(s):** Miss Saba Patoli, Mr Sanjay Harrison

**Institution:** County Durham and Darlington Memorial Hospital, Darlington, United Kingdom

**Aims:** The Lymphocyte-to-Neutrophil Ratio (LNR) is a prognostic biomarker in colorectal cancer (CRC), reflecting the interplay between immunity and inflammation. Extramural venous invasion (EMVI) is linked to poorer CRC outcomes, yet the relationship between LNR and EMVI status remains unclear. This study aims to assess whether LNR correlates with EMVI status in CRC, offering insight into its role in tumour progression. Identifying potential correlations may improve prognostic accuracy and inform future therapeutic strategies.

**Methods:** A retrospective analysis was conducted using patient data from County Durham and Darlington Memorial Hospital between January and December 2023. Ninety-two patients with stage I-III CRC were categorized into two groups: EMVI-negative (Group A, n=78) and EMVI-positive (Group B, n=14). LNR was calculated for each patient. The Mann-Whitney U test was applied for statistical comparison between the groups. This methodology ensures robust analysis while accounting for variations in immune response.

**Results:** Group A (EMVI-negative) had a median LNR of 2.8 (SD = 2.31), whereas Group B (EMVI-positive) had a median LNR of 3.92 (SD = 5.70). The p-value of 0.08002 and Z-test statistic of -1.7506 suggest a trend toward higher LNR in EMVI-positive patients, though statistical significance was not met. These findings indicate a possible association between LNR and EMVI status, supporting further investigation into the role of systemic inflammation in CRC progression.

**Conclusion:** While this study suggests a trend toward elevated LNR in EMVI-positive patients, larger sample sizes and refined methodologies are needed for confirmation. Future research should explore confounding variables, improve data granularity, and employ advanced statistical techniques to enhance the reliability of findings. Understanding the immunological implications of LNR may refine risk stratification and contribute to improved patient management in CRC.

**Key statement:** This study highlights a potential correlation between LNR and EMVI status in CRC. Findings suggest an underlying role for immune response in tumour progression, emphasizing the need for further validation in larger cohorts. By examining LNR variations across EMVI statuses, this research contributes to the broader understanding of CRC pathology and may help guide prognostic assessment and treatment planning.

## **Poster 18**

### **INVESTIGATING THE CORRELATION BETWEEN LYMPHOCYTE-TO-NEUTROPHIL RATIO AND TUMOR STAGING (T1-T2 VS. T3-T4) IN COLORECTAL CANCER PROGRESSION**

**Author(s):** Miss Saba Patoli, Mr Sanjay Harrison

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**Aims:** The Lymphocyte-to-Neutrophil Ratio (LNR) has been proposed as a prognostic marker in colorectal cancer (CRC), reflecting immune response and systemic inflammation. However, its relationship with T-stage, which indicates the extent of tumor invasion, remains unclear. This study aims to evaluate the correlation between LNR and T-stage in CRC patients, exploring its potential role in predicting tumor progression. Identifying such a correlation could enhance understanding of the immune microenvironment in CRC and contribute to future prognostic models.

**Methods:** A retrospective analysis was conducted using patient data from County Durham and Darlington Memorial Hospital between January and December 2023. Ninety-six patients with stage I-III CRC were categorized into two groups based on T-stage: T1-T2 (Group A, n=29) and T3-T4 (Group B, n=67). LNR was calculated for each patient. Statistical analysis was performed using the Mann-Whitney U test to assess differences between groups, ensuring methodological rigor while accounting for patient variability.

**Results:** Group A (T1-T2) had a median LNR of 2.65 (SD = 1.33), whereas Group B (T3-T4) had a median LNR of 2.90 (SD = 3.61). The p-value of 0.3976 and Z-test statistic of -0.8459 suggest no significant difference between the groups, with results falling within the 95% region of acceptance (U = 865). These findings indicate that LNR does not exhibit a clear correlation with T-stage in CRC, though further analysis could clarify potential biological interactions.

**Conclusion:** This study found no statistically significant correlation between LNR and T-stage in CRC, as indicated by the p-value above conventional thresholds for significance. However, refining the study design through larger sample sizes, more granular staging classifications, and controlling for confounders such as tumor grade and lymph node involvement may provide deeper insights. Future investigations should explore alternative statistical approaches and longitudinal analysis to better understand the immune-inflammatory interplay in CRC progression.

**Key statement:** While this study does not confirm a statistically significant correlation between LNR and T-stage in CRC, it highlights the need for further research on the interaction between immune markers and tumor invasion. Enhanced methodologies may reveal subtle associations, guiding the development of more comprehensive prognostic tools. Understanding LNR in different CRC stages could eventually improve patient stratification and treatment planning.

## Poster 19

### **CORRELATION BETWEEN LNR AND LYMPH NODE STATUS IN COLORECTAL CANCER: A COMPARATIVE ANALYSIS OF N0 VS N1, N2 PATIENTS**

**Author(s):** Miss Saba Patoli, Mr Sanjay Harrison

**Institution:** County Durham and Darlington Memorial Hospital, Darlington, United Kingdom

**Aims:** The Lymphocyte-to-Neutrophil Ratio (LNR) is an emerging prognostic biomarker in colorectal cancer (CRC), influencing the balance between immune response and inflammation. Lymph node status (N stage) is a key determinant of CRC progression, yet its relationship with LNR remains uncertain. This study aims to explore the correlation between LNR and N stage (N0 vs. N1, N2) to assess its relevance in patient prognosis. Understanding these interactions may help refine prognostic models and guide future therapeutic approaches.

**Methods:** A retrospective analysis was conducted using patient data from County Durham and Darlington Memorial Hospital between January and December 2023. Sixty-nine patients with

stage I-III CRC were divided into two groups based on lymph node involvement: N0 (Group A, n=54) and N1/N2 (Group B, n=15). LNR was calculated for each patient. Statistical comparison between groups was performed using the Mann-Whitney U test to evaluate potential associations.

**Results:** Group A (N0) had a median LNR of 2.83 (SD = 2.81), while Group B (N1, N2) had a median LNR of 3.00 (SD = 5.47). The statistical analysis yielded a p-value of 0.5268, indicating no significant difference between groups. The Z-test statistic of -0.633 confirmed that results fell within the 95% region of acceptance (U = 361). These findings suggest no strong correlation between LNR and N stage in CRC.

**Conclusion:** This study found no statistically significant correlation between LNR and lymph node involvement (N0 vs N1, N2) in CRC, as evidenced by the p-value exceeding conventional significance thresholds. While no definitive link was established, further research incorporating larger sample sizes, refined N-stage classifications, and additional patient variables may better assess LNR's potential as a prognostic marker. Alternative statistical approaches and longitudinal studies could further clarify its clinical relevance in CRC management.

**Key statement:** Although this study does not confirm a significant correlation between LNR and lymph node status in CRC, it highlights the need for further investigation into immune-inflammatory mechanisms influencing tumor progression. Refining methodologies and expanding datasets may reveal subtle interactions that contribute to more precise prognostic assessments.

## Poster 20

### AUDIT OF PEDIATRIC APPENDECTOMY PATHWAY: EVALUATING ADHERENCE TO GIRFT GUIDELINES FOR IMPROVED SURGICAL OUTCOMES AND STANDARDIZED NHS CARE

**Author(s):** Miss Saba Patoli, Mr Syed fida Rahman Casans

**Institution:** County Durham and Darlington Memorial Hospital, Darlington, United Kingdom

**Aims:** The aim of this audit was to evaluate the adherence to the GIRFT (Getting It Right First Time) recommendations in the management of pediatric appendicitis at a non-specialist NHS trust. The focus was on assessing the quality and consistency of care provided, including diagnostic accuracy, timely administration of antibiotics, appropriate use of imaging, and surgical timing. By identifying gaps in practice and areas of variation, the audit sought to improve clinical outcomes, reduce negative appendectomy rates, and promote standardized, evidence-based care for pediatric patients undergoing appendectomy.

**Methods:** A retrospective audit was conducted at DMH, Durham, covering the period from January to December 2024. Data were collected for 70 pediatric patients aged 5–17 years who underwent appendectomy. Key variables included route of admission, clinical scoring, timing of antibiotic administration, use of imaging, surgical timing, and postoperative outcomes. The



audit compared current practices against GIRFT recommendations, focusing on preoperative and intraoperative measures. The data were analyzed to identify compliance levels and areas requiring improvement, with results stratified by hospital site and consultant involvement.

**Results:** Among the 70 patients audited, 56 were admitted via the Emergency Department and 14 through GP referral. Clinical scoring identified 39 patients with high scores and 31 with intermediate scores. While most patients received analgesia promptly, only a portion received antibiotics within the recommended one-hour window. Ultrasound imaging was underutilized in intermediate/high-score cases. The negative appendectomy rate was 16%, exceeding the GIRFT benchmark of 10%. Despite this, overall clinical outcomes were favorable, with minimal complications and low readmission rates. The audit highlighted both strengths and areas for targeted improvement in adherence to national standards.

**Conclusion:** The audit demonstrated generally high adherence to GIRFT guidelines in the management of pediatric appendicitis, particularly in surgical timing and analgesia administration. However, there were notable gaps in timely antibiotic delivery and consistent use of diagnostic imaging. The elevated negative appendectomy rate underscores the need for improved diagnostic accuracy. These findings support the need for ongoing education, process refinement, and a second audit cycle to ensure continuous quality improvement. Implementing these changes can enhance patient outcomes, reduce unnecessary interventions, and align care with national best practice standards.

**Key statement:** This audit underscores the importance of adhering to GIRFT recommendations to standardize pediatric appendectomy care across NHS trusts. While clinical outcomes were generally positive, the findings reveal opportunities to improve diagnostic precision and antibiotic timing. Addressing these gaps can reduce negative appendectomy rates and enhance overall care quality. The results advocate for continued monitoring, staff training, and system-level adjustments to ensure consistent, high-quality surgical care for children. A second audit cycle is planned to evaluate the impact of implemented changes and reinforce a culture of evidence-based practice and continuous improvement.

## **Poster 21**

### **INTRA GASTRIC BALLOON AS A FIRST STAGE IN THE SUPER OBESE PATIENTS. IS IT WORTHWHILE?**

**Author(s):** Dr Shoieb Mridha, Dr Ishleen Oberoi, Mr John Finney, Mr Srinivasan Balchandra, Mr Sashi Yeluri

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**Aims:** Patients with super obesity require complex treatment and staged approach for weight loss. Intra gastric balloon (IGB) is an accepted modality for treatment of obesity. However, the efficacy of IGB in the super obese patients as a first stage has not been clearly established. The study aims to evaluate the efficacy of IGB as first stage in this select patient population.

**Methods:** Patients who received IGB as a first stage procedure as part of a staged approach, in our unit, from 2011 to 2021 were included in a prospective database. Demographic data, and weight loss results before and after 6 months of balloon insertion were analyzed using Microsoft Excel.

**Results:** 14 patients were included in the study. All patients received routine IGB support, followed by planned endoscopic removal. Balloon was taken out early from one patient due to intolerance. Majority of the patients were male (64.2%). Median body mass index (BMI) prior to balloon insertion was 66.95 kg/m<sup>2</sup> (interquartile range {IQR}: 55.8-72.5 kg/m<sup>2</sup>) with a median weight of 197.2 kg (IQR: 166-237 Kg). Median total weight loss for all patients at 6 months was 10.5 Kg (range: -4.9-39.6). Two patients gained weight, and a third patient did not lose any weight.

**Conclusion:** IGB as a first stage procedure in patients with super morbid obesity achieved limited reduction in weight. It appears to have limited value in making the 2nd stage safe. Further data is required before IGB can be established as a first stage approach in this patient population.

**Key statement:** Intra Gastric Balloon therapy offers only modest and inconsistent weight loss in super obese patients and may not significantly enhance safety for subsequent bariatric surgery. Careful patient selection and alternative preoperative strategies should be considered in this high-risk group.

## **Poster 22**

### **SERVICE REVIEW OF ABDOMINAL DRAIN USE IN GI SURGERY**

**Author(s):** Dr Ayman Elshihaby, Dr Alaa Attia, Miss Rina George

**Institution:** Doncaster and Bassetlaw Teaching Hospital, Doncaster, United Kingdom

**Aims:** This audit aimed to optimize drain assessment on surgical wards, facilitate earlier and safer drain removal, and enhance compliance with national documentation standards also creating physical and electronic easily accessible documentation for the site of the drain, numbers, nature and the amount of the drain output. Also early documentation in the recovery room with amount and nature of the fluid with early escalation for any drain concerns.

**Methods:** A retrospective review was conducted across two audit cycles. Data were collected from nursing notes, the Nerve centre system, and clinical documentation for patients with intraoperatively or radiologically inserted abdominal drains. Key criteria assessed included documentation of drain type, location, 24-hour output, fluid nature, and timing of measurements.

**Results:** Cycle 1 (n=30) showed low compliance: 73.3% had 24-hour output documented, 3.3% had drain location recorded, and none had fluid type noted. After intervention, Cycle 2 (n=25)

showed improvements: 80% compliance for 24-hour output, 80% for drain location, 60% for drain type, and 36% for fluid nature. Documentation of output timing improved to 84%. However, no improvements were noted in documentation upon return from recovery.

**Conclusion:** While targeted interventions improved documentation compliance, persistent systemic issues highlight the need for integrated, user-friendly documentation platforms and continued staff education to ensure best practices in surgical drain management.

**Key statement:** Surgical drains are widely used in gastrointestinal (GI) surgery to monitor postoperative complications and guide clinical management. However, inadequate documentation of drain output and characteristics can delay removal, increasing the risk of infection and patient discomfort or early removal of the drain with increase the risks of post-operative collection and abscess formation.

## Poster 23

### A RARE CASE OF DE GARENGEOT HERNIA: DIAGNOSED INTRAOPERATIVELY DURING ELECTIVE FEMORAL HERNIA REPAIR

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**Institution:** Doncaster & Bassetlaw Teaching Hospitals NHS Trust, Doncaster, United Kingdom

**Aims:** De Garengeot hernia is a rare subtype of femoral hernia, where the appendix is located within the femoral hernia sac. Its incidence is between 0.5–5% of all femoral hernias, and the presence of appendicitis within the hernia is even rarer. Preoperative diagnosis remains challenging due to non-specific symptoms and rarity.

**Methods:** We report the case of a 79-year-old woman who underwent elective open femoral hernia repair for an asymptomatic right groin swelling. Pre-operative assessment, including clinical examination and blood tests, was unremarkable.

**Results:** Intraoperatively, the hernia sac was found to contain the caecum and a non-inflamed appendix. The contents were reduced, and the femoral defect was repaired with sutures. No appendicectomy was performed due to the absence of inflammation. The patient recovered uneventfully and was discharged the same day.

**Conclusion:** De Garengeot hernia, though rare, should be considered in the differential diagnosis of incarcerated femoral hernias. Most cases are identified intraoperatively. CT imaging can aid in diagnosis but is not always used preoperatively, especially in elective cases. Management should be tailored based on intraoperative findings.

**Key statement:** A high index of suspicion should be kept in mind for De Garengeot hernia in irreducible groin swellings, even in asymptomatic patients undergoing elective hernia repair. Intraoperative vigilance is key to managing this rare condition effectively.

## Poster 24

### COMPLIANCE OF POST OPERATIVE NOTES FOR OPEN OR LAPAROSCOPIC EMERGENCY SMALL BOWEL RESECTION SURGERY (GRIFT, ACS AND ACPGBI)

**Author(s):** Mr Syed Zaidi, Dr Naila Medhat

**Institution:** Good Hope Hospital, University Hospital Birmingham, Sutton Coldfield, United Kingdom

**Aims:** To evaluate compliance of surgical doctors including registrars and consultants in documenting post operative notes for small bowel resection surgery in emergency done either open or laparoscopically as per 2023 GRIFT, ACS and ACPGBI guidelines. Furthermore, after 1st cycle to undertake measures and reevaluate the compliance and to improve service quality.

**Methods:** 2 complete closed loop cycles were under taken with inclusion of 100 patients who underwent small bowel resection surgery done either laparoscopically or open for any indication including cancer, volvulus, obstruction or perforation from Jan 2024 to Jan 2025. 1st cycle included 50 patients and post operative notes were evaluated retrospectively after ethical approval taking GRIFT, ACPGBI and ACS 2023 guidelines as standard. After completing 1st cycle and presentation of results in M&M teaching sessions and posters were done with constant reminders. 2nd cycle was completed including another 50 patients and results compiled.

**Results:** 28 points evaluated and crossed checked against the notes. only 10 percent of the notes mentioned maximum of 20 points while 90 percent of the notes missed important points in guidelines like local aesthetic injection, exact area of bowel, length resected, drain positioning, wash out fluid and quantity and so on. after 1st cycle and intervention like teaching 2nd cycle was completed and 98% operative notes mention at least 25/28 points.

**Conclusion:** Post operative document is integral part of safe surgical practice especially if return to theatre to guide surgeon and for medicolegal issues. Successful intervention and improvement in service provision was achieved.

**Key statement:** Post operative notes are important document that directly affects patient care. It has massive medico legal implication if not filled correctly especially in re do cases. New guidelines as per GRIFT and ACS are there but there is very limited knowledge among residents and consultants.

## Poster 25

### AUDIT OF LAPAROSCOPIC CHOLECYSTECTOMY OPERATIVE NOTES IN A DGH

**Author(s):** Mr Sachin Ramesh<sup>1</sup>, Mr Jaime Antonio Magalong<sup>2</sup>, Mr Umesh Parampalli<sup>2</sup>

**Institution:** <sup>1</sup>Shrewsbury and Telford NHS Trust, Shrewsbury, United Kingdom. <sup>2</sup>SaTH, Shrewsbury, United Kingdom

**Aims:** This audit aims to assess the quality of laparoscopic cholecystectomy operative notes in our trust by comparing them against NHS England's GIRFT (Getting It Right First-Time) recommendations. It also aims to identify areas for improvement and implement targeted interventions.

**Methods:** A retrospective audit of 78 laparoscopic cholecystectomy operative notes conducted in 2024 were selected by systematic random sampling. Data were compared against GIRFT recommendations. After intervention, a re-audit of 78 laparoscopic cholecystectomy operative notes from 2025 was done using the same methodology and compared against initial audit.

**Results:** Significant improvement was observed in the re-audit compared to the initial audit, after intervention in the form of surgeon education and use of modified operation note proforma specific to laparoscopic cholecystectomy was implemented. Documenting significant steps involved in Laparoscopic cholecystectomy for example, details of Calot's triangle dissection, details of bile/gallstone spill and its management and mention of port used to extract gallbladder increased by 13%, 42%, and 48%, respectively.

**Conclusion:** This audit demonstrates a significant improvement in operative note quality by implementing interventions from an initial audit, emphasizing the importance of use of recommendations issued by GIRFT. Audits should be conducted at regular intervals to sustain improvements.

**Key statement:** Implementing surgeon education and a procedure-specific proforma led to significant improvements in the quality of laparoscopic cholecystectomy operative notes, with documentation of key steps increasing by 13%, 42%, and 48%, as per NHS England's GIRFT (Getting It Right First-Time) recommendations.

## Poster 26

### FROM EXPECTATIONS TO EXPERIENCES: A SYSTEMATIC REVIEW OF PATIENT AND PUBLIC PERSPECTIVES ON ROBOTIC SURGERY

**Author(s):** Dr Benoit Jauniaux<sup>1</sup>, Mr Ajitesh Anand<sup>2</sup>, Miss Rahma Abbas<sup>2</sup>, Professor Deena Harji<sup>1,3,4</sup>

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**Aims:** The adoption of robotic-assisted surgery (RAS) provides opportunities for improved operative clinical and patient-reported outcomes. However, there are several patient and public misconceptions regarding robotic procedures, risks and surgeon involvement. It is the surgical community's responsibility to empower and educate patients regarding emerging technologies to improve understanding and shared decision-making. This systematic review aimed to evaluate the existing literature and summarise the current understandings, perceptions, expectations and experiences of patients and the public with RAS across all surgical specialities.

**Methods:** A mixed-methods systematic review was undertaken with searches conducted in Medline, Embase, and Cochrane Library databases from conception to November 2024. Each study was evaluated regarding its design and statistical methodology. Data quality was reviewed in accordance with the Risk of Bias Tool 2 and Critical Appraisal Skills Programme Checklist for quantitative and qualitative data, respectively. A narrative synthesis was undertaken using the principles of content analysis to identify all themes.

**Results:** Of the 7,889 references identified, twelve quantitative, four qualitative, and two mixed-methods studies were included, assessing 2,789 patients and 1,244 members of the public. All studies were retrospective and assessed cohorts across five specialities, including gynaecology, colorectal, urology, orthopaedic and cardiothoracic surgery. Six themes were identified: factual knowledge, awareness, preference, perception and expectations, experiences, and willingness to pay.

**Conclusion:** Patients and the public hold diverse views on robotic-assisted surgery, influenced by multiple factors and various misconceptions. Structured preoperative education programmes generally lead to high satisfaction rates, along with increased knowledge and awareness.

**Key statement:** This mixed-methods systematic review of 18 studies explores how patients and the public perceive robotic-assisted surgery (RAS) across various surgical specialties. Six key themes emerged, reflecting diverse levels of knowledge, perceptions, and expectations, often influenced by misconceptions. The evidence highlights that structured preoperative education improves patient understanding, satisfaction, and confidence in RAS. As robotic surgery becomes increasingly integrated into clinical practice, addressing misinformation and supporting shared decision-making will be vital to enhancing patient engagement and informed consent.

## Poster 27

### THE ROLE AND IMPACT OF ROBOTIC-ASSISTED SURGERY IN UROLOGY: OUTCOMES, BARRIERS, AND FUTURE DIRECTIONS

**Author(s):** Miss Ayesha Harsh

**Institution:** King's College London, United Kingdom

**Aims:** This review aims to explore the role of robotic assisted surgery (RAS) in urology by examining its clinical applications, reported outcomes, and implementation challenges. It focuses on key procedures including radical prostatectomy, partial nephrectomy, and cystectomy to assess where RAS offers benefits over traditional approaches. Additionally, the review considers barriers to wider adoption such as cost, variation in surgical performance, and training requirements, and evaluates how emerging technologies such as artificial intelligence and telemedicine may shape the future of RAS in urological practice.

**Methods:** Key literature from peer-reviewed articles, clinical studies, and meta-analyses was synthesised to evaluate the use of robotic-assisted surgery in urology. The review focuses on radical prostatectomy, partial nephrectomy, and cystectomy, comparing RAS with traditional open and laparoscopic approaches. Outcomes assessed include surgical precision, functional recovery, complication rates, and adoption barriers such as cost, training requirements, and variation in outcomes. Emerging technologies, including AI integration and telemedicine, are also considered.

**Results:** Studies found that RAS demonstrates improved early continence and erectile function in prostatectomy, reduced warm ischaemia time in partial nephrectomy, and lower blood loss in cystectomy. Functional and oncological outcomes are often superior or comparable to traditional approaches. Barriers to wider use include high costs, variability in surgeon experience, and steep learning curves. Emerging solutions include AI-driven tool tracking and gesture recognition, which may enhance surgical precision and consistency. Telemedicine and remote surgery platforms are also under development, offering long-term potential to expand access to specialised procedures and address surgical workforce shortages.

**Conclusion:** RAS offers meaningful clinical benefits and is becoming integral to modern urology. However, wider adoption depends on reducing costs, improving training, and addressing variability. Future integration of AI and telemedicine could standardise performance, support surgical decision-making, and increase global access to high-quality care.

**Key statement:** Robotic-assisted surgery is redefining standards in urology, offering improved functional outcomes across major procedures. However, its broader adoption is constrained by

high costs, variability in surgeon performance, and training demands. This review highlights the importance of addressing these barriers and looks ahead to emerging innovations such as artificial intelligence and telemedicine, which have the potential to enhance surgical consistency and expand access to high-quality urological care worldwide.

## **Poster 28**

### **MIND THE GAP: INCOMPLETE RISK DISCLOSURE IN LAPAROSCOPIC APPENDICECTOMY CONSENT**

**Author(s):** Mr Kapil Agrawal, Dr Jaspreet Singh Kaur, Ms Shumaila Tanveer, Dr Paashupat Bhanuda

**Institution:** The Royal Wolverhampton NHS Trust, United Kingdom

**Aims:** To assess whether current consent practices for laparoscopic appendicectomy in our hospital comply with national guidance on informed consent. Specifically, we evaluated alignment with **GMC's 2020 "Decision Making and Consent"** and **RCS England's 2016 "Supported Decision-Making"** guidelines, which emphasise personalised disclosure of material risks. We aimed to identify commonly omitted risks, including gender-specific considerations, and use the findings to develop a standardised consent tool to improve documentation and shared decision-making.

**Methods:** A retrospective audit was performed on 68 consent forms for laparoscopic appendicectomy over three months. Each form was assessed for documentation of 17 key risks agreed upon by consultant consensus and national guidance. Gender-specific risks and the breakdown of "injury to nearby structures" were analysed in detail. Data were compared against standards set by GMC and RCS England guidelines. Descriptive statistics were used to identify areas of poor compliance and targetable gaps in documentation.

**Results:** Only 4 risks were documented in over 75% of cases: bleeding (98.5%), infection (95.6%), injury to nearby structures (83.8%), and conversion to open (88.2%). Specific structure risks were inconsistently recorded: bowel (61.8%), bladder (36.8%), ureter (22.1%), liver (7.4%), and spleen (2.9%). Of 46 female patients, only 14 (30.4%) had gynaecological risks documented. Key risks such as death (13.2%), hernia (63.2%), stoma (36.8%), and reintervention (23.5%) were frequently omitted. Documentation showed variable alignment with national consent guidance.

**Conclusion:** Consent for laparoscopic appendicectomy frequently omits material and gender-specific risks, falling short of GMC and RCS guidance. The gap in disclosing gynaecological risks in female patients is particularly concerning. "Injury to nearby structures" is commonly listed, but without specifying the organs involved. A structured, procedure-specific consent template is being introduced to improve compliance and patient communication. Re-audit is planned to assess its impact. This project supports standardised consent as a tool to ensure ethical and legal consent practices.



**Key statement:** This audit reveals poor compliance with GMC and RCS England consent standards for laparoscopic appendicectomy. Critical risks, including female-specific and organ-specific injuries, are frequently under-documented. Introducing structured consent templates may help standardise risk disclosure and support shared decision-making, improving both legal robustness and patient safety.

## Poster 29

### THE ROLE OF ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING APPLICATIONS IN EMERGENCY SURGERY: SYSTEMATIC REVIEW OF DIAGNOSTIC ACCURACY AND CLINICAL OUTCOMES

**Author(s):** Miss Safa Baqar<sup>1</sup>, Mr Adel Hamed<sup>2,3</sup>, Dr Islam Elbreki<sup>4</sup>, Mr Tarig Mohamed<sup>5</sup>, Mr Mohamed Elsaigh<sup>6</sup>

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**Aims:** We aim to evaluate the effectiveness of machine learning in identifying emergency patients and the effectiveness of AI methods in diagnosing them compared to conventional methods. We also aim to assess AI's capability in predicting complications and the need for surgical intervention.

**Methods:** The systematic review included English-language research papers published between 2015 and 2025 focusing on human studies. Two independent reviewers analysed articles following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines, screening titles from five significant databases (PubMed, Web of Science, Scopus, Cochrane, and Embase). The final selection process ensured all included studies aligned with the primary research question examining machine learning's impact on emergency care accuracy and efficiency.

**Results:** The results showed the significance of the application of AI across five key areas of emergency surgery: appendicitis management (five studies), emergency abdominal surgery risk assessment (five studies), acute abdominal pain and triage (two studies), bowel obstruction (four studies), and acute conditions of the gallbladder and mesenteric vessels (three studies).

Machine learning models demonstrated promising accuracy rates compared to conventional methods in all the different aspects.

**Conclusion:** This systematic review highlights the promising impact of AI and machine learning across emergency surgery domains. The models demonstrated remarkable accuracy (72-98%) across various applications, from appendicitis diagnosis to cholecystitis detection. Most notably, AI tools showed superior performance in acute abdominal pain triage and risk assessment compared to conventional methods, suggesting their potential to enhance clinical decision-making in emergency surgical settings.

**Key statement:** Artificial intelligence (AI) refers to computer systems' ability to perform tasks requiring human intelligence. In recent years, AI has rapidly evolved in various fields, including the medical field. The integration of AI into emergency surgical care represents a significant advancement in modern medicine. The advancement in AI-assisted emergency surgery is built upon several technological pillars, such as deep learning, natural language processing for rapid medical record analysis, and integration with existing hospital information systems.

### Poster 30

#### A DECADE OF HOT CHOLE: SHARING THE EXPERIENCE OF EMERGENCY LAPAROSCOPIC CHOLECYSTECTOMY IN A SINGLE NHS DISTRICT HOSPITAL

**Author(s):** Mr Mohammad Badr Almoshantaf, Dr Malcolm IREM, Dr Yaseen Othman, Ms Fiammetta Soggiu, Mr Hemant Sheth

**Institution:** Ealing Hospital, London, United Kingdom

**Aims:** Emergency laparoscopic cholecystectomy, or "hot chole," is increasingly adopted as the preferred approach for managing acute gallbladder pathology during index admission. While it offers benefits such as reduced hospital stay and lower recurrence of biliary events, it is technically more challenging than elective surgery and associated with a higher risk of complications. Among these, the bile leak remains a serious concern. This study aimed to assess the postoperative outcomes of hot cholecystectomy and identify factors associated with bile leak, complications, and readmissions.

**Methods:** A retrospective analysis was conducted of 785 consecutive emergency laparoscopic cholecystectomies performed between 2013 and 2024 at a single NHS general district hospital. Elective procedures were excluded. Preoperative variables, intraoperative findings, and histopathological data were analysed. Logistic regression was used to identify predictors of bile leak, postoperative complications, and 30-day readmission.

**Results:** The overall bile leak rate was 2.4% (19/785). There was significant association between bile-leak and gangrenous-gallbladder (42.1% vs 6.6%,  $p = 0.02$ ), and ASA  $\geq 3$  (36.8% vs 11.6%,  $p = 0.03$ ). Other factors such as acute-cholecystitis ( $p = 0.74$ ), CBD-dilatation ( $p = 0.17$ ), and IOC use ( $p = 0.96$ ) were not significantly associated with bile-leak. The 30-day readmission rate was

8.2%, and the overall postoperative complication rate was 7.9%, including wound infection (3.6%), retained-stones (2.0%), and postoperative bleeding (1.8%). We identified male sex (OR 4.4,  $p = 0.017$ ) and ASA  $\geq 3$  (OR 3.3,  $p = 0.013$ ) as independent predictors of postoperative complications.

**Conclusion:** Bile leak following emergency laparoscopic cholecystectomy remains rare but is more frequent in patients with gangrenous gallbladders and higher ASA grades. IOC did not appear to reduce the risk of a bile leak. Male sex and significant comorbidities were independent predictors of postoperative complications. These findings support selective IOC use and enhanced perioperative vigilance for high-risk patients.

**Key statement:** This decade-long analysis of emergency laparoscopic-cholecystectomy highlights the evolving complexity of “hot chole” practice in real-world NHS settings. While complications like bile leak are infrequent, they cluster in physiologically frail patients and those with severe gallbladder pathology. The lack of benefit from routine IOC challenges established dogma, inviting reconsideration of its role. These findings suggest that future strategies should prioritise patient risk stratification, surgical planning based on intraoperative severity, and targeted perioperative support. As emergency cholecystectomy becomes standard, refining selection criteria and streamlining decision-making will be critical to improving safety and outcomes.

## Poster 31

### SMALL BOWEL HERNIATION AND OBSTRUCTION THROUGH PERITONEAL DEFECT AFTER LAPAROSCOPIC TEP REPAIR OF RECURRENT INDIRECT INGUINAL HERNIA - A CASE REPORT

**Author(s):** Mr Ahmed Elmoraly

**Institution:** Medway Maritime Hospital, Gillingham, United Kingdom

**Aims:** The choice of laparoscopic repair is not without its own complications. These include trocar injuries, port-site herniation, seroma and neuropathy. A less well-recognized complication is small bowel obstruction due to small bowel herniation through, or adherence at, the site of the peritoneal closure. The complication rate after TEP is reported to be lower than that after TAPP. The abdominal cavity is not entered in TEP and the risk of bowel obstruction after TEP was thought to be essentially zero. However, a few reports do exist of this rare complication where the small bowel herniated through peritoneal defect.

**Methods:** Case report; written informed consent was obtained from the patient for publication of this case report and accompanying images.

**Results:** Patients who had laparoscopic inguinal hernia repair presenting with mechanical small bowel obstruction in early post operative period without clinically palpable hernia suggesting recurrence, small bowel herniation through a peritoneal defect has to be considered as a relevant complication requiring diagnostic laparoscopy and closure of the peritoneal defect.

**Conclusion:** Totally extraperitoneal repair is a useful technique to be used for the repair of inguinal hernia. Key technical considerations for total extra-peritoneal (TEP) indirect inguinal hernia repair include meticulous inspection for peritoneal defects, thorough repair of any identified defects, and the evacuation of intra-abdominal pneumoperitoneum before decompressing the preperitoneal space. Adhering to these technical guidelines and maintaining heightened vigilance for potential bowel entrapment can help reduce the incidence of such complications. Early recognition of small bowel entrapment in peritoneal defects can facilitate more cost-effective and timely interventions.

**Key statement:** Peritoneal defect discovered during laparoscopic hernia repair should be closed with V lock sutures or metallic clips or placing biological mesh. If the defect is small, leave it alone. Evaluation of the abdominal cavity for possible pneumoperitoneum should be done after a TEP repair. Evacuation of the abdominal pneumoperitoneum prior to deflating the preperitoneal space would decrease the force that drives the bowel through a small peritoneal defect. This could be done with a Veress needle just prior to evacuating the preperitoneal space.

## **Poster 32**

### **FENESTRATING VERSUS RECONSTITUTING SUBTOTAL CHOLECYSTECTOMY: SYSTEMATIC REVIEW AND META-ANALYSIS ON BILE LEAK, BILE DUCT INJURY, AND OUTCOMES**

**Author(s):** Mr Ahmed Elmoraly

**Institution:** Medway Maritime Hospital, Gillingham, United Kingdom

**Aims:** Symptomatic gallstones is the most common reason for cholecystectomy. If a difficult cholecystectomy prevents a surgeon from reaching the critical view of safety, subtotal cholecystectomy is considered the best bailout method. With higher success rates than ever before, subtotal cholecystectomy is a technique that has only grown in importance over time. Two variants of subtotal cholecystectomy are fenestrated and reconstituted cholecystectomy. A subtotal cholecystectomy is fenestrating or reconstituting depends on whether the lowest portion of the gallbladder remains open (fenestrating) or closed (reconstituting). The aim of this meta-analysis is to compare the outcomes of these two variants on patient outcomes.

**Methods:** A literature search was performed via MEDLINE, Cochrane, EMBASE, and Google Scholar. The PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-analyses) standards in the conduct of this research were followed. Prospective, retrospective, and case-controlled studies were included. The need for post-endoscopic retrograde cholangiopancreatography (post-ERCP), bile leak, and bile duct injury were primary outcomes which were included in the search. Long-term and short-term problems were also examined as secondary results. Following duplication, exclusion criteria and relevance to the topic, the final literature review included five papers in all.

**Results:** Of the five studies, 189 (34.2%) had a reconstituted subtotal cholecystectomy, and 363 (65.8%) had a fenestrated subtotal cholecystectomy. Fenestrated group reported no bile duct injury, the reconstituted group reported two bile duct injuries from 100 patients (2%). The incidence was found to be lower in the fenestrated group (OR 10.81;  $p = 0.39$ ) than in the reconstituted group. 4 studies revealed 92 cases of bile leaks: 19 out of 155 cases (12.3%) were reconstituted, and 73 of 351 cases (20.8%) were fenestrated. Between the 2 groups, there was a significant difference in bile leakage (OR 0.72;  $p = 0.03$ ).

**Conclusion:** Following a fenestrated partial cholecystectomy, postoperative bile leakage, fistula development, wound infection, and retained stones were more prevalent. Additionally, we saw that post-operative ERCP was being used more frequently with the fenestrated method. The subtotal cholecystectomy technique used should be chosen according to the surgeon's comfort level and experience with the various techniques and intra-operative findings.

**Key statement:** Post-operative bile leakage is more common following fenestrated partial cholecystectomy, along with fistula formation, wound infection, and retained stones. Our study revealed that bile duct leak was less common in reconstituted procedures, while bile duct injury was less common in fenestrated procedures. We also observed a greater frequency of postoperative ERCP using the fenestrated approach.

### Poster 33

#### TREATMENT ESCALATION PLAN (TEP) COMPLETION IN GENERAL SURGICAL ADMISSIONS IN ABERDEEN ROYAL INFIRMARY

**Author(s):** Mr Alexander Adima, Mr Hafiz Muhammad Nuheel Iqbal

**Institution:** Aberdeen Royal Infirmary, United Kingdom

**Aims:** To assess the completion rate and timeliness of Treatment Escalation Plans (TEPs) for patients aged  $\geq 65$  years admitted to the acute general surgical ward (Ward 208) at Aberdeen Royal Infirmary, and to implement interventions aimed at improving compliance with NHS Grampian recommendations.

**Methods:** A retrospective audit was conducted on patients admitted to Ward 208 between 31/03/2025 and 21/04/2025. Patients under 18 or admitted for less than 24 hours were excluded. Data were collected using TrakCare. The primary outcome was the proportion of patients aged  $\geq 65$  with a completed and endorsed TEP within 72 hours of admission. Secondary outcomes included time to TEP completion and documentation of DNACPR alongside TEP.

**Results:** Out of 109 total admissions, 55 patients (50%) were aged  $\geq 65$ . Only 7 TEPs were completed, all for patients  $\geq 65$ , giving a completion rate of 12.7% in this subgroup. The average age of patients with completed TEPs was 77 years. The mean time to TEP completion was 5.7 days (range 1–11). Only 1 of 7 TEPs was endorsed by a consultant. Of 15 DNACPR forms completed, 5 were accompanied by a TEP. Interventions including CME presentations, staff

email reminders, promotion of TEP discussions during ward rounds, and visual prompts were introduced to address barriers and improve TEP compliance.

**Conclusion:** Baseline data reveal suboptimal TEP completion for older surgical patients, with delays in documentation and limited consultant involvement. Targeted interventions aim to improve early TEP completion and adherence to NHS Grampian guidelines in future audit cycles.

**Key statement:** A Treatment Escalation Plan (TEP) is a vital clinical tool that records and communicates a patient's treatment preferences if their condition deteriorates. Though not legally binding, TEPs support clear, consistent care, reduce inappropriate interventions, and should be completed early in hospital admission—especially for frail, seriously ill, or high-risk patients.

#### **Poster 34**

#### **LESSER OMENTAL INFARCTION: A RARE CAUSE OF INTRAPERITONEAL FOCAL FAT INFARCTION (IFFI)**

**Author(s):** Mr Sachin Ramesh, Dr Arpitha Kodihalli Jayaramgowda

**Institution:** Shrewsbury and Telford NHS Trust, Shrewsbury, United Kingdom

**Aims:** This case report aims to share insights into the clinical presentation, diagnostic challenges, and management strategies for patients with this condition.

**Methods:** This case report was written in retrospect.

**Results:** A 29-year-old gentleman presented with complaints of upper abdominal pain for two days, radiating to the right side. On abdominal examination, there was a soft but tender right hypochondrium. The patient was admitted with a provisional diagnosis of cholecystitis. Blood investigations were unremarkable, except for an elevated C-reactive protein (CRP). Ultrasound abdomen study was normal and ruled out Gallbladder pathology. A CT scan of the abdomen suggested lesser omental infarction secondary to torsion. The patient was managed conservatively with analgesics and discharged after resolution of symptoms.

**Conclusion:** Radiological imaging plays a crucial role in diagnosing lesser omental infarction. If missed, the patient may undergo unnecessary investigations and Interventions. When accurately diagnosed, most cases can be managed conservatively with analgesia. Surgical intervention is rarely required and is reserved for cases where devitalized tissue forms an abscess that does not resolve with conservative management.

**Key statement:** Lesser omental infarction is a rare and often misdiagnosed cause of acute upper abdominal pain that mimics more serious intra-abdominal pathologies; timely diagnosis with CT imaging is essential to avoid unnecessary interventions, as most cases can be managed conservatively.

## Poster 35

### COMPARATIVE SURGICAL OUTCOMES OF LAPAROSCOPIC AND OPEN ORCHIDOPEXY IN CHILDREN WITH CRYPTORCHIDISM

**Author(s):** Ms Javairiya Patel<sup>1</sup>, Mr Md Rezaul Karim<sup>2</sup>, Dr Mauro Camacho<sup>1</sup>, Professor Bijendra Patel<sup>1</sup>

**Institution:** <sup>1</sup>Barts Cancer Institute, London, United Kingdom. <sup>2</sup>Barts Health NHS Trust, London, United Kingdom

**Aims:** This systematic review aims to evaluate and compare the surgical outcomes, complication rates, and success rates of laparoscopic versus open orchidopexy in children with cryptorchidism, to identify the superior approach and guide surgical practice.

**Methods:** A systematic review was conducted in accordance with PRISMA guidelines. Electronic databases including PubMed, Embase, Scopus, and Cochrane Library were searched up to May 2025 for studies comparing laparoscopic and open orchidopexy in paediatric cryptorchidism. Both randomised controlled trials and observational studies were included. Data extracted included patient demographics, testicular location, laterality, surgical approach, operative time, complications, testicular atrophy, ascent rates, and follow-up duration. Risk of bias was assessed using RoB 2 and ROBINS-I tools. Data were synthesised descriptively due to heterogeneity in study design and outcome definitions.

**Results:** A total of 25 studies, comprising 2,168 open and 2,373 laparoscopic orchidopexies, were included. The pooled success rates were high for both open (94.6%) and laparoscopic (92.6%) approaches. Overall complication rates, testicular atrophy, and ascent rates were similar between groups. Mean operative time was comparable (open: 53.1 mins, lap: 54.2 mins). Mean hospital stay was shorter for laparoscopy (1.86 days) than open (2.78 days). Wound infection and hematoma rates were low and similar across both groups. Patient satisfaction and testicular volume outcomes were favourable for both approaches.

**Conclusion:** Both open and laparoscopic orchidopexy are safe and effective for treating paediatric cryptorchidism, with comparable success, complication, and reoperation rates. Laparoscopy may offer a shorter hospital stay and is particularly useful for non-palpable testes due to its diagnostic advantage. No significant differences were observed in testicular atrophy or ascent. The choice of technique should depend on patient anatomy, surgeon expertise, and available resources.

**Key statement:** This review supports the use of both open and laparoscopic orchidopexy for paediatric cryptorchidism, with the surgical approach best determined by individual patient factors and surgeon experience. Laparoscopy offers added value in non-palpable cases and may modestly reduce hospital stay. Future research should prioritise long-term outcomes such as fertility, cost-effectiveness, and patient-reported measures to further inform best practice.

## **Poster 36**

### **PRIMARY SMALL INTESTINAL LEIOMYOSARCOMA PRESENTING WITH SMALL BOWEL PERFORATION: A CASE REPORT**

**Author(s):** Mr Mohammed Aboubeirah, Mr Basim Busada

**Institution:** University Hospitals Dorset, Bournemouth, United Kingdom

**Aims:** To report a rare presentation of primary small intestinal leiomyosarcoma (LMS) manifesting as bowel perforation with emphasis on its uncommon occurrence, diagnostic challenges, and the importance of accurate histopathological identification.

**Methods:** A 75-year-old female presented with abdominal pain and raised inflammatory markers. CT scan revealed a perforated 31 x 20 mm homogeneously hyperenhancing mass in the mid-distal ileum. She underwent laparoscopic washout, small bowel resection and anastomosis. LMS was confirmed histologically with immunohistochemistry in the form of positive markers for smooth muscle actin and caldesmon, and negative markers for c-kit and S100.

**Results:** The patient developed postoperative ileus, which was managed conservatively, and the patient was eventually discharged on postoperative day 14. Histopathology confirmed a 30 x 30 x 10 mm well-circumscribed tumour located in the muscularis propria and subserosa, perforating the serosal surface, consistent with LMS, a rare tumour often misdiagnosed as GIST due to overlapping imaging features.

LMSs also have a high risk of recurrence, ranging from 39% to 80%, with the likelihood of secondary metastases between 55% and 71% with perforation increasing the risk. 10 months post-surgery with CT & PET scan follow-up, our patient remains disease-free.

**Conclusion:** This is the first documented case of LMS presenting with small bowel perforation. Diagnosis is challenging and is usually confused with the more common GIST. Therefore, accurate histological and immunohistochemical analyses are essential. In addition, close follow up with imaging & MDT discussions are recommended due to associated high risks of recurrence and metastasis.

**Key statement:** Primary small bowel LMS is an uncommon but aggressive tumour that may present acutely with perforation. Its radiological similarity to GIST on imaging underscores the



necessity of histopathology for definitive diagnosis. Surgical management followed by vigilant long-term monitoring is vital for optimal patient outcomes.

## Poster 37

### PREDICTORS OF EMERGENCY VENTRAL HERNIA REPAIR: A SYSTEMATIC REVIEW

**Author(s):** Mr Md Rezaul Karim<sup>1</sup>, Miss Riem Alkaissy<sup>2</sup>, Professor Salvador Morales-Conde<sup>3,4</sup>, Mr Dimitrios Damaskos<sup>2,5</sup>, Miss Marina Yiasemidou<sup>6</sup>

**Institution:** <sup>1</sup>Barts Health NHS Trust, London, United Kingdom. <sup>2</sup>The Royal Infirmary of Edinburgh, United Kingdom. <sup>3</sup>University Hospital Virgen Macarena, Sevilla, Spain. <sup>4</sup>University of Sevilla, Spain. <sup>5</sup>University of Edinburgh, United Kingdom. <sup>6</sup>The Royal London Hospital United Kingdom

**Aims:** Emergency ventral hernia repair was linked to longer stays, more complications, and higher 30-days mortality (Up to 9.8%). To identify risk factors for necessitating emergency ventral hernia repair.

**Methods:** A Systematic review was conducted according to PRISMA guidelines. Medline and Embase were searched on 26th November 2024. Eligible studies reported on risk factors for emergency ventral hernia repair in adult patients. Study quality was assessed using Cochrane and ROBINS-I tools.

**Results:** Eleven studies met inclusion. The identified risk factors for emergency repair included patient factors- obesity, diabetes, COPD, ASA  $\geq$  III, limited access to healthcare and low socioeconomic status. Hernia related factors include high hernia-to-neck diameter ratio and acute angulation of the hernia sac to defect.

**Conclusion:** Risk factors for emergency hernia repair are well documented and should play a critical role in guiding the timing and urgency of elective hernia intervention to prevent avoidable complications.

**Key statement:** Emergency hernia repairs are associated with poorer outcomes. The risk factors for emergency hernia repair are well documented and should play a critical role in guiding the timing and urgency of elective hernia intervention.

## Poster 38

### IMPLEMENTING THE FAST-TRACK RENAL COLIC (FTRC) PATHWAY: A CLOSED-LOOP AUDIT

**Author(s):** Mr Juin Low, Mr Lorenzo Dutto

**Institution:** Department of Urology, Queen Elizabeth University Hospital, Glasgow, United Kingdom

**Aims:** Renal colic is a common presentation for the acute on-call urology. The aim of the closed-loop audit was to audit the time interval from clinical assessment of renal colic to formal ultrasound imaging (US), with recommendation by National Institute for Health and Care Excellence (NICE) guidelines. Secondary aim was to implement and to assess the safety of a renal colic fast track (FTRC) pathway in requesting ultrasound scans as hot-slots by assessing its impact on waiting times.

**Methods:** Retrospective analysis of patients being referred to acute urology in a single tertiary institution from August 2024 – May 2025. Data relating to patient demographics, urgency of US request and waiting time were recorded. Second cycle re-audit was performed post pathway implementation, following departmental approval. Statistical analysis comparing results of the first and second cycle was performed using a Chi-squared test.

**Results:** Fifty patients were retrospectively evaluated. Mean waiting time for hot slot requests were 2.1 days (SD 0.4); inpatient requests were 3.5 days (SD 0.3); mean outpatient requests were 18.4 days (SD 0.8). In the second audit cycle post-FTRC implementation, Mean waiting time for hot slot requests were 1.7 days (SD 0.4), with improvement by 0.4 days,  $p = 0.045$ . Mean waiting time for inpatient requests were 2.1 days (SD 0.2), with improvement by 1.4 days,  $p < 0.001$ . Mean waiting time for outpatient requests for both cycles were similar at 18.5 days (SD 0.7),  $p = 0.786$ .

**Conclusion:** The implementation of FTRC pathway was an effective way in reducing diagnostic delay and improving patient flow in the acute setting for suspected renal colic. The use of this as part of the FTRC pathway facilitates early analgesia and early imaging for patients presenting with typical features of renal colic and helps enable appropriate prompt triage of this patient group.

**Key statement:** The FTRC pathway is a clinical care pathway used in emergency departments (ED) or acute surgical unit to streamline the management of patients presenting with symptoms of renal colic. It is designed to reduce delays, optimise analgesia, and improve resource utilisation like imaging. Although being used in other specialties, in this study, we have demonstrated that such clinical pathways can be effective in allowing patients with suspected renal colic to receive rapid scan evaluation and pain management, often bypassing full ED workup unless red flags are present.

## Poster 39

### SPHINKEEPER™ FOR FAECAL INCONTINENCE: A SYSTEMATIC REVIEW OF THE OUTCOMES OF THIS NOVEL TECHNIQUE

**Author(s):** Mr Md Rezaul Karim<sup>1</sup>, Miss Marina Yiasemidou<sup>2</sup>, Mr Karekin Keshishian<sup>2</sup>, Mr Pasquale Giordano<sup>2</sup>, Mr Cosimo Alex Leo<sup>3</sup>

**Institution:** <sup>1</sup>Barts Health NHS Trust, London, United Kingdom. <sup>2</sup>The Royal London Hospital,

United Kingdom. <sup>3</sup>Northwick Park- London North West University Healthcare NHS Trust, London, United Kingdom

**Aims:** To systematically assess the safety, feasibility, and clinical outcomes of the SphinKeeper™ prosthetic implant for the treatment of faecal incontinence (FI)

**Methods:** A systematic search was conducted across Embase, PubMed, Scopus, and Web of Science (January 1970 to 20th of April 2025) using keywords related to "Sphinkeeper," "faecal incontinence," "faecal soiling," "injectable agents," and "implantable agents." Studies reporting clinical outcomes in adults treated with the SphinKeeper™ device were included. Data were extracted on patient demographics, FI characteristics, continence scores, anal manometry, complications, and follow-up.

**Results:** Eight studies involving 161 patients (127female; median age 52-75 years) met inclusion. The most common indication was passive or mixed faecal incontinence refractory to conservative management. In the majority of studies, SphinKeeper™ Prosthesis were implanted under endoscopic ultrasound guidance. All studies reported clinical improvement, with incontinence scores (St. Mark's, CCFIS) reduced by 3 to 12 points. Prosthesis migration was reported in approximately 34% of patients, although it was often asymptomatic. One rectal perforation was the only serious adverse event reported. The mean follow-up period was approximately 22 months, with sustained symptom control particularly among patients with internal sphincter defects.

**Conclusion:** SphinKeeper™ is a safe and minimally invasive option for managing faecal incontinence, offering clinically meaningful improvements incontinence and quality of life. The technique demonstrated durable symptom control, particularly among patients with internal sphincter defects. Further randomised trials are needed to confirm long-term efficacy and refine patient selection.

**Key statement:** SphinKeeper™ shows promise as a novel treatment for faecal incontinence, with meaningful symptom and quality-of-life improvement in selected patients.

## Poster 40

### IMPLEMENTATION STRATEGY ON THE MANAGEMENT OF HIGH PRESSURE CHRONIC RETENTION AND POST-OBSTRUCTIVE DIURESIS: A CLOSED-LOOP AUDIT

**Author(s):** Mr Juin Low, Mr Khaver Qureshi

**Institution:** Department of Urology, Queen Elizabeth University Hospital, Glasgow, United Kingdom

**Aims:** High-pressure chronic retention of urine (HPCR) and post-obstructive diuresis (POD) are urological conditions that require prompt management to restore normal urinary function.

Despite its clinical significance, there are no national guidelines or consensus on the optimal fluid management strategy post-catheterisation, leading to inappropriate fluid management. The lack of standardised protocols can lead to inconsistent monitoring and increased morbidity. This closed-loop audit aimed to improve the current evidence-based clinical practice in the local urology department based on the British Association of Urological Surgeons (BAUS) guidelines, aiming to enhance patient safety and improve overall outcomes in the management of HPCR and POD.

**Methods:** Retrospective analysis of patients with HPCR being referred to acute urology in a tertiary hospital from August 2024 – May 2025. Data relating to patient demographics, other variables including POD, hourly urometry, bloods check, lying standing blood pressure (LSBP), and intravenous fluids (IVF) prescribed in POD were collected. A modified protocol and clinical pathway in the management of HPCR and POD was implemented post-first cycle audit, following approval by the Local Clinical Guidelines Assessment Panel. A second re-audit was performed thereafter. Statistical analysis comparing results of both cycles was performed using a Chi-Squared test. Statistical significance was set at  $p < 0.05$ .

**Results:** Forty patients with suspected HPCR were analysed. There were overall improvements in all variables between the first and second audit cycle post clinical protocol implementation. Improvements included diuresis monitoring (82% to 93%,  $p = 0.04$ ); urine output monitoring (45% to 73%,  $p < 0.001$ ); kidney function checked (95% to 100%,  $p = 0.55$ ); urine cultures sent (85% to 93%,  $p = 0.36$ ); imaging done (65% to 93%,  $p < 0.001$ ); nephrotoxics held (70% to 87%,  $p = 0.03$ ); lying and standing blood pressure monitored (5% to 67%,  $p < 0.001$ ); and intravenous fluids (IVF) prescribed in POD (30% to 67%,  $p < 0.001$ ).

**Conclusion:** POD is a common complication of rapid decompression of urinary tract obstruction. Usually, it is a self-limiting and physiological response that requires supportive care. This closed-loop audit project aims to close existing gaps in the management of HPCR and POD. Through standardised departmental protocols, staff education, and robust monitoring, we aim to improve patient safety, reduce complications, and enhance overall care quality in the management of such patients.

**Key statement:** A simple, protocol-driven approach to the management of HPCR and POD can significantly improve recognition, reduce complications, and enhance patient safety. Multidisciplinary engagement and education are vital for sustained success in the management of such patients to improve patient outcomes.

## Poster 41

### A QUALITY IMPROVEMENT PROJECT FOR A DIVERTICULITIS CARE PATHWAY WITHIN A NORTHERN IRELAND HEALTH AND SOCIAL CARE TRUST

**Author(s):** Ms Sarah Stevenson, Ms Sarah Stevenson, Ms Sophie Davidson

**Institution:** Belfast, United Kingdom

**Aims:** To ensure appropriate and consistent treatment and admissions of patients with diverticular disease, in line with NICE guidance.

Create a consistent pathway, this will involve both complicated and uncomplicated diverticular disease patients. It will also involve using our ambulatory services.

Improve the use of our outpatient ambulatory service within the trust, increasing knowledge of the disease and improve use of our daily imaging slots.

Save bed days spent in hospital for uncomplicated disease that could otherwise be managed at home. Ultimately saving the trust time and resources, with more appropriate use of intravenous antibiotics and analgesia.

**Methods:** PDSA cycles.

Cycle one: retrospective data collection over 6 month period, looking at 2340 admissions.

Implementation: Pathway development, discussed at consultant meetings and altered accordingly. Teaching session delivered within our local team meeting.

Cycle two: retrospective data collection.

Data analysed further, feedback received about the pathway and ambulatory services. Adjustments made.

Wider team involvement to ensure availability of QFITs.

**Results:** Cycle one (n=100), 99 patients (99%) scanned. 7 patients complicated, 92 uncomplicated. Of the 92 uncomplicated, 90 (98%) were admitted to the ward for intravenous antibiotics and analgesia. The majority discharged within 24/48h.

Cycle two (n=25), 20 patients scanned, majority in ED. 6 patients confirmed complicated. 14 patients confirmed uncomplicated. Of the uncomplicated, 6 (43%) were admitted and 8 (57%) ambulated.

This shows a massive reduction in unnecessary admissions and a further improvement in the use and awareness of our ambulatory service, it also emphasises increased knowledge of the disease process and follow up required.

**Conclusion:** With the first draft of our pathway enrolled within our trust we have seen a considerable improvement within the surgical department. 98% admissions reducing to 43% shows a massive improvement but potentially even further scope for improvement. This pathway has enabled us to be more efficient with our resources.

Working closely with our radiology colleagues we can potentially open this project further and enable a further imaging CT slot within our ambulatory clinic. This would speed up diagnosis for patients and remove them from an emergency department setting.

I will continue to reflect on and expand the pathway use.

**Key statement:** Simple projects can be effective within a team setting. Good communication within a team setting and involving members of the MDT can enable this. A key aspect is finding an agreeable pathway for management of a disease process.

Ultimately patient safety is paramount and patient satisfaction is another important aspect of this. Appropriate use of our outpatient setting can enable close monitoring of patients without admission or exposure to hospital acquired infections. It is important we identify the 'correct patient' for this by excluding any high risk features.

Providing autonomy to our patients and better understanding of their disease process.

## **Poster 42**

### **CHARACTERISING THE CLINICAL BEHAVIOUR OF UTERINE CARCINOSARCOMA: A 10-YEAR COMPARATIVE SURVEILLANCE EPIDEMIOLOGY AND END RESULT ANALYSIS OF UTERINE CANCER SUBTYPES**

**Author(s)** Mr Juin Low, Dr Robb Hollis

**Institution:** Institute of Genetics and Cancer, The University of Edinburgh, United Kingdom

**Aims:** Uterine carcinosarcoma (CS) is a sporadic and rare form of gynaecological malignancy that makes up less than 5% of all uterine cancers. CS is a highly malignant and aggressive form, defined by the presence of both carcinomatous and sarcomatous malignant elements. This study aims to analyse demographic and survival outcomes of a large cohort of CS, Endometrioid Carcinoma (EC) and Clear Cell Adenocarcinoma (CCA) patients, and to identify prognostic factors that may affect the cancer-specific survival outcomes of these three uterine cancer subtypes.

**Methods:** Retrospective analysis of 718 CS, 18853 EC and 336 CCA patients from the Surveillance, Epidemiology, and End Results (SEER) database over a 10-year period (2005 – 2015) was performed. Clinical data which included race, tumour histology, time to treatment, diagnostic period, stage, grade, surgical treatment and the use of chemotherapy were extracted. Univariate and multivariate analyses were conducted to determine statistical associations between these clinical variables and patient outcomes. Kaplan-Meier survival curves with a log-rank test were generated to compare cancer-specific survival between the three cancer subtypes.

**Results:** EC had the highest median cancer-specific survival, 112.5 (79.1 – 148.6) months, followed by CCA, and CS being the lowest 26.6 (11.7 – 86.5) months,  $p < 0.001$ , with 5-year cancer-specific survival being 45.0%. Increasing age, Black race, and advanced stage and grade were associated with higher mortality in CS; chemotherapy with primary laparoscopic hysterectomy and bilateral salpingo-oophorectomy with staging procedure involving lymphadenectomy conferred a survival advantage in CS,  $p < 0.001$ . Time to treatment and diagnosis period were not significantly associated with cancer-specific survival in CS. Use of chemotherapy did not confer a survival benefit independent of other factors in EC or CCA.

**Conclusion:** CS is a highly malignant uterine tumour that has a poorer prognosis than EC and CCA. It has a significantly higher mortality especially among the Black population. Given that most CS patients were already found to have high grade/stage, early adjuvant chemotherapy offers a potential cancer-specific survival benefit in these patients. Further research into the epigenetics and molecular mechanisms driving the pathogenesis of carcinosarcoma is important for developing targeted immunotherapies to improve these patient outcomes.

**Key statement:** Cancer-specific survival outcomes and prognosis vary significantly among CS, EC, and CCA, therefore reflecting variation in tumour biology, histologic subtype, and molecular profile that could affect the clinical behaviour of these uterine cancer subtypes. EC patients have the best survival outcomes, and CS have the poorest cancer-specific survival. Increasing age, Black race, and advanced stage and grade are significant predictors of mortality in CS patients, receiving chemotherapy treatment confers a survival advantage. Time to treatment and diagnosis period did not demonstrate a statistical significance in the management of CS, perhaps due to the already high-grade aggressive histopathological presentation at diagnosis.

#### **Poster 43**

#### **ADVANCED RECTAL CANCER IN AN 11-YEAR-OLD SUDANESE PATIENT WITH RARE METASTATIC SITE: A CASE REPORT**

**Author(s):** Mr Omeralfarouk Mohammed<sup>1</sup>, Mr Nadir Hilal<sup>1</sup>, Dr Ahmed Rafei<sup>2</sup>

**Institution:** <sup>1</sup>University of Kharoum, Khartoum, Sudan, Khartoum, Sudan. <sup>2</sup>Department of Research, National Center for Gastrointestinal and Liver Diseases, Khartoum, Sudan, Kha, Sudan

**Aims:** Case Report.

**Methods:** Case Report.

**Results:** We present an 11-year-old male with rectal adenocarcinoma who developed cutaneous metastasis after initial treatment. Misdiagnosis and delayed presentation contributed to disease progression. Treatment included neoadjuvant chemoradiotherapy, surgical resection, and adjuvant chemotherapy. Despite initial symptom resolution, the patient experienced tumor recurrence with peritoneal carcinomatosis and subsequent cutaneous metastasis, ultimately succumbing to the disease.

**Conclusion:** This case highlights the challenges of diagnosing and managing pediatric CRC, emphasizing the need for heightened clinical suspicion and improved access to diagnostic tools, especially in resource-limited settings.

**Key statement:** *Colorectal cancer (CRC) is predominantly an adult malignancy, rarely affecting children, with an incidence of less than 1% in individuals under 20 years old.* Pediatric CRC typically presents with nonspecific symptoms, leading to delayed diagnosis and poorer outcomes compared to adults. Cutaneous metastases in CRC are exceedingly rare, occurring in 0.7%–5% of cases, and have not been previously reported in pediatric patients.

## Poster 44

### RETROSPECTIVE COHORT STUDY AT A SINGLE INSTITUTION ON ANASTOMOTIC LEAK RATES AND ASSOCIATED RISK FACTORS FOLLOWING RIGHT HEMICOLECTOMY (2019–2024)

**Author(s):** Mr Md Ashfaq Ul Alam, Mr Abdulqudus Deeknah

**Institution:** Peterborough City Hospital, United Kingdom

**Aims:** Right hemicolectomy and ileo-caecal resection are the most common colonic procedures performed worldwide (excluding appendicectomy). Anastomotic leak (AL) is a serious complication of right hemicolectomy, contributing to 10-fold increase in the risk of death, reduction in cancer-specific survival, increases risk of recurrence in oncological resection, with profound effect on patient's quality of life and risk of permanent ostomy formation. This study aims at determining the incidence of AL following right hemicolectomies, mortality and risk factors associated with AL in a 5-year cohort at a single institution.

**Methods:** A retrospective analysis of 342 consecutive right hemi colectomies (288 with anastomosis) performed at this busy district level hospital between April 2019 and April 2024 was conducted. Data were extracted from electronic records, including demographics (age, BMI, ASA grade), intraoperative factors (MAP, diastolic BP, vasopressor use, surgeon specialty) and postoperative outcomes (AL incidence, mortality, reoperation rates).

**Results:** Emergency right hemicolectomies were 79/342 (23%). Overall anastomotic leak recorded in 17/288 cases (5.5%). Major leaks requiring reoperation is 9/17 (2.9%). 90-day mortality is 5.1% (18/342). Similar rates of MAP drop below 80 were observed in both anastomotic leak patient's and control group (41%). Vasopressor use was 9% higher in AL cases. ASA 3-4 patients had a 15% higher AL rate (53% vs. 38% in controls,  $p < 0.05$ ). BMI  $\geq 35$  was twice as prevalent in AL cases (12% vs. 6% in non-leak group). 53% (9/17) of leaks occurred between days 3–7, 47 (8/17) occurred after day 7.

**Conclusion:** Anastomotic leak rate is 5.5% -below the 8.8% benchmark (Gullen et al.2019). 90 days mortality following anastomotic leak was 5.1%, meeting the national target ( $< 6\%$ , NBCA, 2024). Patients with ASA 3-4 showed 15% higher AL rate whereas BMI $>35$  showed twice and vasopressor use showed 9% increased incidences. No association between MAP  $< 80$  mmHg and



AL risk (similar rates in leak vs. non-leak groups). No leaks occurred within the first 3 days, suggesting delayed healing rather than technical failure. No difference in AL rates based on surgeon specialty (colorectal vs. general surgeons), indicating sound decision making and consistent technical standards.

**Key statement:** Anastomotic leak rate and associated mortality is less in this district hospital than the national standards. ASA 3–4, BMI  $\geq 35$ , and vasopressor use were associated with increased AL rates, while intraoperative hypotension was not. Delayed leaks (beyond day 3) suggest tissue healing factors may be more critical than surgical technique. Findings support preoperative optimization of high-risk patients (e.g., weight reduction, cardiovascular stabilization) and enhanced postoperative monitoring between days 3–7.

## Poster 45

### EARLY OR DELAYED? COMPARING OUTCOMES OF LAPAROSCOPIC CHOLECYSTECTOMY IN UK PRACTICE: A SYSTEMATIC REVIEW

**Author(s):** Mr Abdaal Munir, Mr Abdulrahman Osman

**Institution:** Wirral University Teaching Hospitals, United Kingdom

**Aims:** Acute calculous cholecystitis is a common general surgical emergency in the UK, with early laparoscopic cholecystectomy (ELC) recommended by national and international guidelines. However, significant variability persists in practice across NHS hospitals, with many patients undergoing delayed laparoscopic cholecystectomy (DLC) due to resource constraints. This systematic review evaluates the clinical outcomes of early versus delayed cholecystectomy exclusively within UK practice.

**Methods:** Following PRISMA 2020 guidelines, a comprehensive search of PubMed, MEDLINE, Europe PMC, ScienceDirect, and the Cochrane Library was conducted (April 2025) to identify UK-based studies comparing ELC and DLC in adults with acute calculous cholecystitis. Eligible studies included cohort studies and randomized trials reporting postoperative complications, conversion rates, hospital stay, readmission, or cost-effectiveness. Data extraction and quality assessment were performed using the Newcastle-Ottawa Scale (NOS).

**Results:** Eleven UK-based studies encompassing over 95,000 patients were included. ELC was consistently associated with lower conversion rates to open surgery (typically  $<5\%$ ), shorter hospital stays, and reduced readmission rates compared to DLC. Complication rates were similar or lower in ELC groups, with no consistent increase in operative morbidity. Readmission rates for DLC reached up to 31% in some studies. Early surgery also demonstrated favorable cost implications, with estimated NHS savings of £14–28 million annually. Systemic barriers—rather than clinical concerns—remain the main obstacle to wider adoption of ELC.

**Conclusion:** This review provides robust UK-specific evidence that supports early laparoscopic cholecystectomy as a safe, effective, and cost-efficient standard of care for acute calculous

cholecystitis. Implementation of proven service models, such as “hot gallbladder” lists and consultant-led emergency surgery pathways, can overcome current barriers. Embedding ELC into NHS policy and operational planning is crucial to improving patient outcomes and reducing avoidable healthcare costs.

**Key statement:** Early laparoscopic cholecystectomy for acute calculous cholecystitis, when implemented within UK NHS practice, is consistently associated with shorter hospital stays, fewer readmissions, and lower conversion rates, offering a safe, effective, and economically advantageous alternative to delayed surgery.

## **Poster 46**

### **SINGLE-PORT AND NEXT-GENERATION ROBOTIC PLATFORMS IN COLORECTAL SURGERY: ASYSTEMATIC REVIEW OF FEASIBILITY, SAFETY, AND LEARNING CURVES**

**Author(s):** Dr Nouman Anthony, Dr Simran James

**Institution:** Rehman Medical College, Peshawar, Pakistan

**Aims:** The adoption of single-port (SP) and next-generation robotic systems in colorectal surgery represents a paradigm shift in minimally invasive techniques. This review aims to evaluate the clinical feasibility, safety, and efficiency of emerging robotic platforms, with a focus on learning curves, patient-centered outcomes, and technological innovation. It also explores how these systems influence surgical training and institutional cost-effectiveness, especially in varied patient populations including obese individuals and those with complex surgical histories.

**Methods:** This systematic review was conducted according to PRISMA 2020 guidelines. Literature was searched across PubMed, Scopus, and Web of Science between January 2015 and April 2025 using predefined search terms. The SPIDER tool guided the study framework to capture both interventional and observational designs. Studies were included if they evaluated SP or next-gen robotic platforms in colorectal surgery with endpoints on feasibility, outcomes, or learning curves. Independent reviewers conducted screening, selection, and data extraction. The quality of included studies was assessed using validated tools such as RoB2 and the IDEAL framework.

**Results:** Out of 347 identified articles, 108 were eligible after screening. The majority of included studies showed favorable short-term outcomes including reduced blood loss, shorter hospital stays, and lower conversion rates. Learning curve analyses demonstrated accelerated proficiency with cumulative sum (CUSUM) and statistical process control (SPC) metrics. While operative times were initially higher in SP cohorts, efficiency improved with experience. The integration of next-gen systems enhanced ergonomics, precision, and intraoperative visualization, with some platforms showing promise for broader adoption in low-resource settings.

**Conclusion:** Emerging robotic platforms in colorectal surgery have demonstrated clinical viability with tangible benefits for both patients and institutions. Learning curve data supports streamlined training pathways and may inform future credentialing models. Despite technological complexity, these systems can yield enhanced operative precision, especially for challenging cases such as those involving obesity or prior surgeries. However, further standardization is needed to determine cost-effectiveness and long-term oncological outcomes.

**Key statement:** This systematic review highlights that single-port and next-generation robotic systems represent a promising evolution in minimally invasive colorectal surgery. Their successful integration into practice hinges on institutional readiness, structured training, and further evidence from high-quality trials comparing these systems to multiport and conventional techniques. With continued refinement, these platforms may redefine surgical standards and increase global accessibility to advanced robotic care.

## **Poster 47**

### **COMPARISON OF FRUGAL INNOVATIONS VERSUS COMMERCIAL TRAINERS FOR ACQUIRING BASIC LAPAROSCOPIC SKILLS: A SYSTEMATIC REVIEW**

**Author(s):** Mr Kingsley Ewool, Ms Gauri Godbole, Mr Daniel Hawkins, Mr Mauro Camacho, Professor Bijen Patel

**Institution:** Queen Mary University of London, United Kingdom

**Aims:** To systematically evaluate and compare the effectiveness, cost-efficiency, and implementation feasibility of frugal laparoscopic simulators versus commercial training systems in teaching basic laparoscopic skills.

**Methods:** A PRISMA-compliant systematic review was conducted using PubMed, Embase, Cochrane Library, Scopus, and Web of Science. Only randomized controlled trials (RCTs) from 2004 to 2024 were included. Primary outcomes assessed basic laparoscopic skills using validated tools (FLS, GOALS, OSATS), with performance measured by pre- and post-training task completion times and accuracy for peg transfer, pattern cutting, endoloop, and knot tying. Secondary outcomes included per-trainee cost, usability, and scalability. Risk of bias was assessed using the Cochrane RoB 2.0 tool, and evidence certainty was rated using the GRADE framework.

**Results:** Eighteen RCTs involving 820 trainees were included. Both frugal and commercial trainers produced significant improvements in basic laparoscopic tasks (peg transfer, pattern cutting, endoloop, and knot tying) with pre- to post-training completion time reductions ranging from 25% to 35% ( $p < 0.001$ ). No significant differences were observed between groups post-training ( $p > 0.38$ ), indicating comparable effectiveness. Construct validity was supported in studies comparing novices to experts, with effect sizes up to Cohen's  $d = 3.37$ . Frugal models cost as little as \$31 per trainee versus \$1,000+ for commercial systems. GRADE rated the evidence high for OR performance equivalence and moderate for simulation-based metrics.

**Conclusion:** Frugal laparoscopic trainers achieve skill acquisition outcomes comparable to commercial simulators across core tasks, with significant cost savings and logistical advantages. Their low-cost, portable design enables broader access to structured surgical training, making them ideal for scaling education in both resource-rich and resource-limited environments. These findings support the inclusion of validated frugal trainers in national and institutional curricula to strengthen global surgical capacity.

**Key statement:** Frugal trainers match commercial systems in effectiveness at a fraction of the cost, offering scalable, cost-efficient solutions for laparoscopic training. Future research should focus on long-term skill retention, standardized assessments, and large-scale implementation to support their widespread adoption and improve global surgical education programs.

## Poster 48

### VTE OUTCOMES AFTER POST LAPAROSCOPIC CHOLECYSTECTOMY PROPHYLAXIS AT A BASE HOSPITAL IN THE UK

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**Institution:** Russells Hall Hospital, Dudley Group NHS Foundation Trust, Dudley, West Midlands., United Kingdom

**Aims:** To evaluate current perioperative VTE prophylaxis practices (TED stockings and/or subcutaneous Enoxaparin) and postoperative VTE-related complications following laparoscopic cholecystectomy at a UK base hospital.

**Methods:** A 5-month retrospective pilot study reviewed all patients undergoing laparoscopic cholecystectomy from 07/09/24 to 21/02/25. Clinical documentation was assessed via Sunrise to identify 30-day VTE complications and prophylaxis provided. Patients on regular DOACs were excluded.

**Results:** Among 298 patients (78% female), 57% had a BMI >30. Ages ranged from 18–85 years (mean 49). VTE prophylaxis distribution: 15 (5%) received none, 86 (29%) received TEDs only, 139 (47%) received TEDs plus one dose of Enoxaparin, and 54 (18%) received TEDs plus extended Enoxaparin. Of the group receiving extended duration of Enoxaparin, 41 received up to 7 days, 10 up to 14 days, and 3 over 2 weeks. No postoperative VTE events were observed. 10 patients had bleeding-related post-operative complications: 3 without enoxaparin, 3 with single dose and 4 with extended enoxaparin.

**Conclusion:** No VTE complications were recorded. No statistically significant difference was found between groups receiving mechanical prophylaxis alone, combined prophylaxis, or varying Enoxaparin durations.

**Key statement:** Venous Thromboembolism (VTE) can cause significant morbidity/mortality. Laparoscopic surgery is a recognized VTE risk factor and is included in the Wells' criteria for PE diagnosis. However, there are currently no UK-NICE guidelines for VTE prophylaxis following laparoscopic cholecystectomy. The internationally accredited SAGE guidelines recommend VTE prophylaxis for all laparoscopic surgeries based on risk adherence to SAGE guidelines is advised to optimize VTE prevention following laparoscopic cholecystectomy.

## **Poster 49**

### **CLINICAL OUTCOMES OF TRANSANAL MINIMALLY INVASIVE SURGERY (TAMIS): A SINGLE-CENTRE EXPERIENCE WITH 22 PATIENTS**

**Author(s):** Mr Mohammed Ahmed, Mr Ahmed Alwetaidy, Mr Ahmed Kassem<sup>1</sup>, Mr Triantafyllos Doulias, Mr Khalid Hureibi

**Institution:** Kettering General Hospital, United Kingdom

**Aims:** This study evaluates the clinical outcomes of transanal minimally invasive surgery (TAMIS), introduced at our institution in 2023 for the management of benign rectal lesions and early-stage rectal cancer. We assessed oncological adequacy (margin status), technical quality (fragmentation, operative time, blood loss), complication rates, and the need for subsequent radical surgery. The aim was to determine TAMIS's safety, efficacy, and feasibility as a sphincter-preserving alternative to radical resection.

**Methods:** A retrospective review was conducted of 22 consecutive patients who underwent TAMIS between March 2023 and March 2025. Data collected included lesion characteristics (size, location, histopathology), intraoperative details (operative time, blood loss, fragmentation), postoperative outcomes (margin status, complications), and subsequent interventions. Descriptive statistical analysis was performed.

**Results:** Among the 22 patients, 6 had malignant lesions. Most lesions (63.6%) were 2–4 cm in size, and 77.3% were located within 10 cm of the anal verge. The mean operative time was 72.5 minutes, with a mean blood loss of 12.7 mL (68.2%  $\leq$  10 mL). Fragmentation occurred in 18.2% of cases. R0 resection was achieved in 54.5%, while 27.3% had R1 margins and 18.2% were non-assessable. Complications included two cases of postoperative bleeding and one rectal perforation. Five patients required further surgery: three underwent laparoscopic anterior resection, one APER, and one ileostomy. The mean hospital stay was 1.4 days.

**Conclusion:** TAMIS is a feasible and well-tolerated minimally invasive approach for selected rectal lesions, with short hospital stays and low perioperative morbidity. While oncological margins and fragmentation rates indicate areas for improvement, TAMIS facilitates organ preservation and maintains the option for definitive surgery if required. Wider adoption warrants structured training and refinement of technique.

**Key statement:** Despite being new to our institution, TAMIS demonstrates promising outcomes for selected rectal lesions. However, margin assessment and specimen fragmentation require attention. Enhanced training, standardized techniques, and long-term follow-up will optimize results, ensuring TAMIS remains a viable bridge between endoscopic and radical resection.

## Poster 50

### **PATIENT-REPORTED EXPERIENCE AFTER TRANSANAL MINIMALLY INVASIVE SURGERY (TAMIS): A SINGLE-CENTRE SATISFACTION SURVEY**

**Author(s):** Mr Mohammed Ahmed, Mr Ahmed Alwetaidy, Mr Ahmed Kassem, Mr Triantafyllos Doulias, Mr Khalid Hureibi

**Institution:** Kettering General Hospital, United Kingdom

**Aims:** Transanal minimally invasive surgery (TAMIS) is increasingly used for the local excision of benign rectal lesions and early rectal cancer. This study aimed to evaluate patient-reported outcomes following TAMIS, focusing on perceptions of communication, decision-making, pain management, and overall satisfaction. By systematically assessing the patient experience, we sought to identify strengths and opportunities for improving perioperative care and support systems as TAMIS becomes more widely adopted in clinical practice.

**Methods:** All patients who underwent TAMIS between March 2023 and March 2025 were contacted  $\geq 3$  months postoperatively and invited to complete a structured telephone satisfaction survey. Verbal consent was obtained. The survey included scaled questions on preoperative counselling, decision-making, pain control, and postoperative complications. Fourteen of 22 eligible patients participated. Quantitative data were collected and analyzed descriptively using Microsoft Excel to identify patient-reported strengths and areas for service improvement.

### **Results:**

Category	Response Rate	Key Findings
Preoperative		
- Well-informed	93% (13/14)	1 somewhat informed
- Decision involvement	93% complete	1 somewhat involved
Postoperative		
- Pain control (Excellent)	71% (10/14)	3 Good, 1 unclear
- Satisfaction	79% Very satisfied	21% Satisfied
Complications	50% (7/14)	Bleeding (29%), Incontinence (21%), Urinary retention (7%)

Category	Response Rate	Key Findings
Recommendation	86% Definitely	1 Probably, 1 Unsure

## Conclusion

TAMIS appears to be a well-tolerated and positively received procedure when supported by robust preoperative communication and postoperative care. High satisfaction rates highlight the procedure's acceptability from a patient perspective. Nonetheless, the occurrence of minor complications emphasizes the importance of enhanced risk counselling and structured follow-up. As TAMIS continues to evolve, integrating patient feedback into perioperative pathways may further optimize outcomes and patient confidence in this approach.

**Key statement:** TAMIS delivers high patient satisfaction when accompanied by clear communication, shared decision-making, and effective pain control. Improved counselling on minor complications may enhance care quality further.

## Poster 51

### CLOSED LOOP SMALL BOWEL OBSTRUCTION SECONDARY TO A DEFECT IN THE BROAD LIGAMENT OF THE UTERUS- A CASE REPORT

**Author(s):** Ms Oluyemi Komolafe, Dr Salwa Rahman

**Institution:** Hull University Teaching Hospital, United Kingdom

**Aims:** With this report, we emphasize the importance of diagnostic laparoscopy as a vital diagnostic and treatment tool in patients with bowel obstruction and an unclear cause on ontrast enhanced computed tomography scan (CECT).

**Methods:** Internal hernia through the broad ligament of the uterus remain rare, accounting for about 4% of the cases of internal hernia.

Diagnostic dilemmas are common with this variant of internal hernia often leading to delayed treatments.

We present a rare case of a 34-year-old female with a day history of significant suprapubic pain and nausea.

Relevant history includes two previous vaginal deliveries, a colposcopy to investigate cervical polyps, and laparoscopic appendicectomy 3 years prior.

Examination revealed a patient with mild tachycardia and suprapubic tenderness.

**Results:** Laboratory work up was essentially normal.

Contrast enhanced computed tomography (CECT) scan showed a closed loop small bowel obstruction in the pelvis without demonstrating the cause of this.

Diagnostic laparoscopy revealed internal hernia through a defect in the left broad ligament of the uterus causing closed loop small bowel obstruction.

**Conclusion:** The defect was managed with intracorporal suturing after release of bruised but viable incarcerated small bowel. Patient was discharged home on the second day post operation.

**Key statement:** Herniation through a defect in the broad ligament of the uterus should be considered in females presenting with suprapubic pain and contrast enhanced computed tomography findings of bowel obstruction with no clear aetiology.

## **Poster 52**

### **MANAGING PERFORATED CROHN'S: THE CHALLENGE OF RECURRENT ABSCESES AFTER INITIAL LAVAGE**

**Author(s):** Miss Sonali Loomba, Mr Laith Abawi, Miss Ayesha Gordon-Dixon

**Institution:** Medway Maritime Hospital, Gillingham, United Kingdom

**Aims:** This case highlights managing ileal perforation as the initial presentation of undiagnosed Crohn's disease. Initial laparotomy showed intra-abdominal contamination with food debris, leading to recurrent abscess formation and delays in post-operative immunosuppressive therapy. We explore how a 10-litre saline washout was insufficient, necessitating a staged surgical approach. The aim is to emphasise the importance of an extensive washout and increase awareness of recurrent chemical collections with persistent food contamination. A multidisciplinary approach, with careful consideration given to the timing of surgical reintervention, is crucial for managing patients with high-risk Crohn's disease.

**Methods:** A 42-year-old male presented with acute abdominal pain, diagnosed as terminal ileal perforation likely from undiagnosed Crohn's disease via CT. The patient underwent emergency open ileocolic resection, double-barrel stoma formation, and a 10-liter washout. Post-operatively, recurrent collections developed over six months, resulting in several courses of intravenous antibiotics and repeated image-guided drainage. This led to prolonged community management, delayed Crohn's treatment, and necessitated a multidisciplinary approach. Following a tertiary opinion, an elective laparotomy with adhesiolysis, washout, and stoma reversal was performed at eight months. The goal was to eliminate the source of sepsis and enable safe initiation of immunosuppressive therapy.

**Results:** Despite aggressive 10-litre washout, the patient developed recurrent intra-abdominal abscesses from retained food particles after the initial operation, sustaining infection despite multiple radiology-guided drainages and antibiotics. Interval imaging showed persistent



collections with partial resolution and recurrence, delaying immunosuppressive therapy. Surgical re-exploration revealed extensive adhesions and purulent nodules, confirmed by histology as secondary to retained food debris. After the second surgery, the patient recovered well but developed a pelvic collection that spontaneously drained via the rectum. Further monitoring with USS and CT showed full resolution, allowing the safe initiation of Azathioprine. The patient's condition improved with no further collections in follow-ups.

**Conclusion:** This case illustrates that even with extensive initial intraoperative washout, retained food products may lead to persistent abscesses in Crohn's-related perforation, requiring surgical re-intervention. Extensive washout remained indispensable for managing contamination, but persistent recurrent abscess formation requires reflection on findings at the initial operation, a multidisciplinary approach given the diagnosis of Crohn's disease to achieve source control before initiating immunosuppression. Managing timing of surgery, drainage, and medical intervention was critical in avoiding exacerbation of sepsis. Optimising surgical technique and postoperative management improves outcomes in complex Crohn's disease, reinforcing the values of a multidisciplinary pathway including surgery, interventional radiology and gastroenterology.

**Key statement:** A rigorous 10-litre washout was performed at the initial laparotomy, highlighting the surgical priority to aggressively clear intra-abdominal contamination in Crohn's related bowel perforation. Despite this critical approach, retained food particles persisted, causing recurrent abscess formation requiring drainage, and long courses of antibiotics. This case highlighted that even the most intensive washout can be insufficient during an emergency presentation with gastrointestinal perforation. Coordination with multidisciplinary teams aided in anticipating risk and approaching a staged strategy to control the ongoing sepsis and establish the safe initiation of immunosuppressive therapy to control the underlying disease.

## **Poster 53**

### **NOT ALL HOT CHOLELS ARE EQUAL: WHAT EVERY SURGEON SHOULD EXPECT FROM GANGRENOUS HOT LAP CHOLELS**

**Author(s):** Dr Malcolm Irem, Mr Mohammad Badr Almoshantaf, Dr Albert Ugwuodike, Ms Fiammetta Soggiu, Mr Hemant Sheth

**Institution:** Ealing Hospital, London, United Kingdom

**Aims:** Gangrenous cholecystitis is a necrotising progression of acute cholecystitis that significantly complicates surgical management. This study evaluated predictive factors, intraoperative characteristics, and postoperative outcomes of gangrenous gallbladders compared to non-gangrenous cases in patients undergoing emergency laparoscopic cholecystectomy in a UK district general hospital over 11 years.

**Methods:** A retrospective cohort study was conducted on 785 patients who underwent emergency laparoscopic cholecystectomy between 2013 and 2024 and had complete records in

the system. Comparative analysis included preoperative, intraoperative, and postoperative parameters (bile leak, complications, readmission, length of stay).

**Results:** Of 785 patients, 25 (3.2%) had gangrenous-cholecystitis. These patients were significantly older (mean 62 vs 53 years;  $p = 0.016$ ), more likely to be male (64% vs 34%;  $p = 0.002$ ), and had higher ASA-scores. Preoperative-admission-CRP (median 141 vs 10 mg/L;  $p < 0.001$ ) and WCC ( $14.8$  vs  $10.5 \times 10^9/L$ ;  $p < 0.001$ ) were markedly elevated. Gangrenous-cases were more likely to present acutely (92% vs 70%;  $p = 0.014$ ) and had fewer prior admissions. Bile-leak was more common in gangrenous-cases (12% vs 2%;  $p = 0.02$ ). Overall complication-rates (20% vs 12%;  $p = 0.26$ ). CRP correlated with gangrenous-status ( $r = 0.17$ ).

**Conclusion:** Gangrenous cholecystitis in emergency laparoscopic cholecystectomy is associated with advanced age, male sex, acute presentation, and pronounced inflammatory response. Nonetheless, with appropriate management, overall complication and readmission rates are not significantly different from non-gangrenous cases.

**Key statement:** We focused on cases with gangrenous (severely inflamed and dying) gallbladders. These patients were more likely to develop problems after surgery, including bile leaks, wound infections, and leftover stones. We found that a patient's ASA grade (a measure of how fit they are for surgery) was the strongest predictor of who would have complications. However, it was hard to predict in advance which gallbladders would be gangrenous. Surgeons should be extra careful in high-risk patients to avoid complications.

#### Poster 54

### THE HOT GALLBLADDER IN ELDERLY: OUTCOMES OF EMERGENCY CHOLECYSTECTOMY IN THE ELDERLY

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**Aims:** Acute gallbladder pathology requiring emergency cholecystectomy is common in the elderly. Old age ( $\geq 65$  years) by itself is not a contraindication for surgical management of acute cholecystitis. This study aimed to compare perioperative outcomes between elderly ( $\geq 65$ ) and younger ( $< 65$ ) patients undergoing emergency laparoscopic cholecystectomy.

**Methods:** A retrospective audit was conducted of 785 patients who underwent emergency LC between 2013 and 2024. Patients were stratified into elderly ( $n=223$ ) and control ( $n=562$ ) groups. Data collected included demographics, comorbidities, timing, intraoperative findings, histology, and postoperative outcomes. Statistical analysis was performed using t-tests and chi-square tests, with significance defined as  $p < 0.05$ . We only involved patients with complete records in the system. Patients were stratified into two.

**Results:** Elderly-patients had significantly more comorbid-conditions and higher ASA-class. They also more frequently presented with complicated gallbladder-disease, such as gangrenous-cholecystitis (5.4% vs 2.3%,  $p<0.05$ ) and gallbladder empyema (9.4% vs 4.4%,  $p=0.01$ ). Despite these risks, 92.4% of elderly patients were successfully treated laparoscopically (conversion rate 7.6% vs 3.9% younger,  $p=0.048$ ). Postoperative-complications were more frequent in the elderly, with an overall complication rate of 22.0% compared to 8.9% in younger patients ( $p<0.001$ ). Wound-infection (2.2% vs. 1.1%), retained-stones (5.4% vs. 2.5%), and postoperative-bleeding (3.1% vs. 2.0%) were all slightly more common but did not reach statistical significance. Thirty-day readmission-rates were similar (9.9% vs. 7.5%).

**Conclusion:** Despite greater comorbidities and more severe disease at presentation, elderly patients tolerated emergency laparoscopic cholecystectomy with high procedural success and no observed 30-day mortality. Although complication rates and hospital stay were higher, the outcomes support laparoscopic cholecystectomy as a safe and effective treatment in this population when delivered with appropriate perioperative planning. Age alone should not preclude timely surgical intervention in elderly patients with acute biliary pathology.

**Key statement:** Emergency laparoscopic cholecystectomy in elderly patients is often approached with caution, yet our 11-year audit shows it is both feasible and safe when performed with timely intervention and careful planning. Despite a higher burden of comorbidities and more advanced gallbladder pathology—including gangrene and empyema—elderly patients achieved high procedural success. Although complication rates and length of stay were higher, age alone was not a barrier to good surgical outcomes. This study supports a shift in surgical culture: elderly patients should be offered early definitive management, not deferred due to age. Timeliness and senior-led care are key.

## Poster 55

### POST-ROBOTIC RIVES-STOPPA URINARY RETENTION: INCIDENCE, RISK FACTORS, AND MANAGEMENT

**Author(s):** Dr Abdulrahman Osman, Mr Paul Robinson, Mr Gregory Simpson, Professor Conor Magee

**Institution:** Wirral University Teaching Hospitals NHS Foundation Trusts, United Kingdom

**Aims:** This study investigates the incidence of postoperative urinary retention, associated risk factors, and the potential role of intraoperative catheterization in reducing post-op catheterization rates.

**Methods:** A retrospective study was conducted on 41 patients who underwent robotic Rives-Stoppa hernia repair between January 2024 and February 2025. Patients who had additional procedures, such as transversus abdominis release (TAR) or conversion to open surgery were excluded as all had pre /intra operative catheterization. Data were collected on patient

demographics, perioperative variables, and postoperative outcomes, with findings compared against the latest systematic reviews and meta-analyses.

**Results:** Total patients analysed: 35 (6 excluded for additional procedures). Mean age: 61 years (25 males, 10 females). Incidence of postoperative urinary retention: 20% (7/35 patients required catheterization). Male patients had a higher retention rate. No other specific patterns were observed. Interestingly no patients on tamsulosin went into retention post operatively.

Similarly, no patients who underwent concurrent inguinal hernia repair (n=3) developed post operative urinary retention. Some patients were catheterized despite small residual volumes and absence of painful retention.

**Conclusion:** Postoperative urinary retention occurs in 1 in 5 patients undergoing robotic Rives-Stoppa repair.

Preoperative bladder emptying and consistent documentation of post-void residual volume (PVR) should be standard practice. Although known risk factors for retention exist, they were not confirmed in this cohort, possibly due to the small sample size. Calculation of the International Prostate Symptoms Score, could be beneficial to determine patients who are suspected to undergo retention given the majority of patients underwent retention were males

**Key statement:** Postoperative urinary retention occurred in 20% of patients following robotic Rives-Stoppa repair, with male sex being a potential risk factor. Standardizing preoperative bladder emptying and PVR documentation post operatively may reduce unnecessary catheterization and support day-case targets.

## Poster 56

### ADVANCING SURGICAL SKILL ACQUISITION IN TRAINEES THROUGH AUTOMATED FEEDBACK SYSTEMS: A SYSTEMATIC REVIEW

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**Aims:** This review aimed to determine the impact of automated feedback systems (AFS) on the acquisition of technical surgical skills.

**Methods:** A PRISMA-guided systematic search of PubMed, ScienceDirect, Scopus, and Cochrane Library included studies reporting task performance scores after using automated feedback systems (AFS). The primary outcome was performance improvement; secondary outcomes

included learner attitude and task-specific metrics. Study quality was assessed using ROB-2/ROBINS-I and outcome quality was assessed using GRADE.

**Results:** Data from thirteen studies with 758 participants were extracted. AFS led to significantly greater improvements in composite technical-skill scores (**Hedges'  $g = 0.73$ ;  $p < 0.0001$** ). Learner satisfaction was higher (**MD = 1.16 on Likert scale;  $p < 0.0001$** ), and AFS groups reported greater cognitive demand. Instrument speed improved (**MD = 3.1 mm/s,  $p = 0.004$** ), path length was reduced more (**15% lower**), and force application was lower (**28.83% lower**). The direction of effect consistently favoured AFS across outcomes.

**Conclusion:** Automated feedback systems significantly enhance surgical skill acquisition, learner satisfaction, and technical precision. They offer an effective, scalable complement to simulation training, especially where expert feedback is limited.

**Key statement:** Automated feedback systems (AFS) enhance surgical skill acquisition through objective, real-time, and personalised feedback. To further validate their role, future studies should standardise outcome metrics, assess long-term skill retention, and evaluate clinical transferability and cost-effectiveness.

## Poster 57

### ENHANCED RECOVERY AFTER SURGERY (ERAS) PROTOCOL FOR ROBOT-ASSISTED LAPAROSCOPIC NEPHRECTOMY: RESULTS FROM A HIGH-VOLUME PROSPECTIVE SERIES

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**Aims:** Enhanced recovery after surgery (ERAS) has been widely used in the field of urology especially radical cystectomy as recommended by the ERAS society for the cystectomy. However, there is lack of current evidence and consensus on the application of ERAS in robot-assisted laparoscopic nephrectomy procedures. The aim of this study is to design and to implement a modified ERAS protocol that is applicable for patients undergoing elective robotic nephrectomies at a high-volume tertiary urology institution. Another aim is also to evaluate the clinical impact and outcomes of this enhanced recovery program in daily practice for these patients.

**Methods:** Retrospective analysis over a 1-year period from January 2022 – January 2023. An ERAS protocol was designed and implemented from August 2023. An evaluation of outcomes post-ERAS implementation from October 2023 – October 2024 prospectively was performed. Trauma nephrectomy or purely laparoscopic/open nephrectomies were excluded from the study. Data relating to patient demographics, Charlson Comorbidity Index were collected. Post-operative outcomes included presence of complications, Clavien-Dindo Classification, length of stay (LOS), and 30-day readmission rate, and oncological occurrence. Statistical analysis

between the two cycle patient outcomes was performed to calculate a two-tailed p-value. P-value of < 0.05 was considered statistically significant.

**Results:** We included 135 patients between January 2022 and January 2023; 127 patients between October 2023 and October 2024. A prospective follow-up was done at 6-monthly intervals. Charlson Comorbidity Index were similar pre and post-ERAS [3.2 (2.8 – 3.9)] vs [3.3 (2.8 – 4.0)],  $p = 0.678$ . There were marked improvement of having no complications post-ERAS compared to pre-ERAS, (95.5% vs 88.1%,  $p = 0.023$ ). The LOS of patients post-ERAS decreased on average by 1.1 days 95% CI [-2.40; -0.09],  $p < 0.001$ . There were no more re-admission, death or oncologic recurrence.

**Conclusion:** ERAS protocol can be safely implemented for patients undergoing elective robotic nephrectomy. Implementing ERAS protocols post-nephrectomy is proven to reduce hospital LOS, without increasing postoperative complications and readmission. Further local study is currently being undertaken to include the integration of urological specialized nurses and trainee involvement in the department to perpetuate and to improve the protocol compliance with ERAS documentation. Moving on, a larger patient cohort, with long-term, prospective multi-centre studies are necessary to validate our preliminary data.

**Key statement:** Implementing ERAS protocols post-robotic nephrectomy tends to reduce overall complication rates with fewer Grade II–IV events, shorten recovery time and hospital stay and markedly improve patient satisfaction and safety.

## Poster 58

### TIME TO RADICAL TREATMENT IN MUSCLE INVASIVE BLADDER CANCER AND RELATED QUALITY INDICATORS (TIMELY): A PROSPECTIVE STUDY EVALUATING ONCOLOGICAL OUTCOMES

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**Aims:** Cancer specific survival (CSS) in patients with muscle invasive bladder cancer (MIBC) could improve by expediting radical cystectomy (RC). Consequent to the Scottish Quality Performance Indicator (QPI) programme, a protocol was enforced to fast-track patients on the basis of cancer stage in one centre. The primary objective was to compare the 5-year CSS between pre-QPI and QPI cohorts of urothelial carcinoma (UC) in one high-volume surgeon's series.

**Methods:** A comprehensive dataset of RC patients has been maintained prospectively since 2006. The stage-adapted fast-tracking was introduced in 2015. Allowing for a 3-year 'learning

curve' period, the pre-QPI cohort consisted of patients undergoing RC for UC MIBC between 2009-2014, while the QPI cohort had surgery between 2015-2020. Time to RC was defined as time from diagnostic TURBT to RC. Kaplan-Meier plots were generated.

**Results:** From 355 patients, 162 and 193 were in the pre-QPI and QPI cohorts, respectively. The median time to RC decreased with increasing pre-operative T-stage (ANOVA  $F=12.004$ ,  $p<0.0001$ ), reflecting an effective fast-tracking process. The 5-year CSS in the QPI cohort was 70.4%, while it was 51.9% in the pre-QPI cohort ( $p=0.0061$ , Figure). Patients with T2 and T3 appeared to benefit most from fast-tracking. Patients with higher Charlson Comorbidity Indices had a longer time to RC with no apparent worsening of CSS.

**Conclusion:** In this single surgeon series, the process of prioritising patients with more advanced MIBC and shortening the time to radical cystectomy, significantly improved the cancer specific survival. Validation in a national cohort is underway.

**Key statement:** As part of the Scottish BC Quality Performance Indicators influencing Outcomes, Prognosis and Surveillance (Scot BCQuality OPS) series, we aimed to prospectively assess the effect of hospitals achieving benchmarks for two specific QPIs related to the initial transurethral resection of bladder tumour (TURBT) on the time to recurrence and progression in MIBC. This single surgeons series aimed to evaluate the process of prioritising patients with more advanced MIBC and shortening the time to radical cystectomy.

## Poster 59

### WHEN PLANES COLLIDE: TECHNICAL CHALLENGES IN OPEN INGUINAL HERNIA REPAIR FOLLOWING ROBOTIC-ASSISTED LAPAROSCOPIC PROSTATECTOMY

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**Aims:** The aim of this case report is to highlight the technical difficulties encountered during open inguinal hernia repair performed immediately after robotic-assisted laparoscopic prostatectomy (RALP). Combined procedures are increasingly utilised to reduce overall anaesthetic exposure and hospital admissions. However, RALP involves extensive transperitoneal and preperitoneal dissection, which may distort the anatomy essential for safe and effective inguinal hernia repair. Additionally, there are concerns regarding mesh safety and the risk of contamination from urinary leakage at the urethrovesical anastomosis. This report aims to promote awareness of these challenges and advocate for careful surgical planning when considering synchronous urological and hernia operations.

**Methods:** We describe the case of a 68-year-old male diagnosed with prostate cancer and a right-sided direct inguinal hernia. He underwent elective RALP followed by an open inguinal hernia repair during the same operative session. The RALP was conducted via a transperitoneal approach with standard pelvic and preperitoneal dissection. Upon completion, a separate groin

incision was made for Lichtenstein repair of the hernia. Intraoperative findings, surgical difficulties, and decision-making regarding mesh use and contamination risk were carefully documented. The procedure was performed by a consultant urologist followed by a consultant general surgeon experienced in open hernia surgery.

**Results:** The open inguinal hernia repair was significantly complicated by distortion of normal anatomical planes due to prior pelvic dissection during RALP. Identification of the spermatic cord, vas-deferens, and hernia sac was more challenging than usual. The dissection was prolonged, and meticulous technique was required to avoid injury to key structures. The decision to proceed with mesh placement was made after ensuring no intraoperative evidence of urine leakage. The repair was completed successfully, and the patient recovered uneventfully. There were no postoperative complications or signs of mesh infection or urinary leak. 6 weeks follow-up confirmed full recovery and hernia repair integrity.

**Conclusion:** This case demonstrates that performing open inguinal hernia repair immediately after RALP can be technically demanding due to altered anatomy and theoretical contamination risk. Loss of normal tissue planes may increase operative time and complexity. Furthermore, the close proximity of the hernia site to the urethrovesical anastomosis raises valid concerns regarding mesh safety. A laparoscopic approach to the hernia, or staging the procedures, may be safer alternatives in selected patients. This case underscores the importance of multidisciplinary planning and careful patient selection. Further studies or guidelines are needed to inform best practices for synchronous urological and abdominal wall surgery.

**Key statement:** Open inguinal hernia repair following robotic-assisted laparoscopic prostatectomy is technically challenging due to disrupted tissue planes and potential risk of mesh contamination. Our case illustrates the importance of recognising these anatomical and procedural complexities when planning combined procedures. Surgeons should consider whether a staged or laparoscopic approach may be more appropriate to reduce complications and optimise outcomes. This case highlights the need for increased awareness and clearer guidance when managing concurrent urological and abdominal wall conditions. Thoughtful multidisciplinary coordination is essential to achieving safe, effective outcomes in this growing cohort of patients undergoing combined pelvic and abdominal wall surgery.

## **Poster 60**

### **MINIMALLY INVASIVE RESECTION RECTOPEXY: AN EFFICIENT AND SAFE TREATMENT OPTION FOR RECTAL PROLAPSE**

**Author(s):** Dr Aliye Nazli Asardag, Dr Yusra Benallal, Dr Bushra Wahab, Mr Pasquale Giordano, Ms Marina Yiasemidou

**Institution:** Barts Health Trust, London, United Kingdom

**Aims:** Rectal prolapse (RP) is a debilitating condition that significantly impairs patients' quality of life. Multiple surgical options exist for its treatment, with abdominal approaches generally



regarded as superior to transanal techniques in terms of long-term outcomes. Concerns about mesh use in Ventral Mesh Rectopexy (VMR) have led many to favour mesh-free alternatives. Suture rectopexy avoids prosthetic material but may carry a higher recurrence risk. Resection rectopexy represents another viable option within the surgical armamentarium. In this context, we present six-year outcomes of minimally invasive laparoscopic and robotic rectopexy from a tertiary centre in the UK.

**Methods:** We retrospectively analysed data from patients with full-thickness rectal prolapse who underwent laparoscopic or robotic resection rectopexy at a tertiary centre between January 2019 and February 2025. The primary outcome was patient-reported symptom change. Additional data collected included patient demographics, prolapse characteristics (high vs. low take-off), and clinical outcomes such as recurrence, length of stay and post-operative complications with follow-up extending up to five years. Complications were graded with Clavien-Dindo scores.

**Results:** 18 (M:F 3:15 – median age 61.5) (ASA 2:3 12:4, n=2 not recorded) patients were included. 67% of patients reported improved symptoms; 22% denied symptom relief, 11% had no outcomes recorded. No mortalities were observed. 30 days complications included 2 no complications, Grade I (n=8), Grade II (n=7), and one Grade IIIb. At 6 months, only one patient had a persistent Grade IIIa complication. There was one anastomotic leak requiring return to theatre of an 80 y.o gentleman with comorbidities. 30 day re-admission rate was zero. Median length of stay was 5 days. Recurrence (3 months - 5 years) was 17%.

**Conclusion:** Minimally invasive resection rectopexy may be a safe and efficient mesh free treatment option for full thickness rectal prolapse in selected patients, with excellent symptom improvement and a low rate of serious complications. Recurrence up to 5 years was very favourable which is lower than other interventions. Our outcomes highlight the efficiency and safety of minimally invasive resection rectopexy in a tertiary setting. Larger, randomised trials are needed to confirm the results.

**Key statement:** Minimally invasive resection rectopexy is a safe and efficient mesh free alternative for treatment of full thickness prolapse in selected patients.

## **Poster 61**

### **COMPLIANCE WITH EXTENDED VTE PROPHYLAXIS FOLLOWING COLORECTAL CANCER RESECTIONS: A TWO-CYCLE CLINICAL AUDIT**

**Author(s):** Dr Mustafa Al-Baldawi, Dr Yan Pui Dorothy Lau, Dr Olivia Timperley, Mr Tjun Wei Leow, Mr Amir Forouzanfar

**Institution:** Royal Oldham Hospital - Northern Care Alliance, Manchester, United Kingdom

**Aims:** Colorectal cancer patients face significantly elevated venous thromboembolism (VTE) risk, with cancer conferring a 7-28 fold increased risk compared to baseline, which is further

amplified perioperatively. NICE guidelines therefore recommend extended pharmacological VTE prophylaxis for 28 days following major abdominal cancer surgery. This audit aimed to determine the compliance of the Royal Oldham Hospital's colorectal department with NICE guidelines for extended VTE prophylaxis following colorectal cancer surgery, specifically evaluating adherence to the recommendation for 28-day VTE chemoprophylaxis in eligible patients undergoing colorectal cancer resections.

**Methods:** A retrospective two-cycle audit examined colorectal cancer resections qualifying for extended VTE prophylaxis. Cycle 1 (June-September 2024, n=55 operations) established baseline compliance. Following targeted interventions, Cycle 2 (March-June 2025, n=42 operations) reassessed performance. Colorectal resections (emergency and elective) qualifying for extended VTE prophylaxis under NICE guidelines were included. Exclusion criteria were benign resections, non-resection procedures and patients on pre-existing anticoagulation. Data extracted included demographics, procedure type, anticoagulation status, bleeding disorders and operation note documentation of extended VTE prophylaxis requirements. The primary outcome was discharge with extended VTE prophylaxis to complete a 28-day course from surgery. Target compliance was 100%.

**Results:** Cycle 1 included 55 operations (51 elective, 4 emergency) with 50 eligible cases after exclusions. Extended VTE prophylaxis compliance was 94%, falling short of the 100% target. Documentation of extended VTE prophylaxis requirements in operation notes occurred in 43.6% of cases. Improvement measures were then implemented including staff education, reminder posters, and the introduction of a structured operation note template with VTE prophylaxis prompts. Cycle 2 evaluated 42 operations (all elective) with 40 eligible cases and demonstrated improved compliance to 97.5%, and operation note documentation regarding extended VTE prophylaxis increased to 52.5%.

**Conclusion:** This audit demonstrated that NICE guidelines compliance for extended VTE prophylaxis following colorectal cancer surgery has improved from 94% to 97.5% following targeted interventions. Improvement strategies including prescriber education, visual reminders, and structured documentation templates yielded measurable improvements. Achieving 100% compliance requires sustained effort through continuous educational programmes for rotating staff and multifaceted systematic approaches including mandatory VTE assessments during surgical planning, standardised post-operative protocols, and electronic prescribing safeguards ensuring comprehensive VTE prophylaxis provision.

**Key statement:** This audit highlights the ongoing challenge of translating evidence-based guidelines into consistent clinical practice. The efficacy of extended thromboprophylaxis in VTE risk reduction is well-established, with randomised clinical trials such as ENOXACAN II reporting 60% VTE risk reduction without increased bleeding risk. The findings were further corroborated by a subsequent Cochrane review, providing compelling evidence for extended VTE prophylaxis. Achieving optimal compliance requires multifaceted approaches including continuous prescriber education and systematic documentation protocols. Future strategies should focus

on embedding VTE prophylaxis decisions within pre-operative surgical planning and electronic prescribing systems to ensure 28-day coverage where required.

## Poster 62

### ROLE OF VIDEO-BASED LEARNING IN LAPAROSCOPIC AND ROBOTIC SURGERY TRAINING: A SYSTEMATIC REVIEW

**Author(s):** Mr Md Rezaul Karim<sup>1</sup>, Mr Kingsley Ewool<sup>2</sup>, Mr Mohamed Hossam Khalifa<sup>2</sup>, Dr Bauyrzhan Tazhmukhan<sup>2</sup>, Professor Bijendra Patel<sup>2</sup>

**Institution:** <sup>1</sup>Barts Health NHS Trust, London, United Kingdom. <sup>2</sup>Barts Cancer Institute, London, United Kingdom

**Aims:** This review evaluates the effectiveness of Video-Based Learning (VBL) in enhancing surgical skills, knowledge retention, and training efficiency in laparoscopic and robotic surgery. It also compares standard, interactive, and immersive video formats to traditional teaching methods.

**Methods:** A systematic review was conducted (March–May 2025) following PRISMA 2020 guidelines. Five databases were searched for RCTs comparing Video-Based Learning (VBL) with traditional teaching in laparoscopic or robotic surgery. Eligible studies involved trainees or students and reported outcomes such as OSATS, GOALS, error rates, and training time. Two reviewers independently screened and extracted data. Interventions included standard videos, interactive formats, augmented/mixed reality, and video-assisted feedback. Due to heterogeneity, a narrative synthesis was performed instead of meta-analysis.

**Results:** Eighteen RCTs met the inclusion criteria. Most demonstrated that VBL significantly improved technical skills, reduced error rates, and enhanced training efficiency compared to traditional methods. Interactive and feedback-enriched formats showed the greatest gains in OSATS/GOALS scores and procedural safety. Immersive modalities such as 3D or augmented reality improved spatial awareness and learner confidence. Standard video formats were consistently effective for core skills and cognitive planning. A few studies showed no significant benefit, particularly with passive video content. VBL's flexibility, accessibility, and high learner engagement were recurring strengths. However, evidence on long-term retention and clinical translation remains limited.

**Conclusion:** VBL is an effective adjunct to conventional surgical education, especially when delivered interactively or with immersive elements. It improves skill acquisition, reduces errors, and enhances learner engagement. Structured VBL is especially beneficial in settings with limited operative exposure. Standardized video content, embedded feedback, and integration with simulation or mentorship can optimize outcomes. Though not universally superior, VBL's flexibility makes it a valuable tool for modern surgical training. Future studies should focus on long-term clinical outcomes and curriculum integration to maximise its potential.

**Key statement:** Video-Based Learning significantly enhances technical skills, safety, and cognitive understanding in minimally invasive surgery. Its structured, feedback-driven integration is recommended within competency-based curricula to standardize and strengthen surgical training.

## Poster 63

### NON-ISCHAEMIC SMALL BOWEL PNEUMATOSIS INTESTINALIS: A CASE BASE SYSTEMATIC REVIEW

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**Institution:** <sup>1</sup>Royal Free London NHS Foundation Trust, United Kingdom. <sup>2</sup>Whittington Health NHS Trust, London, United Kingdom

**Aims:** A 74-year-old male developed abdominal distention and vomiting 7 days post adhesiolysis, ileostomy takedown and ileocolic anastomosis. A CT scan revealed a 20cm segment of jejunal pneumatosis intestinalis (PI). Given the low clinical suspicion for bowel ischaemia, we managed him conservatively. Serial CT imaging showed an improvement in the PI, and he subsequently made an uneventful recovery.

Pneumatosis intestinalis is a distinct radiographic sign that raises concern for bowel ischaemia. Based on a case successfully managed in our department, we aimed to review the non-ischaemic aetiology of small bowel PI and evaluate its management.

**Methods:** We conducted a systematic literature search across the PubMed, Embase, and Medline databases using the following key terms: “Pneumatosis intestinalis” AND “small bowel”, “Pneumatosis intestinalis” AND “small intestine”, “Pneumatosis cystoides intestinalis” AND “small bowel” and “Pneumatosis cystoides intestinalis” AND “small intestine”. We subsequently examined patient demographics, clinical presentation, diagnostic modalities, laboratory investigations, complications, presumed aetiology, treatment approaches, and outcomes.

**Results:** 24 papers, including 37 patients, were included in the final review. The mean age was 60.3. 62.2% had small bowel obstruction secondary to adhesions, volvulus, hernias and jejunal adenocarcinoma. The underlying aetiology was unclear in 21.6% (n=8). Other aetiologies included a rapidly progressive systemic scleroderma like disease, congenital lymphangioma and mechanical ventilation. Only 5 patients (13.5%) had an ischaemic component. 27% (n=10) had an associated pneumoperitoneum, whilst 40.5% (n=15) had the presence of portal venous gas. 70.3% (n=26) underwent laparotomy, and of these, 11 underwent small bowel resection. There were 6 reported mortalities.

**Conclusion:** Pneumatosis intestinalis in our case appeared as a post-operative radiological finding following major abdominal surgery. The patient's clinical course guided by serial imaging and close monitoring were crucial for assessing the evolution of pneumatosis, as spontaneous resolution can occur in non-ischaemic cases. This case underscores the importance of conservative management in carefully selected patients with pneumatosis intestinalis. The decision on whether to operate may prove to be a challenging one for surgeons. This decision should never be based solely on radiology alone, but on the wider clinical picture.

**Key statement:** The association between pneumatosis intestinalis and bowel ischaemia is well appreciated and discussed in surgical literature. This review demonstrates that small bowel pneumatosis intestinalis has other causes, mainly small bowel obstruction, and that a non-operative approach may be appropriate for certain patients.

#### **Poster 64**

### **HAND ASSISTED LAPAROSCOPIC NEPHRECTOMY FOR ADULT POLYCYSTIC KIDNEY DISEASE: A REVIEW IN A TERTIARY CARE CENTRE IN LONDON**

**Author(s):** Ms Adithi Shankar, Ms Aishwarya Dutt, Mr Mohan Prasad, Mr Muhammad Khurram, Mr Ismail Mohamed

**Institution:** Barts Health NHS Trust, London, United Kingdom

**Aims:** Adult Polycystic Kidney Disease (APKD) patients may require conventional nephrectomy to create space for implantation and facilitate transplant. Open nephrectomy was the preferred approach for this disease, but this is associated with severe post-operative pain and morbidity. Hand-assisted laparoscopic nephrectomy (HALN) is the default technique used in our institution since 2022.

**Methods:** This single center retrospective analysis (July 2022 to July 2025) included 13 patients with polycystic kidney disease who underwent hand assisted laparoscopic nephrectomy. These patients were identified through internal search engines and operative records. Indications for nephrectomy, pre-operative imaging findings, operative details, and post-operative outcomes were analyzed.

**Results:** Our analysis included 13 patients, 10 over 50 years and 9 males. The most common indication was to create space. 7 patients were embolized prior to surgery. Pre-operative imaging showed an average kidney size of 21cm (Range: 15-30cm). Median operative time was 250 minutes (Range: 154-531 minutes) and median hospital stay was 7 days (Range: 4-20 days). HALN has been successful even for massive kidneys, the largest weighing 4.1kg, with none converted to open. There were no abdominal organ injuries, infections, massive hemorrhage, or 30-day mortalities. The average time from surgery to activation on the transplant list was 175 days.

**Conclusion:** HALN for APKD is a safe and effective procedure even for patients with large polycystic kidneys. There is a short post operative stay, and the disadvantages normally seen with open nephrectomies are removed. Size is not a barrier for this surgery.

**Key statement:** HALN is a safe and efficacious procedure for patients who have difficult, enlarged polycystic kidneys requiring nephrectomy. It offers the advantages of reduced operative time and hospital stays, while avoiding the protracted recovery timeline following open nephrectomies.

## Poster 65

### LAPAROSCOPIC TAPP GROIN HERNIA REPAIR WITHOUT FIXATION OF THE MESH.

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**Aims:** To review the results of laparoscopic repair of groin hernia in both sexes without fixation of mesh.

**Methods:** Operated Patients with groin hernia booked for Laparoscopic repair were reviewed for the outcomes. The technique involved a large non absorbable mesh without any fixation. The peritoneum was stitched with 2-0 vicryl. Trans-abdominal pre-peritoneal repair was chosen for all the patients in this study. All patients were assumed to be admitted as day case procedures. The size of mesh was 10cmX 15 cm in all patients and adequate packet was created to house the mesh properly. The position of mesh was ensured by adequate medial and inferior dissection. Assiduously gentle dissection and minimal bleeding was aimed for.

## Results:

Total		
2438		
Sex	Males 2073	females 365
(Age)	(85%)	(15%)
	(19-86 y)	(35-81y)
Stay	D/C 2389	Overnight 49

	(98%)	(2%)
Laterality	B/L 512 (21%)	U/L 1926 (79%)
Sex	Males 449/2073	Female 1/365
B/LVs U/L	(21.6%)	(0.27%)
Recurrences within year	4 (0.18%)	Nil
Type	2 in B/L group	2 in U/L group

Complications: No major complications were seen apart from minor bruising and small serum. All were treated with reassurance and expectantly. None required any intervention. No chronic groin pain was recorded in this group.

**Conclusion:** Perhaps fixation even with absorbable tackers may engender groin pain early on and few of those continue to experience it. The proper sized mesh placed properly should remain in situ covering the posterior inguinal wall adequately. Though this study cannot extrapolate the total absence of groin pain as follow up was for one year only.

**Key statement:** We should consider relevance of fixation in this routine common operation. groin pain can become a matter of concerning sometimes distress and discord in both surgeons and patients. The added cost, wasted work-time and dissatisfaction of patients are more likely to be from this issue rather than some acute short-lasting complication.

## Poster 66

### ASSESSING PATIENT AWARENESS AND ATTITUDES TOWARD THE ORIGIN OF INHIXIA: A QUALITY IMPROVEMENT PROJECT IN GENERAL SURGERY

**Author(s):** Dr Nourhan Abozeid, Mr Omar Eldeeb, Mr Aditya Kanwar

**Institution:** University Hospitals Plymouth NHS Trust, United Kingdom

**Aims:** This project aimed to assess general surgery patients' awareness of the animal-derived origin of Inhixia, evaluate their attitudes toward this information, and identify the potential need and preference for alternative non-animal-derived thromboprophylactic agents.

**Methods:** A cross-sectional survey was conducted among 100 general surgery inpatients. Data collected included demographics, awareness of Inhixia's origin, perceived importance of this information, potential restrictions, factors influencing preferences, and willingness to consider alternatives.

**Results:** The median patient age was 66.4 years, with a male-to-female ratio of 57:43. Only 14% of patients were informed of Inhixia's origin by healthcare providers. While 17% considered

knowing the origin very important and 21% somewhat important, the majority (62%) felt it was not important. Potential restrictions identified included religious (8%), dietary (5%), and ethical (19%) concerns. Key factors influencing importance included safety and efficacy (34%), concerns about animal-derived ingredients (17%), and desire for natural or plant-based alternatives (24%). Regarding alternative options, 29% would prefer alternatives, 19% were unsure, and 52% would not.

**Conclusion:** The majority of general surgery patients were unaware of Inhixia's animal origin. Although most did not consider it important, a substantial minority expressed interest in alternatives due to ethical, religious, or dietary reasons. Improved patient education and availability of non-animal-derived alternatives may better align thromboprophylaxis practices with individual patient values.

**Key statement:** A significant proportion of general surgery patients are unaware that Inhixia is derived from porcine sources. While most do not consider this information important, a notable minority have ethical, religious, or dietary concerns and may prefer alternative options. Addressing this gap through improved patient education and offering alternative agents can enhance patient-centered care and shared decision-making.

## **Poster 67**

### **A 5-YEAR SINGLE-CENTRE RETROSPECTIVE REVIEW OF EMERGENCY PERCUTANEOUS CHOLECYSTOSTOMY IN ACUTE CHOLECYSTITIS EVALUATING OUTCOMES AND CLINICAL PRACTICE**

**Author(s):** Mr Zain Iqbal, Dr Zaidh Choudhry, Dr Mohammed Babiker, Dr Heba Salameh, Mr Hussamuddin Adwan

**Institution:** Arrowe Park Hospital, Wirral, United Kingdom

**Aims:** Acute Cholecystitis can be a challenging condition to manage in the frail and comorbid population. Prompt evidence-based decision-making is vital to morbidity and mortality. Cholecystostomy offers a safe alternative to surgery in patients who fail non-operative management. We aimed to conduct a service review and assess our short-term outcomes in patients who were treated by Cholecystostomy with the goal of developing a protocol to ensure safe delivery of care.

**Methods:** We retrospectively reviewed electronic patient records for patients who underwent emergency image-guided percutaneous cholecystostomy for source control in acute cholecystitis from **April 2019 – August 2024**. Key metrics assessed included patient demographics, Level 2-3 escalation status, antimicrobial escalation, drain follow-up, complications, 30-day mortality, length of stay (LOS), and re-admission rates. We collected data on cognitoforms and were analysed using MS Excel.



**Results:** A total of **104** patients underwent emergency percutaneous cholecystostomy with imaging-confirmed cholecystitis. Antibiotics were escalated pre-procedure in **59.6%** of cases, and **15.4%** required Level 2/3 care post-procedure. The mean time to intervention was **3.5 days (SD 3.5)** from admission. Drain-related complications occurred in **26.4%**, with only **29.8%** receiving a post-procedural tubogram. The mean post-procedure length of stay was **20.7 days (SD 20.3)**, with a **12.9%** readmission rate and **7.7%** requiring drain re-insertion. The 30-day mortality rate was **5.8%**. Cholecystectomy was later performed in **30.7%** of patients, with a postoperative complication rate of **21.9%**.

**Conclusion:** Our study demonstrated good utilisation of diagnostic imaging, timely insertion of drains and low mortality rates, whilst suggesting improvements to be made in post-procedure/follow-up care and antibiotic escalation. Based on our results, we aim to develop a streamlined protocol to aid clinicians with the management of patients treated with cholecystostomy.

**Key statement:** This retrospective review evaluates emergency percutaneous cholecystostomy in high-risk patients, reporting on key clinical outcomes. Our findings reveal effective diagnostic and intervention practice and indicate improvements to be made in follow-up care and adherence to antimicrobial stewardship. Protocolised management may enable effective delivery of optimised care.

## **Poster 68**

### **SURGICAL OUTCOMES IN PEDIATRIC VS ADULT SURGEONS: A SCOPING REVIEW**

**Author(s):** Mr Omar Choudhry

**Institution:** University of Leeds, United Kingdom

**Aims:** This review aimed to synthesise evidence from the last five years comparing surgical outcomes for pediatric patients treated by pediatric versus adult general surgeons. The primary objective was to evaluate how surgeon speciality influences key metrics, including complication rates, mortality, reoperations, and diagnostic accuracy, across a spectrum of procedures and clinical settings. The review encompasses common abdominal surgeries, complex neonatal procedures, trauma care, and care models in resource-limited regions to provide a comprehensive overview of current practice and outcomes.

**Methods:** This study was conducted as a scoping review of surgical literature published between 2019 and 2024. The methodology involved synthesising data from multiple high-impact sources, including large-scale retrospective cohort studies using national databases, systematic reviews, and meta-analyses.

**Results:** For common procedures, such as uncomplicated appendicitis, outcomes were equivalent. A 2024 analysis of more than 72,000 cases found no significant difference in 30-day adverse events between surgeon types. However, a 2023 systematic review noted that general

surgeons had a 47% higher rate of negative appendectomy. In complex neonatal surgery like pyloromyotomy, general surgeons had a significantly higher intraoperative mucosal perforation rate (2.9% vs. 0.5%). For pediatric trauma, treatment at pediatric trauma centres was associated with 41% lower odds of death compared to adult centres.

**Conclusion:** The evidence suggests parity in outcomes for common, low-complexity pediatric operations, such as uncomplicated appendectomies and hernia repairs, when performed by general surgeons. However, pediatric surgical specialists demonstrate superior outcomes in specific, high-risk domains: ensuring diagnostic accuracy for appendicitis, minimising technical complications in neonatal surgery, and reducing mortality in severe pediatric trauma. Crucially, outcomes are modulated by surgeon case volume, case complexity, and the presence of a pediatric-optimised hospital system.

**Key statement:** Surgical outcomes for children are not solely dictated by surgeon speciality, but are highly context-dependent. This review confirms that while general surgeons can achieve equivalent outcomes in routine procedures, pediatric specialists provide a distinct advantage in complex cases, trauma, and diagnostic precision. Optimal pediatric surgical care is therefore achieved not by excluding general surgeons, but by building integrated systems that ensure appropriate training and regionalising complex cases to high-volume centres.

## Poster 69

### GLOBAL VARIATIONS IN SURGICAL TRAINING PATHWAYS: A FOCUS ON LAPAROSCOPIC AND ROBOTIC SURGERY

**Author(s):** Mr Omar Choudhry

**Institution:** University of Leeds, United Kingdom

**Aims:** This review examines global variations in surgical training pathways, with a specific focus on the integration of laparoscopic and robotic surgery. By comparing the highly structured systems of high-income countries (HICs) with the evolving models in low- and middle-income countries (LMICs), the primary aim is to identify common patterns, barriers, and innovative solutions. The ultimate goal is to highlight best practices that can inform policy and educational reforms to strengthen the global surgical workforce, improve training equity, and enhance patient outcomes worldwide.

**Methods:** The study was conducted as a narrative review of global surgical training systems. The core methodology involved compiling and analysing a comprehensive comparative table detailing training structures across a wide range of countries from all continents. This table outlines the duration and requirements of undergraduate, postgraduate, and fellowship training; specialisation pathways for laparoscopic surgery; availability of robotic training; and national curriculum standards. The review contrasts common patterns in HIC versus LMIC contexts and highlights innovative training models emerging in resource-constrained settings.

**Results:** A clear dichotomy exists between training systems. HICs feature long, standardised pathways (10-15+ years), with mandatory laparoscopic skills certification (e.g., FLS in the US) and increasing exposure to robotic surgery. In contrast, LMICs have shorter training pipelines, with inconsistent laparoscopic exposure and virtually non-existent robotic training. However, innovative models have emerged in LMICs, including regional training colleges (e.g., COSECSA, WACS) to pool resources and standardise curricula, international twinning partnerships to build local faculty, and task-shifting to non-physician clinicians.

**Conclusion:** Disparities in surgical training directly contribute to global inequities in surgical care. While laparoscopic surgery offers significant benefits in LMICs, its implementation is hindered by cost and infrastructure barriers. Robotic surgery, due to exorbitant costs and competing health priorities, is largely inappropriate for low-resource settings at present. The consensus is that focusing on scaling up proven, cost-effective solutions, such as expanding open and laparoscopic surgical training, improving perioperative care, and strengthening local training institutions, will yield far greater public health returns than investing in robotics.

**Key statement:** Global surgical training reveals a clear and contrasting divide: lengthy, subspecialised, technology-rich pathways in HICs versus shorter, generalist, resource-poor models in LMICs. Bridging this gap requires not the simple exportation of HIC systems but the strengthening of local capacity through sustainable, collaborative efforts. Prioritising widespread proficiency in essential open and laparoscopic surgery, supported by innovations such as regional colleges and low-cost simulation, is the most effective strategy to improve surgical equity, rather than pursuing the premature adoption of high-cost robotics in settings with more fundamental needs.

## **Poster 70**

### **A NATIONAL SURVEY OF ROBOTIC SURGERY TRAINING: PERSPECTIVES FROM THE UNITED KINGDOM**

**Author(s):** Miss Fang Yi Cheung<sup>1</sup>, Mr Richard Boulton<sup>1</sup>, Mr Joseph Huang<sup>1</sup>, Mr Shady Hosny<sup>1,2</sup>, Mr Nirooshun Rajendran<sup>1,3</sup>

**Institution:** <sup>1</sup>Barking, Havering and Redbridge University NHS Trust, London, United Kingdom. <sup>2</sup>Imperial College London, London, United Kingdom. <sup>3</sup>Queen Mary University of London, United Kingdom

**Aims:** As robotic surgery becomes increasingly integrated into mainstream clinical practice across various specialties, training programs need to ensure that trainees become competent in all modalities of surgery. Currently, the United Kingdom has no standardised training curriculum for residents to gain competency with robotic surgery. This study aimed to assess current exposure, training methods, barriers and facilitators to robotic surgical simulation among UK-based surgeons.

**Methods:** A national electronic survey was designed and disseminated to surgeons in the United Kingdom. The questionnaire collected demographic information, training grade, specialty, and region of work. Participants were asked about their perceived competency in robotic surgical practice, training modalities, estimated training exposure and access to simulation facilities. Responses were stratified by training level and specialty.

**Results:** A total of 17 surveys were completed to date with further recruitment in progress. A total of 83% reported no console experience. Virtual reality simulators, dry/wet lab simulation, bedside assistance, and video-based learning were among the frequently employed training methods. Exposure to hands-on console operation remained limited. 76% of respondents reported fewer than 10 hours of robotic simulation experience. A minority (18%) had access to adequate simulation facilities, while the majority cited limited or no access. Key barriers included lack of simulator availability, cost, competition with other trainees or live cases and restrictions requiring prior induction.

**Conclusion:** Robotic surgery training across the UK remains low, with limited hands-on experience and simulator access. Addressing these gaps through expanded simulation infrastructure, improved access protocols, and development of more affordable non-industry simulators may enhance robotic competency in the next generation of surgeons. Focus needs to be placed on training residents in robotic surgery.

**Key statement:** Robotic surgery training across the UK remains low, with limited hands-on experience and simulator access. Addressing these gaps through expanded simulation infrastructure, improved access protocols, and development of more affordable non-industry simulators may enhance robotic competency in the next generation of surgeons. Focus needs to be placed on training residents in robotic surgery.

## **Poster of Distinction**

### **PoD 01**

## **A SYSTEMATIC REVIEW OF LAPAROSCOPIC ULTRASONOGRAPHY DURING LAPAROSCOPIC CHOLECYSTECTOMY**

**Presenter:** Mr Moahmed Elsaigh<sup>1</sup>

**Author(s):** Mr Moahmed Elsaigh<sup>1</sup>, Dr Bakhtawar Awan<sup>2</sup>

**Institution:** <sup>1</sup>Royal Cornwall Hospital, United Kingdom. <sup>2</sup>Northwick Park Hospital, London, United Kingdom

**Aims:** To systematically evaluate the effectiveness, safety, and practicality of Laparoscopic Ultrasonography (LUS) compared to Intraoperative Cholangiography (IOC) during laparoscopic cholecystectomy, focusing on:

- Failure rates and causes

- Cost-effectiveness
- Operative time
- Bile duct injury (BDI) prevention
- Surgeon experience impact
- Incidental findings

**Methods:** A systematic review was conducted according to PRISMA guidelines and the Cochrane Handbook. Searches were performed across PubMed, Web of Science, Cochrane Library, and Scopus using predefined keywords. 20 studies (totaling 9189 patients) meeting inclusion criteria were analyzed. Quality was assessed using the NIH tool

### Results:

- **Failure Rate:** LUS had a significantly lower failure rate (~1%) compared to IOC (5–15%), mostly due to ease of use and minimal anatomical barriers.
- **Cost-Effectiveness:** LUS consistently demonstrated lower procedural and equipment costs.
- **Operative Time:** LUS procedures were faster (~9.8 min) versus IOC (~17.6 min).
- **BDI:** No significant difference in BDI prevention; however, LUS helped in detecting otherwise missed complications postoperatively.
- **Surgeon Experience:** LUS had a steeper learning curve, but experienced surgeons showed improved outcomes and reduced reliance on IOC.
- **Incidental Findings:** LUS identified unexpected intra-abdominal conditions in several cases, supporting its diagnostic utility.

**Conclusion:** Laparoscopic ultrasonography presents a viable, safe, and cost-effective alternative to intraoperative cholangiography during cholecystectomy. While operator experience influences outcomes, LUS shows clear advantages in procedural efficiency and diagnostic capability. Its wider adoption may enhance patient care and reduce operative risks.

**Key statement:** Laparoscopic ultrasonography (LUS) is redefining safety and efficiency in laparoscopic cholecystectomy. This systematic review highlights LUS as a faster, cost-effective, and radiation-free alternative to intraoperative cholangiography (IOC), with a lower failure rate and comparable accuracy in detecting bile duct stones. Beyond improved workflow, LUS empowers surgeons with real-time imaging, enhances anatomic navigation in complex cases, and uncovers critical incidental findings. While a learning curve exists, its advantages are undeniable. As probe technology advances, LUS is poised to surpass IOC as the gold standard for intraoperative biliary imaging

### PoD 02

### EFFECTIVENESS OF INDOCYANINE GREEN FLUORESCENCE ANGIOGRAPHY IN PREVENTING ANASTOMOTIC LEAKAGE IN COLORECTAL RESECTIONS: SYSTEMATIC REVIEW AND META ANALYSIS OF RCTS

**Presenter:** Ms Nirmani Widanage  
**Author(s):** Ms Nirmani Widanage, Dr Aishwarya Kapoor  
**Institution:** George Eliot Hospital NHS Trust, Nuneaton, United Kingdom

**Aims:**

Objective: Perfusion of bowel ends at the anastomotic site is one of the major modifiable risk factors in preventing anastomotic leakage.

Fluorescence angiography (FA) using indocyanine green (ICG) with Near Infra-red (NIR) Imaging offers real time visualisation of tissue perfusion.

Several clinical studies have proven ICG FA to be beneficial in assessment of tissue perfusion, but the strength of high-quality evidence from RCTs are lacking

This review aimed to assess whether ICG FA reduces anastomotic leakage rates in colorectal resections, based only on RCTs including latest available evidence, to evaluate whether outcomes differ between left and right sided resections.

**Methods:** Systematic research of PubMed, Embase and Cochrane CENTRAL was conducted within last 10 years, identifying RCTs comparing FA with standard intraoperative assessment. The primary outcome was the rate of anastomotic leakage in patients undergoing colorectal resections for benign and malignant conditions. Subgroup analyses were performed for left-and-right sided resections. Risk of bias assessed using the Cochrane Risk of Bias 2.0 tool. Meta analysis was conducted using random-effects model, and heterogeneity was evaluated using I<sup>2</sup> statistic.

**Results:** Seven RCTs involving 3,887 patients were included. FA was associated with a statistically significant reduction in the overall anastomotic leakage rate compared to standard assessment, with a combined odds ratio (OR) of 0.66 (95% CI:0.53-0.82; p = 0.003; I<sup>2</sup> = 0 %), indicating no heterogeneity. Subgroup analyses for left-sided resections demonstrated a more pronounced benefit, with combined OR of 0.59 (95% CI:0.46- 0.75; p = 0.002; I<sup>2</sup> = 0%). In contrast, the benefit in right-sided resections was less marked and not statistically significant in most trials.

**Conclusion:** Indocyanine Green Fluorescence Angiography with Near Infra-Red imaging significantly reduces anastomotic leakage rates in minimally invasive colorectal resections, particularly in left-sided resections. Given its real-time assessment capabilities, safety profile and ease of use, it can be considered as a valuable adjunct to introduce in to standard surgical techniques. Its selective use in high risk or technically challenging cases may be valuable in intra-operative decision making and postoperative outcomes.

**Key statement:** Indocyanine Green Fluorescence Angiography with Near Infra-Red imaging , significantly reduces anastomotic leakage rates in minimally invasive colorectal resections, particularly in left-sided resections.

Given its real-time assessment capabilities, safety profile and ease of use, it can be considered as a valuable adjunct to introduce in to standard surgical techniques.

Multi centre Trials may need to be considered to confirm its cost effectiveness in minimally invasive surgery.

### **PoD 03**

#### **PERCUTANEOUS TIBIAL NERVE STIMULATION FOR FAECAL INCONTINENCE**

**Presenter:** Dr Jia En Kong

**Author(s):** Dr Jia En Kong

**Institution:** Royal Berkshire Hospital, Reading, United Kingdom

**Aims:** Percutaneous tibial nerve stimulation involves the stimulation of tibial nerve to reduce faecal incontinence. NICE recommends the trial of PTNS for patients who noticed no improvement with conservative management. Royal Berkshire Hospital established its own PTNS service since 2021 for patients with faecal incontinence, with each course consisting of 12 treatment sessions. This audit aims to assess the consent, safety and efficacy of PTNS treatment based on the audit support tool recommended by NICE.

**Methods:** There were 46 referred patients who completed 12-week course of PTNS treatment after not improving with biofeedback exercises, physiotherapy or both. Data collected includes the methods of consent prior to the procedure, adverse effects, and faecal incontinence measurement scales (St Mark, Wexter and Quality of Life) pre and post intervention.

**Results:** 100% of patients provided written consent prior to the first session of treatment, followed by verbal consent for all sessions thereafter. There were no adverse effects reported for all patients receiving the treatment. 36 patients (78%) reported improvement in faecal incontinence after receiving the intervention, whereas the remaining 10 patients (22%) reported no improvement in their symptoms. Out of these 36 patients with marked improvement in their symptoms, 24 patients reported major improvement whereas the remaining 12 patients reported minor improvement only.

**Conclusion:** All patients gave written consent prior to the intervention and there were no reported adverse events in all patients receiving the treatment. The majority of the patients experienced improvements in their symptoms after completing the 12-week course of percutaneous tibial nerve stimulation.

**Key statement:** This audit demonstrates the efficacy of PTNS in the improvement of faecal incontinence in the study population.

### **PoD 04**

## HOW DOES PLASMAPHERESIS COMPARE TO LIVER TRANSPLANTATION IN ALTERING LIVER FUNCTION MARKERS IN AUTOIMMUNE HEPATITIS AND PRIMARY BILIARY CHOLANGITIS?

Mr Nazar Gamil<sup>1</sup>, Mr Md Rezaul Karim<sup>2</sup>, Mr Mauro Camacho<sup>3</sup>, Professor Bijendra Patel<sup>2</sup>

<sup>1</sup>Barts and The London, London, United Kingdom. <sup>2</sup>Barts Health Trust, London, United Kingdom.

<sup>3</sup>Barts Cancer Institute, London, United Kingdom

**Aims:** This systematic review aims to address the efficacy of plasmapheresis against liver transplantation in the management of autoimmune hepatitis and primary biliary cholangitis by reviewing factors such as biochemical liver function, immunological and autoantibody markers and their changes after using either treatment modality.

**Methods:** A systematic literature search was performed using Pubmed, Cochrane, Embase and ScienceDirect in order to identify studies that were able to report liver function markers as well as immunological and autoantibody markers for patients receiving either plasmapheresis or liver transplantation before and after treatment using MESH terms. Specific markers measured included bilirubin, AST, ALT, ALP, GGT, immunoglobulins IgG and IgM as well as autoantibody titres (ANA, ASMA and AMA). Data was extracted from the various studies included and mean changes were calculated in order to evaluate and compare the findings between the two interventions.

**Results:** After screening and applying an inclusion criteria, 11 studies and 196 patients (average age 48, range 2-69) were included. Bilirubin showed an average decrease of **82.1%**, **72.8%** for AST and **67.5%** for IgG levels respectively. Autoantibodies were completely eradicated (ANA and ASMA) in the few studies that measured this post-treatment. On the other hand, liver transplantation yielded similar results in a longer timeframe, including a reduction of **66.4%** in bilirubin, **44.5%** in IgG and **42.9%** in IgM levels. However, autoantibody levels persisted post-transplantation, ALT and ALP levels also showed unclear trends when followed-up and compared to pre-transplantation levels.

**Conclusion:** Plasmapheresis offers a much faster and rapid biochemical and immunological improvement meaning that it could be really suitable as a bridging therapy for additional treatment like immunosuppression or liver transplantation. Liver transplantation can yield sustained remission and also improve immune regulation but there is a requirement for immunosuppression drugs in order to support this and avoid risks of recurrence. The findings gathered supports the need for more individualised patient treatment in a stage-based approach and it also the results highlight the further need for more comparative studies to optimise patient treatment for AIH and PBC.

**Key statement:** Plasmapheresis shows strong ability to improve biochemical markers (liver function markers, immunoglobulins and autoantibodies) for the context of autoimmune hepatitis and primary biliary cholangitis. In acute settings, plasmapheresis can serve effectively for rapidly deteriorating patients as rescue therapy and as bridging therapy to transplantation.



However, there is a need for larger controlled trials evaluating plasmapheresis' use in autoimmune liver disease given the significant gaps in existing literature.

## PoD 05

### **MACHINE-LEARNING PREDICTION MODELS FOR POSTOPERATIVE COMPLICATIONS AFTER MINIMALLY INVASIVE SURGERY: A SYSTEMATIC REVIEW**

**Presenter:** Mr Daniel Hawkins

**Author(s):** Mr Daniel Hawkins<sup>1</sup>, Mr Md Rezaul Karim<sup>2</sup>, Miss Chiara Dell'oro<sup>3</sup>, Miss Rhema Shalom<sup>1</sup>, Professor Bijendra Patel<sup>1</sup>

**Institution:** <sup>1</sup>Barts Cancer Institute, Queen Mary University of London, United Kingdom.  
<sup>2</sup>Barts Health NHS, London, United Kingdom. <sup>3</sup>Imperial College London, Department of Surgery and Cancer, United Kingdom

**Aims:** To systematically identify machine-learning (ML) models that use pre- and intra-operative data to predict postoperative complications and adverse events, and to evaluate their performance by summarising their reported area-under-the-receiver-operating-characteristic curve (AUROC) values, in minimally invasive surgery (MIS).

**Methods:** A systematic search of randomised and non-randomised studies using CENTRAL, Embase, PubMed, and Scopus (2010–2025) was performed using keywords such as “Machine learning”, “risk assessment”, “predict\*”, “postoperative complications” and “Minimally invasive surgery” was used. Studies using ML models to predict postoperative complications and adverse events using preoperative and intraoperative data were included. Studies using only intraoperative data, such as computer vision, were excluded. Outcomes covered both general surgical complications and procedure-specific events. Conventional logistic regression was not classified as ML because of ongoing debate in the literature.

**Results:** Twenty-four studies (38 666 patients) met the inclusion criteria. ML models were applied in 6 surgical specialties—most often general surgery (11 studies)—radical prostatectomy was the most studied procedure. The predominant algorithms were random forests (15 studies), XGBoost (9), support-vector machines (8) and decision trees (5). AUROC was reported in 21 studies, yielding a mean value of 0.84.

**Conclusion:** This review shows that ML algorithms in MIS predict postoperative complications with good discrimination (mean AUROC 0.84). Multiple ML models are utilised. However, several factors limit the use of ML models in complication prediction in MIS at present, such as heterogeneity in data sets, and/or lack of external validation. Future head-to-head studies comparing ML models with existing conventional scoring systems are needed to evaluate ML-driven preoperative risk tools in clinical practice.

**Key statement:** Machine learning models can accurately predict postoperative complications and adverse events after minimally invasive surgery. Future research should focus on further validation and direct comparison with traditional surgical risk assessment tools.

**PoD 06**

### **INTRACORPOREAL VERSUS EXTRACORPOREAL ANASTOMOSIS IN ELECTIVE LAPAROSCOPIC AND ROBOTIC RIGHT HEMICOLECTOMY: COMPARATIVE ANALYSIS OF SURGICAL AND HISTOPATHOLOGICAL OUTCOMES**

**Presenter:** Dr Vignesh Lakshmanan<sup>1</sup>

**Author(s):** Dr Vignesh Lakshmanan<sup>1</sup>, Ms Jennifer Waterman<sup>1</sup>, Mr Alun Meggy<sup>1</sup>, Professor Julie Cornish<sup>1,2</sup>, Professor Jared Torkington<sup>1,2</sup>

**Institution:** <sup>1</sup>Cardiff and Vale University Health Board, Cardiff, United Kingdom. <sup>2</sup>Cardiff University, Cardiff, United Kingdom

**Aims:** The optimal technique for anastomosis following laparoscopic and robotic right hemicolectomy between intracorporeal anastomosis (ICA) and extracorporeal (ECA) anastomosis is still debatable. Both techniques have implications for short-term surgical outcomes, recovery, and long-term prognosis. This study aims to compare and analyse intracorporeal versus extracorporeal anastomosis in a single surgeon practice, focusing on post-operative outcomes, length of stay, complications, and histopathology.

**Methods:** A total of 35 consecutive elective right hemi-colectomies were identified from a prospectively maintained database from February 2020 to May 2025. 3 patients were excluded (more than one procedure (n=1), open approach (n=2)). Remaining 32 patients were separated into intracorporeal anastomosis (ICA) and extracorporeal anastomosis (ECA) groups representing a change in practice over time. Surgical outcomes, including mortality, morbidity, Clavien-Dindo grading for complications and histology including Lymph nodes harvested and Extramural vascular invasion (EMVI), were analysed. Frequencies and descriptive statistics were conducted. Continuous and categorical variables were analysed using Mann-Whitney U test and Chi-square test using SPSS version 27.

**Results:** 17 patients underwent ECA, 15 had ICA. Median age was 73.5 years (range 36–94), 56.3% female. Surgical approach: Laparoscopic (n=30), and Robotic (n=2). ICA patients had shorter median length of stay than ECA (4 vs 4.5 days,  $p=0.040$ ). Re-admissions occurred in two ECA patients (bowel-obstruction, post-op gastritis) and one ICA patient (intra-abdominal collection), all managed conservatively. Clavien-Dindo II complications in two ECA patients, no other higher complications. Overall, no anastomotic leak. Median lymph nodes harvested were 21 in both groups ( $p=0.762$ ). EMVI present in four ICA and two ECA cases. All resections were R0, with no 30-day mortality.

**Conclusion:** Intracorporeal anastomosis in elective right hemicolectomy is associated with a shorter length of hospital stay compared to extracorporeal anastomosis. Both groups had highly acceptable median lymph node yields and R0 resection rates. No 30-day mortality and low overall morbidity with no anastomotic leaks reflects the safety of both anastomosis techniques.

**Key statement:** This study compared intracorporeal (ICA) and extracorporeal anastomosis (ECA) in 32 patients, highlighting shorter hospital stay with ICA without compromising complication rates or oncological clearance. These findings support the feasibility and safety of ICA, though further large-scale studies are essential to determine its long-term oncological benefits.

**PoD 07**

### **CUTTING WITH CARE: ROBOTIC DISTAL PANCREATECTOMY FROM UHCW**

**Presenter:** Ms Vandana Basappa Giriradder

**Author(s):** Ms Vandana Basappa Giriradder, Mr Muhammad Qazi, Mr Jawad Ahmad, Mr Hassaan Bari

**Institution:** University Hospital Coventry and Warwickshire, Coventry, United Kingdom

**Aims:** The aim of this study was to evaluate the safety, feasibility, and short-term outcomes of robotic distal pancreatectomy (RDP) in patients with pancreatic lesions. As minimally invasive surgery gains ground in pancreatic procedures, this analysis focuses on operative metrics, postoperative complications, oncologic adequacy, and comparisons with international benchmarks. The goal was to understand if RDP could be implemented effectively in a real-world, mixed-pathology cohort, including both benign and malignant cases, while maintaining patient safety and achieving optimal surgical outcomes.

**Methods:** This retrospective study included patients undergoing RDP between 2023–2024. Demographics, BMI, ASA scores, and preoperative diagnosis were recorded. All patients underwent comprehensive preoperative imaging and histologic assessment, with two receiving neoadjuvant chemotherapy. Intraoperative parameters (operative time, blood loss, conversion rate, spleen preservation) and postoperative outcomes (morbidity, hospital stay, histopathology, readmissions, and mortality) were analysed. RDP technique variations (Kimura and Warshaw) and drain management were noted. Results were compared to existing benchmark standards for distal pancreatectomy to assess the quality and safety of this surgical approach.

**Results:** Twenty-six patients (mean age 64.2 years; 56% female) underwent RDP. Mean operative time was  $214 \pm 72$  minutes, with a 6% conversion rate. Spleen was preserved in 8% (Kimura n=2; Warshaw n=1). Mean tumor size was  $4.2 \pm 1$  cm. CR-POPF occurred in 8.3%; 90-day morbidity was 30% with no mortality. Histopathology included NETs (27.8%), adenocarcinoma (19.4%), and IPMN (11%). R0 resection was achieved in 83% of cases. Mean

hospital stay was  $5.1 \pm 1.6$  days. Readmission rate was 22%. Benchmark comparisons confirmed acceptable outcomes across all major surgical and recovery parameters.

**Conclusion:** Robotic distal pancreatectomy is a safe and feasible option with acceptable perioperative outcomes and oncologic adequacy. Our study demonstrated low conversion and complication rates, minimal blood loss, short hospital stay, and zero mortality, all within or better than established benchmarks. Spleen preservation remains technically challenging but achievable. These findings support the continued adoption of RDP in suitable patients, including those with malignant tumors, while maintaining oncologic principles and minimizing morbidity. Institutional experience and careful patient selection are key to optimizing outcomes in robotic pancreatic surgery.

**Key statement:** Robotic distal pancreatectomy offers an effective while being minimally invasive in managing pancreatic lesions, including cancers, with outcomes comparable to international benchmarks. This study reinforces its utility in carefully selected patients, showing excellent perioperative results, high R0 resection rates, and manageable complication profiles. With no 90-day mortality and low conversion rates, RDP proves to be a viable alternative to open or laparoscopic methods. These findings highlight the potential for broader implementation of robotic surgery in pancreatic care, provided institutional expertise and multidisciplinary collaboration are present.

## PoD 08

### ASSESSMENT OF BILIARY STENT IN LAPAROSCOPIC COMMON BILE DUCT EXPLORATION

**Presenter:** Dr Maria Kausar<sup>1</sup>

**Author(s):** Dr Maria Kausar<sup>1</sup>, Dr Maya Shingadia<sup>2</sup>, Dr Isra Meraj<sup>3</sup>, Ms Kamal Heer<sup>4</sup>, Mr Harish Kumar<sup>5</sup>

**Institution:** <sup>1</sup>Birmingham Deanery, Birmingham, United Kingdom. <sup>2</sup>Birmingham Deanery, United Kingdom. <sup>3</sup>Max Super Speciality Teaching Hospital, Mumbai, India  
<sup>4</sup>Monash University, Melbourne, Australia. <sup>5</sup>University of Birmingham and QLD, Birmingham, United Kingdom

**Aims:** It is well supported in the literature that laparoscopic common bile duct (CBD) exploration for choledocholithiasis has equal, if not better efficacy, compared to ERCP followed by laparoscopic cholecystectomy.

Decompression after supra-duodenal choledochotomy is common practice as it reduced the risk of bile leaks. We conducted a prospective non-randomized study to compare outcomes and length of stay in patients undergoing biliary stenting versus T-tube drainage following exploration of the common bile duct.

**Methods:** The study involved 116 patients with choledocholithiasis who underwent laparoscopic CBD exploration and decompression of the biliary system by either ante-grade biliary stent or T-tube insertion. A 7 French straight biliary Diagmed™ stent (9-11cm) was placed in 82 patients (stent group). T-tube insertion was used for 34 patients (T-tube group). The length of hospital stay and complications for the selected patients were recorded. All trans-cystic CBD explorations were excluded from the study.

## Results:

Patient	T-tube (n=34)	Ante-Grade Biliary Stent (n=165)	p value
Age (range)	22-63 years	21-72 years	
Male	6 (18%)	38 (23%)	
Female	28 (82%)	127(77%)	
No. of CBD Stones	2.5 ± 1.5	2 ± 1.3	
Hospital Stay (Mean ± SD) Range	3.4 ± 1 (2-6)	1 ± 0.2 (1-2)	<0.001

t -test or the  $\chi^2$  test

There was no bile leak.

**Conclusion:** Our results show that there is a significant reduction in length of hospital stay and decreased complication rates for patients that have ante-grade biliary stent decompression of the CBD post laparoscopic choledochotomy when compared T-tube drainage. This implies ante-grade biliary stent insertion is likely to reduce costs, patient morbidity and increase overall patient satisfaction. Therefore, we support the use of ante-grade biliary stent insertion during LCBDE when primary closure is not the preferred option.

**Key statement:** If routine practice is not primary closure of choledochotomy, then use of ends-biliary stent is a better, patient friendly, cost-effective option.

**PoD 09**

## Incidence of Bile Duct Injury in Robotic Versus Laparoscopic Cholecystectomy: A Retrospective Comparison

**Presenter:** Dr Rhema Shalom

**Author(s):** Dr Rhema Shalom

**Institution:** Queen Mary University of London, London, United Kingdom

**Aims:** This study investigates whether robotic cholecystectomy (RC) produces fewer bile duct injuries (BDIs) compared to laparoscopic cholecystectomy (LC) in individuals with cholecystitis. BDIs are major complications that may result in long-term health issues and medico-legal challenges. Although robotic surgery improves precision and vision, the majority of current research focuses on broad outcomes such as recovery time or cost, rather than BDI rates specifically. With contradicting findings in the field, this review aims to bridge the gap by evaluating the safety of RC versus LC. The purpose of this is to support improving clinical decisions, particularly in more complex surgical cases.

**Methods:** A PRISMA-compliant systematic review was conducted using PubMed, Embase, Cochrane, google scholar and Web of Science. Studies that compared RC with LC in adult cholecystitis patients and reported BDI-related outcomes were selected using the PICOS criteria, out of which, six research (four observational and two randomised controlled trials) with 64,479 people were included. The outcomes analysed consisted of BDI rates, conversion to open surgery, operative time, hospital stay, and postoperative complications. The GRADE framework was used to evaluate evidence certainty, while RoB2 and ROBINS-I were used to assess risk of bias. No ethical approval was needed for this secondary analysis.

**Results:** Among the 64,479 patients included, 6,609 underwent RC and 57,870 underwent LC. BDIs were found in 4 investigations, with 7 more occurrences in the LC group (0.12% vs. 0%). In RC, fewer procedures had to be converted to open surgery (OR 0.11), and less intraoperative bleeding was reported compared to LC. Additionally, In RC, the operating time was 12–25 minutes longer. Furthermore, there was a higher rate of port-site hernias in single-incision RC (6.4% vs. 1.3%). Both groups had similar hospital stays and rates of general complications.

**Conclusion:** When compared to LC, RC was related with a lower frequency of bile duct damage and conversions to open surgery, particularly in anatomically difficult or inflamed patients. While RC operations took longer and were associated with greater port-site hernia rates (particularly in single-incision cases), these drawbacks were balanced by enhanced safety in high-risk patients. Both groups had similar recovery times and overall surgical results. These findings support the use of robotic surgery for some types of cholecystitis and stressed the importance of ongoing investment in robotic training and cost-effectiveness studies before general use.

**Key statement:** This study addresses a significant gap in the literature by directly comparing bile duct injury rates after robotic and laparoscopic cholecystectomy, an area that is frequently omitted in larger studies that focus on overall outcomes. The authors chose this study because it clearly demonstrates the safety benefits of robotic surgery, particularly in more complex scenarios where precision is critical. Its findings offer useful information for clinical decisions and assist hospitals in determining how to invest in training and resources for robotic hepato-biliary surgery to improve patient outcomes.

# COMPARATIVE ANALYSIS OF SURGICAL OUTCOMES OF ROBOTIC-ASSISTED VS. LAPAROSCOPIC PULL-THROUGH SURGERIES IN PAEDIATRIC HIRSCHSPRUNG DISEASE: A SYSTEMATIC REVIEW & META-ANALYSIS

**Presenter:** Dr Ayesha Aslam

**Author(s):** Dr Ayesha Aslam<sup>1</sup>, Mr Nazar Gamil<sup>1</sup>, Dr Mauro Camacho<sup>1</sup>, Professor Bijendra Patel<sup>2</sup>

**Institution:** <sup>1</sup>Barts Cancer Institute, London, United Kingdom. <sup>2</sup>Barts Health Trust, London, United Kingdom

**Aims:** This study aims to compare outcomes of robotic-assisted versus laparoscopic pull-through procedures in children with Hirschsprung disease. It focuses on minimally invasive techniques including Swenson, Soave and their modifications to evaluate differences in operative time, blood loss, hospital stay, complications, functional outcomes and cost. As the current evidence is limited and varied, this review aims to summarise available data and support informed decision making in paediatric Hirschsprung surgical practice.

**Methods:** A systematic review & meta-analysis were conducted in line with PRISMA/ Cochrane guidelines. Studies from 2010–2025 comparing robotic and laparoscopic pull-through in patients under 18 years were included. PubMed, Embase, Scopus and Cochrane Library were searched. Data were extracted for operative time, blood loss, hospital stay, time to oral feeds, complications (enterocolitis, leak, incontinence, redo surgery), quality of life and cost where available. Risk of bias was assessed using appropriate tools for randomised & non-randomised studies. A random-effects model was applied using RevMan 5.4. Robotic-only studies were excluded from meta-analysis but included narratively. Final analysis expected to complete by August 2025.

**Results:** Seven comparative studies (n = 785) were included for operative time, six for blood loss (n = 765) and six for hospital stay (n = 725). Robotic surgery showed longer operative time (mean difference: +26.09 min; 95% CI: 7.18–45.00; p = 0.007; I<sup>2</sup> = 93%) and lower blood loss (–7.12 ml; 95% CI: –11.55 to –2.69; p = 0.002; I<sup>2</sup> = 97%). Hospital stay was not significantly different (–0.79 days; 95% CI: –1.73 to 0.16; p = 0.10; I<sup>2</sup> = 61%). Heterogeneity was high across outcomes. Analysis is ongoing for other outcomes. Final results expected by August 2025.

**Conclusion:** Robotic-assisted pull-through for Hirschsprung disease in children may reduce intraoperative blood loss compared to laparoscopy but takes longer to perform. Hospital stay appears similar. Most included studies were retrospective and heterogeneous, only one prospective clinical trial was identified. Subgroup analysis by surgical technique was not feasible due to limited study numbers. Complication rates, functional outcomes and cost data are under final analysis. Results are expected to help guide clinical decisions and future research in paediatric minimally invasive pull-through surgery.

**Key statement:** This is the first meta-analysis comparing robotic and laparoscopic pull-through for Hirschsprung disease in children. Early findings suggest potential advantages of robotic surgery but the overall evidence is limited by heterogeneity and study design. Complications, functional outcomes and cost are under analysis. Our findings highlight the need for further prospective clinical trials with standardised outcome reporting to guide surgical decision making, surgical platform selection, health resource planning and surgical training in paediatric robotic Hirschsprung surgery.



## Video Presentation

### Video 01

#### KEY ANATOMICAL LANDMARKS FOR COMPLETE MESOCOLIC EXCISION IN RIGHT COLON CANCER

**Presenter:** Mr Haseeb Imtiaz

**Author(s):** Mr Haseeb Imtiaz, Mr Abdul Rehman, Mr Masood Ur-Rehman, Miss Upasana Das, Mr Jamil Ahmed

**Institution:** Northampton General Hospital, United Kingdom

**Aims:** This video outlines the critical anatomical landmarks and systematic technique for robotic right hemicolectomy adhering to Complete Mesocolic Excision (CME) principles. It highlights precise central vascular ligation, exposure of the superior mesenteric vein (SMV), and preservation of the mesocolic plane to ensure oncological specimen integrity.

**Methods:** High-definition intraoperative footage illustrates anatomical relationships and dissection planes. A robotic-assisted right hemicolectomy with CME is demonstrated.

Key technical steps include:

1. Central vascular pedicle ligation at the SMV origin
  2. Cranial-to-caudal dissection along the SMV axis
  3. Exposure of duodenal and head of pancreas
  4. Hepatic flexure mobilization
  5. Intact mesocolic fascia preservation
- High-definition intraoperative footage illustrates anatomical relationships and dissection planes.

**Results:** The video successfully demonstrates:

- Identification of the ileocolic, right colic, and middle colic vascular pedicles
- Safe exposure of SMV and management of its tributary.
- Embryological plane dissection between Toldt's fascia and the mesocolon
- *En bloc* resection of the tumour with intact mesentery

**Conclusion:** Robotic CME for right colon cancer enables meticulous dissection of critical retroperitoneal landmarks and central vasculature. This standardised approach—emphasis dissection over the SMV axis, duodenal and pancreatic head—enhances anatomical reproducibility, reduces intraoperative complications, and optimises oncological resection quality.

**Key statement:** This video provides a stepwise guide to anatomical landmarks and robotic technique for CME-compliant right hemicolectomy.

## **Video 02**

### **RIGHT HEMICOLECTOMY WITH COMPLETE MESOCOLIC EXCISION WITHOUT VASCULAR CLIPS: A CLIPLESS RETROPERITONEAL TUNNEL TECHNIQUE**

**Presenter:** Mr Sandeepa Dadigamuwage

**Author(s):** Mr Sandeepa Dadigamuwage, Mr Rajesh Thengungal Kochupapy, Mr Omar Eldeeb

**Institution:** University Hospitals Plymouth NHS Trust, United Kingdom

**Aims:** This video demonstrates a laparoscopic right hemicolectomy using complete mesocolic excision (CME) and central vascular ligation (CVL) without the use of vascular clips. The aim is to showcase a retroperitoneal tunnel technique relying solely on bipolar energy devices for vascular control, thereby eliminating the use of foreign material and reducing surgical costs. The technique emphasises anatomical dissection, vascular safety, and oncological radicality. This approach is intended to be safe, reproducible, and suitable for adoption by colorectal surgeons experienced in advanced laparoscopy.

**Methods:** A 67-year-old woman with a caecal tumour underwent laparoscopic right hemicolectomy with CME and CVL. Dissection began with a retroperitoneal tunnel approach, exposing the duodenum and pancreas. The ileocolic vessels, SMV, and Henle's trunk were sequentially dissected and isolated. All vascular structures were sealed and divided using bipolar energy without clips. The hepatic flexure and omentum were mobilised, the transverse colon was transected, and the specimen extracted via a suprapubic port. Intracorporeal side-to-side ileocolic anastomosis was performed using a stapler and barbed sutures, with perfusion confirmed using indocyanine green (ICG) fluorescence.

**Results:** The procedure was completed laparoscopically with no complications or conversion. No vascular clips were used. Vascular control was achieved entirely with bipolar energy. A total of 47 lymph nodes were harvested, with no evidence of metastasis. Final pathology confirmed an R0 resection, with no lymphovascular or perineural invasion and microsatellite stability. The patient followed an ERAS protocol, had early return of bowel function, and was discharged on postoperative day two without a drain or nasogastric tube.

**Conclusion:** Clipless CME with CVL using a retroperitoneal tunnel technique is feasible and safe in selected patients. This method maintains oncological principles while reducing the need for foreign material. Detailed anatomical knowledge and careful dissection are essential, particularly around the SMV and Henle's trunk. The use of ICG ensures well-perfused anastomosis. This technique supports enhanced recovery with minimal morbidity and early discharge.

**Key statement:** This video demonstrates a vascular clip-free technique for laparoscopic right hemicolectomy with CME and CVL using bipolar energy alone. It is oncologically sound, cost-effective, and reproducible, offering a viable alternative to conventional clip-based dissection in appropriately selected patients.

### Video 03

## ROBOTIC ABDOMINOPERINEAL RESECTION WITH TRANSABDOMINAL LEVATOR TRANSECTION FOR LOW RECTAL CANCER: A VIDEO PRESENTATION

**Presenter:** Mr Omar Eldeeb

**Author(s):** Mr Omar Eldeeb, Dr Nourhan Abozeid, Mr TK Rajesh

**Institution:** University Hospitals Plymouth NHS Trust, United Kingdom

**Aims:** To demonstrate the technical feasibility and advantages of a *completely robotic* abdominoperineal resection (APR), including robotic perineal reconstruction with biological mesh, incorporating a transabdominal levator ani transection approach for low rectal cancer, particularly in challenging pelvic anatomy.

**Methods:** A 66-year-old male with hypertension was diagnosed via bowel cancer screening with a 50 mm low rectal adenocarcinoma involving the dentate line, with the lower margin 40 mm from the anal verge. Staging confirmed T2N0M1 disease with a solitary lung metastasis. Cardiopulmonary exercise testing demonstrated good physiological fitness (AT 13.3 ml/min/kg). A fully robotic APR with transabdominal levator ani transection was performed to achieve clear distal margins and precise pelvic dissection. Robotic perineal reconstruction using a biological mesh was carried out to reinforce the pelvic floor and promote optimal wound healing.

**Results:** The completely robotic approach allowed meticulous dissection in a narrow pelvis and precise, controlled levator ani transection from above. Robotic perineal reconstruction enabled tension-free closure and robust pelvic floor support using biological mesh. Postoperatively, the patient required perineal wound washout and reclosure for wound infection but subsequently recovered well. He later underwent robotic right lower lobectomy for his lung metastasis and completed five cycles of chemoradiotherapy. The patient demonstrated good postoperative recovery and functional outcomes.

**Conclusion:** A fully robotic APR with transabdominal levator ani transection and robotic perineal reconstruction using biological mesh is a feasible and effective technique for low rectal cancers where sphincter preservation is not possible. This approach offers enhanced visualization, precise distal margin control, and robust pelvic floor reconstruction, potentially reducing perineal morbidity and improving overall patient outcomes.

**Key statement:** A completely robotic APR incorporating transabdominal levator transection and robotic perineal reconstruction with biological mesh represents an innovative, safe, and

oncologically sound approach for challenging low rectal cancers, enhancing surgical precision and supporting improved postoperative recovery.

#### **Video 04**

### **ENHANCED PRECISION AND SAFETY IN ABDOMINOPERINEAL RESECTION USING ROBOTIC SURGERY**

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**Aims:** To evaluate the safety, precision, and oncological adequacy of robotic-assisted abdominoperineal resection in patients with low rectal cancer, and to assess its impact on postoperative recovery and clinical outcomes compared to conventional surgical approaches.

**Methods:** A case of low rectal cancer was managed with robotic-assisted abdominoperineal resection using the da Vinci® surgical system. Preoperative evaluation included clinical examination, colonoscopy, and pelvic MRI to assess tumor location and staging. The procedure was performed using a standardized robotic technique, with the patient in lithotomy position and ports placed for optimal pelvic access. Intraoperative parameters, oncological resection margins, lymph node retrieval, and postoperative recovery (pain level, mobilization time, and hospital stay) were recorded to evaluate the feasibility, safety, and clinical outcomes of the robotic approach.

**Results:** The robotic-assisted abdominoperineal resection was completed successfully without intraoperative complications. Total operative time was 247 minutes, with 50mls blood loss. Histopathology confirmed clear circumferential and distal margins with a total of 24 lymph nodes retrieved, all negative for metastasis.

The perineal dissection beyond the pelvic floor was carried out with robot followed by a robotic closure of the perineal muscles. The dissection was carried out until the peri anal skin to minimize dissection for perineal part. Stoma defect was also created using robot.

**Conclusion:** Robotic-assisted abdominoperineal resection (APR) offers enhanced precision and safety in the treatment of low rectal cancers. The robotic platform provides superior visualization and instrument control, allowing meticulous dissection and adherence to oncological principles, including complete mesorectal excision and clear margins. This minimally invasive approach results in smaller incisions, reduced intraoperative blood loss, and fewer postoperative complications. Patients benefit from decreased pain, shorter hospital stays, and quicker recovery. Robotic APR represents a significant advancement in colorectal surgery,

combining the oncological rigor of traditional techniques with the benefits of modern, minimally invasive technology.

**Key statement:** Abdominoperineal resections can be performed safely and in a more precise manner robotically ensuring adherence to oncological principles. A complete robotic resection with enhanced view allows for smaller incision and early post operative recovery.