

FP 01 (11:50 -12:00)

INCREASING NHS MEDICOLEGAL BURDEN OF BILE DUCT INJURIES OVER 2 DECADES

Presenter: Dr P Ingleby

Author(s): Dr PI Ingleby, Mr S Hajibandeh, Dr A Davies, Dr U Gollapinni, Mr C Cheruvu

Institution: University Hospitals of North Midlands, Stoke on Trent, United Kingdom

Aims: Bile duct injury (BDI) in cholecystectomy is a recognised complication in less than 0.5-1.4% of cases and is associated with significant morbidity and mortality. Our study aimed to investigate the trend in claims, their underlying cause and the cost to the NHS UK over the past 20 years.

Methods: Data was obtained following a freedom of information request (FOI) from NHS Resolution UK for cases of bile duct injury. Data analysis was performed on years 2000-2022 to examine number of claims, the average damage payout and cost to the NHS as well as causes identified for the injury.

Results: In 2001 total cost to NHS was £644,000 with a 12-fold increase to £7,427,000 in 2021. The average payout in 2001 was £89,000 and £179,000 in 2021. The most expensive cause was intraoperative complications followed by operator error, failure / delay in recognition, inappropriate treatment and diathermy burns.

Conclusion: Settled cases of BDI have risen by 200% in 20 years. BDI's damages claims are increasing steadily over the past 20 years with a corresponding increase in financial burden to the NHS. Prompt recognition of anatomy and complications is essential to reduce patient morbidity and is directly related to experience.

Key statement: Whilst training in NHS is important to the development of surgeons, appropriate case selection is the key to safety. Laparoscopic cholecystectomy can be a complex operation, worsened by delays in the NHS and should be carried out by experienced UGI surgeons or under the supervision of consultant surgeons.

FP 02 (12:00 – 12:10)

**ANALYSIS OF LOCAL RECURRENCE AFTER ROBOTIC-ASSISTED TOTAL MESORECTAL EXCISION:
AN INTERNATIONAL, MULTICENTRE RETROSPECTIVE COHORT STUDY**

Presenter: Dr R Duhoky

Author(s): Dr R Duhoky^{1,2}, Mr G Niccolò Piozzi¹, Dr S Masum², Professor J Briggs¹, Professor J Khan^{1,2}

Institution: ¹Portsmouth Hospitals University NHS Trust, United Kingdom. ²University of Portsmouth, United Kingdom

Aims: Rectal cancer survival remains between 60-70% and with the adoption of total mesorectal excision (TME) and judicious use of neoadjuvant therapy, the local recurrence (LR) rates remain low. The aim of this study was to identify risk factors/predictors for LR, and exploring the feasibility of building a prediction model.

Methods: We included all patients who underwent a robotic TME for rectal cancer and 3+ years follow-up. Data were merged from six European centres (UK, NL, ES, IT, BE, FR) into a single database, and we analysed all available data for predictors for LR using machine learning (ML) models.

Results: A total of 1039 patients were included, with 41 occurrences of LR. Six variables were identified to be correlated with LR. Two prediction models were built with respectively 71.3% and 68.8% accuracy, 52.5% and 70.0% sensitivity, 90.0% and 67.5% specificity, and mean AUC's of 0.80 and 0.71.

Conclusion: This study shows the feasibility of building an LR prediction model in robotic rectal cancer patients, and identifies 7 risk factors for LR: clinical M-staging, length of hospital stay, postoperative ileus, Clavien Dindo grade of postoperative complications, pathological N-staging, pathological R-staging, and pathological DRM.

Key statement: The initial model shows promising results, and further refinement and assessment will improve the prediction model. Use in clinical environments is yet to be tested, but could support identifying patients at increased risk and eligible for more intensive follow-up schedules.

FP 03 (12:10-12:20)

COMPARING LEARNING OUTCOMES OF VIRTUAL REALITY (VR) SIMULATORS USING HAPTIC VERSUS BOX TRAINER (BT) IN LAPAROSCOPIC TRAINING: SYSTEMIC REVIEW & META-ANALYSIS

Presenter: Miss JSW Tan

Author(s): Mr MR Karim¹, Miss JSW Tan¹, Miss R Tamanna², Miss S Kim¹, Professor B Patel^{1,3}

Institution: ¹Barts Cancer Institute, London, United Kingdom. ²Watford General Hospital, United Kingdom. ³The Royal London Hospital, United Kingdom

Aims: This paper aims to compare the effectiveness of Virtual Reality (VR) simulators with haptic feedback versus traditional Box Trainers (BT) in laparoscopic training for medical students, focusing on learning curve, learning effect and skill transfer.

Methods: Following PRISMA guidelines, a systematic review and meta-analysis were conducted from December 2023 to April 2024. RCTs were selected based on specific inclusion and exclusion criteria. Random effect model was used for statistical analysis. The primary outcomes were learning curve and learning effects, and secondary outcomes were skill transfer.

Results: The analysis included 7 RCTs with 125 participants. Results showed BTs provided a faster learning curve at only the intermediate level. Both simulators showed significant learning effects, but BTs showed improvements in more parameters. There was no significant difference in skill transfer between the groups.

Conclusion: Both VR with haptic feedback and BT are valid training methods for laparoscopic surgery, with BT showing better skill acquisition at lower level. Further research is needed to explore the potential of VR with haptic feedback in laparoscopic training.

Key statement: This review shows that the artificial haptic feedback provided by VR may not yet be adequate to replace the natural haptic feedback in BT. However, with further refinements in the haptic technology, VR simulators show potential for laparoscopic training.

FP 04 (12:20-12:30)

GALL OR NOTHING: SHOULD WE BE SENDING ALL GALLBLADDERS FOR HISTOLOGY?

Presenter: Dr S Picker

Author(s): Dr S Picker, Miss F Peters, Mr L Horgan

Institution: Northumbria Healthcare Trust, Newcastle upon Tyne, United Kingdom

Aims: This project aimed to assess incidence of gallbladder cancer.

Guidelines were suggested advising which specimens should be sent to pathology based on previous findings and we wanted to analyse these guidelines.

We also wanted to identify environmental/financial savings that could be made without compromising the identification of malignancy.

Methods: A retrospective review was conducted on gallbladder specimens from 2017 to 2023 (6,479 cases), categorizing them into histological groups. Malignant cases were further analysed to determine if they would have been identified using the suggested guidelines.

Results: In comparison to previous audit, incidence of malignancy was consistent (0.4% in 1999-2016, 0.3% in 2017-2023). 17 malignant specimens were identified; all would've been sent for histology using suggested guidelines.

The host trust is currently spending approximately £61,800 annually, with environmental cost of 290 kgCO₂ due to processing of gallbladder specimens.

Conclusion: The incidence of gallbladder cancer remained consistent over the last 24 years.

If suggested guidelines were followed, all malignant diagnoses would have been identified.

Considerable savings could be made if specimens were sent on a case-by-case basis following guidelines.

Key statement: This project looks into the incidence of gallbladder cancer and the financial and environmental cost of histopathological processing of gallbladder samples.

It aims to analyse a suggested set of guidelines from a previous audit cycle, which can be followed to identify malignancy whilst also saving the trust financially and environmentally.

FP 05 (12:30-12:40)

ROBOTIC VERSUS LAPAROSCOPIC SURGERY FOR COLORECTAL DISEASE: A SYSTEMATIC REVIEW, META-ANALYSES, AND META REGRESSION OF RANDOMIZED CONTROLLED TRIALS

Presenter: Ms A Thrikandiyur

Author(s): Ms A Thrikandiyur¹, Mr G Kourounis¹, Mr S Tingle², Mr P Thambi¹

Institution: ¹James Cook University Hospital, Middlesbrough, United Kingdom. ²Newcastle University, United Kingdom

Aims: Robotic surgery (RS) is gaining prominence in colorectal procedures owing to advantages like 3D-vision and enhanced dexterity, particularly in rectal surgery. Although recent reviews report similar outcomes between laparoscopic surgery (LS) and RS, this study investigates the evolving trends in outcomes over time, paralleling the increasing experience in RS.

Methods: A systematic review, meta-analysis, and meta-regression of randomized control trials exploring differences in postoperative outcomes between patients undergoing RS or LS for colorectal pathology. Primary outcome was postoperative complications. Risk of bias using Cochrane Collaboration's tool. RCTs obtained from PubMed, Embase, CINAHL via CENTRAL from inception to 25/07/2023.

Results: 13 articles fulfilled inclusion criteria. Meta-analysis of postoperative complications revealed no significant difference. Meta-regression analysis of postoperative complications demonstrated a significant trend favouring RS over time. Of secondary outcomes, significant findings were shorter operative time favouring LS and fewer conversions favouring RS.

Conclusion: As experience in robotic surgery grows, evidence suggests an increasing safety profile for patients. Meta-regression revealed a significant temporal trend with complication rates favouring RS over LS. LS remains quicker. Rising adoption of RS, coupled with emerging evidence is expected to further elucidate its clinical efficacy.

Key statement: This systematic review of Randomised Controlled Trials in Colorectal surgery with an added metaregression demonstrates the safety of robotic surgery, with a comparable complication profile to laparoscopic surgery. Increasing uptake of robotic surgery and new evidence will further clarify its clinical efficacy evolving the landscape of colorectal surgery.

FP 06 (14:25-14:35)

APPLICATION OF 'GIRFT' PRINCIPLES TO ACHIEVE THE BEST OUTCOMES IN LAPAROSCOPIC TREATMENT OF ADVANCED (GRADE IV) ENDOMETRIOSIS

Presenter: Mr K Siddique

Author(s): Mr K Siddique^{1,2}, Mr F Akram¹, Mr P Byrne¹, Mr C Parfitt¹, Ms G Ahmad¹

Institution: ¹The Northern Care Alliance, Oldham, United Kingdom. ²The Royal Oldham Hospital NHS Trust, United Kingdom

Aims: Advanced grade IV endometriosis affects between 3.8% to 37% patients, mostly affecting the rectovaginal septum. It is characterized by a myriad of symptoms. The Aim of the project was to utilise the 'GIRFT' principles to achieve the best possible outcomes for all patients undergoing laparoscopic treatment for advanced grade-IV endometriosis.

Methods: This study is conducted at a tertiary care centre with data entered into the national registry over the last 10years. Cases were reviewed at the Endometriosis MDT followed by surgery. Analysis was performed to assess variables including peri-operative complications following rectal treatment; improvement in pain, fertility, conversion & return to theatre.

Results: The total number of joint procedures were 300. Majority had rectal shaving (97%), disc resection in 4 (1.3%) and anterior resection 2(0.6%), & two stomas formed. Two patients had ureteric injury managed conservatively and 01open conversion with no unplanned return-to-theatre. Pelvic pain improved in 70-80%, & pregnancy was achieved in 35-40%.

Conclusion: Tertiary centre 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: Understanding and applying the 'GIRFT Principles' can help share and learn the real-world experiences, surgical nuances, and outcomes to ensure that high standards of care are maintained across various centres providing care for advanced endometriosis. Collaborative efforts should help optimize the care and quality of life for affected individuals.

FP 07 (14:35-14:45)

USE OF SOCIAL MEDIA FOR SURGICAL EDUCATION THROUGH OPERATIVE VIDEOS: THE DERBY PANCREATICOBILIARY UNIT EXPERIENCE

Presenter: Mr J Latif

Author(s): Mr J Latif, Dr P Mountjoy, Mr I Bhatti, Mr A Awan

Institution: Derby Pancreaticobiliary and Robotic Abdominal Wall Reconstruction Unit,
United Kingdom

Aims: The use of operative videos for surgical education has seen an exponential rise, coinciding with increased engagement of surgical professionals on social media (SoMe) platforms. One such platform is “X” (formerly known as Twitter). This study reports the Derby Pancreaticobiliary Unit experience of utilising “X” for surgical education.

Methods: A retrospective review of the Derby Pancreaticobiliary Unit X platform (@DerbyPBUnit) was performed from June 2022 to June 2023. Parameters explored included follower count, engagement of posts, interaction with surgical professionals, and collaboration projects with other surgical educational platforms. X analytics was used to analyse engagement.

Results: From conception to analysis, the @DerbyPBUnit platform published 600 original posts, with 85% being operative videos. Over a one-year period, there were >3 million impressions on posts, 3698 new followers, >19000 likes, >4300 reposts, and >657000 media views. Collaborations were achieved with Behind the Knife and TVASurg through “X”.

Conclusion: This study supports the use of SoMe and especially the “X” platform as a tool to deliver surgical education to a worldwide audience. The Derby Pancreaticobiliary Unit experience demonstrates the enthusiasm for high quality minimally-invasive surgical videos by surgeons of all grades (medical students to consultants) from many different countries.

Key statement: SoMe is a rapidly developing educational tool for surgeons of all grades. The “X” platform is ideal for use of operative videos for surgical education and allows the dissemination of innovative techniques to surgeons from all backgrounds and resources. Collaboration between surgical educational platforms is an additional benefit of SoMe.

FP 08 (14:45-14:55)

VASCULAR PEDICLE DISSECTION TIME IN LAPAROSCOPIC COLECTOMIES AS A NOVEL MARKER OF SURGICAL SKILL

Presenter: Dr K de Burlet

Author(s): Dr K de Burlet¹, Dr I Tranter-Entwistle², Dr J Tan³, Dr A Lin³, Dr T Eglinton²

Institution: ¹North Shore Hospital, Auckland, New Zealand. ²Christchurch Hospital, New Zealand. ³Wellington Hospital, New Zealand

Aims: Vascular pedicle dissection time (VPDT) is a novel marker measured from retraction of the vascular pedicle to completing the medial dissection including the vascular ligation. The aim of this study was to benchmark the VPDT against the Competency Assessment Tool (CAT) score, a validated score to assess surgical skills.

Methods: A prospective multicentre study was performed in New Zealand recording laparoscopic colorectal resections. Patient, operation and histology characteristics were also collected. For each laparoscopic video the VPDT was calculated and the CAT score was used by two independent colorectal surgeons. The median CAT score was grouped into tertiles.

Results: 154 patients were included between December 2020 and November 2023, 74 (48.1%) right and 80 (51.9%) left sided resections. Median VPDT was significantly different between the CAT score groups for right (lower 15min, middle 13 min, higher 10min, $p=0.036$) and left sided resections (lower 46min, middle 40min, higher 26min, $p<0.001$).

Conclusion: This study showed that the VPDT was inversely correlated to the CAT score, indicating it quantifies operative technical skill. It's suitability for measurement using computer vision algorithms could allow for automated assessment of surgeons' learning curve and skills.

Key statement: The VPDT is a novel marker that can assess surgical skills. It can be used in 'real time' to help with supervising training and learning curve, but it can also be used as a key performance indicator (KPI).

FP 09 (14:55-15:05)

ESSENTIAL COMPONENTS AND VALIDATION OF MULTI-SPECIALTY ROBOTIC SURGICAL TRAINING CURRICULA: A SYSTEMATIC REVIEW

Presenter: Miss J Walshaw

Author(s): Miss J Walshaw^{1,2}, Mr MG Fadel^{3,2}, Mr M Boal^{4,2}, Professor N Francis^{4,2}, Mr C Kontovounisios^{3,5,2}

Institution: ¹Leeds Institute of Medical Research, St James's University Hospital, University of Leeds, United Kingdom. ²European Robotic Surgery Consensus Study Group, London, United Kingdom. ³Department of Surgery and Cancer, Imperial College London, London, United Kingdom. ⁴The Griffin Institute, Northwick Park and St Mark's Hospital, London, United Kingdom. ⁵Department of Surgery, Evangelismos Hospital, Athens, Greece

Aims: The rapid adoption of robotic surgical systems globally has led to a critical gap in training and credentialing for surgeons. This systematic review aims to identify the essential components and evaluate the validity of current robotic training curricula across all surgical specialties.

Methods: A systematic search was conducted to identify studies reporting on multi-specialty or specialty-specific surgical robotic training curricula. Data were extracted according to Kirkpatrick's curriculum evaluation model and Messick's concept of validity. The quality of studies were assessed using the Medical Education Research Study Quality Instrument (MERSQI) and the GRADE approach.

Results: Seventy articles were included. Most studies were single-centre (n=54, 77.1%) and observational (n=64, 91.4%). Common curriculum components included didactic (n=52, 74.3%), dry lab (n=50, 71.4%), and simulation (n=45, 64.3%). None of the studies were fully validated according to Kirkpatrick's model, five studies (7.1%) were fully validated according to Messick's framework.

Conclusion: Current robotic curricula primarily rely on single-centre observational studies. While these generally exhibit moderate methodological quality (median MERSQI 11.5), they frequently have low (37.3%) to moderate (38.8%) GRADE assessment. The notable gaps in validity highlight the need for standardised, evidence-based development, evaluation, and reporting of robotic curricula.

Key statement: There is a critical need for the development of more robust and validated robotic training programs to ensure the effective and safe adoption of robotic surgical systems.

Video of Distinction 01 ((15:35-15:43))

COMPLETE SUB MESOCOLIC MOBILISATION OF SPLENIC FLEXURE DURING AN EXTENDED RIGHT HEMICOLECTOMY

Presenter: Mr A Shrestha

Author(s): Mr A Shrestha, Mr A Pageni, Dr S Shakya, Mr AK Shrestha

Institution: William Harvey Hospital, Ashford, United Kingdom

Aims: The Splenic Flexure Mobilisation (SFM) during laparoscopic colorectal surgery can be challenging and evidently perceived to be a difficult step for the colorectal surgeons. In this video, a complete medial to lateral approach to SFM has been demonstrated in a patient undergoing extended right hemicolectomy for a SF tumour.

Methods: We present a case of 58-years-old female, with performance status of 0 and BMI of 22 presented with PR bleeding and left abdominal pain. Colonoscopy suggested malignant stricture at splenic flexure and CTAP identified distal transverse colon tumor. We here demonstrate the complete sub-mesocolic mobilization of SFM.

Results: Medial to lateral mobilization laparoscopically feasible and safe. The goal remains similar to any approach, that is to avoid anastomotic tension. The operative time for this step, during the entire colorectal procedure, is influenced by the patient's characteristics and obviously, by the surgeon's learning curve.

Conclusion: Complete medial to lateral mobilization is safe, efficient and feasible to attain complete splenic flexure mobilization.

Key statement: Appropriate approach for splenic flexure mobilization is still in debate. Various methods have been put forward. Here we suggest complete sub-mesocolic mobilization as it is safe and feasible and will be able to ride through ample avascular plane. However, approach needs to be modified as per the patient characteristics and situation.

Video of Distinction 02 (15:43-15:51)

ROBOTIC SEGMENTAL RESECTION OF SPLENIC FLEXURE TUMOR AND INTRACOPORAL ANASTOMOSIS WITH ICG INJECTION

Presenter: Dr M Alwis

Author(s): Dr M Alwis, Dr S Dadigamuwage, Mr TK Rajesh

Institution: University Hospitals Plymouth, Plymouth, United Kingdom

Aims: This video presentation demonstrates the technique and results of robotic segmental splenic flexure tumor resection with intracorporeal anastomosis and indocyanine green (ICG) injection, with key steps including patient positioning, port placement, mobilization of the splenic flexure, ICG injection to prevent extensive resection, resecting the tumor and intracorporeal anastomosis.

Methods: The procedure was performed using a da Vinci robot on a 76-year-old patient. ICG injection was administered in 2 phases. Firstly, inject locally to assess lymphatic drainage and secondly to check for effective perfusion through the anastomosis.

Results: There were no intraoperative complications, and no conversion to open surgery was necessary. Postoperative recovery was uneventful, and she was discharged home on the 4th postoperative day. Pathological examination confirmed adenocarcinoma, complete tumor resection (R0) with clear margins. Follow-up after 12 months did not reveal any complications.

Conclusion: Robotic segmental resection of splenic flexure tumors with ICG injection is an effective and safe technique. It poses a challenge to the surgeon due to its advanced presentation and dual lymphatic drainage of the area. This minimally invasive approach provides precise tumor resection with favourable recovery and promising oncologic outcomes.

Key statement: This video presentation demonstrates the successful use of robotic technology and ICG injection in performing segmental resections of splenic flexure tumors. Improving patient treatment outcomes without the need to perform extensive resection using minimally invasive techniques while maintaining free oncological margins.

Video of Distinction 03 (15:51-15:59)

NOVEL ANALYSIS OF MINIMALLY INVASIVE OPERATIVE VIDEO

Presenter: Mr L Dick

Author(s): Mr L Dick^{1,2}, Mr RJE Skipworth^{1,3}, Dr VR Tallentire², Professor S Yule^{1,3}

Institution: ¹Surgical Sabermetrics Laboratory, Usher Institute, University of Edinburgh, United Kingdom. ²Medical Education Directorate, NHS Lothian, Edinburgh, United Kingdom. ³Clinical Surgery, University of Edinburgh, United Kingdom

Aims: Current methods of surgeon assessment are resource intensive and prone to observer bias. Objective analysis of operative video could provide unique insights into surgeon performance and help drive improvements. This video presents a novel technique for the analysis of minimally invasive, operative footage.

Methods: Borrowing from other disciplines, we chose a video analysis software platform predominantly used in elite sports (Dartfish TM). Using open-source video of laparoscopic appendicectomy, we demonstrate the tagging of surgical gestures (e.g. action, target anatomy and instrument) and key operative events (e.g. bleeding).

Results: Benefiting from the intuitive user interface, tagging of the operative videos was performed smoothly in real time, without need to pause or rewind the video. Keyboard shortcuts further improve the efficiency of analysis. Relevant operative events (e.g. bleeding) can be tagged and easily identified retrospectively for further review.

Conclusion: Objective analysis of operative video is feasible and provides greater depth of insight into surgeon performance than current practices. The applications for surgeons in training in particular warrants further investigation to determine the impact video analysis has on development of surgical skills.

Key statement: Collection and storage of operative video alone provides limited insights into surgeon performance. Analysis of operative footage is essential to provide meaningful and bespoke feedback. This short video presentation describes a novel approach to the objective analysis of minimally invasive, operative video.

Video of Distinction 04 (15:59-16:07)

ROBOTIC TIPS AND TRICKS FOR HARTMANN'S REVERSAL

Presenter: Dr S Mahmoud

Author(s): Dr S Mahmoud, Professor D Harji, Mr P Batra, Mr A Mohamed, Mr J Burke

Institution: Department of Colorectal Surgery, Manchester University NHS Foundation Trust, United Kingdom

Aims: Reversal of Hartmann's is a common colorectal procedure. However, the traditional laparoscopic method presents technical difficulties, such as potentially extensive adhesiolysis, long rectosigmoid stump and challenging pelvic dissection. We demonstrate key tips and tricks to help overcome these challenges.

Methods: The video has been edited in accordance with the LAP-VEGaS tool and international consensus on reporting educational videos in robotic surgery.

We demonstrate the merits of robotic adhesiolysis, use of handsewn colocolonic anastomosis in managing long rectosigmoid stump, approaches to pelvic dissection and transabdominal single stapled, double purse string anastomosis.

Results: Using a variety of techniques and employing a personalised approach to robotic Hartmann's reversal we are able to facilitate a minimally invasive approach to patients who have undergone previous major open surgery.

Conclusion: This video demonstrates the feasibility of robotic Hartmann's reversal and showcases a variety of techniques facilitated by the robotic approach.

Key statement: The tips and tricks presented allow for minimally invasive robotic reversal of Hartmann's with a personalised approach to anastomosis.

Video of Distinction 05 (16:07-16:15)

COMPLEX DIVERTICULAR FISTULATING DISEASE MADE EASY VIA ROBOTIC-ASSISTED SURGERY - A VIDEO VIGNETTE

Presenter: Dr A Avrova

Author(s): Dr A Avrova, Mr E O'Reilly, Mr P Batra, Mr J Burke, Professor D Harji

Institution: Manchester Foundation Trust, United Kingdom

Aims: This video provides a demonstration of diverticular fistula resections using Robotic-Assisted Surgery (RAS), showcasing the benefits of this minimally invasive approach. Traditional surgical approaches to fistula resection are often challenging due to complex pelvic anatomy and the need for meticulous dissection to prevent damage to surrounding tissues.

Methods: The video shows two robotic assisted cases demonstrating a colo-vaginal and a colo-vesical/uterine fistulas being carefully taken down and discusses the advantages of using this technology.

Results: When compared to a laparoscopic approach, research has shown that a RAS resection is associated with a lower conversion to open rate, which has numerous benefits for the patient.¹

Conclusion: In this video we highlight the advantages of RAS such as enhanced visualisation, improved dexterity and precise dissection. We also illustrate the use of indocyanine green (ICG) dye to identify the ureters and to check the vascular integrity of the conduit when completing the colonic anastomosis.

Key statement: RAS has many benefits when dealing with complex fistulating diverticular disease.

Parallel Video Session – Club Room

Video 01 (15:35-15:43)

KEYFRAMES FOR OPTIMISED ROBOTIC SPLENIC FLEXURE MOBILISATION BY THREE SURGICAL APPROACHES

Presenter: Mr S Alabdallat

Author(s): Mr L Alghazawi, Mr G Karagiannidis, Mr S Alabdallat, Mr A Malik

Institution: East Suffolk and North Essex NHS Foundation Trust, Ipswich, United Kingdom

Aims: The video demonstration aims to optimize robotic splenic flexure mobilisation using keyframes across three surgical approaches. Most common practice is the retroperitoneal approach. Keyframe-specific methods can standardise and improve surgical safety and efficiency, as well as enhancing robotic surgical training.

Methods: A single video presentation. Guidance of robotic splenic flexure mobilisation is demonstrated in five keyframes. Keyframes are explained and provided across the video. Further techniques, such as ideal port placement and creation of meso-colic curtain are also within the video.

Results: The implementation of keyframes demonstrated effective robotic mobilisation of the splenic flexure with minimal complications. Keyframes provided structured steps for optimal exposure and safe dissection, especially in obese patients. The use of robotic assisting arms and dynamic counter-traction improved precision and reduced the risk of inadvertent injury during the procedure.

Conclusion: The awareness of all keyframes during robotic splenic flexure mobilisation enhances the effectiveness and safety of the procedure. Such keyframes can be employed to educational and teaching strategies for surgical colorectal robotic trainees. Video-based learning is increasing in popularity amongst surgical registrars.

Key statement: Structured keyframes enhance surgical precision in splenic flexure mobilisation when performed robotically. Educational videos are a new and effective surgical educational method in skills explanation, including robotic training.

Video 02 (15:43-15:51)

INTRA-OPERATIVE COMPLICATIONS IN ROBOTIC COLORECTAL SURGERY

Presenter: Mr Al Rehman

Author(s): Mr A Rehman. Mr J Ahmed, Mr K Malik

Institution: Northampton General Hospital, United Kingdom

Aims: The aim of the video is to show the complications encountered during robotic colorectal surgery and their management.

Methods: We analyzed the recorded videos of the surgical procedures which had intra-operative complications. There were 3 patients who underwent intra-op injury including a vascular injury to iliac vessels at pelvic brim, a colonic and a vaginal injury.

Results: All the intra-operative complications were identified and effectively managed. there was no added co-morbidity to the patient's recovery.

Conclusion: A timely identification of an injury and effective management can prevent unexpected treatment outcome.

Key statement: Robotic surgery is not without complications. These should be shared rather than brushed under the carpet. This provides a good platform and learning experience to young aspiring robotic surgeons and broadens their vision.

Video 03 (15:51-15:59)

LAPAROSCOPIC MANAGEMENT OF STRANGULATED BILATERAL OBTURATOR HERNIAE

Presenter: Mr B Mahendran

Author(s): Mr B Mahendran¹, Mr J Natale², Mr S Dadigamuwage², Mr TK Rajesh²

Institution: ¹University Hospitals Southampton Foundation Trust, United Kingdom.

²University Hospitals Plymouth NHS Trust, United Kingdom

Aims: We aim to provide evidence of the feasibility of an emergency laparoscopic combined TAP/TEP approach in repairing a bilateral obturator hernia. This video will be an appropriate resource for general surgeons who are on the emergency on-call.

Methods: A 66-year-old multiparous female patient presented with a 2-day history of severe left lower quadrant pain, and a left lateral thigh pain that was radiating to the knee. A CT scan showed a bilateral obturator hernia, with small bowel within the left sac. An emergent laparoscopic operation was planned.

Results: An initial transabdominal approach was performed. The hernial contents were carefully reduced, and the hernia sac ligated, with the bowel assessed for viability. Subsequently, a TEP repair was performed, completed by placing the pre-peritoneal mesh. The patient went home on day 2, with no long-term complications.

Conclusion: A combined TAP/TEP repair allows the surgeon to complete the operation by performing all the steps of an emergent hernia repair. This includes the ability to assess the bowel, placement of the mesh in the pre-peritoneal plane, a re-laparoscope to assess peritoneal defects and check the bowel again.

Key statement: A minimally invasive emergent operation is feasible even in rare pathology, and the advent of emergent robotic operating will expand this further. The addition of indocyanine green will help surgeons assess bowel viability, and the increased experience in performing this procedure will reduce the total theatre time, especially in emergencies.

Video 04 (15:59-16:07)

LAPAROSCOPIC MANAGEMENT OF CHRONICALLY SWALLOWED TOOTHBRUSH WITH BOWEL SALVAGE

Presenter: Mr F Akram

Author(s): Mr F Akram, Mr MA Sayed, Mr K Siddique

Institution: Northern Care Alliance, Manchester, United Kingdom

Aims: Laparoscopic removal of long FB from the bowel can be challenging. We present here a complex case of chronic FB manage by advanced laparoscopic technique without bowel resection.

Methods: We present a case of 23 years old lady with mental health problem who underwent appendicectomy 5 days ago. She was readmitted and CT shows presence of tubular structure in caecum with small collection. Decision was made to proceed laparoscopically

Results: Postoperatively patient managed with antibiotic, IVF and drain monitoring. She was discharged on 5th POD with good recovery and arrangement of hot clinic appointment in few days.

Conclusion: Careful review of imaging should be undertaken with a radiologist. Laparoscopic removal of long FB without bowel resection can be performed successfully using advanced laparoscopic skills.

Key statement: Our video demonstrated step by step management of FB (Toothbrush) removal from caecum laparoscopically using advanced laparoscopic skills.

Video 05 (16:10-16:15)

COMPLETE MESOCOLIC EXCISION AND TOTAL MESORECTAL EXCISION FOR SYNCHRONOUS COLONIC AND RECTAL TUMOURS

Presenter: Mr J Natale

Author(s): Mr J Natale, Mr O Eldeeb, Miss L Yao, Mr TK Rajesh

Institution: Derriford \hospital, Plymouth, United Kingdom

Aims: To demonstrate a safe, efficient and reproducible technique for laparoscopic proctocolectomy with complete mesocolic and mesorectal excision using clipless central vascular ligation of mesenteric pedicles. The patient was a male preoperatively staged with T2N0M0 EMV10 rectal and T1/2 caecal tumour.

Methods: A 10mm camera, 10mm suprapubic port and five 5mm working ports are placed. Retroperitoneal tunnelling technique right hemicolectomy with clipless central vascular ligation using Olympus Thunderbeat is combined with high tie middle colic division and total mesorectal excision.

Results: Total operative time was 7 hours. The patient was discharged on day 7. On postoperative review of preoperative MRI a node/deposit at the circumferential resection margin had not been identified. As a result, the CRM was positive and the patient underwent adjuvant treatment.

Conclusion: Energy device only combined complete mesocolic excision and total mesorectal is a new technique for proctocolectomy. It requires methodical technique and understanding of vascular anatomy. Embryologic plane surgery and central ligation is an oncologic principal applicable to more than rectal and right colonic tumours.

Key statement: Clipless central vascular ligation complete mesocolic excision is achievable with considered use of energy device. In combination with energy device total mesorectal excision, we describe a novel technique for radical proctocolectomy.

Poster of Distinction 01

EARLY EXPERIENCE WITH ROBOTIC APPROACHES TO INFLAMMATORY BOWEL DISEASE (IBD) SURGERY- A SINGLE INSTITUTIONAL EXPERIENCE

Presenter: Dr V Thattaruparambil

Author(s): Dr V Thattaruparambil^{1,2}, Ms N Jenny¹, Ms Rebecca Kay¹, Professor R Brady^{1,3,2}, Ms N Randhawa¹

Institution: ¹Newcastle Upon Tyne Hospitals, United Kingdom. ²Newcastle University, United Kingdom. ³Ulster University, Belfast, United Kingdom

Aims: Robotic approaches to colorectal resections are now becoming routine for colorectal cancer surgery but use in IBD is still not currently mainstream. Here, we compare our initial experience and 30-day surgical outcomes across approaches for colorectal resectional surgery for Inflammatory Bowel Disease (IBD), with a specific focus on robotic outcomes.

Methods: We analysed data from a large tertiary referral centre for IBD, reporting patient demographics, outcomes and complications from those undergoing specific colorectal surgical resections for IBD, between 2020- 2023. This retrospective review utilised hospital records and prospectively recorded ERAS (Enhanced Recovery After Surgery) data, detailing the patient journey.

Results: 140 cases were analysed, showing mean procedure time did not significantly differ. For robotic, laparoscopic and open, major complication (Clavien-Dindo classification 3+) rates were 5.4%, 8% and 3.5% ($p= 0.686$). Readmission rates were 8.10%, 9.33% and 17.85% ($p= 0.174$) and post-operative stay was reduced in minimally invasive techniques.

Conclusion: This early data demonstrates real-world experience of the introduction of robotic surgical techniques for colorectal resection. Robotic surgical outcomes demonstrate equivalence with the laparoscopic outcomes and are improved compared to open procedures in most metrics but are more expensive.

Key statement: Insight of the surgical outcomes following surgery for IBD is critical to appropriate consenting and decision making. Contemporary recommendations to guide IBD surgical intervention favours a minimally invasive approach. Here, we review early surgical outcomes following the recent introduction of robotic minimally invasive surgery (MIS) for IBD.

Poster of Distinction 02

AUTOMATED ANALYSIS OF MINIMALLY INVASIVE SURGICAL (MIS) VIDEO IN TRAINING

Presenter: Mr L Dick

Author(s): Mr L Dick^{1,2}, Mr RJE Skipworth^{1,3}, Dr VR Tallentire², Professor S Yule^{1,3}

Institution: ¹Surgical Sabermetrics Laboratory, Usher Institute, Edinburgh, United Kingdom.

²Medical Education Directorate, NHS Lothian, Edinburgh, United Kingdom.

³Clinical Surgery, University of Edinburgh, United Kingdom

Aims: Operative video is underutilised in surgical training due to the resources required for editing and review. Video understanding, a term describing technologies that extract meaning from video, can automatically analyse video to provide insights into surgical performance. This study explores the application of automated MIS video analysis in surgical training.

Methods: A systematic literature search reporting the use of automated MIS video analysis from trainee performed operations was conducted. Data on study characteristics, method of analysis, metrics generated and application to training were extracted independently by two reviewers.

Results: Of the seven studies identified, three assessed laparoscopic cholecystectomy. Neural networks were the commonest analysis method. Metrics were varied, encompassing processes (e.g. bimanual dexterity), outcomes (e.g. operative duration) and safety (e.g. critical view achievement). No study assessed longitudinal application to training.

Conclusion: Video understanding is an emerging field of importance in surgical education, yet multiple metrics have already been developed. Future efforts should explore the practical application of these new technologies to benefit surgeons in training and, ultimately, patients.

Key statement: Surgeons in training require regular and high-quality feedback for development. Automated analysis of trainee performed MIS video could help provide novel insights into surgical performance. Future research should target which metrics trainees could benefit most from, and how to apply them in surgical training pathways.

Poster of Distinction 03

ENHANCED NURSING ROLES IN THE PERIOPERATIVE ENVIRONMENT: THE POSITIVE IMPACT ON TEAM DYNAMICS IN MINIMAL ACCESS COLORECTAL SURGERY

Presenter: Miss R Marino

Author(s): Miss R Marino, Miss SA Gomes, Miss TEM Morrison, Dr P Nanthakumaran

Institution: Mid and South Essex NHS Foundation Trust, Chelmsford, United Kingdom

Aims: To analyse the impact of operating theatre nurses practising enhanced roles such as Surgical First Assistant (SFA) and Anaesthetic Nurse (AN) on optimisation of operating theatre utilisation, enhancement of holistic patient care in the perioperative environment and to what extent their hybrid roles contribute to reducing pre-skin incision time.

Methods: A retrospective, single-centred study was performed on patients undergoing elective minimal access Colorectal surgery. The data of 64 lower G.I. cases were collected from an electronic operating theatre database. Time from “theatre entry” to start of surgery, incidence of adverse events, staff present in theatre and their roles was recorded.

Results: Nurses with enhanced skills participated in 50% of cases in the role of “circulating staff”; resulting in an average pre-skin incision interval of 13.9 minutes. Contrarily, when nurses without enhanced skills participated in pre-operative patient positioning and preparation, the average time was 20.3 minutes, resulting in a diminution of 32%.

Conclusion: This study demonstrates the objective improvement in theatre utilisation time when staff with enhanced competencies perform a “circulating role” and highlights the importance of communication and safety implementation from senior staff amongst the multidisciplinary team. A combination of developed technical and non-technical skills contributes to a more holistic patient approach.

Key statement: Additional education for operating theatre staff promotes team-working while improving efficiency of theatre utilisation. The authors are aware that the difference between the two categories is insufficient to schedule additional cases on the operating list, but promotes an environment where shared decision-making and constructive discussions are encouraged and valued.

Poster of Distinction 04

OPEN CONSOLE ROBOTIC ASSISTED SURGERY REDUCES ERGONOMIC RISK DURING MINIMALLY INVASIVE INGUINAL HERNIA SURGERY: THE VOLTAIRE RANDOMISED CONTROLLED TRIAL

Presenter: Ms F Dixon

Author(s): Ms F Dixon^{1,2}, Ms P Vitish-Sharma^{1,2}, Mr A Qureshi¹, Mr A Khanna¹, Professor B Keeler^{1,2}

Institution: ¹Milton Keynes University Hospital, United Kingdom. ²University of Buckingham, United Kingdom

Aims: Laparoscopic surgery is associated with poor operating ergonomics leading to pain and injury in surgeons. Robotic-assisted surgery has been proposed as a potential solution. This is the first randomised controlled trial to assess the operating ergonomics of open console robotic surgery for inguinal hernia surgery, using the Versius® system.

Methods: This trial assesses intraoperative ergonomic risk using the objective and validated Rapid Entire Body Assessment (REBA) scale, through analysis of photographs taken at 1-minute intervals. Secondary outcomes include team communication assessment (Oxford NOTECHS II), surgeon cognitive strain (modified NASA-TLX), and patient clinical outcomes. Patients were stratified on unilateral/bilateral hernias.

Results: Sixty patients were randomised, 1 withdrew. Robotic REBA was significantly lower than laparoscopic (median robot 3.0 vs lap 5.0 [p<0.001]). Robotic operations were longer (mean 64.9±21.1minutes vs 31.7±10.3minutes [p<0.001]). More robotic patients resumed normal activities at 14-days (15(39%) vs 1(5%) [p=0.006]). All other outcomes were equal.

Conclusion: This trial demonstrates that robotic surgery reduces ergonomic risk scores during inguinal hernia surgery, with no detriment to cognitive strain or team communication. This may therefore be a safe & feasible solution to the increasing problem of work-related musculoskeletal injuries in surgeons but must be balanced with efficient theatre utilisation.

Key statement: Laparoscopic surgery benefits patients but leads to musculoskeletal issues amongst surgeons. This randomised controlled trial demonstrates that open console robotic surgery can lower surgeon ergonomic risk from “medium” to “low risk” for inguinal hernia surgery without any negative impact on patient outcomes, team communication, or cognitive strain.

Poster of Distinction 05

UPDATE ON INTRA-OPERATIVE METHODS FOR ASSESSMENT OF COLORECTAL ANASTOMOSES

Presenter: Miss N Abdul Kader

Author(s): Miss T Morrison¹, Dr P Mountjoy², Miss N Abdul Kader³, Mr S Dosani⁴, Mr M Galea⁵

Institution: ¹Mid and South Essex NHS Foundation Trust, Chelmsford, United Kingdom.
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Aims: Methods for leak assessment are variable and evolving. Despite the gravity of anastomotic failure, leak-test data are lacking. We aim to provide an insight into current methods used for leak testing after colorectal anastomoses, to explore the influencing factors on methods used and assess knowledge about local leak rates.

Methods: An electronic multiple choice and white space questionnaire was disseminated via society membership and professional electronic networks over 8 months. Information on surgeon grade, hospital type, volume of resection, access approach and method of anastomotic leak test was collected, including use of fluorescence, sigmoidoscopy, under-water test or other approach.

Results: Of 251 responses, 88.8% of colectomies were performed laparoscopically, 28.7% robotically. 71.7% perform under 20 leak-tests monthly. 81.3% utilise underwater air-leak tests for left-sided anastomoses; 35.5% via syringe. 28.7% routinely perform flexible sigmoidoscopy. Multi-modality anastomotic testing included digital-endoscopy and artery testing, with 39.8% using fluorescence. 23.1% knew their local leak-rate.

Conclusion: While underwater air-leak tests with syringes remain the most common method for mechanical anastomotic testing, newer methods are utilised. Use of flexible sigmoidoscopy is influenced by scope availability and fluorescence is increasingly used to assess anastomotic perfusion. Combined methods may aid assessment of anastomotic integrity; however high-quality data is needed.

Key statement: Routine testing for immediate technical defects is recommended for rectal anastomoses without de-functioning stomas, and the approach may be influenced by resource availability. Beyond intra-operative testing, determining leak incidence is challenging, and despite classification systems, recording lacks standardisation. Consequently, accuracy of measuring and awareness of leak outcomes might be affected.

Poster of Distinction 06

SHORT-TERM CLINICAL OUTCOMES OF ROBOTIC VS LAPAROSCOPIC COLORECTAL CANCER RESECTIONS

Presenter: Miss C Wong Siaw Lin

Author(s): Miss C Wong Siaw Lin, Mr A Rehman, Mr K Malik, Mr J Ahmed

Institution: Northampton General Hospital, United Kingdom

Aims: Robotic surgery is rapidly gaining momentum in the colorectal surgery by providing stable 3-Dimensional view, refined manoeuvrability and better ergonomics. Since the recent integration of robotic surgery in our institution, we aim to evaluate the short-term clinical outcomes of robotic surgery (RS) versus laparoscopic surgery (LS) in colorectal cancer resection.

Methods: A retrospective analysis was performed on a prospective cohort of all colorectal cancer resections performed at our institution between 1st April 2022 and 31st May 2024. Data on demographic characteristics, intra-operative details, primary outcomes, and oncological outcomes were extracted from an electronic database.

Results: Among 289 patients, 139 and 150 patients underwent LS and RS respectively. LS had higher rate of conversion to open surgery (21 vs 0). Conversely, the median operative time was longer for RS (158 vs. 277 minutes, $p < 0.001$). Overall, RS experienced fewer anastomotic leaks and shorter length of hospital stay.

Conclusion: Robotic surgery appears to be safe even during the adaptation phase with no instances of conversion to open surgery or mortality and better short-term outcomes compared to laparoscopic surgery. The biggest limitation of RS is the operative time, however we expect further improvement with the progress of learning curve.

Key statement: Robotic surgery is technically advantageous in colorectal surgery with its more stable platform and multi-articulated instruments, hence overall improving the outcomes of surgery even in the hands of novice robotic surgeons. We found distinct technical advantages in right hemicolectomy as improving suture capabilities makes intracorporeal anastomosis more feasible.

Poster of Distinction 07

MULTIMODALITY BILIARY IMAGING WITH FLUORESCENCE-GUIDED SURGERY, INTRAOPERATIVE CHOLANGIOGRAPHY AND INTRAOPERATIVE ULTRASOUND IN STRUCTURE IDENTIFICATION AND COMMON BILE DUCT STONE DETECTION

Presenter: Miss A Kythreotou

Author(s): Miss A Kythreotou, Mr J Latif, Ms R Anderson, Mr I Bhatti, Mr A Awan

Institution: University Hospitals of Derby and Burton, Derby, United Kingdom

Aims: To assess the effectiveness of multimodality imaging (FGS using indocyanine green and IOUS) in delineation of biliary anatomy, and, both IOC and IOUS in the detection of common bile duct stones (CBDS) during laparoscopic common bile duct exploration (LCBDE). To also determine the associated rates of post-operative biliary complications.

Methods: Retrospective analysis identified patients that underwent IOC, FGS and IOUS during LCBDE between 2011-2023 at a single specialist institution. Demographic data, preoperative investigations, operative findings, the use of laparoscopic transcystic bile duct exploration (LTCBDE) and post-op biliary complications were collected.

Results: 419 patients underwent IOC whilst 33 had IOUS (robotic=23, laparoscopic=10). FGS clarified biliary anatomy in 31 cases, IOUS in 25. In equivocal IOC, LTCBDE confirmed absent CBDS in 89.2%. Both methods achieved equal duct clearance (>99.5%), bile leaks (5-IOC, 1-IOUS), duct injury(0-both) and retained stones(2-IOC), $p>0.05$ for all comparisons.

Conclusion: Herein, we demonstrated the feasibility of FGS and IOUS in delineation of biliary anatomy. IOC and IOUS were effective in detecting CBDS, and their use showed no difference in duct clearance or post-op complications. The use of LTCBDE obviated a choledochotomy and its associated risks when encountering an equivocal IOC.

Key statement: FGS and IOUS are complimentary and can delineate biliary and regional anatomy, adding to the confidence in performing a safe LCBDE. Although IOUS demonstrated comparable outcomes to IOC, it requires sufficient experience to interpret accurately. Using LTCBDE, can obviate a choledochotomy and associated risks when faced with an equivocal IOC.

Poster of Distinction 08

EUROPEAN ROBOTIC SURGERY CONSENSUS (ERSC): A PAN-EUROPEAN SURVEY OF ROBOTIC TRAINING FOR GASTROINTESTINAL SURGERY TRAINEES

Presenter: Mr M Fadel

Author(s): Mr M Fadel¹, Miss J Walshaw², Mr M Boal³, Mr C Kontovounisios⁴, Professor N Francis³

Institution: ¹Department of Surgery and Cancer, Imperial College London, United Kingdom. ²Leeds Institute of Medical Research, St James's University Hospital, University of Leeds, United Kingdom. ³The Griffin Institute, Northwick Park and St Mark's Hospital, London, United Kingdom. ⁴Department of Surgery, Evaggelismos Hospital, Athens, Greece

Aims: Over the last two decades, there has been a rapid growth in the adoption of robotic systems in centres across Europe. We aimed to capture the current state of robotic training in gastrointestinal (GI) surgery and identify potential challenges and barriers to training in Europe.

Methods: We designed a branching pan-European survey (Qualtrics) to account for each GI target group: (i) experts/independent practitioner; (ii) trainees with robotic access; (iii) trainees without access; (iv) industry representatives. The survey was distributed to European-based surgical societies (e.g. ALSGBI, EAES, UEG) and via our twitter page (December 2023-March 2024).

Results: 1,360 participants (complete/valid responses=1,045) responded from 38 countries. 86% of participants felt a robotic training curriculum should be mandatory, with 57% of industry not incorporating training for trainees in their programme. 48% of trainees had not performed any robotic cases, due to challenges e.g.lack of accredited trainers/training lists.

Conclusion: This pan-European survey, the largest to our knowledge, highlighted there is an urgent need for a standardised robotic curriculum to address the gap in GI training, assessment and certification. Surgical societies should play a more active role in overseeing robotic training, through the development of an accreditation pathway and mentorship programmes.

Key statement: The ERSC study group are developing a European consensus on a robotic curriculum for GI trainees, based on essential robotic skills, key performance indicators, assessment tools and non-technical skills, through a Delphi process. This curriculum should lead to an improvement in robotic training, and ultimately enhance patient outcomes and safety.

Poster of Distinction 09

NO, WE CAN'T REPAIR YOUR HERNIA: A PRE-OPERATIVE OPTIMISATION FOR UMBILICAL HERNIA REPAIR AUDIT

Presenter: Dr T Kabir

Authors(s): Dr T Kabir¹, Miss Gita Lingam², Mr V Sivarajah¹

Institution: ¹Princess Alexandra Hospital, NHS, Essex, United Kingdom. ²London North West University Healthcare NHS Trust, London, United Kingdom

Aims: The European Hernia Association recently published guidelines which clearly outline the importance of pre-operative optimisation for those undergoing elective umbilical/epigastric hernias. The main factors of importance are: smoking cessation and BMI <35. This audit aimed to identify if we are adequately optimising our patients.

Methods: We retrospectively evaluated all elective umbilical hernia repairs from 1st January 2022- 31st December 2022 within a district general hospital setting. Clinic letters and pre-operative records were used to ascertain smoking status and BMI.

Results: 60 umbilical hernias were performed across 1 year. Of these, 12% were known smokers and 13% had a BMI of over 35 documented. Additionally, only in 15 cases, there was clear documentation of the patient smoking status. Furthermore, in 10% of these cases, there was poor diabetic control (HbA1c > 48).

Conclusion: Patients' factors such as smoking, obesity and diabetic control have been shown to significantly increase the rate of post wound infections and complications. Patients are not being adequately optimised for elective procedures which puts them at increased risk of complications and increases the burden on limited NHS resources.

Key statement: We have shown that in our trust patients are not being electively optimised and documentation in regards to attempts at optimisation is lacking. Improvements can be made via incorporating a checklist in clinics pre-operatively when consenting patients.

Poster of Distinction 10

BENEFITS OF DUAL-SURGEON ON-CALL TEAM ON EARLY LAPAROSCOPIC CHOLECYSTECTOMY – A SINGLE CENTRE EXPERIENCE

Presenter: Ms YL Aung

Author(s): Ms YL Aung, Mr L Kathayat, Mr B Atkari, Mr H Nasef, Mr C Liao

Institution: James Paget University NHS Foundation Trust, Great Yarmouth, United Kingdom

Aims: Based on the UK guidelines, the aim of this study was to measure the benefits of a second team of surgeons doing emergency operations in terms of length of stay, conversion to open, morbidity, mortality, bile duct injury and rate of early-cholecystectomy in a UK based district general hospital.

Methods: Retrospective analysis of a prospectively maintained database was collected from electronic health records & patient notes. Results were extracted in terms of index laparoscopic-cholecystectomy, rate of conversion, associated morbidity and mortality; conversion to open and length of stay. Data was collected over six-years, from early-2019 after the implementation of dual-surgeon on-call.

Results: Altogether 944 early-cholecystectomy was performed, out of which 74% of cases was performed within <8 days of admissions. The conversion to open was 2.43%, sub-total cholecystectomy 4.87%, intraoperative-cholangiography in 28.4% and Indocyanine-green cholangiography in 50.5%. Average length-of-stay (LOS) was 2.2 days, post-op bile leak was 0.84%, and two deaths.

Conclusion: With adoption of dual-surgeon on call, early laparoscopic cholecystectomy benefits both patient and hospital. It reduces time to surgery for patients, decreases overall length of stay, and reduces readmission rates and cost, with similar morbidity and mortality.

Key statement: Early laparoscopic cholecystectomy benefits both patient and the healthcare system in reducing the burden of gall bladder disease with acceptable outcomes. Further studies need to assess the overall cost-benefit and improvement in the quality of life by patient reported outcome measures.

Poster 01

OUTCOME ANALYSIS OF PELVIC EXENTERATION FOR LOCALLY ADVANCED AND RECURRENT RECTAL CANCER: A SINGLE CENTRE EXPERIENCE

Author(s): Ms S Yen Ling Quake, Mr D Garg, Mr M Jha

Institution: James Cook University Hospital, Middlesbrough, United Kingdom

Aims: Pelvic exenteration (PE) remains a surgical treatment for patients with locally advanced rectal cancer despite its associated morbidity. We aim to evaluate outcomes on a series of patients undergoing pelvic exenteration between June 2017 – August 2023 at our institution.

Methods: A total of 21 patients were included. Primary outcome measures included short-term (90 days) mortality and morbidity. Secondary outcome measures were survival and recurrence. Relevant information were obtained from a prospectively maintained database. They were further analysed by descriptive statistics. Kaplan-Meier curve was used for survival estimation.

Results: There was one post-operative death due to multi-organ failure and sepsis. The overall morbidity was 47.6%. The estimated mean overall survival was 55 months (95% CI 40-70). With a median follow up of 19 months, the local recurrence rate and distant recurrence rate were 5% and 14% respectively.

Conclusion: Pelvic exenteration for rectal cancer has low short-term mortality but is associated with high risks of overall complications, most of which were Clavien Dindo grades 1 to 2.

Key statement: While the post-operative morbidity rate after pelvic exenteration is high, majority of these are classed as non-significant complications (Clavien Dindo grades 1 to 2).

Pelvic exenteration can be performed via minimally invasive approach - as was the case in 29% of our patients.

Poster 02

A COMPARATIVE STUDY OF PATIENT OUTCOMES FOLLOWING PELVIC EXENTERATION FOR RECTAL AND GYNAECOLOGICAL MALIGNANCIES

Author(s): Ms SYL Quake, Mr D Garg, Mr M Jha

Institution: James Cook University Hospital, Middlesbrough, United Kingdom

Aims: Pelvic exenteration (PE) is a surgical treatment for patients with locally advanced pelvic malignancy. We aimed to assess patient outcomes of pelvic exenteration performed for rectal and gynaecological malignancies over six-year period at our institution.

Methods: This was a single center study. Primary outcome measures included short-term (90 days) mortality and major morbidity (Clavien Dindo grades 3a-5). Secondary outcome measures were survival and recurrence. Relevant information were obtained from a prospectively maintained database and further analysed by descriptive statistics. Kaplan-Meier curve was used for survival estimation.

Results

Outcomes	Rectal cancer (n=21)	Gynaecological cancer (n=47)
Mortality (%)	5% (n=1)	2% (n=2)
Major postoperative morbidity (%)	19% (n=4)	23% (n=11)
Estimated mean overall survival (months)	55 (95%CI, 41-71)	44 (95% CI, 35-53)

- More gynaecological patients developed recurrence and/ or progression of disease compared to patients with rectal cancer.

Conclusion: The short-term outcome measures following PE for rectal and gynaecological malignancies were comparable. However, the observed higher recurrence rate in gynaecological cohort is in keeping with the differing roles of PE in gynaecological malignancies, versus the curative intent of surgery for rectal cancer.

Key statement:

- The outcomes after PE exhibits acceptable mortality and major morbidity rates, regardless of types of cancer.
- R0 resection was achieved in 86% of rectal exenteration versus 68% in gynaecological, which highlights the differing intent of surgery in both cohorts and the role for palliative cytoreductive surgery in the latter.

Poster 03

AN ANALYSIS OF HISTOPATHOLOGICAL CHARACTERISTICS OF PATIENTS WITH RECTAL CANCER UNDERGOING PELVIC EXENTERATION

Author(s): Ms SYL Quake, Mr D Garg, Dr S Venkatesan, Dr K Prasad, Mr M Jha

Institution: James Cook University Hospital, Middlesbrough, United Kingdom

Aims: Pelvic exenteration is radical surgery which offers prospect of cure for patients with locally advanced and recurrent rectal cancer, albeit at a cost of greater morbidity. We aim to evaluate histopathological characteristics on patients undergoing this procedure between June 2017 – August 2023 at a tertiary referral center.

Methods: This study was based on a prospectively maintained hospital database including 21 patients. Post-operative histology reported in accordance with Royal College of Pathology (RCPATH) standards were reviewed. Data was analysed using descriptive statistics.

Results: Most tumours were moderately differentiated adenocarcinoma, with two mucinous subtype and one signet ring cell type.

T		N		M	
T1	0	N0	13	M0	15
T2	2	N1a	2	M1a	3
T3	4	N1b	1	M1b	1
T4a	3	N1c	0		
T4b	10	N2a	2		
		N2b	1		

Conclusion: Majority of exenteration performed were of advanced tumour grade, with one-third having positive nodal status and one-fifth evidence of metastases at initial staging.

Key statement:

- R0 resection was achieved in 86%.
- Majority were of advanced tumour grade and 31.6% had positive nodes, with an overall median lymph node harvest of 24 (IQR 20, 10-59).
- Four patients also had metastatic disease at time of initial staging.

Poster 04

REFLUXSTOP: INVESTIGATING THE SAFETY AND EFFICACY OF A NOVEL DEVICE USED TO TREAT GASTRO-OESOPHAGEAL REFLUX DISEASE

Author(s): Dr G Dhanoya¹, Mr S Jaunoo²

Institution: ¹University Hospitals Sussex, Brighton, United Kingdom. ²East Sussex NHS Trust, Brighton, United Kingdom

Aims: The aim of this literature review was to explore the efficacy and safety of Refluxstop as a viable and widely implemented management option in the treatment of Gastro-oesophageal reflux (GORD) disease.

Methods: Several research studies were critically analysed and Refluxstop was found to have the potential to significantly reduce GORD symptoms with little post-operative complications when compared to its alternative treatment options.

Results: Refluxstop was found to have the potential to significantly reduce GORD symptoms with little post-operative complications when compared to its alternative treatment options. Surgical expertise and adequate training, however is required as there is a risk of serious adverse effects with the need for immediate surgical correction following improper device implantation.

Conclusion: Overall, Refluxstop has the potential to be a safe, effective and economic treatment option in patients suffering with GORD. However, further research is needed to assess its efficacy in wider patient groups, and to directly compare its safety and efficacy with alternative endoscopic and surgical procedures.

Key statement: The aim of this literature review was to explore the efficacy and safety of Refluxstop as a viable and widely implemented management option in the treatment of Gastro-oesophageal reflux (GORD) disease.

Poster 05

DAY-CASE LAPAROSCOPIC PARTIAL GASTRECTOMIES IN ADULTS: A TWO-YEAR STUDY AT A UNIVERSITY TEACHING HOSPITAL

Author(s): Dr G Dhanoya¹, Mr S Jaunoo²

Institution: ¹University Hospitals Sussex, Brighton, United Kingdom. ²East Sussex NHS Trust, Brighton, United Kingdom

Aims: The aim of this study was to assess the efficacy and safety of day-case LPG procedures as a more desirable alternative to admitting patients to hospital >24hrs post LPG surgery. We wanted to investigate factors which might facilitate a safe same-day discharge.

Methods: We wanted to use the data collected over a two-year period to investigate patient, or other factors which might facilitate a safe same-day discharge. This was done by comparing the post-op complications and 30-day readmission rates between patients who underwent day-case procedures, and those admitted to hospital >24hrs post-surgery.

Results: Results showed no significant difference in complications or readmission rates between the two groups of patients.

Conclusion: Day-case LPG has the potential to become the primary treatment pathway for low-risk patients suffering from small GISTs and benign stomach lesions, as it will save valuable hospital resources and costs, with no added post-operative complications.

Key statement: The aim of this study was to assess the efficacy and safety of day-case LPG procedures as a more desirable alternative to admitting patients to hospital >24hrs post LPG surgery. We wanted to investigate factors which might facilitate a safe same-day discharge.

Poster 06

THE SAFETY AND EFFICACY OF DAY-CASE LAPAROSCOPIC NISSEN FUNDOPLICATION IN ADULTS: A TWO-YEAR STUDY FROM A UNIVERSITY TEACHING HOSPITAL

Author(s): Dr G Dhanoya¹, Mr S Jaunoo²

Institution: ¹University Hospitals Sussex, Brighton, United Kingdom. ²East Sussex NHS Trust, Brighton, United Kingdom

Aims: This study aims to investigate the safety and efficacy of day-case LNF procedures in treating GERD.

Methods: This was done by comparing the post-op complications and 30-day readmission rates between patients who underwent day-case procedures, and those who were admitted to hospital >24hrs post-surgery.

Results: Results showed no significant difference in complications or readmission rates between the two groups of patients.

Conclusion: This suggests that LNF has the potential to be a safe and effective day-case treatment offered for GERD whilst saving valuable hospital resources and costs, provided there is adequate surgical expertise and careful patient selection.

Key statement: This study aims to investigate the safety and efficacy of day-case LNF procedures in treating GERD.

Poster 07

INTRAVENOUS FLUID THERAPY FOR THE ACUTE GENERAL SURGICAL PATIENT

Author(s): Dr M Okoh, Dr B Sabbubeh, Ms Z Gates, Mr M Bedford

Institution: University Hospitals Birmingham, United Kingdom

Aims: This study aims to evaluate fluid therapy commenced by the general surgical team for acutely unwell surgical patients.

Methods: A retrospective study of 2 cycles. Each cycle involved a 2-week snapshot of intravenous fluids prescribed to acutely unwell general surgical patients. Appropriateness of these prescription was assessed using patient age, weight, hydration status, observations, and blood results prior to fluid prescription. Fluid type, volume and rate were also recorded.

Results: There were 24 prescription errors noted, after which a teaching session on fluid management was given to surgical doctors and posters on fluid types & constituents were circulated around surgical offices. After 4 weeks the second cycle showed significant improvement (58%) with 10 prescription errors in 80 IV fluid prescriptions.

Conclusion: Following the implementation of the teaching session and posters there was an improvement in management of electrolyte derangements and prescribing the appropriate fluid rate. Therefore, these changes will be delivered to every new cohort of rotating surgical juniors.

Key statement: Appropriate fluid prescription is essential when managing acutely unwell surgical patients. This study emphasizes the need for regular teaching and education into the topic.

Poster 08

SINGLE-CENTRE ROBOTIC EXPERIENCE IN THE MANAGEMENT OF ADVANCED RECTAL CANCER

Author(s): Mr A Jindal, Mr C Selvasekar

Institution: The Christie NHS Foundation Trust, Manchester, United Kingdom

Aims: Robot-assisted surgery is a standard in treating rectal cancer, but its effectiveness for locally advanced rectal cancer is not yet established.

We share our 11-year experience with robotic surgery at a single tertiary centre

Methods: A retrospective analysis of robotic surgery in patients enrolled between February 2012 and December 2023.

The surgical procedures included Anterior resection, APR, and Pelvic exenteration. The parameters analysed include demographics, length of stay, pathological outcome, morbidity, re-operation, conversion rate, and mortality within 90 days of primary surgery.

Results: 32.7% of patients had T4 cancer and 83.7% of all patients received neoadjuvant therapy. The overall conversion rate was only 0.9%. Average length of stay was 7 days, and the overall severe complication rate was 6.3%. However, no 90-day mortality was reported. The R0 resection rate was 86.3%.

Conclusion: Robotic surgery is a safe and feasible option in advanced colorectal cancer, with a very low conversion rate, faster recovery, low morbidity, and acceptable R0 resection rate.

Key statement: Our 11-year single-centre experience demonstrates that robotic surgery is a safe and feasible option for managing advanced rectal cancer, with low conversion rates, faster recovery times, low morbidity, and acceptable R0 resection rates.

Poster 09

ONE-STAGE CONVERSION OF ADJUSTABLE GASTRIC BAND TO ONE-ANASTOMOSIS GASTRIC BYPASS VERSUS SLEEVE GASTRECTOMY: A SINGLE-CENTER EXPERIENCE

Author(s): Dr B Hassan, Dr P Awad, Dr K Kamel, Dr K Fahmy

Institution: Ain Shams University, Cairo, Egypt

Aims: To compare the weight loss and postoperative outcomes among patients undergoing conversion laparoscopic one-anastomosis gastric bypass (cOAGB) and laparoscopic sleeve gastrectomy (cSG) after a failed laparoscopic adjustable gastric band (LAGB).

Methods: A prospective cohort study was conducted from June 2020 to June 2022 at a single medical center, which included 77 patients undergoing single-stage conversion to (cOAGB) vs (cSG). Patients were reassessed for weight loss, associated medical problems remission and post-operative complications at 6, 12, and 18 months.

Results: The BMI between both groups had no statistically significant values at 6- and 12-months follow-up. Patients who underwent cOAGB after 18 months achieved lower BMI than cSG with a statistically significant. EBWL% there was a statistically significant. Medical problems remission there were no statistically significant differences between the two groups.

Conclusion: This study suggests that the conversion of LAGB to either cOAGB or cSG could be feasibly performed in a single-stage operation. cOAGB had a significant difference as regards the weight loss results than cSG among the mid-term follow-up.

Key statement: laparoscopic, gastric banding, one-anastomosis gastric bypass, Sleeve gastrectomy, Revisional surgery, weight loss.

Poster 10

A COMPARATIVE STUDY BETWEEN OPEN PRE-PERITONEAL VERSUS TAPP IN RECURRENT INGUINAL HERNIA REPAIR: PROSPECTIVE COHORT STUDY

Author(s): Dr P Awad, Dr B Hassan

Institution: Ain Shams University, Cairo, Egypt

Aims: To compare the open pre-peritoneal approach and Laparoscopic trans-abdominal pre-peritoneal approach in the management of recurrent inguinal hernia which was previously managed through an open anterior approach regarding their intra-operative time, the postoperative outcomes in the form of hematoma, wound infection and finally the recurrence within 1-year follow-up.

Methods: This is a prospective cohort study, a single-center trial conducted in the general surgery department in Ain Shams University Hospitals, which included 74 patients presented with recurrent inguinal hernia who had previous open anterior approach 68(91.8%) males and 6(8.1%) females including a 1-year follow-up postoperative.

Results: The hematoma occurred in 4(10.8%) in group (I) and 2(5.4%) in group (II) ($p = 0.674$). The wound infection was in group(I) and zero patients in group (II) ($p = 0.021$). The recurrence 3(8.1%) in group (I) and 1(2.7%) in group (II) ($p = 0.615$).

Conclusion: The results of this study demonstrate that both the laparoscopic approach and the open posterior approach are effective for recurrent inguinal hernia following anterior approach mesh hernioplasty, with comparable results. Laparoscopy has been associated with a lower rate of recurrence and overall complications compared to open technique.

Key statement: Posterior approach · Laparoscopic · Hernia · Recurrent repair · Pre-peritoneal.

Poster 11

A COMPARATIVE STUDY BETWEEN STAPLED HEMORRHOIDOPEXY AND HARMONIC SCALPEL HEMORRHOIDECTOMY IN THIRD-DEGREE AND FOURTH-DEGREE CIRCUMFERENTIAL PILES: A RANDOMIZED CLINICAL TRIAL

Author(s): Dr P Awad, Dr B Hassan, Professor M Nada

Institution: Ain Shams, Cairo, Egypt

Aims: To compare results of stapled hemorrhoidopexy (SH) and harmonic scalpel hemorrhoidectomy (HSH) in the management of Grade III and Grade IV regarding time of procedure, post-operative outcomes in the form of post-operative pain, patient satisfaction, wound infection, post operative bleeding, incontinence and recurrence within one year.

Methods: The current study is single-blind, prospective, randomized, controlled, single-center trial conducted from January 2022 to December 2022 in the colorectal surgical unit of Ain Shams University Hospitals, which included 70 patients presented with third-degree and fourth-degree piles 50 (68.75%) males and 20 (31.25%) including a one-year follow-up postoperative.

Results: PO pain was assessed by VAS from 0 to 10 during first two weeks and after two weeks early SH showed to be less painful while in HSH. Wound infection was non statistically significant. Incontinence was statistically significant scored by Wexner score. Recurrence was statistically significant in one-year follow-up

Conclusion: HSH was determined to be safer, easier, and associated with high statistically significant lower incidence of recurrence in one-year follow-up as compared to SH technique, with better patient satisfaction with is one of the most difficult accomplishments in pile surgeries.

Key statement: Stapled hemorrhoidopexy, harmonic scalpel hemorrhoidectomy.

Poster 12

THE COST EFFECTIVENESS OF CONSERVATIVELY MANAGED APPENDICITIS VS APPENDECTOMY IN PATIENTS PRESENTING WITH APPENDICITIS: A SYSTEMATIC REVIEW

Author(s): Mr I Farhad¹, Mr MA Khan¹, Dr A Kler², Mr D Vimalachandran², Mr M Fok²

Institution: ¹School of Medicine, University of Liverpool, United Kingdom. ²Institute of Systems, Molecular and Integrative Biology, University of Liverpool, United Kingdom

Aims: Appendicectomy remains the gold standard treatment for acute appendicitis. The value of surgery vs conservative treatment continues to be debated; however, the cost-effectiveness of each treatment is important to consider. The aim of this study is to analyse the health-economic evidence available for surgery vs conservative management in acute appendicitis.

Methods: A search of three online databases for literature pertaining to the economics of appendectomy compared to conservative management was performed. The study protocol was prospectively registered with PROSPERO (CRD42023412691).

Results: A total of 1219 patients were included, (639 and 580 operative treatment vs conservative management respectively). Surgery was significantly more expensive when compared to conservative treatment. Average length of hospitalisation was similar between group. The majority of studies reported a 12-month follow-up. CHEERS assessment revealed a considerable risk of bias.

Conclusion: Conservative management of appendicitis is the more economically effective treatment of the two modalities. This is an important consideration for resource-limited healthcare systems. However, further research with standardized methodologies and longer-term follow-up is warranted to fully assess the economic implications and clinical effectiveness of both treatment approaches.

Key statement: Analysis indicates conservative management as the economically preferable option for acute appendicitis over surgery. This finding underscores its potential significance for resource-constrained healthcare systems. However, standardized studies with extended follow-up in different global healthcare setting are required to evaluate the economic and clinical merits of both treatment strategies.

Poster 13

COMPARISON OF LOCAL INFILTRATION OF TRAMADOL VERSUS BUPIVACAINE FOR POST-OPERATIVE PAIN RELIEF

Author(s): Dr A Dawach¹, Mr V Talib², Dr S Dawani¹, Dr R Kundnani¹, Professor S Rasul¹

Institution: ¹Jinnah Postgraduate Medical Centre, Karachi, Pakistan. ²East Surrey Hospital, Redhill, United Kingdom

Aims: To compare the mean pain score of local infiltration of tramadol and bupivacaine among patients undergoing hernioplasty, a Tertiary Care Hospital, Karachi.

Methods: Quantitative and qualitative data was collected, presented and analyzed. Effect modifiers were controlled through stratification to see the effect of these on the outcome variable. Post stratification independent t test was applied taking p-value of ≤ 0.05 as significant.

Results: Mean postoperative pain at 24 hours in tramadol versus bupivacaine group was 1.65 ± 0.58 and 1.72 ± 0.82 respectively. P-value was 0.001.

Conclusion: Locally infiltrated tramadol prior to herniorrhaphy wound closure provides better pain relief compared to bupivacaine in adult patients.

Key statement: Inguinal hernia, hernioplasty, tramadol and bupivacaine.

Poster 14

OSSEOINTEGRATION FOR POST-POLIO SEQUELAE AMPUTEES: A SMALL CASE SERIES OF OUTCOMES OF 3 PATIENTS

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Aims: To evaluate outcomes of post-polio sequelae amputees after osseointegration (OI). Primary outcomes were mobility performance and QoL changes post-operatively, evaluated by Short Form (SF)-36, Questionnaire for Persons with a Transfemoral Amputation (Q-TFA), 6-Minute Walk Test (6-MWT), Timed Up and Go (TUG) test. Secondary outcomes were complications prompting additional surgery.

Methods: All patients with polio causing impaired ambulation had OI performed between 2017 and 2020 in a specialized limb reconstruction tertiary centre, and were followed-up prospectively at least 4 to 6 years post-op. Due to the relatively small cohort of patients, only descriptive statistics were presented, without formal power analysis.

Results: Three patients were included. Improvements were observed in the SF-36; and global domain of Q-TFA post-OI. Mean Mobility and Problem scores of Q-TFA were worse post-OI. TUG was also reduced post-OI as one patient presented wheelchair-bound. All three patients had no events relating to post-op infections recorded.

Conclusion: This is the first study evaluating the outcomes of post-polio amputees after OI. The functional status and mobility of patients failed to improve despite lack of complications. The ongoing residual weakness from polio could inform potential future use of OI in patients with peripheral neuropathy. Conscientious further investigation seems appropriate.

Key statement: OI surgery is an emerging rehabilitation strategy for amputees but has not been studied for patients with a history of polio. Our series was small, and our study was not designed to evaluate overall benefits. Nonetheless, the functional status and mobility of outcomes appeared poor post-OI in polio patients.

Poster 15

LEARNING CURVE FOR ROBOTIC CHOLECYSTECTOMY VS. LAPAROSCOPIC CHOLECYSTECTOMY: SYSTEMATIC REVIEW

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Institution: ¹Barts Cancer Institute, London, United Kingdom. ²Barts Health NHS, London, United Kingdom. ³The Royal London Hospital, United Kingdom

Aims: This review aims to compare the learning curves of robotic cholecystectomy (RC) and conventional laparoscopic cholecystectomy (CLC) by evaluating the number of cases required to achieve proficiency based on operating times.

Methods: A systematic review was conducted using PubMed, Cochrane, and Embase databases, including studies up to March 2024. Studies were selected based on eligibility criteria, focusing on RC and CLC learning curves measured by operating times. Data extraction and risk of bias assessment were performed by two independent reviewers.

Results: Seventeen studies were included. For Multiport Robotic Cholecystectomy, proficiency ranged from 16 to 134 cases. For Single-Site Robotic Cholecystectomy, it ranged from 10 to over 102 cases. For Conventional Laparoscopic Cholecystectomy, proficiency ranged from 7-200 cases. High heterogeneity and small sample sizes of surgeons were noted across studies, affecting comparability.

Conclusion: Both RC and CLC show variable learning curves with high heterogeneity in available studies. MRC and SSRC demonstrate potential benefits, but further high-quality studies with larger surgeon samples and controlled experience levels are needed to draw definitive conclusions about the learning curves of robotic cholecystectomy compared to CLC.

Key statement: Despite advancements in robotic surgery, the learning curve varies significantly, highlighting the need for standardized training and further research to determine optimal proficiency benchmarks.

Poster 16

COMPARISON OF OUTCOME OF TREATMENT WITH DAFLON VERSUS LIFESTYLE MANAGEMENT IN PATIENTS PRESENTING WITH HEMORRHOIDS AT TERTIARY CARE HOSPITAL, KARACHI

Author(s): Mr V Talib^{1,2}, Dr A Dawach², Professor S Rasul²

Institution: ¹East Surrey Hospital, Redhill, United Kingdom. ²Jinnah Postgraduate Medical Centre, Karachi, Pakistan

Aims: To compare the outcome of treatment with Daflon versus lifestyle management in patients presenting with haemorrhoids at Tertiary Care Hospital, Karachi.

Methods: After taking informed written consent history was taken, patients were randomly divided into two groups D (Daflon) and group L (life style management). Patients in the both groups were compared by following by the researcher every week in the clinic and evaluated for outcome i-e bleeding relief at week four.

Results: Total of 180 patients with haemorrhoids were included. The mean age was 37.252±77.445 years. In group D the outcome (bleeding relief at week four) was noted in 74(41.1%) while in group L outcome (bleeding relief at week four) was seen in 55(30.6%) patients .

Conclusion: In conclusion the outcome i-e bleeding relief at week four, of the treatment with lifestyle management was higher as compare to the daflon in patients presenting with haemorrhoids, it increases with the increase in age and predominant in male gender.

Key statement: Daflon, lifestyle management, haemorrhoids.

Poster 17

THE ROLE OF MODIFICATIONS IN SURGICAL INNOVATION AND DEVICE EVOLUTION: A SYSTEMATIC REVIEW AND THEMATIC SYNTHESIS

Author(s): Mr J Olivier, Dr D Elliott, Dr K Avery, Miss N Blencowe, Dr R Macefield

Institution: NIHR Bristol Biomedical Research Centre, Bristol, United Kingdom

Aims: Surgical innovation strives to improve patient outcomes and reduce risks, but evaluation and implementation challenges persist. This study aims to critically examine the reporting of surgical innovations, focusing on procedural and device modifications, and develop a framework for consistent modification reporting thereby enhancing evaluation and shared learning.

Methods: Systematic database searches identified primary studies on innovative and invasive surgical procedures and devices. Text describing modifications was extracted and analysed inductively to understand the range and context of reported modifications. A thematic synthesis of qualitative data was undertaken to inform the development of a framework for modification reporting.

Results: From 1071 records screened, 104 papers were included (87 study reports, 17 protocols). Seventy-six studies (73.1%) reported modifications, covering technique, patient selection, and device design. However, reporting practices were often sub-optimal and varied widely, highlighting inconsistencies in addressing past, present, and future modifications.

Conclusion: Current reporting of surgical modifications is inconsistent and lacks clear guidance. Developing a standardised framework for reporting these modifications will improve the evaluation of surgical innovations, enhance shared learning, and improve patient safety by preventing the repetition of ineffective or harmful modifications.

Key statement: A standardised framework for reporting surgical modifications is essential to address the inconsistency in reporting practices and improve the effectiveness of surgical innovation evaluation, enhancing patient safety and advancing healthcare outcomes.

Poster 18

PAIN MANAGEMENT AFTER ELECTIVE LAPAROSCOPIC CHOLECYCSTECTOMY PROCEDURE: GUIDELINES VERSUS REAL-TIME CLINICAL PRACTICE

Author(s): Dr T Wali, Dr C Walters, Mr Z Hyder

Institution: Prince Charles Hospital, Merthyr Tydfil, Cardiff, United Kingdom

Aims: Does surgical staff give post-operative analgesia prescription after elective laparoscopic cholecystectomy following the guidelines recommended by the British Society of Anaesthesiologists?

Methods: All patients (75 female, 31 Male) who underwent elective laparoscopic cholecystectomy(LC), procedures between Feb'22-Feb'23, were included. Data were collected from electronic health records. Patients who had emergency and open cholecystectomy procedure were excluded.

Results: 69% (73/106) of patients received opioid analgesia post laparoscopic cholecystectomy. Opioids prescribed were: Codeine/Co-codamol for 104 patients, Co-dydradamol for 1 patient and, tramadol for 1 patient).

33 patients received opioids and NSAID'S analgesics as a hybrid prescription.

None of the patients were given only ibuprofen/NSAIDs on discharge.

Conclusion: We recommend prescription of non-opioid analgesic modalities such as paracetamol, NSAID's, cyclooxygenase-2 specific inhibitors, and surgical site local anesthetic infiltration. Opioids prescription should be reserved for complex cases only.

The senior clinician should review patients who failed to respond to non opiod analgesia for further clinical assessment.

Key statement: Adherence to the guidelines will improve patient reported outcomes and ensure safer surgical practice.

Poster 19

LAPAROSCOPY IN NON-APPENDICEAL ABDOMINAL EMERGENCIES

Author(s): Mr PF Britto, Dr Ai Dutt

Institution: Royal London Hospital, United Kingdom

Aims: Laparoscopy has proved to be a superior alternative to open surgeries in most elective conditions. However, laparoscopy for emergencies is restricted to appendicectomies due to its challenges and lack of experience. Through this case series we can see how laparoscopy can benefit in various abdominal emergencies.

Methods: Period: April 2022 to June 2023, March 2024 to May 2024. Here we have considered the laparoscopic approach for 26 patients. This included 13 cholecystitis, 7 abdominal wall hernias, 2 small bowel obstructions, 2 hollow viscus perforations, 1 diaphragmatic hernia, and 1 internal hernia. Postoperative outcomes and complications were monitored.

Results: Post-operative stay was seen to be no more than 5 days for most patients. All patients tolerated diet soon except one and were managed on oral analgesics.

Post-operative complications included one patient who developed pneumonia and one patient who developed an operative site inguinal abscess. None required a relook laparotomy.

Conclusion: Laparoscopic surgeries in abdominal emergencies other than appendectomies may be performed after careful selection. Proficiency can be obtained by lowering the threshold for laparoscopy in emergency settings and investing in training the emergency team. The advantages of laparoscopy remain well established with postoperative outcomes comparable if not better as open.

Key statement: A Laparoscopic approach for abdominal emergencies can be beneficial with the right selection and right expertise.

Poster 20

A COMPARATIVE STUDY BETWEEN LAPAROSCOPIC SLEEVE GASTRECTOMY WITH OMENTOPEXY VERSUS CONVENTIONAL LAPAROSCOPIC SLEEVE GASTRECTOMY: A PROSPECTIVE COHORT STUDY

Author(s): Mr P Awad

Institution: Ain Shams University, Awad, Egypt

Aims: To evaluate the impact of omentopexy in Laparoscopic Sleeve Gastrectomy on intra-operative time, complications such as leakage, bleeding, and gastroesophageal reflux disease, within one year of follow-up.

Methods: A prospective cohort study, was conducted from June 2021 to June 2023 in University Hospitals and other non-governmental hospitals, which included 174 for a one-year follow-up.

Results: our study with 87 patient, Mean intra-operative time was 115.45 minutes for group I , 79.8 minutes for group II. Leakage occurred in 1 patient (1.14%) in group I ,3 patients (3.4%) in group II. GERD was found in 10 patients (11.49%) in group I, 12 patients (13.7%) in group II.

Conclusion: Although no significant superiority was found in the omentopexy group, they had less bleeding, leakage, and GERD than the traditional group. We recommend further studies to enable a meta-analysis. Additionally, refining the learning curve could reduce the operative time required for this technique.

Key statement: Sleeve Gastrectomy, is a widely used procedure globally. However, omentopexy is a newly added variation, which involves reattachment of the omental to the stomach. Currently, there is not enough data regarding this technique.

Poster 21

PROGRESSING LAPAROSCOPIC TOWARDS ROBOTIC ABDOMINAL AORTIC ANEURYSM REPAIR

Author(s): Miss W Cai, Mr K Al-Hashimi, Mr D Govender, Mr S Choksy, Mr A Howard

Institution: Colchester General Hospital, United Kingdom

Aims: Improved perioperative outcomes with robotic surgery has been found across multiple surgical specialties. This study aims to investigate the outcomes of patients who underwent total laparoscopic and laparoscopic assisted abdominal aortic aneurysm (AAA) repair with a view to progressing to robotic AAA repair in a single UK vascular centre.

Methods: Demographic data, AAA morphology, operative details and recovery were recorded on a prospective database for patients who underwent laparoscopic assisted AAA repair in a single vascular centre. Patient complications were stratified with Clavien-Dindo system. All results were analysed in Microsoft[®] Excel version 16.84.

Results: Seventy-five patients underwent laparoscopic AAA repair between 2007-2024: 69 males and a median age of 72. Fifteen patients (20%) had juxta-renal AAA. Twelve patients (16%) had significant complications, amongst whom 7 required additional surgery. Median length of hospital stay was 5.5 days. Survival rate at 30 days is 97.3%.

Conclusion: Current NICE guideline recognises the role of laparoscopy in AAA repair while acknowledging further study is needed. Laparoscopic and robotic AAA repair utilises the same dissection and graft as open AAA surgery without complications associated with laparotomy. We have developed a feasibility study protocol for robotic AAA repair.

Key statement: Data analysis from this prospective study provides a promising foundation on which to further examine the benefits of minimally invasive AAA repair. Since the laparoscopic approach utilised in this study to repair AAA is comparable to the robotic approach, it provides a compelling ground to progress towards robotic AAA repairs.

Poster 22

OBJECTIVE ANALYSIS OF SURGICAL GESTURES FROM MINIMALLY INVASIVE OPERATIVE VIDEO

Author(s): Mr L Dick^{1,2}, Mr RJE Skipworth^{1,3}, Dr VR Tallentire², Professor S Yule^{1,3}

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Aims: Traditional methods of assessing operative video are resource intensive and prone to bias. More objective sabermetric analysis is needed to provide reliable and meaningful feedback on performance. This study compares novel video analysis of surgical gestures with expert-based assessment.

Methods: Twenty-five, open source, laparoscopic appendicectomy videos were analysed using DartFish TM, a video analysis software. Surgical gestures were annotated for dexterity, action, target anatomy and surgical instrument. The primary outcome was correlation with Global Objective Assessment of Laparoscopic Skills (GOALS) score, rated by independent experts for each video.

Results: Left ($r=0.44$, $p=0.03$) and right-hand use ($r=-0.47$, $p=0.01$) correlated with overall GOALS score. Inadvertent dropping actions also negatively correlated with the efficiency GOALS score ($r=-0.53$, $p<0.01$).

Conclusion: Manual dexterity and inadvertent dropping actions, generated from novel video analysis of surgical gestures, correlated with expert-based assessment. Future research should explore which features of video analysis are most relevant to surgeons to help improve skill development.

Key statement: Expert-based video assessment is resource-intensive and observer dependent. Objective analysis from this preliminary study identifies several performance metrics which could be used as surrogates of overall performance. Further investigation at scale is needed to determine the practical application of such metrics.

Poster 23

SIGNIFICANCE OF STAGING LAPAROSCOPY IN OESOPHAGEAL AND JUNCTIONAL CANCERS MANAGEMENT- FULL CYCLE AUDIT

Author(s): Ms N Saiyara, Mr K Nanayakkara, Dr G Tan, Mr A El-Sharkawy

Institution: Royal Derby Hospital, United Kingdom

Aims: While the role of laparoscopic staging in gastric cancer is well-established, but its role in oesophageal and junctional cancers remains questionable. Our aim was to evaluate changes in practice in staging laparoscopy in oesophageal and junctional cancer. Examine the impact on patient management and outcomes of laparoscopic staging.

Methods: Retrospective review of patients diagnosed with oesophageal and/or junctional cancers after the first audit. Including both patients with or without staging laparoscopy. Data about patient demographics, histology, staging, location, findings of staging laparoscopy, and findings in postop histology. Data source: Hospital electronic database and patient eCasenotes from Lorenzo.

Results: In second cycle, 85% patients (n=26) underwent staging laparoscopy compared to 100% in first cycle. In comparison to the initial audit, there is substantial reduction of positive cytology from 4% to 0% supports transition towards a more selective approach to staging laparoscopy.

Conclusion: The absence of positive cytology provides foundation for refining guidelines and optimising patient care for oesophageal and junctional cancer. While there is an assertion that not performing staging laparoscopy could reduce waiting times and treatment costs, a comprehensive economic analysis is necessary to validate these claims fully.

Key statement: The proposition that not performing staging laparoscopy in oesophageal and junctional cancers (without specific indication) could lead to a reduction in waiting times for esophagectomies, thereby contributing to a potential decrease in overall treatment costs, underscores the significance of adopting a more selective approach.

Poster 24

ROLE OF CHOLECYSTOSTOMY DRAIN IN SEVERE ACUTE CHOLECYSTITIS IN CRITICALLY ILL PATIENTS

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Institution: ¹James Cook University Hospital, Middlesbrough, United Kingdom. ²Cumberland Infirmary, Hospital Accommodation, Carlisle, United Kingdom. ³Whiston Hospital, Prescot, United Kingdom

Aims: To investigate the outcome of Cholecystostomy drains in the management of Acute Cholecystitis at Cumberland Infirmary. To develop a Cholecystostomy Pathway for patient selection, management and post procedure management.

Methods: A retrospective study of all patients with Cholecystostomy drains over the last 3 years at Cumberland Infirmary. 58 Inpatients who had cholecystostomy drains inserted for Acute Cholecystitis were included in the study. The patient list was collected from the Information department with the Cholecystostomy code J 24.1.

Results: CRP mean was 200 pre-insertion and on 5th post-procedure day 63.79% patients had a CRP below 50. Similar trends have been observed with the WBC counts. Follow-up investigations post drain insertion varied between CT abdomen, ultrasound abdomen and tubogram. The mortality in the study group was 13.79% non related to drain insertion.

Conclusion: Insertion of a Cholecystostomy drain is a useful and safe procedure for the management of Severe Cholecystitis, especially in critically ill patients, with good outcomes, and low mortality rate. It can be used as a temporary management option with plan for Interval Laparoscopic Cholecystectomy, or can be the Definitive Management.

Key statement: Cholecystostomy; Cholecystitis; Immunosuppression; Empyema.

Poster 25

EKOS THROMBOLYSIS FOR THE MANAGEMENT OF ILIO-FEMORAL DVT AT CUMBERLAND INFIRMARY

Author(s): Mr S Mohammed¹, Dr M Kindawi², Mr B Mohamed¹

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²James Cook University Hospital, Middlesbrough, United Kingdom

Aims: To review our experience and assess efficacy of EKOS® thrombolysis in management of ilio-femoral DVT at Cumberland infirmary focusing on clinical outcome and any post procedure complications. 22 patients had thrombolysis for ilio femoral DVT over 7 years in Cumberland infirmary (Females 16 Males 5). Median age 20-89 years.

Methods: This is a retrospective study of a single level-1 tertiary centre. Inclusion Criteria Were the presence of symptomatic proximal DVT involving the iliac or common femoral veins (lower extremity thrombosis classification, LET class III) and underwent EKOS thrombolysis. Data and chart review were collected over an 8-year period,

Results: .. Success rate more than 80%: 90.91%. Further procedures needed, Stents placement%77.27, angioplasty36.36%. Outcome; Improvement of symptoms90.91% %, leg ulcer healed9.52%. Post procedure complications: Leg swelling28.6%, Post procedure19.04%. Ongoing issues were in9.52% and were persistent leg ulcer and PTS in each. One patient had recurrence. No patient had PE/intracranial bleeding.

Conclusion: EKOS is effective in treating acute ilio-femoral DVT with patency at 80% and more at the cessation of treatment, as well as prevention of DVT related long term complication (recurrence-PE and PTS) in comparison of conventional CDT or anticoagulation alone.

Key statement: Iliofemoral DVT, catheter thrombolysis.

Poster 26

CLINICAL PRESENTATION AND MANAGEMENT OF PRIMARY MYCOTIC AORTIC ANEURYSMS: A SINGLE CENTER EXPERIENCE AND REVIEW OF THE LITERATURE

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²James Cook University Hospital, Middlesbrough, United Kingdom

Aims: Primary mycotic aortic aneurysm (PMAA) caused by direct spread of bacteria via the bloodstream to the aortic wall and subsequent development of an aneurysm. Aim: To conduct a literature review and to report a series of cases of infra-renal mycotic aortic aneurysms, their presentation and subsequent outcome and management.

Methods: Information was gathered retrospectively from medical records for patients who were over the age of 18 and who had presented with PMAAs at Cumberland infirmary o from April 2016 to July 2022. A total of six patients were assessed in our study, mean age was 57-88 years.

Results: Potential risk factors for PMAA identified were malignancy(n=2), DM(n=2), chronic kidney disease (n=2), immunosuppressive medication (n=2) and alcohol misuse (n=1). Potential sources of infection: retroperitoneal inflammation, pyelonephritis, psoas infection, duodenitis, systemic sepsis. Management: EVAR) (n=2), or axillo-bifemoral bypass (n=2) only antibiotics (n=3), however two patients of them died.

Conclusion: PMAAs are rare but they have high risk of morbidity and mortality. The diagnosis is challenging but CT A-abdomen and pelvis remains valuable for diagnosis. Surgery, either bypass or EVAR with antibiotics, is a cornerstone for management, however other alternatives can be considered.

Key statement: Mycotic aortic aneurism, MAA, EVAR antibiotics and axillofemoral bypass.

Poster 27

LAPAROSCOPIC EXTRACTION OF A GIANT GALLSTONE FROM A CHOLECYSTODUODENAL FISTULA CAUSING GALLSTONE ILEUS: A CASE REPORT

Author(s): Mr MD Barcelona, Ms S Abdalla

Institution: London North West University Healthcare NHS Trust, London, United Kingdom

Aims: Gallstone Ileus (GI) is rare. It accounts for 0.3-0.5% of gallstone-related complications, and 1-4% of all cases of small bowel obstruction. The authors present the case of GI caused by a giant 4 cm gallstone from a cholecystoduodenal fistula.

Methods: A 78-year-old female with multiple co-morbidities presented with abdominal pain and distension, bilious vomiting and constipation. Computed Tomography (CT) scanning revealed acute cholecystitis with a cholecystoduodenal fistula, pneumobilia, and small bowel obstruction (SBO) possibly secondary to gallstone ileus although no radio-opaque gallstones seen. The patient was scheduled for emergency surgery.

Results: The patient underwent a laparoscopy and was found to have mechanical SBO with a transition point in the proximal jejunum where a 4 x 2 x 3 cm gallstone was impacted. A laparoscopic-assisted enterotomy was performed with stone extraction and primary closure. The cholecystoduodenal fistula was left undisturbed.

Conclusion: Gallstone ileus is an uncommon cause of mechanical SBO. It is associated with high morbidity and mortality due to patients often being multiply comorbid and presenting late. Furthermore, not all gallstones can be visualised on cross-sectional imaging. A high index of suspicion and timely management is essential.

Key statement: Diagnosing GI can be very be challenging. Imaging can guide diagnosis and may reveal the classic Rigler's Triad; small intestinal obstruction, pneumobilia, and an ectopic stone in the small bowel. Following diagnosis, emergency surgery is warranted. Definitive management of the cholecystoduodenal fistula is delayed in the acute setting.

Poster 28

EARLY POST-OPERATIVE QUALITY OF RECOVERY FOLLOWING ROBOTIC COLORECTAL RESECTION

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Institution: Department of Colorectal Surgery, Manchester University NHS Foundation Trust, United Kingdom

Aims: This study aims to determine the quality of recovery (QoR) of patients undergoing robotic colorectal resections and to identify factors affecting recovery trajectories.

Methods: A prospective cohort study of patients undergoing robotic colorectal resection between 2022-2024 was conducted. Patient-reported outcome data was collected using the QoR-15 scale at 7, 30, 60-days, and 3 and 6-months post-operatively. QoR trajectories were mapped. A mixed effects model was employed to identify clinical factors associated with recovery.

Results 52 patients (males=28, females=24, mean age=63.6) underwent colorectal resection. At <7 days, QoR averaged 122.3 ± 20.8 (median=129). Median QoR trended positively over time (Table 1). Negatively associated factors were prolonged length of stay (effect=-0.12, $p=0.013$); post-operative morbidity (effect=-10.803, $p<0.05$); Grade-3 Clavien-Dindo (effect=-13.3, $p<0.01$), yet median QoR remained comparable after 7-days.

Time category	Median QoR score (Range)	Standard deviation	Interquartile range
<7 days	130 (74 - 145)	20.8	27.2
30 days	130 (89 - 150)	19.6	32.0
60 days	138 (85 - 150)	17.9	13.0
90 days	142 (130 - 148)	5.9	8.3
>90 days	133 (87 - 148)	14.3	9.5

Table 1: Summary statistics of QoR scores grouped by time category

Conclusion: Robotic colorectal surgery is associated with good early post-operative recovery. Negative factors for poor QoR include prolonged length of stay, post-operative morbidity and Grade 3 Clavien-Dindo.

Key statement: Robotic colorectal surgery demonstrates a positive post-operative recovery trajectory as reported by patients and assessed by the validated QoR-15 scale.

Poster 29

WHAT A PRUDENT PERSON WANTS TO KNOW: INFORMED CONSENT IN ROBOT-ASSISTED SURGERY, IDEAL GUIDANCE AND SNAPSHOT SURVEY OF PUBLIC OPINION

Author(s): Ms O Sogaolu^{1,2}, Mr J Ansell¹, Mr J Horwood¹, Mrs J Cornish¹, Professor J Torkington¹

Institution: ¹University Hospital of Wales, Cardiff, United Kingdom. ²Cardiff University, United Kingdom

Aims:

1. To summarise consent-related guidelines from recently-published governance frameworks for Robot-Assisted Surgery (RAS).
2. To conduct a snap-shot interview of the South-Wales public to assess alignment of the recommendations with themes from the public perspective.

Methods:

1. RAS consent-related guidelines from the Royal Colleges of Surgeons and IDEAL colloquium summarised to determine interview subjects.
2. Audio-recorded interviews of 9 men and 11 women; teens to 50s; high-school to post-graduate education; White (British)/Arab/Asian/Indian/Black-African/Black-Caribbean. Mixed-methods (qualitative/quantitative) analysis to identify relevant themes.

Results: Recent guidance recommend transparency about surgeons' procedure-specific RAS experience, outcomes, and unknown risks.

Unprompted, 10/20 discussed a surrogate of surgeons' RAS experience among information needed for informed consent or decision between RAS and conventional approach. 13/20 would prefer a conventional approach if RAS outcomes are "not yet conclusively proven superior".

Conclusion: Themes from our snapshot interviews suggest that surgeon experience and unbiased information on how RAS outcomes compare to conventional minimally invasive approaches are important decision-making metrics for informed RAS consent. Larger studies including RAS patients are being conducted to gain further insight.

Key statement: Robotics in surgery introduces new liability for stakeholders (patients, surgeons, institutions and manufacturers). RAS outcomes are not conclusively proven generally superior to conventional approaches, and surgical inexperience may result in worse outcome. Our study findings confirm recent guidance on surgeons' obligations to meet the prudent patient standard for RAS consent.

Poster 30

POST-COVID-19 TIMING OF EMERGENCY LAPAROSCOPIC CHOLECYSTECTOMIES: A SINGLE-CENTRED MULTI-CYCLE AUDIT

Author(s): Dr WT Lee, Mr R Mak, Dr T Smith, Mr R Hard

Institution: Royal Stoke University Hospital, Stoke-on-Trent, United Kingdom

Aims: Timings of emergency laparoscopic cholecystectomies (ELC) in the post-COVID-19 recovery period remain unclear. As per AUGIS, ELC should be performed within 72 hours of diagnosing acute cholecystitis. This audit evaluates the impact of the COVID-19 and post-COVID-19 eras on the timings of emergency cholecystectomies.

Methods: A retrospective analysis of patients who underwent an ELC between January and December 2023 was conducted. Outcomes measured include admission-to-theatre time, length of stay (LOS), use of biliary interventions, and post-operative complications. Outcomes were audited against AUGIS standards and compared with the pandemic (2021) and pre-pandemic (2019) audit cycles.

Results: Of 450 ELC patients, median admission-to-theatre time was 3.1 days, compared to 5 days (2021) and 7.5 days (2019). Median LOS was 5.4 days, compared to 5.3 days (2021) and 7.5 days (2019). Of 37 (8.2%) post-op complications, there were 3 bile leaks, 7 retained stones, and 10 collections.

Conclusion: Timing to ELC continues to improve in the post-COVID-19 period. LOS remains static compared to the COVID-19 period.

Key statement: Timing to emergency laparoscopic cholecystectomy in the post-COVID-19 period is consistent with the 72-hour AUGIS standard.

Poster 31

OPERATIVE OUTCOMES IN LAPAROSCOPIC VS ROBOTIC DISTAL PANCREATECTOMY: A SYSTEMATIC REVIEW & META-ANALYSIS

Author(s): Dr S Ahmed, Dr FB Al-Hajraf, Professor B Patel

Institution: Barts Cancer Institute, London, United Kingdom

Aims: This review aims to compare the operative outcomes of Robotic Distal Pancreatectomy (RDP) to Laparoscopic Distal Pancreatectomy (LDP) to determine whether either approach offers any significant advantage in operative outcomes.

Methods: A systematic literature search was performed to identify studies that compared the RDP and the LDP approach. A meta-analysis was performed using the random-effects model for intra-operative outcomes, post-operative outcomes, and cost analysis with results reported as a weighted mean difference or odds ratio.

Results: Thirty-nine studies comprising 6607 patients met the inclusion criteria. Results concluded that LDP resulted in significantly shorter operative times, and lower costs. RDP resulted in lower blood loss, higher spleen preservation, lower conversion rates, and shorter hospital stays. No difference was noted in complication, readmission, and post-operative pancreatic fistula rates.

Conclusion: Both approaches offer advantages in certain categories while offering a similar safety profile. The length and cost of the procedure in RDP are still a concern. Surgeon satisfaction should be an area of focus in future reviews. RCTs are required for concrete conclusions regarding the feasibility and safety of RDP.

Key statement:

- LDP is an economical choice in terms of cost and total operative time.
- RDP reduces blood loss, is more likely to result in spleen preservation, lowers conversion rates, and results in shorter hospital stays.
- Safety profile was similar as no significant difference was noted in readmission and complication rates

Poster 32

SINGLE-CENTER EXPERIENCE IN LAPAROSCOPIC APPROACH TO HERNIA REPAIRS IN THE EMERGENCY SETTING

Author(s): Ms T Chatzimichail, Mr A Sokker

Institution: Pilgrim Hospital, United Lincolnshire Hospitals NHS Trust, Boston, United Kingdom

Aims: The laparoscopic approach has gained popularity for the treatment of various abdominal surgical pathologies, including hernias, due to its safety and effectiveness. This study aims to evaluate the outcomes of emergency laparoscopic hernia repairs performed by a single surgeon in a case-control experience at a single centre.

Methods: Between 01/2021-05/2024, five patients (aged 43-86) underwent emergency laparoscopy for Transabdominal Preperitoneal hernia repair with mesh at our hospital. Patients were considered based on their diagnosis, co-morbidities, and surgical team availability. Diagnoses were confirmed via CT. Data collection focused on intraoperative and postoperative complications, hospital stay length, and mortality rates.

Results: Five patients had Transabdominal Preperitoneal repair of irreducible/strangulated hernias. Two patients required resection and primary anastomosis for bowel obstruction. Hospital-stay ranged between 2-10 days. Only one patient developed superficial surgical wound infections in the early postoperative period. Two patients developed incisional hernias months later at the bowel retrieval site.

Conclusion: Although the data suggests benefits including reduced wound infection rates and quicker recoveries, it is important to note that these are based on a small sample size (n=5). Incisional hernias were noted as a late complication, underscoring the necessity of meticulous care in closing port sites to prevent this issue.

Key statement: These findings reaffirm the safety and efficacy of the laparoscopic approach in managing incarcerated hernias in emergency settings. The technique provided superior visualization and safer mesh application. With careful patient selection and surgical expertise, it may serve as a preferable alternative to traditional open surgery.

Poster 33

EGS LIST GOLDEN PATIENT

Author(s): Dr A Esa

Institution: Guy's and St Thomas NHS Trust, London, United Kingdom

Aims: 1) Improve the efficiency of the day case theatre by having available pool of patient that need surgery when there is too much waiting time on elective lists. These patients should be suitable for day case surgeries. Their patients are preferably those who need cholecystectomy or symptomatic non strangulated hernias.

Methods: Retrospective data collection for all EGS lists (a separate list for general surgery starts in the afternoon) from 01/01/23 to 30/06/23.

Results:

- * We found out that the Average number of cases done per list 1.8. most of these cases cases are incision and drainage of abscess.
- * We deducted that there is too much time lost in theatres that we can use to accommodate more patients.
- * some list didn't have enough patient.

Conclusion:

- * More patient can be accommodated in this EGS list. through better management of the time before and after each procedure.
- * A list of patient that need semi-urgent procedures, we can contact them from the night before the list and ask them if they can present.

Key statement: We are starting to implement this golden patient list, this not only will benefit the patient and cut down the waiting times on the elective list, but will also provide extra chances for junior doctor to practice and learn more.

Poster 34

MANAGEMENT OF HAEMOBILIA FOLLOWING ACUTE CHOLECYSTITIS BY IR EMBOLISATION OF THE CYSTIC ARTERY

Author(s): Dr A Esa, Ms H Habib

Institution: Guy's and St Thomas' NHS Foundation Trust, London, United Kingdom

Aims: The pseudoaneurysms of the cystic artery (CAP) are very uncommon. They usually develop because of an acute cholecystitis or after a cholecystectomy. We describe a case of 87 year old patient with a cystic artery pseudoaneurysm complicating an acute cholecystitis he was initially treated conservatively for 3 weeks before deteriorating.

Methods:

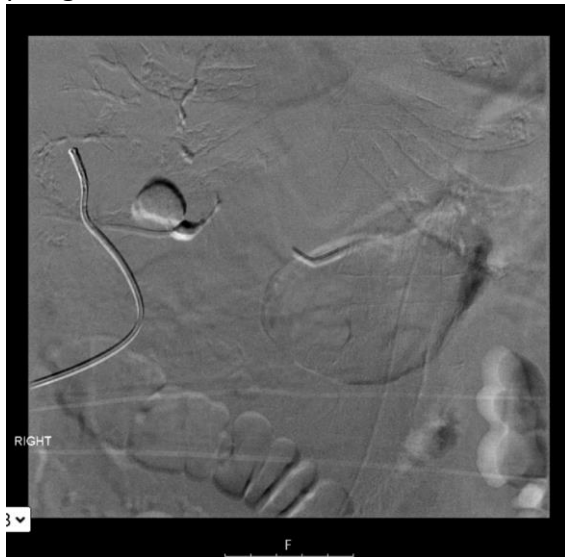


Patient was transferred from another hospital for possible surgical management of complicated acute cholecystitis. CT scan showed ongoing active arterial contrast extravasation into gallbladder. this indicates possible bleeding in the gallbladder.

The patient was very frail and unfit for any surgical intervention due to multiple comorbidities.

Results: The patient underwent IR Fluoroscopy to confirm the bleeding. Then IR team successfully managed to embolise the cystic artery pseudoaneurysm. DSA confirmed pseudoaneurysm/ongoing bleed from cystic artery. Super selective cannulation of cystic artery with 2.7

pro-great, confirmed with DSA. Embolisation with glubran:lipiodol 3:1 with good result.



Conclusion: Acute cholecystitis can have some serious complications, one of the rare complications is pseudoaneurysm. These patients are very tricky to manage especially if they are not fit for surgery. The IR embolisation can be one of their life-saving procedures to manage the cystic artery pseudoaneurysm.

Key statement: Cystic artery pseudoaneurysm is a very rare complication, and not much is published on its management. This case report illustrates an acceptable way of management especially in patients who have multiple comorbidities and are unsafe to have surgery.

Poster 35

APPLICATION OF A MODIFIED CONTINUOUS SINGLE-LAYER PANCREATICOJEJUNOSTOMY TECHNIQUE IN LAPAROSCOPIC PANCREATODUODENECTOMY

Author(s): Mr X Zhou, Mr X Bu, Mr Y Zhang, Mr P Jiang, Mr L Xia

Institution: Zhenjiang First People's Hospital, Zhenjiang, China

Aims: This study aims to evaluate the clinical application value of a modified continuous single-layer pancreaticojejunostomy technique in laparoscopic pancreaticoduodenectomy (LPD) in terms of surgical safety, anastomosis time, and postoperative complications.

Methods: A retrospective analysis compared a modified continuous single-layer pancreaticojejunostomy (PJ) technique (n=12) with the conventional two-layer method (n=10) in LPD cases from August 2021 to November 2023 in our institution, assessing anastomosis time and postoperative outcomes, including incidence of postoperative pancreatic fistula, bleeding, abdominal infection, drainage removal time.

Results: Baseline characteristics were well-matched between two groups. The modified group demonstrated a significantly shorter anastomosis time ($p < 0.001$) and lower postoperative abdominal infection rates ($p = 0.041$) compared to the conventional group. No significant differences were observed in fistula incidence ($p = 0.650$) or bleeding events ($p = 0.35$).

Conclusion: The modified continuous single-layer PJ technique in LPD is a safe and feasible anastomosis method with potential clinical promotion value. However, large-scale randomized controlled trials are rigorously needed to further validate the safety, efficacy, and long-term outcomes associated with this technique.

Key statement: The study introduces a refined single-layer PJ technique in LPD, showing promising reductions in anastomosis time and postoperative infection rates without increasing the risk of complications.

Poster 36

TROCAR WARS – HASSON VS VERESS: A RE-AUDIT OF THE SAFETY INDEX OF LAPAROSCOPIC SURGICAL ENTRY TECHNIQUES

Author(s): Dr I Syed¹, Dr NN Syed², Mr D Singh-Ranger¹, Dr RKM Pfau²

Institution: ¹The Royal Wolverhampton NHS Trust, United Kingdom. Civil Hospital, Karachi, Pakistan

Aims: The two main techniques for establishing a pneumoperitoneum in laparoscopic surgeries are the Veress needle and Hasson's open method. Hasson's method is generally preferred, despite some surgeons favouring the Veress technique. This study compares the safety of both techniques by examining the risk of injuries in laparoscopic and robotic surgeries.

Methods: This is a retrospective cohort study evaluating the incidence of primary port placement injuries (PPI) using Hasson's open trocar technique, and Veress needle technique in 100 laparoscopic and robotic cases (emergency Vs elective) over a 3-month period (January to March 2024) at Newcross Hospital. Exclusion criteria was secondary port injuries.

Results: Table1 summarizes the case distribution of Hasson's and Veress techniques. No PPI occurred.

	Hasson's (%)	Veress (%)
Emergency		
General Surgery (n=54)	47 (87%)	7 (12.9%)
Gynaecology (n=46)	27 (58.6%)	19 (41.3%)
Elective		
General Surgery (n=65)	55 (84.6%)	10 (15.3%)
Gynaecology (n=22)	15 (68.1%)	7 (31.8%)
Urology (n=13)	7 (53.8%)	6 (46.1%)

Conclusion: Although the literature describes the association of Veress technique with visceral and vascular injuries, our study found it to be as safe as Hasson's open port placement technique. Therefore, either technique can be employed for safe establishment of pneumoperitoneum in laparoscopic and robotic surgeries.

Key statement: There is no difference between the safety index of Hasson's open port technique and the Veress needle technique technique for primary port placement. Thus, there

is no optimal method for creating pneumoperitoneum in laparoscopic and robotic surgeries. Either technique can be employed at the surgeon's discretion.

Poster 37

ERGOED: A PRE-POST TRIAL INVESTIGATING THE EFFECT OF ERGONOMIC EDUCATION ON LAPAROSCOPIC SURGEON ERGONOMIC RISK SCORES

Author(s): Ms F Dixon^{1,2}, Ms P Vitish-Sharma^{1,2}, Mr A Khanna¹, Professor B Keeler^{1,2}

Institution: ¹Milton Keynes University Hospital, United Kingdom. ²University of Buckingham, United Kingdom

Aims: Work-related musculoskeletal disorders are common amongst laparoscopic surgeons and formal ergonomic education is lacking. This pre-post trial investigates whether ergonomic education using the STEPS model (Screen, Table, Equipment, Posture, Stance) can improve surgeons' intraoperative physical and cognitive strain. Multi-specialty participants were sought as these issues are prevalent across laparoscopic surgery.

Methods: The objective Rapid Entire Body Assessment (REBA) scale was used to calculate surgeons' baseline ergonomic risk from intraoperative photographs taken at 1-minute intervals. Surgeons were shown an educational video and reobserved immediately, then again 4-6 weeks later. Cognitive strain (modified NASA-TLX), subjective outcomes, and knowledge retention were also assessed.

Results: Ten surgeons were recruited from colorectal, general, and gynaecology. Six participants (60%) improved REBA but there was no significant reduction overall; baseline REBA=5.0, early reobservation REBA=5.0 [p=0.23], late REBA=4.0 [p=0.08]. Knowledge retention was good (90% correct answers). Nine surgeons found operating more comfortable and all made changes to their practice.

Conclusion: Ergonomic education is desired and deemed very important by surgeons, and reduces their subjective experience of pain, but did not significantly improve objective ergonomic risk scores. This suggests that the potential for improving the ergonomics of laparoscopic surgery is limited, even with an effective educational tool.

Key statement: Laparoscopic surgery has poor ergonomics and causes musculoskeletal issues in surgeons. Formal ergonomic education improves subjective discomfort but did not significantly reduce the ergonomic risk of laparoscopic surgery in this trial. Further ergonomic improvements should be targeted to allow surgeons to continue providing minimally invasive surgery to patients.

Poster 38

A CLOSED LOOP AUDIT LOOKING AT MANAGEMENT OF ACUTE CHOLECYSTITIS: HOT GALLBLADDERS

Author(s): Ms HM Naing, Mr TM Gilbert, Mr A Tandon

Institution: Warrington and Halton Teaching Hospitals NHS Foundation Trust, Warrington, United Kingdom

Aims:

1. To determine whether our current practice concerning the management of acute cholecystitis is in accordance with national guidance.
2. To evaluate the performance of cholecystectomy within 1 week of diagnosis.
3. To compare current practices and performance with the last cycle audit (June - December 2019).

Methods: We retrospectively reviewed all patients admitted with acute cholecystitis between September and November 2023(3months). Data were analyzed using Lorenzo, ICE, and case note studies.

Results: Of the 47 patients with acute cholecystitis, 13 were deemed unfit for surgical intervention (2 had IR drains and others were managed conservatively). Among the 34 patients deemed fit for surgery, 21 were managed surgically during the index admission (61.76%) and 18 had operations within 7 days of admission (52.94%).

Conclusion: There was a marked improvement in compliance with guidelines compared to the last cycle, increasing from 22.39% to 61.76%.

Key statement: Achievement of a “hot cholecystectomy service” was a collaborative effort of all the on-call consultants, including upper GI, breast, and colorectal consultants. Our future target is to achieve further improvement in overall compliance.

Poster 39

OUTCOMES OF TRANSCYSTIC LAPAROSCOPIC COMMON BILE DUCT EXPLORATION WITH LAPAROSCOPIC CHOLECYSTECTOMY IN PATIENTS WITH SMALL COMMON BILE DUCT DIAMETER

Author(s): Mr J Winter, Mr P Ainley, Mr J Gudyma, Mr O Eltayeb

Institution: Antrim Area Hospital, Antrim, United Kingdom

Aims: Laparoscopic Cholecystectomy with Laparoscopic Common Bile Duct Exploration (LC+LCBDE) is a single stage therapeutic option for management of choledocholithiasis. This study examines the outcomes for patients with small common bile duct (CBD) diameter ($\leq 8\text{mm}$) who underwent transcystic LC+LCBDE (LCBDE-t) in a district general hospital over thirty months.

Methods: Prospectively collected data regarding all patients who underwent LC+LCBDE-t over a period from January 2022 to June 2024 was retrospectively reviewed. Data including indication for surgery, CBD diameter, length of stay, complication rate, and readmission rate were determined from Electronic Care Records. Data were analysed using Microsoft Excel.

Results: 75 patients were identified. CBD diameter ranged from 3.5mm to 8mm (average 6.32mm). Median post-operative length of stay was 1 day (0-32 days) and readmission rate was 5.33%. 9 patients had post-operative complications recorded within 30 days post-op, ranging from Clavien-Dindo I - IVb. No patients had post-operative pancreatitis.

Conclusion: Transcystic LCBDE offers effective access to non-dilated common bile ducts, with no conversion to choledochotomy required in our experience. It allows effective duct clearance with a low rate of retained CBD calculi (1.3%), and a rate of bile duct injury comparable to published studies concerning laparoscopic cholecystectomy alone.

Key statement: LC+LCBDE-t is a safe and effective management option for patients in the setting of choledocholithiasis with small CBD diameter. Small CBD should not necessarily be a deterrent to consideration of transcystic LCBDE as a therapeutic option in appropriately selected patients.

Poster 40

SERVICE REDESIGN USING CLINICIAN-MANAGED SEMI-ELECTIVE OPERATING LIST ALLOCATION TO REDUCE THE BACKLOG OF COVID-19 PANDEMIC-RELATED EARLY LAPAROSCOPIC CHOLECYSTECTOMIES

Author(s): Mr T Huq¹, Miss S Sahid², Miss M Souvatzi²

Institution: ¹The Countess of Chester Hospital, United Kingdom. ²Imperial College NHS Foundation Trust, London, United Kingdom

Aims: The NICE guideline recommends early Laparoscopic Cholecystectomy (LC) for patients with Acute Calculous Cholecystitis. However, the COVID-19 pandemic led to a backlog in the waiting list. This audit aimed to assess the waiting list for early LC before and after implementing a 'managed' semi-elective waiting list led by clinicians.

Methods: An observational retrospective audit was performed in 2 cycles at Charing Cross Hospital, London. Data was collected over 4 months for each cycle to represent the pandemic (2020/21) and post-pandemic periods (2021/22). Based on clinical urgency, clinicians (surgeons and surgical practitioners) triaged and allocated patients for early LC.

Results: During the pandemic period, only 36% (n=10) underwent early LC. Following, a clinician-managed waiting list allocation, this increased to 52% (n=14, p<0.0001). The average waiting time for surgery decreased from 109 to 86 days. The number waiting for early LC also reduced from 56% (n=10) to 23% (n=3, p<0.005).

Conclusion: Clinician-managed allocation of semi-elective early LC can reduce the waiting times for patients and the waiting list backlog in the post-pandemic period.

Key statement: Clinicians can play a vital role in managing elective and semi-elective operating lists, especially in the wake of the growing NHS waiting times.

Poster 41

HOW SURGICAL PLANNING UTILIZING MAGNETIC RESONANCE IMAGING PARAMETERS IMPROVES CONTINENCE OUTCOMES IN ROBOTIC-ASSISTED RADICAL PROSTATECTOMY

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Institution: ¹West Hertfordshire Teaching Hospitals NHS Trust, Watford, United Kingdom.

²Airforce Specialized Hospital, Cairo, Egypt. ³The Royal Marsden NHS Foundation Trust, London

Aims: To Validate the invaluable role of surgical planning based on the MRI findings of the membranous urethral parameters in preventing postoperative urinary continence in patients undergoing Robotic-assisted Radical prostatectomy.

- To establish that surgery with MRI guidance leads to better continence outcomes in the short and long terms.

Methods: The study utilised a retrospective cohort approach to understand how MRI findings influenced urinary continence post RARP. A sample including 689 patients with organ-confined cancer, all of whom were surgically managed by a single surgeon, was analyzed. Baseline patient characteristics, peri-operative, and outcomes were retrospectively collected, assessed and statistically analysed.

Results: MRI planning for Robotic-Assisted Radical Prostatectomy significantly improves urinary continence over 12 months ($p < 0.001$ 95% CI [1.046 -1.173]). Nerve-sparing techniques ($r = 0.355$, $p < 0.001$) and membranous urethra dimensions (length $r = 0.355$, width $r = 0.417$) have a substantial impact on early recovery of urinary control.

Conclusion: The use of MRI in planning RARP has markedly benefited patients, exhibiting a strong, sustained correlation with improved urinary continence over a 12-month period.

This study validates the crucial role of preoperative MRI-guided membranous urethral parameter measurements in preserving continence after RARP, offering insights for surgical planning and patient counselling.

Key statement: Magnetic Resonance imaging (MRI) predicts postoperative continence, with sustained effects up to 12 months. Membranous urethral length is crucial for preserving continence. While age, nerve sparing and BMI are secondary predictors, they remain important. A future individualising surgical approaches, tailored to anatomical variations highlighted by MRI could further optimise outcomes.

Poster 42

GANGRENOUS CHOLECYSTITIS IN A LONDON DISTRICT GENERAL HOSPITAL: A 10-YEAR RETROSPECTIVE REVIEW OF PATIENT OUTCOMES AND INSTITUTIONAL EXPERIENCE

Author(s): Ms M Goutham, Dr CL Soh, Ms F Soggiu, Mr H Sheth, Ms J Churiwala

Institution: Ealing Hospital, London Northwest University Healthcare NHS, London, United Kingdom

Aims: Gangrenous cholecystitis (GC) is a serious complication of acute cholecystitis that is often challenging to treat. Factors predisposing to GC remain poorly understood, although studies have attempted to predict its occurrence. There is a need for early identification of patients with GC as this may improve operative prioritisation and outcomes.

Methods: Patient data was collected from electronic health records on demographics, hospital stay, operative details and post-operative outcomes from a ten-year period (May 2013 to November 2023). Data was analysed and GC (n=80) patient factors and outcomes were compared to the total emergency cholecystectomy (n=710) outcomes.

Results: When comparing the total cohort of emergency cholecystectomies to GC; age, sex ratios and diabetic patients had significant p values (<0.01-0.04). Smoking and BMI had no significant impact on the outcome. Length of stay, post operative complications and readmission to hospital were comparable in each cohort (p values 0.048 - 0.2).

Conclusion: Patients with gangrenous cholecystitis present with substantial management challenges. This research highlights significant predictive factors that can aid in early identification and optimization of treatment strategies for patients with gangrenous gallbladder. A high-volume district general hospital can achieve acceptable complication and morbidity rates even cases of gangrenous cholecystitis.

Key statement: Gangrenous gall bladders can be an operative challenge but high-volume hospitals with specialized consultants can achieve acceptable complication rates. Key predictive factors identified can aid early diagnosis and optimize treatment strategies, helping to validate scoring systems for identifying gangrenous cholecystitis.

Poster 43

CARBON FOOTPRINT OF THE LAPAROSCOPIC APPENDICECTOMY – A PROSPECTIVE STUDY FROM AN NHS TERTIARY CARE CENTRE

Author(s): Dr G Khalil¹, Ms N Khan¹, Dr M Qasim¹, Mr J Kamalathanan², Mr M Sajid¹

Institution: ¹Royal Sussex County Hospital, Brighton, United Kingdom. ²Brighton and Sussex Medical School, Brighton, United Kingdom

Aims: To calculate the carbon footprint of the laparoscopic appendicectomy in grams of CO₂ produced. To identify the biggest contributors to this footprint and create a set of recommendations for its reduction.

Methods: Data was collected on surgical equipment, electricity and litres of CO₂ used for the pneumoperitoneum, over 23 consecutive laparoscopic appendicectomies. Peer-reviewed literature was used to determine the footprint of the equipment via a lifecycle assessment. The average carbon emissions for the pneumoperitoneum and electrical equipment was calculated.

Results: The average appendicectomy produced 23663g (+/- 671g SE, range 21298-27744g) of CO₂. Variation was largely secondary to changeable operation length, correlating with pneumoperitoneum CO₂ use.

Contributors to the CO₂ footprint included pre-set (reusable items) 27%, pre-set (disposable items) 48%, pneumoperitoneum 11%, scrub PPE 7%, additional equipment 6%, and electrical equipment 1%.

Conclusion: The laparoscopic appendicectomy is a carbon costly procedure. To reduce the footprint of this procedure consider switching to reusable equipment and increasing theatre efficiency. The green theatre checklist provides excellent guidelines on this. More research is needed into less environmentally impactful gases to achieve a pneumoperitoneum.

Key statement: To achieve Net Zero by 2040, the NHS should acknowledge and aim to reduce the carbon costliness of operating theatres and common surgical procedures. We should be prepared to offset any remaining carbon; this needs accurate calculation of procedure footprints.

Poster 44

FEASIBILITY OF LAPAROSCOPIC EMERGENCY SURGERY IN VASCULAR EHLERS-DANLOS SYNDROME: A CASE REPORT AND REVIEW

Author(s): Dr Harriott Maixner

Institution: Royal Melbourne Hospital, Melbourne, Australia

Aims: Vascular Ehlers-Danlos syndrome (vEDS) is a rare hereditary connective tissue disease characterised by severe vascular and gastrointestinal complications presenting significant operative challenges. We present a case of acute appendicitis with vEDS successfully managed by a laparoscopic approach and compare our experience with the rare reports in published literature.

Methods: A 39-year-old male with a prior diagnosis of vEDS presented with 3 days of abdominal pain, nausea, and vomiting. CT demonstrated acute appendicitis and he proceeded to laparoscopic appendectomy. A literature search of Pubmed, MEDLINE and EMBASE from 1990 to present was conducted to identify relevant publications to the case.

Results: Intraoperatively, diffuse bleeding was encountered during dissection and controlled with energy devices. The procedure was otherwise routine. He was discharged day 1 postoperatively and recovered without complication. On review of published literature, only 3 case reports describing laparoscopic management of acute general surgical vEDS patients were identified.

Conclusion: vEDS is a rare entity posing significant operative risk due to the friability of soft tissues and vascular structures. Successful management of an acute general surgical presentation by laparoscopic surgery was facilitated through modifications to dissection, tissue handling, and haemostasis. Surgeons should anticipate haemorrhage and prepare adequately.

Key statement: Despite gastrointestinal perforation and visceral rupture being common complications of vEDS, management of emergency general surgical presentations has only rarely been described through a laparoscopic approach. Our experience suggests that minimally invasive surgery is feasible and safe in this high-risk patient group.

Poster 45

AUGMENTED REALITY: A POTENTIAL NEW GOLD STANDARD IN LAPAROSCOPIC SURGICAL TRAINING?

Author(s): Mr S Komperla¹, Mr AW Khalid², Mr S Colman³, Mr L Tenang⁴, Mr M Haris⁵

Institution: ¹University of Sheffield, United Kingdom. ²The University of Buckingham Medical School, United Kingdom. ³East Cheshire NHS Trust, Cheshire, United Kingdom. ⁴Imperial College London, United Kingdom. ⁵Manchester Cancer Research Centre, United Kingdom

Aims: Augmented Reality (AR)-based laparoscopic surgery simulators provide an immersive surgical experience combined with objective performance measurements. The aim of this study was to conduct a comprehensive assessment of AR-based laparoscopic surgery simulators utilising the Kirkpatrick Four-Level(L1-4) Evaluation Model to ascertain the true value they provide to surgical training.

Methods:

L1/Reaction: Likert survey assessing changes in trainee self-confidence with an AR-based laparoscopic simulator.

L2/Learning: Multi-center pilot assessing trainee performance over time when using an AR-based laparoscopic simulator

L3/Behavior: Systematic review assessing skill translatability acquired via AR-based surgical simulators.

L4/Result: Peer-reviewed health technology assessment of cost-savings associated with AR-based surgical simulators.

Results:

L1:Statistically significant increase in self-confidence by 3.82 points (p=0.018).

L2:Completion time and distance travelled demonstrated improvement during repeated laparoscopic appendicectomies: 52% (p=<0.001) and 37.6% (p=0.043) reduction respectively.

L3:SR revealed a mean skills translatability of 52.37% to clinical practice.

L4:Health technology assessment estimates cost savings per patient to be £71-£146.

Conclusion: This multi-stage, multi-centre study has demonstrated AR-based surgical simulation as a potential new gold standard in surgical education. AR-based simulation allows for repeated training opportunities in a low-cost, low-risk, and portable environment while maintaining adequate translatability of skills to clinical practice. Finally, cost-benefit analysis demonstrates significant savings to healthcare organisations.

Key statement: There is an increasing global surgical demand which is currently not being met with an equivalent increase in qualified surgeons. AR-based surgical simulation provides an accessible high-fidelity avenue to help facilitate increased training demand whilst ensuring trainees improve surgical skills.

Poster 46

COMPARATIVE STUDY OF OUTCOMES OF INTRACORPOREAL VS EXTRACORPOREAL ANASTOMOSIS FOLLOWING RESECTION OF SPLENIC FLEXURE TUMOURS

Author(s): Mr O Eldeeb, Mr TK Rajesh, Mr S Dadigamuwage

Institution: University Hospitals Plymouth NHS Trust, United Kingdom

Aims: This study aims to compare the outcomes of intracorporeal anastomosis (IA) versus extracorporeal anastomosis (EA) following splenic flexure tumor resection, focusing on postoperative recovery, complication rates, and overall survival.

Methods: A retrospective study was conducted, including patients who underwent laparoscopic and robotic resection for splenic flexure tumours. Patients were divided into two groups based on Operation and anastomosis technique used: Segmental Colonic Resection with ICA and Right Extended Hemicolectomy with ECA. Primary endpoints included postoperative complications, length of hospital stay.

Results: A total of 26 patients were included, with 13 in each group. The ICA group showed reduction in the length of hospital stay (6.4 vs. 8.5 days) and lower Postoperative complications, with postoperative Ileus incidence was (7.7% vs. 15.3%). Zero incidence of anastomotic leaks in both groups was noted.

Conclusion: Intracorporeal anastomosis following splenic flexure tumour resection is associated with improved postoperative recovery, including shorter hospital stays and lower rates of complications compared to extracorporeal anastomosis. These findings support the consideration of IA as a preferred technique in patients undergoing laparoscopic splenic flexure tumour resection.

Key statement: The choice between intracorporeal anastomosis (ICA) and extracorporeal anastomosis (ECA) following splenic flexure tumour resection remains debated. This study reveals that ICA offers superior postoperative outcomes compared to ECA, with reduced complication rates and faster recovery.

Poster 47

LEARNING CURVE AND LEARNING OUTCOMES OF LAPAROSCOPIC BOX TRAINING IN PEG/POLO TRANSFER TASK: A RANDOMIZED CONTROLLED TRIAL

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Institution: ¹Barts Cancer Institute, London, United Kingdom. ²The Royal London Hospital, United Kingdom

Aims: This study aims to compare laparoscopic box training for the Peg-Polo Transfer task in novice and intermediate groups, evaluating learning curve improvements and overall effectiveness. We will also explore integrating basic laparoscopic skills into the undergraduate medical education curriculum.

Methods: This is an RCT involved 84 medical students: the novice group (n=46), who had no training, and the intermediate group (n=38), who had 4 weeks of training. Participants completed Lap Pass Task 1, assessed on-task completion time, errors, Task Specific Score, and Global Rating Score. Statistical analysis used t-tests ($p < 0.001$).

Results: Intermediate Group showed significantly improved task completion times (M = 4.41 vs. 6.78, $t = 11.60$, $p < 0.001$) and fewer errors (M = 1.41 vs. 3.29, $t = 4.17$, $p < 0.001$). They achieved higher Task Specific Scores and Global Rating Scores.

Conclusion: This study demonstrates that structured training on Lap Box Trainers enhances laparoscopic task efficiency and proficiency among novice medical students. The Intermediate Group exhibited shorter task times, fewer errors, and higher Task-Specific Score and Global Rating Scores than the Novice Group, highlighting tailored training's critical role in surgical education.

Key statement: Further large-scale randomized controlled trials (RCTs) are necessary to evaluate various basic laparoscopic tasks on box trainers across multiple centers and to recommend integrating this training into medical student curricula.

Poster 48

GASTROINTESTINAL STROMAL TUMOUR OF THE SMALL INTESTINE PRESENTING AS AN ADNEXAL MASS ON TRANSVAGINAL ULTRASOUND: A CASE REPORT

Author(s): Dr S Olusola, Mr A Oshowo

Institution: Whittington Hospital, London, United Kingdom

Aims: Gastrointestinal stromal tumours (GISTs) are a rare type of mesenchymal tumour typically originating from the GI tract. Clinical presentation varies and can be attributed to tumour mass effect or gastrointestinal haemorrhage. We present a rare case of a GIST that presented itself as an adnexal mass on Transvaginal Ultrasound (TVUSS).

Methods: A 56-year old female presented with a history of pelvic pain. TVUSS revealed a left adnexal heterogenous cystic vascular mass inseparable from the ovary. This raised suspicion of ovarian malignancy. An MRI pelvis scan found the mass to be separate from the ovary and abutting loops of small bowel.

Results

Diagnostic laparoscopy revealed a 2.6cm firm nodular mass at the level of the distal jejunum and proximal ileum. This was resected and the patient had an uneventful post-operative recovery and was discharged 5 days later. Histological and Immunohistochemical analysis were consistent with a low-risk GIST.

Conclusion

A literature review revealed only 27 individual case reports of GISTs initially presenting as gynaecological disease. Mobility of the small bowel and a large sized tumour promote descension of a mass towards the pelvis. This along with the non-specific imaging features of GISTs can result in GISTs mimicking gynaecological masses.

Key statement

The clinical presentation of GISTs is widely variable and can lead to initial investigation under gynaecology. Non-gynaecological tumours, such as GISTs, must always be considered as a differential diagnosis in patients presenting with pelvic masses or pain.

Poster 49

A CLOSED LOOP AUDIT ON VTE PROPHYLAXIS FOR PATIENTS RECEIVING MAJOR ABDOMINAL SURGERY FOR COLORECTAL CANCER

Author(s): Dr KB Ravintharan, Dr S Amatya, Dr A Briscoe, Mr D Luke, Miss J Chang

Institution: University Hospital North Midlands, Stoke-on-Trent, United Kingdom

Aims: National Institute for Health and Care Excellence (NICE) guideline recommends 'Consider extending pharmacological VTE prophylaxis to 28 days postoperatively for people who have had major cancer surgery in the abdomen'. The aim of our audit is to measure the Colorectal department's adherence to the NICE guideline.

Methods: We prospectively reviewed discharge letters of 20 patients who had abdominal surgery for colorectal cancer pre and post-intervention. Data and interventions were presented at the local colorectal audit meeting. Interventions included a discharge checklist, tri-annual DVT prophylaxis teaching, writing 28 days of dalteparin on prescription chart and operation note.

Results: The adherence to NICE guidelines increased from 95% to 100% post-intervention. Compliance to interventions were measured. 100% compliance to writing 28 days of dalteparin on prescription chart, 65% compliance to the discharge checklist and 28 days on operation note. 87.5% of doctors felt more confident in prescribing VTE prophylaxis post-teaching.

Conclusion: A combination of all the interventions are effective in improving adherence to the NICE guideline. This can prevent significant morbidity and mortality in patients undergoing colorectal cancer surgery. More audits should be done to continue striving for excellence in care.

Key statement: The risk of VTE in postoperative cancer patients ranges from 2% to 5%. The aim of our audit is to measure the Colorectal department's adherence to prescribing VTE prophylaxis for patients having colorectal cancer resection surgery. The adherence increased from 95% to 100% post-intervention. The interventions were effective in improving adherence.

Poster 50

MINIMAL INVASIVE GENERAL SURGERY IS THE FUTURE, BUT IS IT THE FUTURE FOR ALL?

Author(s): Miss M Jama¹, Professor J Cleland², Professor S Moug³, Professor T Pinkney⁴, Miss Nuha Yassin⁴

Institution: ¹Birmingham Teaching Hospitals, United Kingdom. ²Nanyang Technological University, Singapore. ³Glasgow University, United Kingdom. ⁴University of Birmingham, United Kingdom

Aims: Minimal Invasive General Surgery (MIGS) is rapidly expanding. However, concerns exist on disparities in representation of female and ethnic minorities in MIGS. Current disparities in use and uptake of MIS in patients may improve by increasing diversity.

We aimed to investigate current visible representation within academia and leadership in MIGS.

Methods: A comprehensive online search on the title of (future) MIS events' programmes between Jan 2024 to Dec 2024 was performed. Programmes of US/Europe based conferences, courses, meetings and webinars were examined. Names, pictures and profiles of faculty, speakers and directors were used to categorise gender and ethnicity.

Results: We included 417 individuals of which 246(82.97%) were men.

217 individuals were assessed for ethnicity, 42(19.35%) ethnic minority men (EMM), and 7.37% ethnic minority women were identified. EMM representation was higher in US meetings (41%). Female representation was highest in European abdominal-wall (42%) and lowest in HPB (7.3%).

Conclusion: Our work demonstrates significant disparity in visible female and ethnic minority surgeons in academic and leadership positions in MIGS. This effect is especially prominent in certain subspecialties. Increasing visibility of these groups may improve equitable access to MIGS for both patients and surgeons.

Key statement: Minimal Invasive Surgery is the Surgery of the future; it however appears to have an underrepresentation of women and ethnic minority surgeons. This in turn can lead to issues regarding recruitment, training and eventually patient perception and care. Inclusive practices could ensure Minimal Invasive Surgery has a sustainable future.

Poster 51

SURGICAL SYNERGY: RETHINKING WASTE FOR A GREENER TOMORROW IN GENERAL SURGERY

Author(s): Dr T Kabir¹, Miss G Lingam², Mr V Sivarajah¹, Mr A Hussein¹

Institution: ¹Princess Alexandra Hospital, NHS, Essex, United Kingdom. ²London North West University Healthcare NHS Trust, London, United Kingdom

Aims: In this study, we aim to assess the current implementation of waste management strategies at an NHS district general hospital (DGH) in general surgery. We have investigated a variety of cases and have surveyed the volume of waste produced.

Methods: We observed elective and emergency general surgery cases. For each case, we weighed the waste produced- both recyclable and non-recyclable (clinical).

Results: We included four hernia repairs, two right hemicolectomies, one examination of rectum under anaesthesia and three laparoscopic cholecystectomies. The average total waste produced was 5.9kg. The average clinical and recyclable waste was 4.7kg and 1.2kg. A significant proportion of non-infectious recyclable waste was incorrectly placed into the clinical waste bin.

Conclusion: On average 5.9kg of waste is produced after an operation in general surgery. Most this waste is clinical and not recycled. However, the clinical waste can be cut down by appropriate waste segregation, reducing the impact on the environment as well as reducing the cost of incineration.

Key statement: We have demonstrated that waste segregation in our trust is not optimised and requires further improvement. Further education of staff and raising awareness at meeting and creating posters are the next steps that need to be taken for improvement in our compliance with the current waste management guidelines.

Poster 52

ASSESSING THE RIB FRACTURE PROTOCOL AND THE IMPLICATIONS OF MANAGING PATIENTS IN SURGERY DEPT

Author(s): Mr. S Abdul¹, Ms Ti Perera², Ms O Lsibor², Ms Ei Emayakumaran², Mr A El-Sharkawy¹

Institution: ¹Royal Derby Hospital, United Kingdom. ²Nottingham University, United Kingdom

Aims: Rib fractures are a common injury among patients admitted to the Royal Derby Hospital, particularly affecting those with multiple co-morbidities. These patients are typically managed under general surgery with an emphasis on pain management rather than surgical intervention.

Methods: Retrospective audit conducted to evaluate management of rib fracture patients admitted under surgery from January 1, 2023, to December 20, 2023. Data focused on patient referrals, length of stay, and bed occupancy. Compliance with referral guidelines and to compare bed days occupied by rib fracture patients X emergency laparotomy patients.

Results: 278 patients with rib fractures, occupying total of 2860 bed days + 491 days in Step Down Unit (SDU). 28 admissions were recorded with median bed days occupied being 6.86 and 9.21 (march/sept) Most patients over 70 years old occupied significant proportion bed days, highlighting the need for specialized care.

Conclusion: The audit identified that rib fracture patients occupied almost as many bed days as emergency laparotomy patients, potentially impacting the availability of beds for elective procedures. The average waiting time for treatment in general surgery is 23 weeks, which might be reduced if pain management were shifted to non-surgical specialties.

Key statement: Optimizing the management of rib fracture patients, particularly those over 70, by involving DME or other medical teams could reduce the burden on general surgery and improve patient outcomes.

Poster 53

Rare case of Ectopic pancreatitis and Surgical Management

Author(s): Mr. S Abdul, Mr. K Nannyakkara, Mr. P Leeder, Mr A El-Sharkawy

Institution: Royal Derby, United Kingdom

Aims: Case of Mr. D, a 38-year-old male initially treated as gastritis but later developed more complex symptoms. This case highlights the diagnostic challenges and management of ectopic pancreatitis, a rare condition characterized by pancreatic tissue located outside its usual anatomical position. Mr. D, with asthma and Meckel's diverticulum excision.

Methods: Initial investigations showed no significant abnormalities. However, subsequent gastroscopy and CT scans suggested a gastrointestinal stromal tumor (GIST), leading to referral for endoscopic ultrasound (EUS) and biopsy. The findings indicated a highly vascular, mixed echogenic lesion in the submucosa, likely a GIST, but initial biopsies were inconclusive.

Results: Despite multiple referrals and consultations, including with gastroenterologists and the Multidisciplinary Team (MDT), Mr. D's condition remained ambiguous. Eventually, was diagnosed with ectopic pancreatitis after presenting with severe abdominal pain and raised amylase levels. Conservative management with octreotide was initiated, MDT recommended interval imaging and conservative management over immediate surgery.

Conclusion: He experienced recurrent pain necessitating surgical intervention. Diagnostic laparoscopy and gastroscopy revealed extensive adhesions and an inflammatory mass. Pyloric-preserving sleeve gastrectomy, with histology confirming pancreatic heterotopia with inflammation and cystic degeneration. Mr. D initially struggled with dietary intake but improved over time, tolerating a solid diet by the last follow-up.

Key statement: This case underscores the complexity of diagnosing and managing rare conditions like ectopic pancreatitis. It highlights importance of multidisciplinary approach and need for surgical intervention when conservative management fails. The presentation aims to provide valuable insights into diagnostic process, role of MDT discussions, and therapeutic challenges associated with ectopic pancreatitis.

Poster 54

USE OF SELECTIVE INTRA-OPERATIVE CONTRAST ENHANCED CHOLANGIOGRAPHY AND INDOCYANINE GREEN CHOLANGIOGRAPHY DURING EMERGENCY CHOLECYSTECTOMY REDUCES BILE-DUCT INJURY

Author(s): Mr L Kathayat, Ms YL Aung, Mr B Atkari, Mr H Nasef, Mr C Liao

Institution: James Paget University NHS Foundation Trust, Great Yarmouth, United Kingdom

Aims: Bile-duct injury (BDI) is a serious complication of cholecystectomy particularly in an emergency setting. During gall bladder surgery, estimated incidence of BDI could be between 0.28–1.5%. The aim of this study is to assess the safety of selective intra-operative cholangiogram (OTC) and indocyanine-green-cholangiography (ICGC) in reducing bile-duct injury.

Methods: Retrospective analysis of a prospectively maintained database of adults aged 18-and-over who have undergone emergency laparoscopic cholecystectomy (LC) in a UK district general hospital over six-years was performed. The primary outcome was BDI and secondary outcome was duration of surgery, length-of-stay and post-operative morbidity and mortality related to emergency LC.

Results: Between Jan 2019 - June 2024, there was 944 early cholecystectomy performed out of which 74% was within <8 days. The rate of selective OTC was 28.4% and ICGC was 50.5%. There were eight cases of bile-leak, one post-operative bleeding, two deaths and only one case of bile duct injury.

Conclusion: Selective OTC and use of Indocyanine green cholangiography (ICGC) during emergency cholecystectomy could reduce the incidence of bile duct injury.

Key statement: Intra-operative cholangiogram (OTC) has been shown to aid in diagnosing and treating BDIs promptly, but not reduce their incidence. Bile duct visualisation with the help of selective OTC and perhaps routine use of Indocyanine green cholangiography (ICGC) may further reduce BDI.

Poster 55

EFFICACY OF LOCAL RESECTION FOR EARLY RECTAL CANCER: A SINGLE-CENTRE RETROSPECTIVE STUDY COMPARING THE OUTCOMES OF LOCAL VS. FORMAL RESECTION

Author(s): Ms S Kuttuva¹, Mr V Thattaruparambil², Mr N Nawarathna¹, Ms S Mills¹, Mr B Box¹

Institution: ¹Northumbria Healthcare NHS Foundation Trust, Cramlington, United Kingdom.
²The Newcastle upon Tyne NHS Foundation Trust, United Kingdom

Aims: This study compares the efficacy of Local Resection [LR] (Transanal excision, transanal minimally invasive and endoscopic resection) to the traditional gold-standard Formal resection [FR] (Anterior Resection, Abdominoperineal Excision of Rectum and Pan-proctocolectomy) in terms of operative morbidity, and oncological outcomes taking patient suitability, tumour factors into consideration.

Methods: The outcomes of 178 patients with (T1, T2 N0) on MRI classed as ICD10 C20 in Northumbria Colorectal Cancer Database between 2017 and 2024, who underwent LR Vs FR were retrospectively studied. Patient factors (age, BMI, WHO Performance) status; tumour factors (size, distance from anal-verge), and oncological outcomes were compared.

Results: 41.5% and 46% underwent LR and FR, respectively. Of significance, mean tumour size: LR: 28(+/-13) mm Vs FR: 68(+/-8.6) mm; mean length of stay: LR: 4(+/-2.7); FR: 9 (+/- 8.6) days. Post-op complications and primary stoma FR Vs LR (p<0.0001) favouring LR, positive resection margin (p=0.004) favouring FR.

Conclusion: LR is a suitable alternative for tumour size (~3cm). Patient factors and oncological outcomes were similar in 2 groups. However, LR is associated with higher margin positivity with 15% requiring completion of total mesorectal excision. Study details individual procedure outcomes but higher-quality clinical studies are needed to confirm this.

Key statement: The optimal treatment of early rectal adenocarcinomas remains controversial. This study highlights the advantages of local resection including minimally invasive surgery for Early rectal cancers. Advantages include improved post-op morbidity, early discharge, evading the need for primary stoma whilst providing similar oncological outcomes when optimal patients are chosen.

Poster 56

THE HEALTHCARE METAVERSE IN SURGERY: A SCOPING REVIEW OF THE NEXT BIG DISRUPTION

Author(s): Dr B Jauniaux, Mr J Burke, Professor D Harji

Institution: Manchester University NHS Foundation Trust, United Kingdom

Aims: The Metaverse is an emerging concept in surgery; providing a virtual environment with highly immersive and interactive experiences. The potential applications of the Metaverse to surgery are significant. This scoping review provides a summary of current understandings and evidence for the use of the Metaverse in surgery.

Methods: A scoping review was undertaken. Embase and MEDLINE databases were searched to identify Metaverse applications within surgery. Following data extraction, a narrative synthesis was conducted to identify the components of the Metaverse employed within surgery and the domains in which they were applied.

Results: Of 97 articles found through the initial search, fifteen studies were included. The key component Metaverse digital technologies used in surgery were VR (n=14), AR (n=11), AI (n=5), Technological innovations (n=7) and Blockchain (n=3). The surgical Metaverse was used across four main domains: education (53%), training (80%), operations (67%) and surgical care (53%).

Conclusion: Surgery is rapidly moving towards the age of the Metaverse. The potential appears unlimited however its role is replete from up-to-date evidence on its current utility, implementation and effectiveness. Further evidence is required to reach its effective utility and reliability in the field of surgery.

Key statement: Surgical telementoring, digital twins and robotic telesurgery are examples of applied Metaverse technologies. Developments will see the Metaverse in surgery with more realism, cultural influence and value however institutions must learn to understand and safely implement the Metaverse into their domains of education, training, operations, and surgical care.

Poster 57

MANAGEMENT OF PERSISTENT CHYLE LEAK AFTER OESOPHAGECTOMY WITH APPLICATION OF INDOCYANINE GREEN FLUORESCENCE

Author(s): Mr R Chhabra, Mr B Lorenzi

Institution: Broomfield Hospital, Chelmsford, United Kingdom

Aims: To demonstrate the efficacy of robotic-assisted laparoscopic and thoracoscopic ligation of the thoracic duct and cisterna chyli under indocyanine green (ICG) fluorescence navigation in controlling refractory chyle leak post two-stage robotic oesophagectomy for T3N3M0 oesophageal cancer.

Methods: A 34-year-old female with refractory chyle leak underwent robotic-assisted laparoscopic and thoracoscopic ligation using ICG fluorescence navigation. 1 ml of 2.5 mg/ml ICG was injected twice in the submucosa of the proximal jejunum 20 minutes prior to surgical exploration.

Results: The robotic-assisted laparoscopic and thoracoscopic ligation successfully controlled the chyle leak. Previous conservative treatment and standard thoracoscopic and laparoscopic approaches had failed, highlighting the effectiveness of the ICG fluorescence-guided method.

Conclusion: ICG fluorescence-guided ligation of the thoracic duct and cisterna chyli is an effective option for managing persistent chyle leaks, particularly in centers lacking access to thoracic duct embolization.

Key statement: ICG fluorescence-guided robotic-assisted surgery is a cost-effective and viable first-line solution for chyle leak management post-oesophagectomy, especially in settings where thoracic duct embolization is unavailable.

Poster 58

ERGONOMICS IN LAPAROSCOPIC BOX TRAINING IN COMPARISON WITH VR SIMULATION: A SYSTEMATIC REVIEW

Author(s): Mr MR Karim, Miss S Kim, Mr A Kong, Miss JSW Tan, Professor B Patel

Institution: Barts Cancer Institute, London, United Kingdom

Aims: The primary aim of our study is to assess and compare the ergonomic outcomes and musculoskeletal strain between box training versus VR in individuals completing laparoscopic surgery. Additionally, we aim to explore the impact of the different training modalities on task performance.

Methods: This systematic review was conducted from January 27, 2024, to April 15, 2024. An electronic search from 1980 to the present was performed on multiple databases. Two reviewers independently conducted eligibility assessment, data extraction, and risk of bias evaluation, resolving discrepancies through consensus discussions.

Results: 12 studies were selected. EMG results indicated a higher %MVC in box training in poor ergonomic settings and a negative correlation between skills and muscle activity. Both modalities showed a significant decrease in NASA-LTX scores after training on the simulators and when comparing novice and experienced surgeons.

Conclusion: This systematic review reveals reduced muscle activity and physical demand among trained individuals in laparoscopic surgery with both box trainers and VR simulators, emphasizing the importance of addressing ergonomic considerations.

Key statement: To advance our understanding of surgical ergonomics, standardization of measurement methods and higher quality evidence, particularly through randomized controlled trials, are recommended.

Poster 59

HOT CHOLECYSTECTOMY IN A HOSTILE ABDOMEN

Author(s): Ms J Churiwala, Miss M Goutham, Mr T Agarwal, Mr H Sheth

Institution: Ealing Hospital, LNWUH NHS Trust, London, United Kingdom

Aims: Acute cholecystitis in a patient with previous surgeries poses the unique challenge of abdominal access strategies and port placement for performing a safe laparoscopic cholecystectomy (LC). We describe our management of a gentleman with gangrenous cholecystitis and previous abdominal surgeries at a district general hospital running a hot cholecystectomy program.

Methods: Anticipating intraabdominal adhesions, the first 10mm port was inserted at the right subcostal anterior axillary line by the open method to establish capnoperitoneum. Working ports were subsequently inserted under vision after meticulously taking down the adhesions on the anterior abdominal wall. A LC with intraoperative cholangiogram (IOC) was safely performed.

Results: Decompression using a Verees needle assisted the handling of the GB. An IOC was used as an adjunct to visualise any aberrant anatomy of the cystic duct that accompanied a variation in the anatomy of the cystic artery and to rule out distal biliary obstruction.

Conclusion: Complex cases of acute cholecystitis should be handled by surgical teams experienced in hot cholecystectomies.

Key statement: Thorough pre-operative planning, team work and adhering to the principles of safe cholecystectomy including the establishment of the critical view of safety are key to achieving positive outcomes in hot cholecystectomy. A difficult cholecystectomy should not be cited as a reason to not offer this therapeutic measure in deserving candidates.

Poster 60

IMPLEMENTATION AND CLINICAL EVALUATION OF THE VERSIUS ROBOTIC SYSTEM IN A MULTISPECIALTY SETTING: AN IDEAL 2A/B STUDY

Author(s): Mr P Batra¹, Mr A Bannon¹, Professor D Harji^{1,2}, Mr B Hornung¹, Mr B Griffiths¹

Institution: ¹Manchester University Foundation Trust, United Kingdom. ²University of Leeds, United Kingdom

Aims: There has been a steady diffusion of robotic assisted surgery (RAS) into practice in the United Kingdom. The aim of this study was to assess the value of the Versius robotic platform (Cambridge Medical Robotics) within a multispecialty programme.

Methods: An IDEAL 2a/2b study assessing the development (2a) and exploration (2b) in a multispecialty CMR program (colorectal, hepatobiliary, and general surgery). Patients undergoing robotic surgery between February 2020-November 2023 were included. Key robotic outcomes and innovation outcomes were reported following RoboCOS and COHESIVE core outcome sets respectively.

Results: Ninety-three patients were evaluated in this study: 55 colorectal, 9 general surgery, and 29 hepatobiliary. Robotically completed procedures were 77 (83%). Eight (9%) complications were recorded with 7 patients (8%) requiring return to theatre. Average stay was 5 days. No device malfunctions, but some expected instrument limitations were noted.

Conclusion: This study demonstrates that Versius can be successfully implemented into a multispecialty setting and enables a seamless transition from laparoscopic to robotic surgical practice. There was a favourable reporting for aiding pelvic dissections specifically by surgeons.

Key statement: The importance of incorporating standardised frameworks to strengthen the future evaluation of robotic assisted surgery and enable better comparison against emerging platforms.

Poster 61

SUSTAINABILITY PRACTICES IN GENERAL SURGERY: A SNAPSHOT QUALITY IMPROVEMENT PROJECT

Author(s): Dr J Norvill, Mr J Latif, Ms R Rosser

Institution: General Surgery, Chesterfield Royal Hospital, United Kingdom

Aims: NHS produces 5% of UK's carbon emissions with operating theatres accounting for 25% of hospital emissions. In response, the Royal Colleges of Surgeons produced an Intercollegiate Green Theatre Checklist. The aim of our project was to raise awareness of and improve sustainability in general surgery at a District General Hospital.

Methods: We conducted a single-centre quality improvement project. Green Theatre Checklist was the audit standard with emphasis on subsections: anaesthesia, preparing for surgery and intraoperative equipment. All acute and elective procedures from two-days were included. Baseline data were collected then a teaching session conducted. Subsequently, a re-audit of practices was performed.

Results: Cycle one (n=5) and two (n=9) included open (n=5), laparoscopic (n=9), acute (n=6) and elective (n=8) cases. Cycle two reported less anaesthetic waste and increased reusable anaesthetic equipment. Teaching improved sustainability knowledge. No meaningful difference in 'preparing for surgery' and 'intraoperative equipment' with poor adherence (n=0) to 'rub don't scrub.'

Conclusion: We achieved improvements in sustainability practices within a short time period. Anaesthesia demonstrated good adherence to guidance. Adherence to subsections, preparing for surgery and intraoperative equipment, requires optimisation. Clinicians may benefit from a wider offering of teaching sessions. Future analyses with longer data collection periods are needed.

Key statement: NHS is a major contributor to UK's carbon emissions. Our project resulted in promising strides in anaesthesia waste reduction and uptake of reusable equipment. Nevertheless, our clinicians require further education including about 'rub don't scrub.' To support long-term implementation, continued national guidance on application of Green Theatre Checklist is required.

Poster 62

DEVELOPING A MODEL OF OMENTUM FOR LAPAROSCOPIC SIMULATION

Author(s): Dr R Thorne¹, Ms I Bera², Dr J Willers¹, Mr G Janakan¹, Mr G Colucci^{1,2}

Institution: ¹University Hospitals Sussex NHS Foundation Trust, Brighton, United Kingdom.

²Brighton and Sussex Medical School, United Kingdom

Aims: To produce a low-cost, sustainable, recyclable, non-biological model for simulation-based training in laparoscopic omental vessel dissection.

Methods: An omental surrogate was prepared by enclosing modelling balloons between two layers of psyllium/gellan ADAMgel (Aqueous Dietary fibre Antifreeze Mix gel) enclosed in low denier nylon as a peritoneal analogue. All components were integrated by heating under a flat iron.

Results: The psyllium husk/gellan ADAMgel combined to form an excellent analogue of omental tissue. The appearance, weight, and texture were accurate. Vessel dissection with surgical instruments was realistic. It transilluminates to highlight the location of the vessels. Afterwards the application of heat can reconstitute the model for further use.

Conclusion: This study demonstrates the feasibility of a low cost, sustainable, realistic, non-biological, recyclable tissue analogue for omentum in laparoscopic simulation training. This model can be easily and cheaply assembled with none of the ethical and logistical barriers of biological tissue. Adaptations will include simulating other organs such as bowel mesentery.

Key statement: Early models of omentum for simulation-based training in laparoscopic surgery are extremely promising for cold dissection. The next challenge will be to use only water-based material to allow the use of energy devices (such as diathermy or harmonic scalpel) to increase the fidelity of the simulation.

Poster 63

EVALUATION OF PERCUTANEOUS CHOLECYSTOSTOMY IN ACUTE CHOLECYSTITIS- A DISTRICT GENERAL HOSPITAL EXPERIENCE

Author(s): Dr S Sonde, Dr S Sowemimo, Dr J Siddiqui, Dr S Razzak, Mr M Junejo

Institution: Calderdale and Huddersfield NHS Trust, Huddersfield, United Kingdom

Aims: Percutaneous cholecystostomy (PC) is used as alternative in management of complicated gallbladder conditions. It is employed in high-risk patients who are unfit for surgery/critically ill patients. This study reviewed the indications for cholecystostomy and evaluated outcomes in high-risk patients with acute cholecystitis undergoing cholecystostomy insertion.

Methods: It was a retrospective single centre observational study. Records were reviewed for all patients that underwent cholecystostomy from May 2017 to January 2023. Data was collated on patient demographics, investigations, morbidity scores, timing to procedure, complications, outcomes and re-admission/re-intervention.

Results: Fifty-two patients underwent cholecystostomy, commonest indications were perforated gallbladder (33%), unfit patients for surgery (30%). Average timing to procedure was 50 hours, mean duration of cholecystostomy was 49 days. About 25% had complications related to insertion, tube dislodgement was commonest, 48% required re-intervention and 30% were re-admitted within 3-6 months.

Conclusion: PC is a suitable management option for patients unable to undergo immediate laparoscopic cholecystectomy. Patient selection shows that the cohort of patients that had PC were not suitable for cholecystectomy evidenced by a small number who later had surgery. The decision to cholecystostomy was taken promptly within 24 to 48 hours.

Key statement: Review of service performance in the selection and outcome of patients who had percutaneous cholecystostomy for management of acute cholecystitis has shown good outcome and remains a suitable treatment modality in carefully-selected patients.

Poster 64

INDOCYANINE GREEN CHOLANGIOGRAPHY ENHANCES ANATOMY VISUALISATION DURING EARLY LAPAROSCOPIC CHOLECYSTECTOMY

Author(s): Ms YL Aung, Mr LK, Mr H Nasef, Mr B Atkari, Mr C Liao

Institution: James Paget University NHS Trust, Great Yarmouth, United Kingdom

Aims: The aim of this video is to highlight the routine use of intra-operative Indocyanine green Cholangiography (ICGC) during emergency laparoscopic cholecystectomy.

Methods: We present a video-collage of two cases where ICGC helps safe visualisation of the Callot's triangle and a liver cyst. Indocyanine green (ICG) helps delineate the biliary tree anatomy in the first case followed by the second case of a large hepatic cyst adjacent to an inflamed gall-bladder during cholecystectomy.

Results: Both cases underwent an uneventful cholecystectomy with no intra-operative or post-operative complications and was discharged home the following day.

Conclusion: This video highlights the routine use of Indocyanine green during emergency laparoscopic cholecystectomy and its safe application in avoiding injury to the biliary tree.

Key statement: Routine and regular use of Indocyanine green is safe and enhances biliary anatomy during emergency cholecystectomy. It could help reduce major bile duct or biliary tree related injury during all cholecystectomy.

Poster 65

COMPARISON OF CLINICAL OUTCOMES IN PATIENTS WITH CERVICAL CANCER UNDERGOING ROBOTIC HYSTERECTOMIES VERSUS LAPAROSCOPIC HYSTERECTOMIES – A SYSTEMATIC REVIEW AND META-ANALYSIS

Author(s): Miss P Mohan^{1,2,3}, Mr R Karim^{1,2}, Professor B Patel^{1,2}

Institution: ¹Barts Cancer Institute, London, United Kingdom. ²Queen Mary University of London, United Kingdom. ³Kings College London, United Kingdom

Aims: This study aims to provide a comprehensive analysis of which surgical technique, either laparoscopic or robotic hysterectomy, has better patient outcomes in clinical practice. We aim to assess and compare early postoperative outcomes like blood loss and late postoperative outcomes such as mortality and recurrence rates in this review.

Methods: A systematic review and meta-analysis was conducted examining literature from PubMed, OVID (includes MEDLINE and EMBASE), Cochrane and Web of Science from January 2000 to March 2024. 2653 participants were sourced with direct comparison of robotic and laparoscopic hysterectomies in women with diagnosed cervical cancer.

Results: Thirteen studies were eligible with a range of outcomes measured such as operative time ($P=0.18$), estimated blood loss ($P=0.18$), total and pelvic lymph nodes resected ($P=0.07$ and $P=0.14$ respectively) and mortality rates ($P=0.13$). Overall, the outcomes indicated that there was no statistical significance between robotic and laparoscopic hysterectomy approaches.

Conclusion: Despite the range of statistical data present, neither the robotic nor the laparoscopic surgical technique is shown to have outright benefits over the other. Therefore, judgement for which method should be undertaken should be based upon patient choice as well as existing pre-operative factors.

Key statement: For now, there is ample reason for either method to be utilised. However further investigation is required to pinpoint the better surgical technique, ideally in the form of an RCT.

Poster 66

LAPAROSCOPIC ETEPP STOPPA WITH ETAR IN EMERGENCY PATIENTS WITH STRANGULATED INCISIONAL AND PARA-STOMAL HERNIA

Author(s): Mr I Tzvetkov, Miss D Banerjee, Mr D Hadzhiyski, Miss A Asour, Dr R Khan

Institution: Dartford and Gravesham NHS Trust, Dartford, United Kingdom

Aims: To reveal one year experience with laparoscopic management of emergency patients with strangulated incisional or para-stomal hernia. Age of patients and co-morbidity were assessed with NELA score and suitability for laparoscopic surgery. Criteria for selection was also BMI of over 35.0 for laparoscopic approach.

Methods: A retrospective one-year study, reviewing patients with laparoscopic management of strangulated incisional/ para-stomal hernia, proven on CT scan and admitted to Surgical Department in emergency. Patients, who had a bowel resection due to ischemic or necrotic bowel and conversion from laparoscopic to open procedure, were excluded from the study.

Results: In 17 patients laparoscopic eTEP Stoppa with eTAR repair of strangulated incisional or para-stomal hernia was performed. In 3 cases laparoscopic approach was combined with excision of skin and subcutaneous fat around stoma. Follow up 3 to 9 months after surgery did not show recurrence of incisional or para-stomal hernia.

Conclusion: Laparoscopic management of selected patients, presented in emergency with strangulated incisional or para-stomal hernia is safe and effective in terms of recovery of patients and avoiding further complications with age, wound infection and prolonged stay in Hospital. The technique has his advantages in patients with BMI over 35.0.

Key statement: Laparoscopic management of strangulated incisional and para-stomal hernia is safe and effective technique in experienced hands.