DKS 2025: Abstract 5

Emergency Surgery: Digital Patient Information

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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 1: Emergency Surgery

Background: Research has shown that patients undergoing emergency surgery are having problems with retaining information concerning their condition during and after their hospital stay, thus leaving them with problems following guidelines during their peri- and postoperative period (https://doi.org/10.18261/issn.1903-2285-2017-04-06). They do not remember information given to them during hospital stay, and thereby lessens their compliance towards the established protocols, e.g. ERAS-programs and postoperative expectations towards e.g. physical activity and nutrition. We present a digital information app for patients undergoing emergency surgery.
Method: An app was developed for smartphones containing a variety of information and guidance for patients receiving operative treatment for emergency conditions. The information comprised of small texts and video-sequences relevant for the condition treated
Results: The app has been made available to patients during their final part of in-hospital stay and after discharge. We monitor the patient's activation of information. Our preliminary results show that some patients do use the app thus providing a better understanding of their condition
Conclusion: We expect the use of the app to by patients to minimize the re-admittance frequency and to alleviate the stress and strain associated with emergency surgery. An evaluation of user data is currently underway

General
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DKS 2025: Abstract 9

Well-being, Mental Health, and Work Contentment Among Junior Doctors in Abdominal Surgical Departments in Denmark

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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 1: Emergency Surgery

Background:
In recent years, the mental health and well-being of junior doctors (JD) in Denmark have received growing attention. Studies from other specialties have highlighted concerns about stress, burnout, and workplace challenges. A survey by Yngre Læger showed that 60% of doctors in surgical specialties experienced degrees of work-related stress. We aimed to assess well-being, mental health and job contentment among JD in abdominal surgery (AS) across Denmark.

Method:
A nationwide electronic survey was distributed to JD in AS, examining stress, work-life balance, institutional support and job satisfaction, including perceptions of discrimination. So far, 137 out of an estimated 430 JD have responded.

Results:
Preliminary findings show that 63.1% report a high-paced work environment and 56.9% feel their workload is heavy. Burnout is reported by 37.6%, while 29.7% report stress. Differential treatment is reported by 11.6%, and 29.2% feel a disconnect with the workload and time allotted for the work. This is seen primarily among women, part-time staff, those returning from sick leave, and international JD. Despite these issues, 76.7% are content with their job, and 47.1% would recommend it to others.

Conclusion: Overall, well-being and job satisfaction among JD in AS appear positive, though increased support or focus for select groups of JD's is recommended.

General
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DKS 2025: Abstract 11

Imaging first: Reducing invasive procedures in the diagnosis of acute appendicitis

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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 1: Emergency Surgery

Background: Acute appendicitis is a common surgical emergency, but accurate diagnosis remains challenging. At our institution, imaging is not routinely included in the diagnostic workup; diagnosis traditionally relies on clinical assessment and blood tests. Imaging is used at the surgeon's discretion in unclear cases, especially for older patients. We hypothesized that this approach leads to a high rate of negative surgeries and investigated the effect of imaging on the negative appendectomy rate (NAR).
Method: We conducted a single-centre retrospective cohort study of adults (age >18) undergoing surgery for suspected appendicitis at Aarhus University Hospital (Jan 2021–Dec 2023). Data were extracted from electronic medical records and analysed using Stata Statistical Software.
Results: Of 613 patients operated for suspected appendicitis, 522 had histologically confirmed appendicitis, yielding an overall NAR of 14.9%. Among 279 patients (45.5%) without preoperative imaging, 211 (75.6%) had confirmed appendicitis, with a NAR of 24.4%. For the 334 patients (54.5%) who underwent preoperative CT or ultrasound, the NAR was 6.9%.
Conclusion:
We found that 24.4% of adults who underwent surgery for suspected acute appendicitis without preoperative imaging ended up having a negative laparoscopy, wasting surgical time, staff resources and potentially exposing patients to risks. Adding imaging to the diagnostic work-up significantly reduces the negative appendectomy rate.

General
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Do you want to apply for the British Journal of Surgery Prize?: Yes

DKS 2025: Abstract 12

Self-Harming Patients: Behavior in hospitalization over time

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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 1: Emergency Surgery

Background: According to a 2019 report by the Danish Mental Health Foundation, 1.6% of the Danish population is diagnosed with borderline personality disorder. A small subgroup of these patients engages in episodic self-harming behaviors.

In gastrointestinal surgical departments, self-harm most frequently involves ingestion of foreign bodies. Treatment typically involves endoscopic retrieval from the esophagus or stomach, as well as management of injuries caused by migration into the small or large intestine. In each case, clinicians must balance the risks associated with repeated anesthesia, endoscopy, and surgery against the potential harm of a conservative approach if the object is left to pass spontaneously.
The aim of this study was to assess and describe the extent and nature of hospital admissions and somatic treatment for patients presenting with self-harm, in order to support the development of a more unified treatment strategy.
Method: A retrospective cohort study of patients admitted to the Department of Gastrointestinal Surgery during a 5-year period from 2019 to 2024. Inclusion criteria were endoscopic removal of non-accidentally swallowed foreign objects and any ICD-10 psychiatric diagnosis during the follow up period.
Data were extracted from the electronic patient record system and number of admissions over time.
Results: 9 patients met the inclusion criteria. These were all women, with a mean age of 22.7 years at the time of first admission.
During the study period, a total of 859 somatic admissions were recorded yielding an average of 95 admissions per patient over five years. Data indicated 2 seasonal peaks, one in August and one in December/January.
418 (49%) admissions were concluded in the emergency department and 370 (43%) patients were referred to surgery for further treatment. The remaining 71 (7%) were treated by other specialties.
After a multidisciplinary decision regarding the individual patient to refrain from endoscopic treatment, data indicate 25% fewer somatic hospital admissions without any rise in serious or fatal outcomes.
Conclusion: This study highlights the significant burden self-harming patients impose on the somatic healthcare system.
Furthermore, we see an overall decrease in hospitalization after multidisciplinary decisions following the first month.
There is currently no national or regional guidelines for treatment and management of self-harming patients.

General
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3. I confirm that I submit this abstract on behalf of all authors.: Yes
Do you want to apply for the British Journal of Surgery Prize?: Yes

DKS 2025: Abstract 15

Laparoscopic vs. open surgery for adhesive small bowel obstruction: A comparative analysis of postoperative complications and mortality

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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 1: Emergency Surgery

Background: Adhesive small bowel obstruction (ASBO) is a common cause of acute surgical admissions with high morbidity and mortality. The optimal surgical approach remains debated. This study compares postoperative complications and mortality in laparoscopic versus open surgery for ASBO.
Method: Data from 138 patients treated for ASBO at North Denmark Regional Hospital (2020–2025) were retrospectively reviewed. Data included demographics, perioperative findings, postoperative complications, and mortality.
Results: Of 138 patients, 102 underwent laparoscopic surgery and 36 open surgery; 41 laparoscopic cases were converted to open (40.2%). Laparoscopic surgery was associated with significantly fewer complications (Clavien-Dindo, p=0.0011) and bowel injuries (21.6% vs. 50%, p=0.001). Thirty-day mortality was lower in the laparoscopic group (4.9% vs. 11.1%) but not statistically significant (p=0.240).
Conclusion: Laparoscopic surgery for ASBO is associated with fewer complications and bowel injuries, with no significant difference in thirty-day mortality compared to open surgery.

General
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Do you want to apply for the British Journal of Surgery Prize?: Yes

DKS 2025: Abstract 25

Laparoscopy vs. Laparotomy for the Diagnosis and Treatment of Acute Mesenteric Ischemia: A Systematic Review

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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 1: Emergency Surgery

Background: Acute mesenteric ischemia (AMI) is a rare but life-threatening condition with mortality exceeding 50%. Early diagnosis and timely intervention are essential, yet AMI remains difficult to diagnose, often requiring surgical exploration. Laparotomy is traditionally recommended due to concern that laparoscopy may miss ischemia. This systematic review evaluated the diagnostic accuracy, benefits, and harms of laparoscopy compared with laparotomy in patients with suspected AMI.
Method: A systematic search in CENTRAL, EMBASE, MEDLINE, the WHO International Clinical Trials Registry Platform, and ClinicalTrials.gov identified studies of adult patients undergoing laparoscopy for suspected AMI. Primary outcome was diagnostic accuracy of laparoscopy in detecting AMI. Secondary outcomes were mortality, quality of life, and surgical complications. Risk of bias was assessed with the Newcastle-Ottawa Scale, and the overall quality of evidence was evaluated using GRADEpro.
Results: Of 2,851 studies, 10 were assessed in full text, and 4 studies met the inclusion criteria. No study directly compared laparoscopy with laparotomy. One reported diagnostic laparoscopy sensitivity 100%, specificity 88.9%, positive predictive value 75%, and negative predictive value 100%. Another compared laparotomy with thrombectomy, laparoscopy plus endovascular therapy, and endovascular therapy alone, but did not report outcomes separately for each group.
One study found shorter admission-to-laparoscopy time improved survival and revascularization rates. Mortality was reported in three studies but varied widely; laparoscopy-specific data were scarce.
All studies had high risk of bias; overall evidence quality was very low due to risk of bias, inconsistency, and imprecision.
Conclusion: Diagnostic laparoscopy may be a safe and reliable tool for the diagnosis of AMI. No evidence suggests that laparotomy is superior to laparoscopy. However, this systematic search revealed a substantial lack of evidence, particularly considering the clinical importance of the topic in daily practice.
The few available studies are characterized by a high risk of bias and very low quality of evidence. Therefore, well-designed, high-quality studies with large patient populations comparing laparoscopy versus laparotomy are needed to provide firm data.

General
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Do you want to apply for the British Journal of Surgery Prize?: Yes

DKS 2025: Abstract 32

Intraoperative Severity Assessment in Acute Appendicitis – Do Surgeons Agree?

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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 1: Emergency Surgery

Background: Acute appendicitis (AA) is among the most common causes of acute abdominal pain requiring hospitalization. During the laparoscopic procedure the surgeon evaluate and categorize the clinical presentation of the appendix as either normal, phlegmonous, gangrenous, or perforated with or without an abscess. The outcome of the surgeon's assessment has important therapeutic implications in relation to antibiotic treatment strategy and length of hospitalization. There are no know objective golden standard for the classification and thus the assessment will be largely subjective leading to a risk of bias between surgeons. The aim of the study was to investigate the interobserver variability among surgeons in clinical evaluation and diagnostic classification of AA.
Method: Surgeons and surgical trainees were shown video recordings of laparoscopic appendectomies representing 30 different patients all suspected of AA. Each surgeon was asked anonymously to classify the appendices in accordance to the diagnostic category and whether they would prescribe postoperative antibiotics. Inter-rater reliability was evaluated using Fleiss' **κ** score for the dichotomous outcomes and percentage was used for the multivariable outcomes.
Results: This study includes data from 89 surgeons at different experience levels working at five different Danish hospitals. Interobserver agreement was moderate for both distinguishing a normal appendix from appendicitis (**κ** score 0.72, 95% CI 0.61 to 0.85) and the differentiation between simple and complex appendicitis (**κ** score 0.66, 95% CI 0.52 to 0.80). The agreement for postoperative antibiotics was high with 95% agreement for phlegmonous appendicitis, 85% for gangrenous appendicitis and 99,6% for perforated appendicitis.
Conclusion: There is moderate to high agreement in the interobserver agreement among surgeons regarding the classification of AA and the decision to prescribe postoperative antibiotics.

General
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Do you want to apply for the British Journal of Surgery Prize?: Yes

DKS 2025: Abstract 38

Preoperative Inflammation, Measured by CRP/Albumin Ratio, is Associated with an Increased Risk of Postoperative Complications Following Major Abdominal Emergency Surgery

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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 1: Emergency Surgery

Background: Major abdominal emergency surgery is performed in approximately 5,000 critically ill Danish patients annually, most often for bowel perforation, obstruction, ischemia, or severe bleeding. Despite standardized bundle-of-care protocols, postoperative morbidity and mortality remain high. This study examined whether preoperative inflammation, measured by the C-reactive protein to albumin (CRP/albumin) ratio, is associated with postoperative complications, assessed using the Comprehensive Complication Index (CCI).
Method: This cohort study included consecutive patients undergoing major emergency abdominal surgery for bowel obstruction, perforation, or ischemia between January 1, 2021, and December 31, 2024. Preoperative blood samples and postoperative complications until discharge were recorded, and the CCI was calculated for each patient. Associations between the CRP/albumin ratio and CCI were analyzed using ordinal logistic regression, adjusted for sex, age, smoking status, alcohol consumption, body mass index (BMI), performance status, presence of fecal peritonitis, and surgical method.
Results: A total of 1,188 patients were included (mean age 72 years; 54% women). Nine percent had a performance status ≥3, 20% were active smokers, median CRP/albumin ratio was 1.0 (IQR 4), 67% presented with bowel obstruction, and 79% underwent laparotomy (primary or converted). Only 25% had no postoperative complications, 19% had a CCI >42.4 (Clavien–Dindo ≥IIIb), and in-hospital mortality was 11%. Each 1-unit increase in CRP/albumin was associated with higher complication risk (OR 1.12, 95% CI: 1.09–1.16). Other independent risk factors included performance status (PS 1: OR 2.66; PS 2: OR 3.57; PS 3: OR 4.09; PS 4: OR 8.61), fecal peritonitis (OR 2.98), active smoking (OR 1.29), high alcohol intake >14 units/week (OR 1.81), laparotomy (OR 3.12), and conversion to laparotomy (OR 2.59).
Conclusion: The preoperative CRP/albumin ratio was independently associated with postoperative complications after major emergency abdominal surgery. High performance status, active smoking, fecal peritonitis, and laparotomy were also linked to severe complications. These findings support the potential role of CRP/albumin and identified clinical factors in preoperative risk stratification and perioperative management.

General
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Do you want to apply for the British Journal of Surgery Prize?: Yes

DKS 2025: Abstract 55

Socioeconomic position affects health care utilization and mortality following emergency laparotomy

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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 1: Emergency Surgery

Background: Emergency laparotomy is associated with high postoperative mortality and morbidity, and socially vulnerable individuals are at increased risk of requiring the procedure. Socioeconomic inequalities in health care are well recognised, yet disparities in surgical outcomes are less well studied. This study examined whether socioeconomic position and sex influence recovery after emergency laparotomy within a universal healthcare system providing free access to care.
Method: A nationwide study was conducted including all patients undergoing emergency laparotomy for gastrointestinal diseases between 2002 and 2022. Recovery indicators were days alive and out of hospital within 90 days, unplanned readmission at 30 and 90 day following discharge, and mortality at 30 and 90 following surgery. Socioeconomic position indicators were educational level (long, medium, short), urbanicity (city, town, rural) and cohabitation status (cohabiting, living alone). Multi-adjusted regression models were applied to assess associations between the socioeconomic position indicators and all outcomes, both in the total population and stratified by sex.
Results: A total of 42,619 patients undergoing emergency laparotomy were included. Lower educational level and living alone were consistently associated with fewer days alive and out of hospital (−6 to −1 days). Risk of unplanned readmission was higher for patients with lower education and those living alone; however, for education, the association remained significant only in females (30-day HR 1.17, 95% CI 1.06–1.30; 90-day HR 1.21, 95% CI 1.11–1.32). Mortality risk was also elevated for patients with lower education and those living alone, with the highest early mortality observed in males living alone (30-day HR 1.30, 95% CI 1.22–1.39). Rural residence was not associated with differences in days alive and out of hospital or mortality, but was linked to lower healthcare utilization (30-day HR 0.82, 95% CI 0.78–0.87; 90-day HR 0.86, 95% CI 0.82–0.90), with no sex differences observed.
Conclusion: Recovery after emergency laparotomy is not equal; socially vulnerable patients, especially those with low education or living alone, face slower recovery, higher readmission rates, and greater mortality, with distinct risks for men and women. Rural living limits healthcare use but doesn't change survival. Targeted, proactive follow-up for these high-risk groups could close the gap and turn vulnerability into resilience after surgery.

General
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Do you want to apply for the British Journal of Surgery Prize?: Yes

DKS 2025: Abstract 56

Enhancing Surgical Laparoscopic Skills via Postoperative Video Review

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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 1: Emergency Surgery

Background:
Traditional surgical training relies on hands-on demonstration and practical experience. Postoperative video review offers additional learning opportunities, but its use is limited by surgeons' time constraints, highlighting the need for efficient navigation and retrieval of relevant video segments.

Method:
We collected and manually annotated de-identified laparoscopic cholecystectomy videos from multiple institutions. The data was used to train computer vision-based models to identify five surgical steps and three common errors (bleeding, bile spillage, and thermal injury). The model was subsequently integrated into an online training platform.

Results: Six hundred eighty-three videos were collected and labelled. The model achieved an average framewise accuracy of 88%, with 83% precision and 87% recall for surgical step recognition. For error detection, instance-level recall was 56% for bleeding, 39% for bile spillage, and 31% for thermal injury. Excluding datasets from training led to only a modest decline in model performance.
Conclusion:
We developed a computer-vision system for efficient retrieval of key steps and errors in laparoscopic cholecystectomy. Furthermore, models were shown to have practical applications by generalizing to unseen data sources. Integrated into the online platform, this tool facilitates postoperative video review, allowing trainees to quickly navigate key segments and thereby accelerate surgical training.

General
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Do you want to apply for the British Journal of Surgery Prize?: Yes

DKS 2025: Abstract 60

Incidence and Risk Factors of Postoperative Pulmonary Complications After Major Emergency Abdominal Surgery: An Observational Study

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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 1: Emergency Surgery

Background: While substantial improvements have been made in surgical patient care, postoperative pulmonary complications (PPCs) following emergency abdominal surgery continue to be common and are associated with significantly increased morbidity, mortality, and healthcare costs. Previous literature has primarily focused on the incidence and risk factors of PPCs in elective surgical populations, with limited evidence available for emergency surgery patients. This study aims to evaluate the incidence of PPCs and identify associated risk factors following major emergency abdominal surgery.
Method: This single-center observational study enrolled patients who underwent major emergency abdominal surgery between January 1, 2021, and December 31, 2023, with data collected on preoperative, intraoperative and postoperative variables. The primary objective was to identify perioperative risk factors associated with PPCs and to determine their incidence. Secondary objectives included assessing 30-day mortality and in-hospital mortality rates following PPCs. The same analyses were performed on a subgroup of patients with ‘severe’ PPCs.
Results: A total of 1,080 patients were included in the study. Of these, 433 (40.1%) experienced at least one PPC and 157 (14.5%) had at least one ‘severe’ PPC. Multivariable logistic regression identified several risk factors associated with the development of PPCs, including an increased ARISCAT score, history of pulmonary disease, hypertension, history of cerebral disease, increased Clinical Frailty Scale, preoperative intensive care unit admission, CDC grade IV contaminated wounds, intraoperative findings of perforated stomach or duodenal ulcer, need for subsequent reoperations, and protracted postoperative ileus. The 30-day mortality rate was 20.9% for patients with PPCs and 46.8% for those with 'severe' PPCs, respectively.
Conclusion: Several independent risk factors, beyond those already established, were associated with an increased risk of PPCs. The occurrence of PPCs was strongly associated with higher mortality rates, especially among patients with 'severe' PPCs.

General
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Do you want to apply for the British Journal of Surgery Prize?: No

DKS 2025: Abstract 62

Comparative Impact and Feasibility of Epidural Analgesia on Postoperative Complications in Emergency Laparotomy

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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 1: Emergency Surgery

Background: Postoperative pain is common and often under-managed in surgical care, especially after emergency laparotomy. Epidural analgesia is considered an effective method for pain management after elective laparotomy, however its feasibility, effect and clinical impact in emergency settings remain under investigated.
Method: This single-center cohort study analyzed data from patients undergoing emergency laparotomy for acute high-risk abdominal surgery (AHA) between 2021 and 2023 at Copenhagen University Hospital Herlev, stratified by the use of epidural analgesia. The primary outcome was the rate of postoperative pulmonary complications and 30-day mortality. Secondary outcomes included recovery metrics and feasibility parameters. A post hoc power analysis was performed to detect clinically meaningful differences.
Results: Among 687 adults undergoing major emergency laparotomy, epidural analgesia was successfully implemented in 456 patients (66% feasibility rate). Patients receiving epidural had longer surgical incisions and more extensive surgical procedures, while non-epidural patients were older with more comorbidities. Dose-response analysis revealed an optimal epidural duration of 48-72 hours. After adjustment for confounders, epidural analgesia was not associated with reduced mortality (OR 0.82, 95% CI: 0.45–1.48, p 0.52) or pulmonary complications (OR 1.37, 95% CI: 0.82–2.27, p 0.21). However, epidural use was associated with faster bowel function recovery (2.2 vs. 3.0 days, p=0.004) and fewer ICU admissions (19.5% vs. 27%, p=0.052). Post-hoc analysis indicated the study was underpowered (18-21% power) for detecting clinically meaningful 20% reductions in major complications.
Conclusion: Epidural analgesia was feasible in emergency laparotomy (66% implementation rate) with an optimal duration of 48-72 hours. While adjusted analyses revealed no reduction in major complications, and the study was underpowered for clinically meaningful differences, unadjusted sensitivity analysis suggested potential benefits of recovery. These feasibility data provide valuable guidance for clinical implementation and future adequately powered trials.

General
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3. I confirm that I submit this abstract on behalf of all authors.: Yes
Do you want to apply for the British Journal of Surgery Prize?: Yes

DKS 2025: Abstract 72

Traumatic diaphragmatic injuries in blunt and penetrating trauma in a European Trauma Centre.

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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 1: Emergency Surgery

Background: Traumatic diaphragmatic injuries are rare but are associated with a high risk of morbidity of mortality. The mortality occurs primarily due to concomitant injuries. Diaphragmatic injuries are typically difficult to diagnose, and CT scans have a low sensitivity. We report the occurrence, etiology, diagnosis, management and outcome of penetrating and blunt traumatic diaphragmatic injuries in a European Trauma Setting.
Method: We performed a retrospective study of patients with a traumatic diaphragmatic injury who underwent surgery. Data were extracted for a 5-year period from January 1, 2019 to December 31, 2023. Collected data included patient demographics, in-hospital data such as radiological procedures, surgical findings and interventions performed and postoperative outcomes with mortality, complication including reoperation, and length of stay
Results: A total of 39 patients were included with a median age of 38[22-55] years and 87% were male. Trauma mechanism was penetrating in 74% and blunt in 26% of all patients. Extra-abdominal injury occurred in 59% of all patients. Median Injury Severity Score (ISS) was 19[14-31] for the whole group, but ISS was significantly higher in patients with blunt trauma. A CT was performed in 90% of all patients, and the diaphragmatic injury was detected on CT in only 60%. Mean number of blood transfusions was 5.8±10.8, Length of stay in intensive care was 5.1±11.9 days, and length of hospital stay was 25.4±65 days. Complications occurred more often in the blunt trauma group, and 40% of patients in the blunt trauma group died, compared to none in the penetrating trauma group. We found no specific association between the diaphragmatic injury (itself) and complications or mortality.
Conclusion: Diagnosis of traumatic diaphragmatic injuries is difficult, and the injury was only detected in 60% of the patients on CT. Mortality in patients with traumatic diaphragm injuries is still high. In the present study, mortality was exclusively seen in patients with blunt trauma, and mortality was highly associated with concomitant head injury.
Prospective studies are needed to investigate patient-reported outcomes, possible long-term sequelae, and post-traumatic pulmonary function and quality of life.

General
1. I confirm that the abstract is complete and that all information provided is correct.: Yes
2. I confirm that the abstract submission constitutes consent to publication.: Yes
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Do you want to apply for the British Journal of Surgery Prize?: Yes

DKS 2025: Abstract 81

Point-of-care ultrasound in the surgical specialty – a Danish national survey

C. Huang[1], O. Wedel Fischer[2], K. Brage[3], L. Joy Nayahangan[4], T. Todsen[5], L. Konge[4], A. Hjelm Brandt[1], P. Thielsen[6], A. Werner Nærum[6], J. Burcharth[6], U.F. Helgstrand[2], C. Pallson Nolsøe[2]
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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 1: Emergency Surgery

Background: In recent decades, ultrasound (US) has increasingly been used by clinicians as an extension of the physical examination. Point-of-care ultrasound (POCUS) can now be performed at the bedside, reducing the need to refer patients to the radiology department. POCUS is a fast and powerful tool for both diagnosis and guiding interventional procedures, and is widely used across various medical and surgical specialties. However, ultrasound remains a highly operator-dependent imaging modality, requiring both technical and interpretive skills. The rapid and broad adoption of POCUS by surgeons highlights the need for proper training to ensure that operators acquire the necessary competencies. To ensure a high standard of POCUS proficiency, it is important to introduce standardized POCUS training within surgical specialist registrar programs. The aim of this study is to conduct a national survey among Danish surgeons to assess the need for and acceptance of POCUS. Specifically, the study aims to: Identify which POCUS skills a surgeon is expected to perform independently upon completion of specialist registrar training. Determine how frequently these ultrasound examinations are performed in clinical practice. Understand how training and assessment of these examinations are currently being conducted.

Method:
A Delphi method was used to gather information and achieve consensus on the most important POCUS skills for surgeons, the frequency of POCUS use in clinical practice, and the current state of POCUS training and education. The Delphi process is an anonymous, iterative questionnaire-based survey designed to reach agreement among a selected panel of experts on a specific topic. This project is a collaboration between experts in radiology, surgery, and medical postgraduate education centres.

Results: The data collection process is ongoing, and we have obtained a moderate response rate to the questionnaires, with responses representing surgical departments nationwide. Among the preliminary findings, the use of ultrasound for diagnosing acute cholecystitis and detecting free fluid are the most frequently mentioned POCUS skills.
Conclusion:

We conducted a Danish national survey among surgeons to explore the need for and use of POCUS in clinical practice. Preliminary, we have received a moderate response rate, with responses representing surgical departments nationwide, suggesting that the diagnosis of acute cholecystitis and detecting free fluid are considered most important POCUS skills for surgeons.

General
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3. I confirm that I submit this abstract on behalf of all authors.: Yes
Do you want to apply for the British Journal of Surgery Prize?: Yes

DKS 2025: Abstract 93

Free Reins in Timing for Acute Cholecystectomy: A Retrospective Quality Assurance Project

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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 1: Emergency Surgery

Background: Gallstone-related diseases are common in Denmark, with acute cholecystitis being a painful presentation. Historically, cholecystectomy was performed within five days of symptom onset. In 2022, national guidelines removed this limit due to evidence suggesting similar outcomes between early and delayed surgery. We aim to assess the impact of an extended surgical window on frequency of acute cholecystitis operations, complication rates, and patient outcomes.
Method: All cholecystectomies performed between June 1, 2022, and May 31, 2023. Patients with gallstone pancreatitis, biliary colic, or choledocholithiasis were excluded.
Results: Of 180 patients identified, 128 met criteria. Thirty-nine patients had >5 days of symptoms at time of surgery. No significant differences were observed in operative duration, hospital stay, reoperation, conversion to open surgery, or mortality. However, complications graded Clavien-Dindo $\geq$1 were more frequent in the > 5-day group (28.2% vs. 10.1%, p=0.009). Multivariate analysis showed that long symptom duration and older age were associated with increased risk (p<0.05).
Conclusion: Extended symptom duration before surgery was associated with a higher rate of postoperative complications. Larger, multicenter studies are needed to confirm these findings and guide clinical decisions.

General
1. I confirm that the abstract is complete and that all information provided is correct.: Yes
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Do you want to apply for the British Journal of Surgery Prize?: No

DKS 2025: Abstract 97

How should non-operative management for blunt splenic trauma after initial treatment and diagnosis be structured? A scoping review

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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 1: Emergency Surgery

Background: The standard treatment for blunt splenic injury in hemodynamically stable patients is non-operative management. However, significant variation exists across institutions regarding the specific components of non-operative management. This systemic review aims to summarize current institutional guidelines for non-operative management of blunt splenic injuries in hemodynamically stable patients.
Method: A comprehensive literature search was conducted in Embase and PubMed. The initial search yielded 3805 articles of which 492 were duplicates. Two independent reviewers screened titles and abstracts, excluding 3134 studies. The remaining articles were assessed in full-text, and 20 studies met the inclusion criteria.
Results: The included studies revealed substantial heterogeneity in all evaluated parameters of non-operative management. Differences were observed in frequency and thresholds for haemoglobin measurements, timing and criteria for mobilization, indications for thromboprophylaxis and antibiotic use, and guidance on return to activity. Many recommendations lacked robust evidence and appeared to be based primarily on institutional tradition rather than standardized, evidence-based guidelines. Based on the evidence reviewed, a preliminary guideline is proposed to support the standardization of non-operative management.
Conclusion: While there is general consensus supporting non-operative management in stable patients with blunt splenic injury, significant variation remains in the implementation of specific protocols. This review highlights the need for high-quality, randomized controlled trials to support the development of standardized, evidence-based guidelines for the comprehensive management of these patients.

General
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3. I confirm that I submit this abstract on behalf of all authors.: Yes
Do you want to apply for the British Journal of Surgery Prize?: No

DKS 2025: Abstract 99

Intraperitoneal treatment with fosfomycin, metronidazole, and recombinant human granulocyte-macrophage colony-stimulating factor in patients with multi-quadrant peritonitis undergoing abdominal surgery: A randomized placebo-controlled trial (TRIPLE)

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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 1: Emergency Surgery

Background: GM-CSF is a cytokine and growth factor with potent immunostimulatory effects. GM CSF is produced by a variety of cells and enhances host defense by promoting survival, proliferation, differentiation, and activation of various immune cells. Trials have indicated that long-lasting monocyte deactivation in sepsis may be reversed by application of immunostimulants such as GM-CSF. Although GM-CSF appears to have a systemic role, there are studies that implicate the role of GM-CSF as a predominantly local effector. Fosfomycin and metronidazole are two antibiotics targeting aerobic and anaerobic bacteria, respectively. Combining the three medications and installing them intra-abdominally in patients with secondary peritonitis may optimize the treatment of this patient group.
Method: This is a double-arm, randomized, placebo-controlled, non-blinded clinical trial in a standardized setting at Zealand University Hospital and Slagelse Hospital. The trial consists of two arms; one intervention group and a placebo group. The trial will include patients who are suffering from secondary peritonitis due to a perforation of the large intestine, defined in the current study as septic involvement of ≥ 2 quadrants and undergoing surgery. As the study is an open-label trial, no allocation concealment or blinding will take place. The randomization list will be made before the initiation of the trial using a dedicated software. The trial treatment in this arm consists of 300 mL sterile water (“Fresius Kabi”), 50 µg rhGM-CSF, 4000 mg fosfomycin (InfectoFos, “InfectoPharm”) and 500 mg metronidazole (Metronidazole, “Baxter” Viaflo) resulting in a 400,2 mL solution being installed intraperitoneally just before abdominal wall closure. Furthermore, a microdialysis catheter (CMA 61, “M Dialysis AB”) will be placed at the end of surgery for post operative sampling of dialysate from the peritoneal cavity. Primary translational outcome will be cytokine levels in peritoneal dialysate (IL-6) . Primary clinical outcome will be patient-reported outcome measure to assess recovery after surgery (QoR-15).
Results: The study received final approval from the Danish Medicines Agency and Ethics Committee on August 2025. Enrolment of the first study participant is expected in September/October 2025
Conclusion: The study received final approval from the Danish Medicines Agency and Ethics Committee on August 2025. Enrolment of the first study participant is expected in September/October 2025

General
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3. I confirm that I submit this abstract on behalf of all authors.: Yes
Do you want to apply for the British Journal of Surgery Prize?: No

DKS 2025: Abstract 107

Preoperative NT-proBNP as a Predictor of Risk in AHA Surgery

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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 1: Emergency Surgery

Background: Accurate perioperative risk assessment is critical for patients undergoing AHA surgery due to the high-risk nature of both the procedure and the underlying disease. N-terminal pro–B-type natriuretic peptide (NT-proBNP) has demonstrated prognostic value in various clinical settings. This study aims to evaluate the predictive value of preoperative NT-proBNP levels in patients undergoing AHA surgery to determine their utility in guiding individualized perioperative management.
Method: A prospective single-centre cohort study included patients who underwent AHA surgery at Copenhagen University Hospital—North Zealand between March 2021 and May 2023. Preoperative NT-proBNP levels were recorded and correlated with 30-day mortality and major adverse cardiac events (MACE). Predictive performance was assessed using logistic regression and receiver operating characteristic (ROC) curve analyses and compared with established perioperative scores. A cut-off corresponding to a predicted mortality risk of >10% was selected, and the sensitivity and specificity at this threshold were calculated; other predictors were evaluated at matched specificity.
Results: A total of 127 patients were included in the study; the 30-day mortality rate was 7.1%, and the incidence of MACE was 18.9%. The NT-proBNP AUC-ROC (0.844) was superior to the Surgical Apgar Score (SAS) (0.805; p=0.7), although this was not statistically significant, and to the Revised Cardiac Risk Index (RCRI) (0.556; p<0.001). Combining NT-proBNP with SAS demonstrated improved predictive performance, outperforming both parameters individually.
Conclusion: The integration of preoperative NT-proBNP measurement, particularly when combined with the Surgical Apgar Score (SAS), significantly improves risk stratification for patients undergoing AHA surgery and can guide perioperative management.

General
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3. I confirm that I submit this abstract on behalf of all authors.: Yes
Do you want to apply for the British Journal of Surgery Prize?: Yes

DKS 2025: Abstract 108

Klinisk praksis i Danmark ved sten i dybe galdeveje i forbindelse med kolecystektomi – en national spørgeskemaundersøgelse

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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: No
Topic: 1: Emergency Surgery

Background: Den nationale kliniske retningslinje for symptomatisk galdestenssygdom (2022) anbefaler laparoskopisk eller endoskopisk stenfjernelse med laparoskopisk kolecystektomi som ét-trins procedureved sten i dybe galdeveje. Den faktiske kliniske praksis i Danmark er ikke tidligere undersøgt.
Formålet er at kortlægge de foretrukne behandlingsmodaliteter i Danmark, ved sten i dybe galdeveje, i forbindelse med kolecystektomi.
Method: Tværsnitsundersøgelse i form af spørgeskemaundersøgelse via REDCap, udsendt til 19 hospitalsafdelinger i sommeren 2025. Spørgsmålene omfattede antallet af procedurer, adgang til diagnostik, lokale instrukser samt behandlingsmodaliteter. Data præsenteres som median [IQR] eller antal (%).
Results:
13/19 (68%) afdelinger svarede på undersøgelsen. 12/13 afdelinger tilbyder mere end én behandlingsmodalitet. ERCP er tilgængelig på 12/13 afdelinger. Laparoskopisk transcystisk stenekstraktion og laparoskopisk choledochotomi udføres på 9/13 afdelinger. Ved præoperativ mistanke om choledochussten, anvender 12/13 afdelinger MRCP som standard.

De primære behandlingsmodaliteter er rendezvous procedure med peroperativ ERCP (5/13), transcystisk stenekstraktion (5/13) samt præoperativ ERCP (2/13). Rendezvous procedure udføres primært vest for Storebælt og transcystisk stenekstraktion primært øst for Storebælt.

Conclusion: Danske kirurgiske afdelinger råder over flere modaliteter til behandling af sten i dybe galdeveje i forbindelse med kolecystektomi. Et-trins procedurer foretrækkes i overensstemmelse med gældende kliniske retningslinje.

General
1. I confirm that the abstract is complete and that all information provided is correct.: Yes
2. I confirm that the abstract submission constitutes consent to publication.: Yes
3. I confirm that I submit this abstract on behalf of all authors.: Yes
Do you want to apply for the British Journal of Surgery Prize?: No

DKS 2025: Abstract 114

Diskrepans mellem Akut Kirurgi Databasen og lokale kvalitetsdatabaser

M. Frandsen[1,2], *T. Garbers*[1], *M. Bay Nielsen*[1], *M. Olausson*[2]
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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: No
Topic: 1: Emergency Surgery

Background: Akut abdominalkirurgi er forbundet med stor postoperativ morbiditet og mortalitet. Standardiseret og hurtig behandling har vist at kunne reducere dette signifikant. Som led i et nationalt projekt med implementering af standardiserede akutkirurgiske forløb er den allerede eksisterende nationale Akut Kirurgi Databasen (AKDB) blevet revideret for at følge opfyldelsen af en række kvalitetsindikatorer inden for disse forløb, samt mortaliteten hos patienterne. Nøjagtige data er afgørende for at vurdere om fornuftige tiltag i patientbehandlingen har den ønskede effekt. Formålet med dette arbejde er at beskrive overlappet mellem AKDB med automatisk datatræk og lokale akutkirurgisk database med manuel gennemgang af patienterne.
Method: Data vedrørende inklusion i databasen, overholdelse af indikatorer og overlevelse blev trukket fra AKDB, begrænset til patienter opereret på Bornholms Hospital og på Sjællands Universitetshospital Køge, samt fra lokale kvalitetssikringssdatabaser fra begge steder. Datatræk i AKDB er baseret på algoritmisk gennemgang af flere nationale registre, mens den manuelle gennemgang i de lokale databaser indebærer en detaljeret analyse af patientens journal. Vi undersøger overlap og diskordans mellem de to datakilders resultater og diskuterer mulige årsager.
Results: Aktuelt er analyseret 266 patientforløb på tværs af begge datakilder. På trods af overordnet god korrelation mellem databaserne, finder vi sparsomt overlap i patienter inkluderet i begge datakilder (52.3% af patienter fandtes i begge datakilder). Herudover diskrepans i antal der opfylder indikatormål i AKDB sammenholdt med den manuelt indtastede database (Antibiotika < 3t = 42.1% vs. 63.9%, Operation < 6t = 28.0% vs. 49.3%). For forløb der finder i begge datakilder, er der betydelig diskrepans i hvorvidt en indikator er angivet som overholdt (CT < 2t = 27.3% af forløb er diskrepante). Af disse diskrepante forløb er der signifikant flere angivelse af ikke-overholdt indikatorer i AKDB ($p < 0.05$).
Conclusion: Dette er det første studie, der vurder validiteten af AKDBs automatiske datatræk imod manuelt indsamlet data. Der er potentielt betydende diskrepans i både datagrundlag og resultater. Forklaringer kan muligvis findes i inklusionskriterier og hvordan registrering af tidspunkter for opfyldte indikatorer defineres. Arbejdet er pågående, og stærkere konklusioner forventes senere.

General
1. I confirm that the abstract is complete and that all information provided is correct.: Yes
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3. I confirm that I submit this abstract on behalf of all authors.: Yes
Do you want to apply for the British Journal of Surgery Prize?: No

DKS 2025: Abstract 117

Has the Transition from Open Surgery to Laparoscopy Changed the Strategy for Intraoperative Biopsy in Surgery for Perforated Ulcer?

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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 1: Emergency Surgery

Background: Perforation is a recognized complication of peptic ulcer disease. It has been reported that perforated gastric ulcers are malignant in 10-16% of cases. Previously, it was common practice and recommended that, during surgery for perforated gastric ulcer, biopsies be taken from the ulcer margin to rule out malignancy. With the transition to laparoscopic surgery, and the consequent impracticality of obtaining a larger open biopsy, our impression is that the strategy for gastric ulcers has changed. Instead of performing a direct intraoperative biopsy, there has been a shift towards follow-up gastroscopy with biopsy and assessment of ulcer healing.
Method: Single-center retrospective cohort study of patients undergoing surgery for perforated ulcer at Aarhus University Hospital from 2019 to 2024. Data were obtained from the electronic patient record.
Results: Forty-seven patients, with a mean age of 68.7 years, were included. 25 (53%) were gastric ulcers and 22 (47%) duodenal ulcers. Of the 25 with perforated gastric ulcers, four patients had intraoperative biopsies taken and eight patients had endoscopic follow-up with biopsies. Seven patients died before endoscopic follow-up was performed and six patients had no follow-up.
Conclusion: The transition from open to laparoscopic surgery appears to have influenced biopsy strategies in surgery for perforated gastric ulcers, with a trend towards post-operative endoscopic evaluation.

General
1. I confirm that the abstract is complete and that all information provided is correct.: Yes
2. I confirm that the abstract submission constitutes consent to publication.: Yes
3. I confirm that I submit this abstract on behalf of all authors.: Yes
Do you want to apply for the British Journal of Surgery Prize?: Yes

DKS 2025: Abstract 1

Oncologic First Events in Breast Cancer Patients after Targeted Axillary Dissection

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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: No
Topic: 2: Breast Surgery

Background: Axillary staging with TAD is used today in many centers as an alternative to axillary dissection in patients with lymph node metastases at diagnosis who receive neoadjuvant treatment. This allows patients to benefit from an up to 60% rate of axillary pathological complete response during neoadjuvant treatment. Although the false-negative rate of TAD is low, data on oncological outcomes is sparse and with limited follow-up time only.
Method: Prospective follow-up data on cN1-3 breast cancer patients receiving TAD with ypN0 lymph nodes after neoadjuvant treatment where collected from the Danish Breast Cancer Group Database. Patients received surgery between 2016 and 2021. No patients had completion axillary dissection. Data were left-truncated and analyzed with the cumulative incidence function and competing risk approach and Kaplan-Meier methods. Main outcomes were five-year regional nodal recurrence and overall survival.
Results: Among 283 patients with ypN0 status when staged by TAD, the five-year regional nodal recurrence rate was 1.1% (95% CI 0.30%-2.9%). This corresponded to three regional nodal recurrence events, of which all patients had synchronous distant metastases. The five-year overall survival rate was 95.1% (95% CI 92.4-98.0%).
Conclusion: The low rate of regional nodal recurrence suggests effective long-term regional control with TAD. Furthermore, the overall survival rate in patients receiving TAD with axillary pathological complete response is excellent.

General
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2. I confirm that the abstract submission constitutes consent to publication.: Yes
3. I confirm that I submit this abstract on behalf of all authors.: Yes
Do you want to apply for the British Journal of Surgery Prize?: No

DKS 2025: Abstract 2

Breast Abscess or Something More - The Role of Control Mammograms

M. Quaresma[1], *M. Stampe Rasmussen*[2], *M. Djernes Lautrup*[3]
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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 2: Breast Surgery

Background:
Breast cancer is the most frequent type of cancer in women worldwide, and the most frequent among women in Denmark. According to the current local guidelines in Aarhus University Hospital, a follow-up mammography and ultrasound are recommended three months after healing of uncomplicated breast abscess/mastitis to rule out malignancy. The rationale behind this guideline stands that breast abscesses/mastitis, although often benign, may conceal underlying breast cancer that must be detected. The required follow-up imaging pressures radiology departments already burdened by the national screening program, leading to potential delays and increased costs. This study aims to determine the current incidence rate of breast cancer in the follow-up diagnostic mammography and ultrasound after resolution of uncomplicated breast abscess/mastitis. Later on, we want to determine whether the current guideline for follow-up imaging is justified, or whether it results in unnecessary use of medical resources without significant clinical benefit.

Method:
The study will be conducted as a retrospective cohort study from the Breast Surgery department at Aarhus University Hospital. Data will be extracted and managed from the BI portal: patients from the Department of Breast Surgery from Aarhus University Hospital with diagnosis code for non-puerperal mastitis/breast abscess and follow-up clinical control, within 1,5 months to 5 months after the diagnosis. It will include a 2 year period data from 1st March 2023 to 28th February 2025. Exclusion criteria: patients under 18 years old or with earlier diagnosis of breast cancer. Primary outcome: Incidence of breast cancer in the follow up control of breast abscess/ mastitis. Secondary outcome as other finds (non resolved mastitis/complicated abscess), incidental finding in the other breast/in other areas of the same breast. Regression analysis between comorbidities (variables as smoking and diabetes) and breast cancer incidence.

Results: Data collection is currently ongoing. We expect to include approximately 300 patients. Preliminary descriptive analyses and subgroup assessments will be conducted according to the incidence and regression analysis.
Conclusion: Although final data is pending, this study is expected to clarify the clinical relevance of follow-up imaging after resolution of uncomplicated breast abscess. By evaluating the incidence of underlying breast cancer in this context, the findings may support optimization of current regional follow-up guidelines.

General
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3. I confirm that I submit this abstract on behalf of all authors.: Yes
Do you want to apply for the British Journal of Surgery Prize?: No

DKS 2025: Abstract 13

Effect of neoadjuvant chemotherapy on surgical outcomes in Danish breast cancer patients between 2018-2023

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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 2: Breast Surgery

Background: Breast cancer is the most common cancer among women worldwide. Since 2016, neoadjuvant chemotherapy (NACT) has been used nationwide in Denmark to downsize tumour and downstage the axilla, beyond treatment for locally advanced breast cancer. Although several studies have assessed the impact of NACT on surgical complications after immediate breast reconstruction (IBR), the results remain conflicting. This study investigates the effect of NACT on surgical complications after mastectomy with IBR.
Method: This register-based cohort study includes retrospectively collected data on patients who underwent mastectomy with IBR (either implant/expander and/or autologous tissue) between 23 July 2018 and 26 April 2023. Data on NACT and postoperative complications were obtained from medical records, covering the period from the date of surgery to three months postoperatively.
Results: A total of 459 IBRs were performed in 341 patients. Thirty-six patients (10.6%) received NACT prior to surgery. Compared with the non-NACT group, patients in the NACT group were younger and more often underwent two-stage reconstruction with an expander ($p<0.001$). Surgical complications were observed in 34 cases (10.9%) in the NACT group and in 278 cases (89.1%) in the non-NACT group. After adjusting for confounding factors, no statistically significant differences in complication rates were found between the two groups.
Conclusion: NACT had no significant effect on postoperative outcomes of IBR after mastectomy and appears to be a safe procedure in patients treated with NACT.

General
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3. I confirm that I submit this abstract on behalf of all authors.: Yes
Do you want to apply for the British Journal of Surgery Prize?: Yes

DKS 2025: Abstract 35

The Impact of Drain on Postoperative Seroma and Infection after Mastectomy: A Retrospective Study in Danish Women with Breast Cancer

F.K. Palshof[1,2], *R. Hawaz-ali*[1], *H. Duriaud*[1], *N. Kroman*[1,2], *T. Tvedskov*[1]
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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 2: Breast Surgery

Background: Seroma formation often occurs after breast surgery. To reduce seroma risk, a postoperative drain is commonly used after mastectomy, but evidence of the benefit is unclear.
We evaluated the effect of postoperative drains on seroma formation and infection after mastectomy.
Method: In a retrospective institutional study, we compared breast cancer patients who had mastectomy with or without suction drain. Patients were included for the year 2020. Data was retrieved from original patient files. Odds ratios (OR) and 95% confidence intervals (CI) for seroma and infection risk were calculated using logistic regression. Predictors for these outcomes were also evaluated.
Results: We included 471 women with breast cancer who had mastectomy. The drain group included 279 women and the no-drain group 192. Fewer women had seroma in the drain group, 203 (73%), compared to 163 (85%) in the no-drain group ($p<0.01$). No difference in the total seroma amount or infection was observed between the two groups. The multivariate analysis showed that postoperative drain with local methylprednisolone injection significantly reduced seroma risk (OR: 0.46; 95% CI, 0.26-0.83, $p<0.01$). Drain alone without methylprednisolone did not significantly lower seroma risk compared to no drain (OR: 0.45; 95% CI, 0.19-1.08, p=0.07). In addition, obesity (OR: 2.93; 95% CI, 1.35-6.39, $p<0.01$), smoking (OR: 2.86; 95% CI, 1.28-6.39, $p=0.01$), and surgery in the axilla (OR: 7.70; 95% CI, 2.60-22.80, $p<0.01$) increased the risk of seroma.
Conclusion: Our results should be used to identify patients at high risk of seroma formation, where the use of a postoperative drain in combination with methylprednisolone can possibly reduce the risk.

General
1. I confirm that the abstract is complete and that all information provided is correct.: Yes
2. I confirm that the abstract submission constitutes consent to publication.: Yes
3. I confirm that I submit this abstract on behalf of all authors.: Yes
Do you want to apply for the British Journal of Surgery Prize?: Yes

DKS 2025: Abstract 58

Breast hamartomas and the risk of breast cancer: A nationwide retrospective analysis of 524 cases of hamartoma

L. Pankratjevaite[1], *J. Tastesen Johannessen*[1], *U. Hoyer*[2], *E.I. Specht Stovgaard*[3], *T. Holst Filtenborg Tvedskov*[1], *G. Gede Nervil*[1]
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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 2: Breast Surgery

Background: Breast hamartoma is a rare and under-investigated benign tumor. Due to its low incidence, there are currently no evidence-based treatment guidelines for its management globally. Although classified as benign, surgical excision is recommended in certain centers. This study represents the largest investigation to date, and aims to assess the potential risk of developing invasive breast cancer after a diagnosis of breast hamartomas.
Method: All patients with a diagnosis of harmatoma from 2000 to 2020 in the North Jutland Region and the Capital Region were identified in Patobank and data were manually extracted from the medical records, including simultaneous or later breast cancer diagnosis until 2023. We compared the incidence of breast cancer in this cohort of women with a diagnosis of hamartoma with the expected incidence among women in a similar group of women from the Danish background population based on data in NORDCAN, by including the women's accumulated risk over the follow-up period in the analysis via Lexis Transformation.
Results: We identified 524 women with a harmatoma diagnosis. Patients were retrospectively followed for an average of 12.5 years (range 1.9-24 years), with an average age of 40.7 years at the time of diagnosis. 12 women had simultaneous (9) or later developed (3) breast cancer. The risk of breast cancer for women with harmatoma compared with the background population was not significantly increased, with a SIR on 1.32 (95% CI 0.72-2.21).
Conclusion: Our study observed a tendency towards an increased incidence of breast cancer in this cohort; however, this finding did not reach statistical significance. This means that a diagnosis of harmatoma does not indicate the need for intensifed surveillance for the development of breast cancer.

General
1. I confirm that the abstract is complete and that all information provided is correct.: Yes
2. I confirm that the abstract submission constitutes consent to publication.: Yes
3. I confirm that I submit this abstract on behalf of all authors.: Yes
Do you want to apply for the British Journal of Surgery Prize?: Yes

DKS 2025: Abstract 69

Upgrade Rates and Risk Factors of Atypical Epithelial Proliferations and Papillary Breast Carcinomas Following Surgical Excision of Benign Intraductal Papillomas

S. Gunnarstein[1], *K. Assifuah Kristjansen*[2], *S. Huus Pedersen*[3], *M.E. Brunbjerg*[2]
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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 2: Breast Surgery

Background: The management of benign intraductal papillomas (IDP) diagnosed by biopsy remains controversial due to variable rates of upgrade to atypical epithelial proliferations (AEP), ductal carcinoma in situ (DCIS) and invasive carcinoma (IC) after surgical excision. This study aimed to assess upgrade rates upon surgical excision and develop a scoring system predicting upgrade based on clinical, radiological and pathological features.
Method: A retrospective review identified patients with IDP diagnosed by biopsy between January 2014 and January 2024 at Aalborg University Hospital. Surgical data was reviewed for the presence of AEP, DCIS or IC, thereby determining the risk of upgrade associated with surgical excision. Multivariate analysis was used to identify predictors of upgrade and to develop a scoring system.
Results: A total of 185 patients with 194 IDPs underwent surgical excision. The upgrade rate was 14.4% (28 of 194). Independent predictors of upgrade included older age and larger lesions. The scoring-system demonstrated a moderate discriminatory power with an AUC of 0.73.
Conclusion: An upgrade rate of 14.4% indicates that surveillance alone may be insufficient for all biopsy-diagnosed IDPs. However, the scoring system identified a subgroup of patients with likely benign lesions, supporting the consideration of non-surgical management in selected cases.

General
1. I confirm that the abstract is complete and that all information provided is correct.: Yes
2. I confirm that the abstract submission constitutes consent to publication.: Yes
3. I confirm that I submit this abstract on behalf of all authors.: Yes
Do you want to apply for the British Journal of Surgery Prize?: No

DKS 2025: Abstract 84

Benefit of adjuvant chemotherapy in patients with triple-negative, T1abN0 breast cancer – a systematic review and meta-analysis

C. Hassing[1], C.B. Juhl[2,3], D.L. Nielsen[4], A.S. Knoop[5], A.-V. Lænkholm[6], N.T. Kroman[1,7], T.H.F. Tvedskov[1], I. Kümler[4]
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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 2: Breast Surgery

Background: The benefit of adjuvant chemotherapy in patients with triple-negative breast cancer with a tumor size of 1 cm or smaller and no lymph node involvement (T1abN0) is not evident. The aim of this systematic review and meta-analysis was to investigate if adjuvant chemotherapy improves the outcomes in patients with triple-negative, T1abN0 breast cancer.
Method: We conducted systematic literature searches in the MEDLINE, Embase and CENTRAL database to identify interventional and observational studies examining the effect of adjuvant chemotherapy in patients with triple-negative, T1abN0 breast cancer.
Results: We identified a total of 18 studies examining the effect of chemotherapy in patients with triple-negative, T1abN0 breast cancer. For patients treated with chemotherapy, 5-year overall survival (OS) rates ranged from 91.4% - 100% and 92% - 100% for T1a and T1b tumors respectively. Patients without chemotherapy had 5-year OS rates ranging from 88.6% - 100% and 81.3% – 95.8% for T1a and T1b tumors respectively.
Conclusion: Patients with triple-negative, T1b tumors without chemotherapy seem to have the lowest range of survival rates, whereas the range of survival rates seems to be higher in patients with triple-negative, T1a tumors without chemotherapy.

Please note: We plan to also present results from a meta-analysis at the annual meeting of the Society of Danish Breast Cancer Surgeons in November 2025. An updated abstract will be sent to the chairman of the annual meeting of the Society of Danish Breast Cancer Surgeons in advance.

General
1. I confirm that the abstract is complete and that all information provided is correct.: Yes
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3. I confirm that I submit this abstract on behalf of all authors.: Yes
Do you want to apply for the British Journal of Surgery Prize?: No

DKS 2025: Abstract 37

Pouch Failure and Management After Ileal-Pouch–Anal Anastomosis in Paediatric Ulcerative Colitis: A Nordic Multicentre Cohort Study

R.D. Baldursdóttir[1], A. Löf Granström[2], C. Gatzinsky[3], K. Guðlaugsdóttir Jackson[3], K. Stenstrud[4], L. Folmer Hansen[5], M. Bräutigam[3], M. Hukkinen[6], P. Stenström[7], S. Möller[8], T. Wester[2], R. Gaardskær Nielsen[9], M. Pakarinen[6], M. Bremholm Ellebæk[1]

[1]Odense University Hospital, Kirurgisk afdeling A, Odense, Denmark, [2]Karolinska Institutet, Department for Women's and Children's health, Stockholm, Sweden, [3]Queen Silvia Children's Hospital, Department of pediatric surgery, Gothenburg, Sweden, [4]Oslo University Hospital, Department of pediatric surgery, Oslo, Norway, [5]Hvidovre Hospital, Department of pediatrics, Hvidovre, Denmark, [6]New Children's Hospital, Helsinki Universityhospital, Section of Pediatric Surgery and Pediatric Liver and Gut Research Group, Helsinki, Finland, [7]Skåne University Hospital, Department of pediatric surgery, Lund, Sweden, [8]University of Southern Denmark, Department of Health Services Research, Odense, Denmark, [9]Hans Christian Andersen Children's Hospital, Odense University Hospital, Research unit of pediatrics, Odense, Denmark

Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 3: Pediatric Surgery

Background: The Incidence of Ulcerative Colitis (UC) is increasing in the paediatric population. The aim of this study was to evaluate short- and long-term outcomes and complications, pouch failure and treatment of pouch failure, after ileoanal anastomosis with J-pouch (IPAA) for UC in the Nordic countries.
Method: The study was conducted according to the STROBE guidelines. UC patients (<18 years) from paediatric surgical wards in the Nordic countries who were operated on between January 1, 2000, and December 31, 2020, were included. Data were collected using REDCapÒ. Pouch failure was defined as dysfunction of the pouch, resulting in a permanent stoma or revision surgery.

Ethical approval for the study was obtained, and the case number registered with the Danish Data Protection Agency is 21/27764, approved in June 2021.
Results: A total of 200 patients were included from seven centers. 129 patients underwent IPAA. Short-term complications (<30 days postoperatively) occurred in 26% of patients, with ileus (12%) being most common. Long-term complications occurred in 39% of cases, including pouch failure in 18%. Among patients with pouch failure, pouch removal was performed in 11% and 7% received diverting stomas. Fistula formation (6.2%) was the leading cause of pouch failure, followed by chronic pouchitis.
Conclusion: Pouch failure was observed in 18% of paediatric IPAA patients. These findings highlight the need for strategies to prevent postoperative complications and optimize long-term pouch function in this population.

No funding was received for this study.

General
1. I confirm that the abstract is complete and that all information provided is correct.: Yes
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3. I confirm that I submit this abstract on behalf of all authors.: Yes
Do you want to apply for the British Journal of Surgery Prize?: Yes

DKS 2025: Abstract 39

Complete bladder augmentation with decellularized tissue matrix and autologous micrografts. Findings from a porcine pilot study.

N. Juul[1], M. Fossum[1,2], A. Hassan[3], T. Cserni[3,4], D. Keene[3]

[1]Copenhagen University Hospital Rigshospitalet, Department of Pediatric Surgery, Copenhagen, Denmark, [2]Karolinska Institute, Center for Molecular Medicine, Stockholm, Sweden, [3]Royal Manchester Children's Hospital, Department of Pediatric Urology, Manchester, United Kingdom, [4]Semmelweis University, Department of Experimental Medicine, Budapest, Hungary

Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 3: Pediatric Surgery

Background: Bladder augmentation is vital in certain congenital malformations. Yet, current surgical treatments are flawed with serious complications. Tissue engineered scaffolds for alternative grafting have, thus far, failed to reach clinical translation, despite decades of research, likely due to complex and expensive methodologies. Porcine decellularized bladder matrix (DBM) offers ideal biomechanical properties as a reconstructive scaffold with a potential for longterm off-the-shelf storage and xenotransplantation. However, initial experiences in urological grafting with DBM alone have revealed inappropriate shrinkage and inflammation in vivo. This study investigated the feasibility of combining collagen embedded autologous tissue micrografts with DBM to improve regenerative outcomes.
Method: Six pigs were included in the study. The surgical model consisted of a three-stage approach with 6 weeks in between each stage. First, a hemicystectomy was performed and the resected bladder was used to micrograft a collagen embedded allograft DBM scaffold which was then sutured around a silicone balloon and preimplanted intraperitoneally in omental wrapping. Second, the now vascularized graft was opened and the balloon was removed. A subtotal excision of the remaining bladder was performed and the graft was anastomosed to the native bladder edges for immediate functioning. Third, the animal was terminated and the bladder was ressected. During both second and third stages, grafts were assessed with laser specle imaging for vascularization and histololgical stainings for epithelialization and inflammaton.
Results: The combined procedure proved feasible within the confines of basic animal facility (Semmelweis University, Hungary). All grafts demonstrated signs of vascularization and traceable epithelium at both second and third stage procedures. One pig was terminated after stage 2 because of abdominal wall hernia and another had formed an absces in the neo-bladder wall at stage 3. Compared to previous acellular implantations, the presense of micrografts decreased the degree of DBM graft shrinkage (from stage 2 to 3) from 60% to 10%. All augmented bladders demonstrated satisfying capacity and compliance at the final stage.
Conclusion: Decellularized bladder matrix serves as a promising scaffold for bladder augmentation, even in large-scale organ reconstructions. The presence of autologous tissue micrografts may mitigate adverse immunological reactions and promote improved physiological graft reintegration.

General
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3. I confirm that I submit this abstract on behalf of all authors.: Yes
Do you want to apply for the British Journal of Surgery Prize?: Yes

DKS 2025: Abstract 49

Pathology and classification of pediatric neuroendocrine tumors in Denmark 1995-2020

S.L.T. Jensen[1], M.P. Ankerstjerne[2], S. Giovannoni[1], L.G. Christensen[3], P. Holmager[4], U. Knigge[4], M.B. Ellebaek[1], M. Rathe[2]
[1]Odense University Hospital, Department of Surgery, Odense C, Denmark, [2]Odense University Hospital, Department of Pediatrics, Odense, Denmark, [3]Odense University Hospital, Department of Pathology, Odense, Denmark, [4]Rigshospitalet, Department of Endocrinology, Odense, Denmark

Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 3: Pediatric Surgery

Background: Appendiceal neuroendocrine tumors (aNET) are rare in children and are often discovered incidentally after appendectomy. Evidence-based guidelines for their surgical management in the paediatric population are limited. This study aims to evaluate pathological tumor characteristics and examine their association with long-term outcomes with the goal to assess criteria for secondary surgery.
Method: All pediatric patients diagnosed with aNET from 1st January 1995 to 31st December 2020 in Denmark are included. Archival tissue blocks are being collected and re-evaluated for patients with missing information on histopathological risk factors and immunohistochemical stainings (tumor size and location, resection margins, mesoappendiceal invasion, tumor stage, Ki-67, Synaptophysin, or Chromogranin A).
Results: A total of 205 patients with aNET have been included of which tissue blocks are collected and re-analyzed for 105 patients. Secondary surgery was performed in 44 patients (21.5 %). Histopathological reassessments are ongoing. No NET-related mortality or recurrence was seen during a median follow-up of 14.1 years (range 2-23.8).
Conclusion: Preliminary conclusion
The absence of recurrence or NET related mortality demonstrates that aNET in children is an indolent disease. Based on the data available so far, no histopathological risk factor appears to justify the need for secondary surgery in the pediatric population. We expect the ongoing histopathological analyses to support this notion.

General
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Do you want to apply for the British Journal of Surgery Prize?: No

DKS 2025: Abstract 96

Vacuum-assisted closure in pediatric damage-control laparotomy: A single center retrospective review.

N. Bjørn[1], A. Imeri[2], M. Rahim[3], M.B. Ellebæk[4]
[1]Odense University Hospital, Research Unit for Surgery, and Centre of Excellence in Gastrointestinal Diseases and Malformations in Infancy an Childhood (GAIN), Odense University Hospital, Odense, Denmark; University of Southern Denmark, Odense , Denmark., Odense C, Denmark, [2]OUH, Pediatric Surgical Department, Odense C, Denmark, [3]Odense University Hospital, Pediatric Surgical Department, Odense C, Denmark, [4]OUH, Research Unit for Surgery, and Centre of Excellence in Gastrointestinal Diseases and Malformations in Infancy an Childhood (GAIN), Odense University Hospital, Odense, Denmark, Odense C, Denmark

Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 3: Pediatric Surgery

Background: Acute peritonitis in children is a surgical emergency with high risk of sepsis and complications, where standard closure methods may be inadequate in contaminated or edematous abdomens. Vacuum-assisted closure (VAC) has proven effective in adults, but pediatric evidence remains limited. This study evaluates its safety and outcomes in children with peritonitis, treated with temporary VAC closure.
Method: We conducted a retrospective chart review of all pediatric patients treated with VAC therapy at our hospital between 2010 and 2022. VAC therapy was utilized as part of damage-control laparotomy following either abdominal trauma or intra-abdominal peritonitis. Ethical approval was obtained from the Regional Data Protection Agency of Southern Denmark (Journal No: 23/39394) and the Regional Committees on Health Research Ethics (Journal No: 23/39641).
Results: We identified 10 pediatric patients with a mean age of 11.1 years and an equal male-to-female distribution (50% each). The primary indication for VAC therapy was peritonitis either as postoperative complication for elective surgery (60%) or after traumatic injury. The mean duration of VAC therapy was 5.7 days, with an average intensive care unit (ICU) stay of 6.0 days. Negative pressure settings ranged from -50 mmHg to -125 mmHg, with a mean drainage volume of 1002 mL. Fascial closure was achieved in all patients. Two postoperative complications were observed (wound infection and ileus), classified >3 according to the Clavien-Dindo system. No VAC-related complications were reported.
Conclusion: VAC therapy appears to be a treatment option for pediatric patients with peritonitis postoperatively or after traumatic injury, with no major VAC-related complications observed.

General
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3. I confirm that I submit this abstract on behalf of all authors.: Yes
Do you want to apply for the British Journal of Surgery Prize?: Yes

DKS 2025: Abstract 101

Anti-MFAP4 Antibody - A novel therapy to prevent anastomotic stricture after surgery for esophageal atresia: Animal experimental study

S.M. Odby[1], *P. Zvara*[2], *G.L. Sørensen*[3], *L.B. Steffensen*[3], *A.G. Schlosser*[3], *R.T. Kanaan*[2], *K.C. Larsen*[1], *H.C. Beck*[4], *E.K. Hejbøl*[5], *H.D. Schrøder*[5], *G. Madsen*[5], *M.B. Ellebæk*[1]

[1]Odense Universitetshospital OUH, Kirurgisk afdeling A, Odense, Denmark, [2]Odense Universitetshospital OUH, Forskningsenhed for urologi, Odense, Denmark, [3]Syddansk Universitet, Institut for molekylær medicin, Odense, Denmark, [4]Syddansk Universitet, Forskningsenheden for Klinisk Biokemi, Odense, Denmark, [5]Syddansk Universitet, Forskningsenheden for patalogi, Odense, Denmark

Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 3: Pediatric Surgery

Background: Anastomotic stricture is the most common complication after surgery for esophageal atresia in infants. Research on esophageal wound healing is necessary to prevent fibrosis and stricture formation in the future. This study investigated the effects of systemic use of anti-MFAP4 on esophageal anastomotic healing in a mouse model.
Method: In this randomized control study, end-to-end esophageal anastomosis was performed on 38 mice. The intervention group received daily intraperitoneal injections of anti-MFAP4, and the control group received histidine (vehicle) injections. On postsurgical day 10, the esophagus was harvested for analysis. Outcomes were diameter of lumen, histological evaluation of wound healing (smooth muscle cell regeneration and collagen deposition), weight loss and proteomic analysis. All procedures were approved by the Danish animal experiments inspectorate (approval protocol number 2023-15-0201-01367).
Results: Sixteen mice were excluded due to post-surgical complications, leaving 11 per group for analysis. Staining confirmed that anti-MFAP4 was distributed to the target tissue and both groups developed fibrosis. However no significant differences were observed in lumen diameter, histological evaluation of the healing, or weight. In contrast, proteomic analysis revealed an up-regulation of muscle cell-associated proteins in the treatment group, suggesting early effects on tissue remodeling not captured by histology at postoperative day 10.
Conclusion: This novel mouse model proved suitable for investigating systemic use of anti-MFAP4 on anastomotic healing in the esophagus. No beneficial effects on anastomotic healing or stricture prevention were observed. Proteomic data, however, showed an up-regulation of muscle cell–associated proteins, indicating possible early effects on tissue remodeling, but further investigation with a longer study period is needed.

General
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Do you want to apply for the British Journal of Surgery Prize?: No

DKS 2025: Abstract 54

Impact of Acute Lower Endoscopy on Diagnostic and Therapeutic Outcomes in Patients with Acute Lower Gastrointestinal Bleeding: A Retrospective Study

D.H. Hestoy[1], *K. Holte*[1], *R.V. Flak*[1]
[1]Regionshospital Nordjylland, Mave- og tarmkirurgisk afdeling, Hjørring, Denmark

Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 4: Endoscopy

Background: Acute lower gastrointestinal bleeding (LGIB) is a common medical emergency. This study aims to evaluate the impact of acute lower endoscopy on diagnostic accuracy, therapeutic outcomes, and hospital admission length, and to explore the Oakland score's role in predicting success.
Method: We conducted a retrospective study of LGIB patients who underwent an acute lower endoscopy due to bleeding, during an hospital admission, in 2024. After screening all colonoscopies performed during this year, 41 patients were included. Data on demographics, Oakland scores, diagnostic findings, therapeutic interventions, and admission lengths were collected. Patient selection may be biased, as the criteria for acute colonoscopy are not standardized.
Results: A definitive bleeding source was identified in 8 of the 41 patients, with 4 receiving endoscopic therapy. Three patients had prior surgical or endoscopic interventions within one month, and 2 received therapy during the acute endoscopy. Admission lengths were similar across groups. Patients with a confirmed bleeding source exhibited a lower median Oakland score (14 vs. 23).
Conclusion: Endoscopy did not significantly reduce hospital admission length. However, 2 of the 4 patients receiving endoscopic therapy had complications from prior interventions, highlighting complexities in LGIB management. We plan to expand the study to include a 3-year period to strengthen the findings and better assess the impact of acute endoscopy.

General
1. I confirm that the abstract is complete and that all information provided is correct.: Yes
2. I confirm that the abstract submission constitutes consent to publication.: Yes
3. I confirm that I submit this abstract on behalf of all authors.: Yes
Do you want to apply for the British Journal of Surgery Prize?: Yes

DKS 2025: Abstract 88

Diagnostic performance of real time characterization in artificial intelligence-assisted colonoscopy

R.M.B. Lagström[1], K.B. Bräuner[1,2], M.N. Frandsen[1], I. Gögenur[1,3], M. Bulut[1,3,4]

[1]Zealand University Hospital, Center for Surgical Science, Department of Surgery, Køge, Denmark, [2]Slagelse Hospital, Department of Surgery, Slagelse, Denmark, [3]University of Copenhagen, Department of Clinical Medicine, Copenhagen, Denmark, [4]Copenhagen Academy for Medical Education and Simulation, (CAMES), Copenhagen, Denmark

Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 4: Endoscopy

Background: As most colorectal polyps are diminutive and carry minimal cancer risk artificial intelligence (AI) might enable diagnostic strategies such as leave-in-situ and resect-and-discard, provided it meets predefined quality benchmarks. We assessed the diagnostic performance of a computer-aided polyp characterization system (CADx) in predicting histology of diminutive rectosigmoid polyps during colonoscopy in a Danish population.
Method: We conducted a prospective diagnostic accuracy study at four endoscopy centres. Adults referred for colonoscopy due to a positive faecal immunochemical test, surveillance, or other diagnostic indications were included. Patients with inadequate bowel preparation were excluded. Histopathology served as the reference standard. All polyps were categorized as adenomas or non-adenomas. Several performance metrics are reported.
Results: We included 278 patients and a total of 772 polypectomies for analysis. For diminutive rectosigmoid polyps (n= 184), the CADx-system achieved a sensitivity of 93% and a specificity of 33%. The positive and negative predictive values were 70% and 74%, respectively, with an overall accuracy of 71%.
Conclusion: The CADx-system showed a high sensitivity, but a much lower specificity compared to prior studies, driven by a high false positive rate. Inconsistent findings across studies highlight the challenges in standardizing AI-based characterization systems. Our results indicates that CADx is a promising future adjunct to colonoscopy, but its current performance is insufficient for reliable implementation in resect-and-discard or leave-in-situ strategies.

General
1. I confirm that the abstract is complete and that all information provided is correct.: Yes
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3. I confirm that I submit this abstract on behalf of all authors.: Yes
Do you want to apply for the British Journal of Surgery Prize?: Yes

DKS 2025: Abstract 89

Patients´ experiences and attitudes toward the use of real-time artificial intelligence-assisted colonoscopy - A qualitative interview-based study

R.M.B. Lagström[1], M. Krogsgaard[1,2,3], A. Kindt[4], B. Besmalahi[4], I. Gögenur[1,2], M. Bulut[1,2,5]

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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 4: Endoscopy

Background: There is limited knowledge about how patients experience artificial intelligence (AI) in healthcare. Concerns regarding safety and quality could be a barrier between patients and the healthcare system when implementing AI. It is crucial to understand patients´ attitudes, and how they may react to AI being implemented, when aiming to preserve their trust. We investigated patients' attitudes toward AI-assisted colonoscopy to gain insights that can be used when introducing this new technology to future patients.
Method: This is a qualitative study based on semi-structured focus group interviews. Habile, Danish speaking adults who had received an AI-assisted colonoscopy were invited. We conducted six focus group interviews, with 20 participants in total. All interviews were recorded and transcribed. Data was analysed using thematic analysis.
Results: Patients described a sense of vulnerability in the context of colonoscopy. Within this context three main themes were identified. The first theme is "Machine over man - concerns about the potential consequences of AI use during colonoscopy". The other two themes are "Trust in AI assistance depends on human factors such as empathy and professionalism" and "Information and patient involvement – what and when".
Conclusion: Trust in AI-assistance is dependent of the healthcare workers. While AI has many strengths, it cannot provide empathy, which patients need in distressing moments, such as during a colonoscopy. If written information about AI is provided, it should be informative but concise, avoiding details that generate more confusion than clarity.

General
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2. I confirm that the abstract submission constitutes consent to publication.: Yes
3. I confirm that I submit this abstract on behalf of all authors.: Yes
Do you want to apply for the British Journal of Surgery Prize?: Yes

DKS 2025: Abstract 119

Endoscopic assisted electrochemotherapy in addition to neoadjuvant treatment of locally advanced rectal cancer: a randomised clinical phase II trial

L. Ngo-Stuyt[1], R. Peuliche Vogelsang[1], M. Bulut[1], H. Hjort Johannesen[2], A. Loft Jakobsen[2], M. Broholm[3], M. Gögenur[1], A. Orhan[1], M. Seiersen[1], T. Stigaard[1], J. Gehl[4], I. Gögenur[1]
[1]Zealand University Hospital, Department of Surgery, Køge, Denmark, [2]Rigshospitalet, Department of Clinical Physiology, Nuclear Medicine and PET, København Ø, Denmark, [3]Amager and Hvidovre Hospital, Department of Infectious Diseases, Hvidovre, Denmark, [4]Zealand University Hospital, Department of Clinical Oncology, Roskilde, Denmark

Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 4: Endoscopy

Background: Electroporation is a non-invasive ablation treatment that uses short electric pulses to produce a transient increase in cell membrane permeability. This allows the passage of otherwise poorly or non-permeating substances such as bleomycin, a hydrophilic chemotherapeutic. Early preclinical and clinical findings suggest that electroporation is a safe and feasible treatment for patients with locally advanced rectal cancer (LARC). The aim of this phase II randomised clinical trial was to investigate the efficacy and safety of treating LARC with electrochemotherapy (ECT) as an additive treatment to standard neoadjuvant down-staging therapy prior to curative-intent surgery.
Method: This was a parallel-group, multicentre, randomised phase II clinical trial. Patients were recruited between January 2017 and February 2019 at Zealand University Hospital, Copenhagen University Hospital Herlev, and Gentofte and Slagelse Hospital, Denmark. All patients had completed standard neoadjuvant chemoradiotherapy prior to study enrolment. Patients were randomised 1:1 to the intervention group, treated with one series of ECT with bleomycin prior to surgical resection, or to the control group receiving standard therapy. Primary outcomes were the efficacy and safety of ECT. Efficacy was assessed through pathological examination of resection specimens and by comparing metabolic activity and tumour volume on PET/MRI before and after the intervention. Safety was assessed by reviewing adverse events (AEs).
Results: Sixteen patients were included in the trial and randomised to the ECT group (n=8) or the control group (n=8). ECT following chemoradiotherapy resulted in complete responses in 2 of 5 evaluable patients and partial responses in another 3, while the control group (n=7) showed complete responses in 2 and partial responses in 4. Tumour regression grading mirrored imaging findings in most patients. Overall, efficacy outcomes were comparable between ECT and control arms. One device-related serious AE was reported, involving a patient who experienced rectal pain requiring admission for pain management. Adverse events occurred in all patients in the ECT group and in 50% of those in the control group.
Conclusion: Electrochemotherapy is a safe and feasible addition to neoadjuvant chemoradiotherapy in the treatment of locally advanced rectal cancer, with manageable adverse events. Whether ECT has a role in the multimodal neoadjuvant management of LARC remains to be investigated in future trials.

General
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DKS 2025: Abstract 17

Stage-dependent survival in Gastric Cancer: A Danish nationwide cohort study

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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 5: Esophagus, Cardia, and Stomach (ECV)

Background: **Background:** Gastric cancer remains a major clinical challenge with poor prognosis. This study investigated survival outcomes based on treatment strategy, tumor stage, and histology in Danish gastric cancer patients.
Method: **Methods:** From January 2013 to December 2021, 2,156 gastric cancers were registered in the Danish Esophagogastric Cancer Group database, covering 99% of national cases. Data were analyzed for patients with intestinal and diffuse-type cancers. Survival was assessed using Kaplan-Meier curves and Cox regression, adjusting for tumor stage, treatment, and demographics.
Results: **Results:** Median survival was significantly higher with surgery ± perioperative chemotherapy (SCT) than with palliative treatment. For the intestinal-type cancers, SCT resulted in a median survival of 45.2 months (95% CI [35.4–55.1]) versus 5.1 months (95% CI [4.6–5.7]) with palliative treatment. Patients with diffuse type, treated with SCT had a median survival exceeding 128 months, compared with 6.3 months (95% CI [5.2–7.5]) with palliative treatment. Patients receiving epirubicin based CT had a lower risk of death (HR 0.74, p=0.04) compared with upfront surgery, while FLOT (5-fluorouracil, leucovorin, oxaliplatin, and docetaxel) similarly reduced the risk of death (HR 0.69, p=0.04). No significant difference was observed between the two CT regimens. Palliative CT and radiotherapy improved survival over best supportive care (p<0.001). Advanced tumor stage was associated with worse survival, while the histological subtype had no impact on overall survival outcomes.
Conclusion: **Conclusion:** This study emphasizes the survival benefit of multimodal treatment strategies, especially surgery combined with perioperative CT. Palliative interventions also improved outcomes in advanced disease.

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DKS 2025: Abstract 18

Lymph Node Yield and Its Impact on Survival Outcomes: A Retrospective Multicenter Cohort Study from Denmark

O. Nørholm Kempf[1], L. Bech Jellesmark Thorsen[2], N. Nerup[1], D. W. Kjær[3], J. Sanberg[4], M. Siemsen[5], S. Dikinis[6], M. Bendixen[7], L. Bæksgaard Jensen[8], M. Achiam[1]

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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 5: Esophagus, Cardia, and Stomach (ECV)

Background: **Background:** The prognostic significance of lymph node (LN) yield in esophageal and gastric cancer remains debated, particularly in the era of modern perioperative treatment. This multicenter Danish cohort study evaluates the association between LN yield and survival outcomes, with a focus on the clinical value of harvesting ≥20 LNs as recommended by recent Delphi consensus guidelines.
Method: **Methods:** We retrospectively analyzed 3,092 patients who underwent resection for esophageal (n=2,402) or gastric cancer (n=690) between 2013 and 2021 at four Danish upper GI centers. All cases were registered in the Danish Esophagogastric Cancer Group (DEGC) database, which covers approximately 99% of all Danish esophageal and gastric cancer cases. Patients were stratified by nodal status (pN0/pN+) and categorized into five LN yield groups. Survival analyses were performed using Kaplan-Meier and multivariable Cox regression, adjusting for clinicopathological covariates.
Results: **Results:** In node-negative esophageal cancer, higher LN yields (20–29, 30–39, and 40+) were significantly associated with improved survival (HR 0.47–0.58, p<0.001) compared with the reference group (16-19). No survival benefit was seen beyond 16–19 nodes in node-positive esophageal or gastric cancers. Perioperative chemotherapy improved survival in node-positive esophageal cancer but had no effect in node-negative esophageal and gastric cancer. Discrepancies between clinical and pathological nodal staging were common, impacting both survival outcomes and treatment stratification.
Conclusion: **Conclusion:** Extended lymphadenectomy may offer a survival benefit in node-negative esophageal cancer, supporting a revision of current Danish guidelines to recommend a minimum of 20 LNs removed. No additional benefit was observed in node-positive or gastric cancer patients beyond 16–19 LNs removed. These findings underscore the importance of accurate nodal assessment and personalized treatment strategies.

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DKS 2025: Abstract 42

Textbook Outcome after gastric cancer surgery is associated with improved survival: an observational study from a high-volume center

E.J. Kragbak[1], A.W. Mucha[1], P. de Heer[1], M. Mau-Sørensen[2], N. Nerup[1], M.P. Achiam[1]
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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 5: Esophagus, Cardia, and Stomach (ECV)

Background: Curative treatment of gastric cancer requires surgery combined with perioperative chemotherapy. Textbook outcome (TO) and textbook oncological outcome (TOO) have gained increasing attention as composite measures representing an ideal surgical and oncological course. We aimed to evaluate the rates of TO and TOO after gastrectomy and their impact on long-term outcomes.
Method: A single-center retrospective observational study was conducted. TO was defined as achieving all of the following: macroscopic radical resection, R0 resection, removal of ≥15 lymph nodes, absence of severe complications (Clavien-Dindo grade >II), no intraoperative complications, hospital stay <21 days, no 30-day mortality, and no unplanned ICU admission, reintervention, or readmission within 30 days after surgery. TOO was defined as TO plus adherence to guideline-compliant chemotherapy. Univariate analyses and multivariable logistic regression were used to identify predictors for TO and TOO. The impact of TO and TOO on long-term outcomes was analyzed using Kaplan-Meier and Cox regression.
Results: We included 141 patients. TO was achieved in 56.7% and TOO in 25.9% of patients. TO was significantly associated with improved overall survival (HR 0.31, P < 0.001) and recurrence-free survival (HR 0.31, P < 0.001). TOO was not significantly associated with improved survival outcomes. The most common reasons for failing to achieve TO were severe complications (24.8%), reintervention (22.0%), and readmission (17.7%).
Conclusion: This study found TO and TOO rates of 56.7% and 25.9%, suggesting quality of care on an international level. TO was significantly associated with long-term survival, supporting its future use as an important quality metric.

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DKS 2025: Abstract 67

Prognostic value of sarcopenia and low hand grip strength on postoperative complications following esophagectomy

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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 5: Esophagus, Cardia, and Stomach (ECV)

Background: Esophageal and gastroesophageal junction cancers have poor survival rates despite curatively intended treatment. Esophagectomy is a high-risk procedure, with complications exceeding 50%. Sarcopenia and low handgrip strength (HGS) are linked to worse surgical outcomes. This study aims to assess the impact of sarcopenia and low HGS on postoperative complications, length of stay, and readmission.
Method: This prospective observational cohort study included patients with esophageal adenocarcinoma scheduled for esophagectomy following neoadjuvant oncological therapy. Body composition was assessed using dual-energy x-ray absorptiometry (DXA), with cut-off values for low muscle mass based on the European Working Group on Sarcopenia in Older People (EWGSOP) and a Danish reference population. Muscle strength was measured using HGS with a manometer, applying cut-off points from both EWGSOP and the Danish reference. Postoperative complications within 30 days were classified by type and according to Clavien-Dindo, with grade >3 defined as severe.
Results: A total of 186 patients underwent esophagectomy (mean age of 65.2 (±8.5) years). Based on Danish regional cut-off values, 26% of patients had sarcopenia due to low muscle strength relative to a Danish reference population, which was associated with an increased risk of anastomotic leakage (RR 3.33 [1.19–9.31]) but not pulmonary or other medical complications. Low muscle mass was identified in 2.6% of patients using regional criteria and 16.3% using international criteria, with no observed association with postoperative complications.
Conclusion: Sarcopenia evaluated by low handgrip strength was a strong predictor of postoperative anastomotic leakage after esophagectomy for cancer, and outperformed DXA in predicting outcomes.

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DKS 2025: Abstract 68

National multidisciplinær vurdering af planocellulær esophaguskarcinom – et dansk kvalitetsprojekt

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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: No
Topic: 5: Esophagus, Cardia, and Stomach (ECV)

Background: Multidisciplinære team (MDT)-konferencer er centrale for vurdering og behandling af patienter med esophaguscancer. Tidligere studier har dokumenteret forbedret stadieinddeling, behandlingskvalitet og overlevelse ved MDT-baseret beslutningstagning, men et tidligere nationalt studie viste betydelig uoverensstemmelse om operabilitet og endelig behandlingsplan. I Danmark varetages udredning og behandling på fire højt specialiserede centre. DEGC initierede derfor et national MDT-konference projekt med det formål at vurdere og harmonisere behandlingen for patienter med planocellulært karcinom i esophagus
Method: Studiet er et prospektivt, observationelt kohortestudie af patienter henvist til national MDT efter vurdering på lokalt MDT. Data om klinisk TNM-stadieinddeling (cTNM), resektabilitet, behandlingsintention og foreslået behandling blev sammenlignet mellem lokal og national MDT. Enighed blev vurderet vha. observer agreement (%) og Krippendorff's alpha
Results: Der blev inkluderet 60 patienter. Der var **høj overensstemmelse i TNM-stadieinddeling** mellem lokal og national MDT (observer agreement: T=85%, N=83%, M=97%; Krippendorff's α: T=0.85, N=0.76, M=0.65)

- **Behandlingsforslag var derimod mere varierende** med kun 82% enighed ved endelige behandlingsstrategi
- Overensstemmelse om resektabilitet var lavere (observer agreement: 75%; α=0.55), mens behandlingsintention havde høj enighed (observer agreement: 90%)
- I 13% af tilfældene var der direkte diskrepans mellem lokal og national MDT's behandlingsforslag
- National MDT ændrede behandlingsforslaget i 11 ud af 60 tilfælde (18%).

Conclusion: Der er generelt **stærk konsensus omkring TNM-stadieinddeling** mellem lokale og nationale MDT-konferencer i Danmark. **Den største variation ses i vurdering af behandlingsstrategi og resektabilitet**, hvilket understreger behovet for en national MDT-platform for at sikre ensartet, evidensbaseret behandling på tværs af behandlingssteder

General
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Do you want to apply for the British Journal of Surgery Prize?: Yes

DKS 2025: Abstract 86

Efficacy of repeated esophagogastroduodenoscopy as work up for gastric and esophageal cancer surgery

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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 5: Esophagus, Cardia, and Stomach (ECV)

Background: Patients with biopsy-confirmed cancer of the esophagus or stomach are referred to Rigshospital after an initial esophagogastroduodenoscopy (EGD) at another facility. At the Rigshospital, EGD is repeated, and patients' operability is assessed.
This prospective study presents findings from an exploratory analysis aimed at assessing the clinical utility and diagnostic contribution of repeated EGD in this setting.
Method: We prospectively documented all cases with biopsy-confirmed upper GI cancer discussed at the weekly ECV multidisciplinary meeting between May and December 2024. We recorded the number of repeated EGDs, resections performed, and cases assessed for operability by a certified ECV surgeon. Repeated EGDs in patients who did not proceed to surgery were classified as non-consequential. Patients with metastatic disease are not routinely referred to repeated EGD.
Results: Twenty-six Upper GI multi-disciplinary meetings at the Rigshospital from 2024 were evaluated. One hundred and thirty-nine patients with a biopsy verified cancer underwent both an initial EGD at a primary or secondary health center and repeated EGD after referral to the Rigshospital. Sixty-five (47%) patients underwent resection of their cancer as part of treatment. Fifty patients (36%) underwent endoscopic evaluation and operability assessment by a certified ECV surgeon.
Conclusion: In patients with biopsy verified cancer of the esophagus and stomach referred to repeated EGD at the Rigshospital, 53% of EGD's were non-consequential (averaging three per week). Only a minority of patients were evaluated directly by a certified ECV surgeon, lowering the clinical value of repeated EGD. As EGD is time-consuming for patients and expensive for the healthcare system (approximately 1700 USD per procedure in Denmark), the current practice should be reconsidered.

General
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DKS 2025: Abstract 90

Recidiv af hiatushernie med intratorakal perforation og respiratorisk svigt under graviditet - en case report

M.B. Dissing[1], *J. Durup*[1]
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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: No
Topic: 5: Esophagus, Cardia, and Stomach (ECV)

Background: Alvorlige diafragmahernier som komplikation under graviditet forekommer sjældent. Varieret symptomatologi medfører ofte forsinkelse i diagnostik og behandling, mens mortaliteten og morbiditeten øges. De opstår typisk i 3. trimester pga. øget intraabdominalt tryk fra den voksende uterus, samt afslapning af væv og ligamenter omkring den gastroøsofageale overgang som følge af øget progesteron, eller under fødslen i forbindelse med veer.
Method: En 31-årig kvinde, gravid i uge 23+5 kom på et perifert sygehus med venstresidige mavesmerter. Vitalparametre og paraklinik var upåfaldende. Hun var 3 år tidligere opereret med laparoskopisk fundoplikation for et mindre hiatushernie. Efter et døgn udviklede hun respiratorisk svigt og man kunne billeddiagnostisk påvise herniering af ventriklen til thorax, incarceration, stort pleuraekssudat samt højreforskydning af mediastinum.
Results: Man lavede akut pleuracentese og overflyttede patienten til et ECV-center, hvor hun blev akut laparoskopisk opereret. Man reponerede ventriklen og fandt pletvis overfladisk iskæmi og nekrose samt perforation øverst på ventriklen, hvor en tråd fra fundoplikatet havde skåret sig igennem vævet. Fuldvægsiskæmi blev afkræftet endoskopisk. Det postoperative forløb var kompliceret af recidiverende opkastninger og føtal vægtstagnation grundet gastroparese på baggrund af formodet vagusskade. Hun fødte senere, ved elektivt sectio, et velskabt barn.
Conclusion: I litteraturen findes kun få eksempler med udvikling af akut incarcererede diafragmahernier under graviditet med perforation og respiratorisk svigt, og endnu færre eksempler der opstår som recidiv efter tidligere fundoplikation. De fleste diafragmahernier, der giver anledning til alvorlige komplikationer under graviditet er kongenitte eller traumatiske. Kun meget sjældent ses, at erhvervede diafragmahernier, herunder hiatushernier, giver anledning til andet end milde gener, der nemt kan forveksles med almindelige graviditetsgener. Casen belyser vigtigheden af grundig gennemgang af tidligere sygdomshistorik således at denne sjældne, men potentielt fatale differentialdiagnose mistænkes. Diafragmahernier i graviditeten med milde symptomer kan behandles konservativt, mens tilfælde med strangulering af de intraabdominale organer bør behandles med akut operation, uafhængigt af fosterets gestationsalder.

General
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Do you want to apply for the British Journal of Surgery Prize?: No

DKS 2025: Abstract 102

Effects of the gut hormone ghrelin on glucose tolerance, insulin sensitivity and beta-cell function after sleeve gastrectomy

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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 5: Esophagus, Cardia, and Stomach (ECV)

Background: Sleeve gastrectomy (SG) is the most frequently performed bariatric procedure, resulting in substantial weight loss and resolution of type 2 diabetes, but underlying mechanisms remain poorly understood. Ghrelin is a gut hormone secreted from the gastric mucosa, and after SG, ghrelin concentrations decrease dramatically, which may affect glucose metabolism. The main determinants of glucose metabolism are beta-cell function and hepatic and peripheral insulin sensitivity The consequence of the postoperatively decreased ghrelin concentration for these parameters were investigated in 2 studies with elevation of plasma ghrelin concentrations via infusions.
Method: In study 1, the effect of ghrelin infusions on glucose tolerance were investigated in 12 participants before and 3 months after SG: age (mean ± SD) 46.7±9.1 years, BMI 43.1±6.3 kg/m^2 before SG, 36.9 ± 6.2 kg/m^2 after SG, using a mixed-meal test. In study 2 the effect of ghrelin infusion on beta-cell function and insulin sensitivity was investigated in 12 participants, who had undergone SG ~17 months prior to inclusion; age 51±10.9 years and BMI 32.1±4,6 kg/m^2, and in 10 matched (sex, age, BMI) unoperated controls, using an iv. glucose tolerance test and a hyperinsulinemic euglycemic clamp.
Results: In study 1, ghrelin infusion increased both peak glucose (7.9 ± 0.3 vs. 7.0 ± 0.2 mmol L^{-1}, $p < 0.001$) and the total area under the curve (tAUC) of plasma glucose concentrations (1874 ± 61 vs. 1702 ± 42 mmol L^{-1}·min, $p = 0.03$) compared with saline infusion before SG. Three months after SG, fasting ghrelin concentrations were markedly suppressed as expected, and ghrelin infusion also increased plasma glucose postprandial compared with saline.
In study 2, fasting ghrelin concentrations were also decreased after SG compared with controls; but ghrelin infusions impaired beta-cell function in both groups compared with saline with 37% and 29% decline in first phase insulin secretion, respectively. Insulin sensitivity was 25% and 29% lower after SG and in controls, respectively, during ghrelin infusion compared with saline infusion.
Conclusion: Ghrelin concentrations is markedly suppressed after SG. Ghrelin infusion increases postprandial plasma glucose concentrations and impairs insulin sensitivity and beta-cell function both before and after SG. These findings support that ghrelin is a regulator of glucose metabolism and that the constantly reduced ghrelin levels after SG may contribute to improved glycemic control following SG.

General
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DKS 2025: Abstract 10

Video consultations in preoperative assessment of gallstone patients

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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 6: Hepato-Pancreato-Biliary (HPB)

Background: Video consultations offer new opportunities to accommodate patients' daily lives by eliminating the need for travel and childcare, as well as reducing time off work. This study evaluated the use of video consultations with patients referred to the abdominal surgery department regarding potential elective cholecystectomy. Patients eligible for surgery also required preoperative assessment by an anesthesiologist.
Method: Inclusion criteria for eligible study participants were established in collaboration with the anesthesiology department. Patient information materials were revised to align with current clinical guidelines and included a video about the procedure. Consultations were conducted via Borgerplatformen using webcam and headset. A follow-up questionnaire assessed patient experience; 13 out of 23 responded (57%).
Results:
The surgeon reported substantial technical challenges: of the first 16 consultations, 2 were without issues; 7 proceeded despite difficulties; 7 required follow-up phone calls. Headset issues were particularly disruptive. Patient comments highlighted both technical problems and appreciation for the overall experience. The anesthesiologists encountered fewer technical issues and have since expanded the use of video consultations to other patient groups.

Conclusion: Video-based preoperative consultations for gallstone patients are feasible when inclusion criteria are strictly followed and reliable technical equipment is used. The main challenge lies in ensuring a stable IT setup and internet connection for effective communication.

General
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DKS 2025: Abstract 47

Indocyanine Green assessment during pancreaticoduodenectomy: risk of postoperative leakage

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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 6: Hepato-Pancreato-Biliary (HPB)

Background: Postoperative pancreatic fistula (POPF) remains a critical complication following pancreaticoduodenectomy (PD), significantly impacting patient outcomes. While Indocyanine Green fluorescence angiography (ICG-FA) has reduced anastomotic leaks in other surgeries, its role in assessing pancreaticojejunostomy (PJ) perfusion during PD is unclear. Similarly, evidence for ICG-cholangiography in detecting hepaticojejunostomy (HJ) bile leakage is limited.
Method: We conducted a prospective cohort study of 100 patients undergoing PD, evaluating PJ perfusion using ICG-FA and HJ integrity with ICG-cholangiography. Four blinded expert surgeons independently scored PJ perfusion postoperatively (1-10 risk scale). Clinical outcomes, including POPF grades and bile leakage, were recorded and analyzed.
Results: Clinically relevant POPF (grades B/C) occurred in 21 patients (21%). Median visual ICG perfusion risk scores were significantly higher in patients with POPF compared with those without (4.75 vs. 3.5, p=0.014). Interobserver agreement for ICG-FA scoring was moderate (ICC=0.76). Intraoperative ICG-cholangiography detected bile leakage in five patients (5%) four of whom subsequently developing postoperative leakage.
Conclusion: Intraoperative ICG-FA is feasible during PD and may help identify patients at increased risk of POPF, despite subjective and technical limitations. ICG-cholangiography offers valuable real-time insight into HJ sufficiency and facilitates immediate detection of bile duct leakage, enabling timely surgical intervention and potentially reducing postoperative complications.

General
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DKS 2025: Abstract 57

Waiting time before local treatment and survival outcomes in biliary tract cancer

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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 6: Hepato-Pancreato-Biliary (HPB)

Background: Biliary tract cancer is an aggressive malignancy with low overall survival rates. Therefore, the waiting time to receive first-line treatment may hinder successful outcomes. However, controversy has arisen as different authors have concluded that extended waiting times for surgery in digestive cancers do not affect survival.
Method: This was a retrospective, nationwide, multicentre, cohort study, based on data from patients locally treated for intrahepatic cholangiocarcinoma (iCCA), perihilar cholangiocarcinoma (pCCA), and gallbladder cancer (GBC) from 2013 to 2023. Cases were identified in the Danish Liver Cancer Group registry. Survival was analyzed using the Kaplan-Meier estimator
Results: A cohort of 303 patients was analyzed. The median waiting time from diagnosis to treatment for the entire cohort was 28.0 days, with an interquartile range (IQR) of 21.0-41.0 days. Subgroup analysis revealed a median waiting time of 31.0 (20.0-43.5) days for patients with iCCA, 32.0 days (IQR: 21.0- 42.2) days for patients with pCCA, and 27 days (IQR: 20.0-35.0) for patients with GBC. Survival rates did not show statistically significant differences when comparing patients with waiting times above or below the median for any cancer subtype (iCCA: p=0.13, pCCA: p=0.26, and GBC: p=0.39).
Conclusion: Survival in patients with biliary tract cancer was not impacted by the waiting time from diagnosis to local treatment when it exceeded the median.

General
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Do you want to apply for the British Journal of Surgery Prize?: No

DKS 2025: Abstract 59

Addressing the Primary Complaint: Prospective Outcomes After Laparoscopic Cholecystectomy for Uncomplicated Gallstone Disease

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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 6: Hepato-Pancreato-Biliary (HPB)

Background: **Background:** Laparoscopic cholecystectomy is one of the most common surgical procedures for symptomatic gallstone disease. While surgical success has traditionally been defined by low complication rates and short recovery times, patients' own reports of their outcomes are just as important measures of success.
Aim: To assess whether laparoscopic cholecystectomy resolves patients' primary complaints and improves quality of life (QoL) in uncomplicated gallstone disease.
Method: **Method:** This prospective single-Centre study included patients referred to the surgical department with symptomatic, uncomplicated gallstone disease between June 2023 and September 2024. Patients were allocated to laparoscopic cholecystectomy or watchful waiting according to standard procedure. Two questionnaires were administered: (1) a short instrument identifying the patient's primary complaint and disease burden, and (2) the Gastrointestinal Quality of Life Index (GIQLI). Follow-up was conducted 12 weeks postoperatively or post-consultation, in case of watchful waiting. The primary outcome was a resolution of the primary complaint (yes/no). Secondary outcomes included change in GIQLI score, proportion achieving the minimal clinically important difference (MCID), and reasons for consultation.
Results: **Results:** 298 patients were available for inclusion, 230 (77.2%) completed the preoperative questionnaires and 172 completed follow-up (74.8%). After surgery, 77.6% of patients reported that their main problem or concern had been resolved, 9.0% reported it had not, 6.0% stated they had no problems or concerns to begin with, and 7.5% were unsure. Among patients who did not undergo cholecystectomy, 21.6% stated they would like surgery, 37.3% did not wish to have surgery, and 41.2% were unsure. Complete results will be available at the time of the presentation.
Conclusion: **Conclusion:** This study provides real-world evidence on patient-reported resolution of symptoms and QoL improvement after laparoscopic cholecystectomy for uncomplicated gallstone disease. Findings may guide preoperative counselling and support patient-centered decision-making.

General
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DKS 2025: Abstract 78

Nationwide study on survival and recurrence of hepatocellular carcinoma after ablation as first treatment

J. Klubien[1], L.A. Knøfler[1], P.N. Larsen[1], C. Tschuor[1], T. Pless[2], E. Gadsbøll[3], L. Kazlas[4], A.R. Knudsen[5], S.D. Nielsen[6], H.-C. Pommergaard[1]
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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 6: Hepato-Pancreato-Biliary (HPB)

Background: Hepatocellular carcinoma (HCC) is a common cancer worldwide with high mortality and recurrence rates. Ablation is a curative treatment for the early stages. We aimed to report survival and recurrence rates including prognostic factors and investigate recurrence timing and patterns following ablation as the first treatment.
Method: This study was based on Danish Liver Cancer Group data and medical records. Variables associated with survival were investigated using Kaplan-Meier estimator and Cox regression. The cumulative incidence of recurrence and associated prognostic variables were investigated using the Aalen-Johansen estimator and cause-specific Cox regression.
Results: From May 2013 to February 2023, 395 patients were included. Among them, 80% were men, the median age was 66 years, and 91% had cirrhosis. A complete ablation response after one month was achieved in 86.1%. Median survival was 3.4 years, and the five-year survival rate was 37.3%. Adjusted analysis showed a worse prognosis in patients with a tumor diameter ≥3 cm compared to <3 cm, performance status 1 and ≥2 compared to 0, and a percutaneous approach compared to open. Two-thirds developed recurrence of whom 40.5% had *de novo* HCC, 18% had local recurrence, and 7.9% developed both. Adjusted analysis showed that diameter ≥3 cm compared to <3 cm and three or more tumors had a higher recurrence risk.
Conclusion: This nationwide study reflects real-world data. Recurrence remains challenging, particularly for patients with larger and multiple tumors, and studies investigating the treatment of recurrence and its effect on overall survival are warranted.

General
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Do you want to apply for the British Journal of Surgery Prize?: Yes

DKS 2025: Abstract 79

Clinical characteristics and proportion of patients with chronic hepatitis B or C infections and concomitant hepatocellular carcinoma: A cohort study based on nationwide Danish registries

J. Klubien[1], *D. Akdag*[1], *P. Christensen*[2], *S.D. Nielsen*[1], *N. Weis*[3], *H.-C. Pommergaard*[1]

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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 6: Hepato-Pancreato-Biliary (HPB)

Background: Hepatitis B virus (HBV) and hepatitis C virus (HCV) infections are major global risk factors for hepatocellular carcinoma (HCC), even in low-endemic regions such as Denmark. The prevalence and clinical characteristics of HBV- and HCV-related HCC in Denmark remain insufficiently described. This study aimed to determine the proportion, clinical profiles, and survival outcomes of patients with HBV- and HCV-related HCC in a nationwide Danish cohort.
Method: We conducted an observational cohort study linking three national databases: the Danish Liver Cancer Group Database (DLGCD), the National Hepatitis Laboratory Database (DANVIR), and the Danish Database for Hepatitis B and C (DANHEP). Adults (≥18 years) with confirmed HCC referred for multidisciplinary team (MDT) evaluation between May 2013 and November 2020 were included and followed until December 17, 2022. Chronic HBV or HCV infection was defined by a positive HBsAg or HCV RNA test. Proportions were estimated with 95% confidence intervals (CI), survival with Kaplan–Meier curves, and mortality risk with Cox regression.
Results: Among 2,533 patients with confirmed HCC, 420 (16.6%) had HBV and/or HCV infection (HBV: 2.45%, 95% CI 1.88–3.13; HCV: 13.70%, 95% CI 12.38–15.10; both: 0.43%). Median age was 62–63 years for HBV/HCV and 72 years for non-viral HCC. Adjusted mortality risk was higher for HCV (HR 1.44, 95% CI 1.02–2.02) and non-viral HCC (HR 1.78, 95% CI 1.29–2.46) compared with HBV. Five-year survival was highest for HBV (37.7%), followed by HCV (24.3%) and non-viral (13.7%) HCC.
Conclusion: In Denmark, HCV-related HCC is more prevalent than HBV-related HCC. HBV patients had better long-term survival compared with HCV and non-viral HCC, emphasizing the importance of early diagnosis and management of viral hepatitis to reduce HCC burden.

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Do you want to apply for the British Journal of Surgery Prize?: Yes

DKS 2025: Abstract 87

A Validated Algorithm to Detect Recurrence After Pancreatic Cancer Surgery in Denmark Using Nationwide Healthcare Registries

R. Ilkjær[1], N. Sølvsten[1], C. Palnæs Hansen[2], A. Riegels Knudsen[1], F. Viborg Mortensen[1], U. Heide-Jørgensen[3], J. Kirkegård[1]

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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 6: Hepato-Pancreato-Biliary (HPB)

Background: **Accurate detection of recurrence through registry data is essential for studying outcomes and identifying futile pancreatic resections, characterised by early recurrence within six months. We developed and validated an algorithm for the detection of recurrence using Danish nationwide registries and plan to use it to construct a predictive model for early recurrence.**
Method: **Utilising data from the Danish National Patient Registry (DNPR), the Danish Cancer Registry (DCR), the Danish Pathology Registry (DPR), and the Danish Civil Registry (CPR), we identified all cases of pancreatic ductal adenocarcinoma (PDAC) resections conducted between 1 January 2012 and 31 December 2022 (n = 2.301). A stratified random validation sample comprising 481 cases underwent medical chart review. We evaluated the sensitivity, specificity, positive predictive value (PPV), negative predictive value (NPV), and Cohen's kappa coefficient (κ). To evaluate the accuracy of dating recurrences, we compared the time-to-recurrence (TTR)—defined as the interval from surgery to the first documented recurrence—between registry data and chart review. The algorithm was subsequently optimised based on misclassification patterns.**
Results: **Chart review identified 335 recurrences, whereas the algorithm detected 345 recurrences, with 314 being true positives. Overall, the algorithm demonstrated a sensitivity of 92% (95% CI, 88–94), specificity of 85% (78–90), PPV of 94% (91–96), NPV of 80% (73–85), and a Cohen's κ of 0 0.75. For recurrences occurring within six months, the sensitivity was 53% (43–62), specificity 94% (91–96), PPV 71% (60–81), NPV 87% (83–90), and Cohen's κ 0 0.51. Following optimisation, agreement improved to Cohen's κ of 0.77 overall and 0.59 for six-month recurrences. The median difference in TTR was 8 days (Interquartile Interval, -944 to 829), with an R^2 value of 0.62.**
Conclusion: **We present an optimised and validated registry-based algorithm with high overall accuracy for detecting PDAC recurrence. Utilising this, we will develop a clinical prediction model aimed at identifying patients at high risk of recurrence within six months, thereby supporting preoperative decision-making.**

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DKS 2025: Abstract 95

Liver Fibrosis in One-Year Protocol Biopsies after Liver Transplantation is Associated with Graft Loss: Results from a Nordic Multicenter Cohort Study

D. Akdag[1], A.A. Rostved[1], A. Rasmussen[1], G.L. Willemoe[2], D. Chiranth[2], B.-G. Ericzon[3], C. Jorns[3], W. Bennet[4], A. Nordin[5], F. Åberg[5], J.G. Hillingsø[1], S.D. Nielsen[6], H.-C. Pommergaard[1]
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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 6: Hepato-Pancreato-Biliary (HPB)

Background: Protocol biopsies are used to improve post-transplant care in liver transplant recipients. Subclinical inflammation and fibrosis are common and associated with progressive fibrosis and late-stage graft loss. However, the association between early inflammation and fibrosis in the first post-transplant years and graft loss is sparsely investigated.
Method: This was a Scandinavian multicenter cohort study. Protocol biopsies collected one year after transplantation were assessed for inflammation and fibrosis to determine the proportion. Fibrosis progression was evaluated using paired biopsy data, one year and >2 years after transplantation. We investigated the association between inflammation, fibrosis, and relevant risk factors with graft loss and survival using Cox regression analysis. Graft loss was defined as re-transplantation or death due to liver complications.
Results: Four hundred and forty-six liver transplant recipients were included, with a median follow-up of five years, during which six experienced graft loss and twenty-five died. One year after transplantation, 18% of recipients had inflammation and 13% had fibrosis. Paired biopsy data trended toward more fibrosis progression than regression in our cohort, p=0.057. Recipients with fibrosis one year after transplantation had a significantly increased risk of graft loss in the multivariable analysis, with an adjusted hazard ratio (aHR) of 6.72 (95% CI: 1.36–33.29). Additionally, donor age was associated with increased risk of graft loss, aHR 2.34 (0.96–5.69). Inflammation and fibrosis were not significantly associated with mortality, HR 0.56 (0.13–2.43) and 0.95 (0.29–3.19), respectively.
Conclusion: In this multicenter cohort study, 13% of recipients had fibrosis one year after transplantation, and fibrosis was significantly associated with increased risk of graft loss. Protocol biopsies remain valuable in detecting inflammation and fibrosis, thereby guiding clinicians in post-transplant care.

General
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Do you want to apply for the British Journal of Surgery Prize?: Yes

DKS 2025: Abstract 111

Does cholecystectomy or biliary sphincterotomy prevent new episode of acute pancreatitis or biliary event following endoscopic treatment of gallstone induced pancreatitis with walled-off pancreatic necrosis?

L. Rasmussen[1], *G. Aaby Olsen*[1], *A. Hadi*[1], *M. Laksáfoss Lauritsen*[1], *D. Fenger Schefte*[1], *S. Novovic*[1], *J. Gásdal Karstensen*[1], *Pancreatic Center East*
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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 6: Hepato-Pancreato-Biliary (HPB)

Background: The efficiency of cholecystectomy and/or biliary sphincterotomy (BS) on recurrence of AP or biliary events in patients with gallstone induced necrotizing AP with subsequent development of walled-off pancreatic necrosis (WON) is not well eucidated. The aim of the present study was to evaluate the association between cholecystectomy/BS and the risk of recurrence of AP or biliary events in patients with symptomatic WON.
Method: Patients with gallstone induced AP with WON treated from January 2012 until June 2023 were consecutive included in the study and clinical characteristics and outcomes were registered. Cox regression with cholecystectomy or BS as time-dependent variables was used, and data are presented as hazard ratio (HR).
Results: A total of 113 patients were included of whom 76 (67%) were treated with cholecystectomy and 63 (56%) with BS. Forty-two (37%) patients were treated with both procedures, and 16 (14%) had neither cholecystectomy nor BS performed.
The recurrence rate of AP was 12.5% (nine out of 72) among patients who had undergone cholecystectomy prior to recurrence, compared to 12.2% (five out of 41) in those with the gallbladder in situ (HR=2.96; 95%-CI: 0.79–11.00; p=0.106).
For patients treated with BS prior to recurrence, the AP recurrence rate was 10.0% (six out of 60), compared to 15.1% (eight out of 53) in those without BS (HR=0.77; 95%-CI: 0.27–2.23; p=0.634).
The incidence of biliary events was 1.4% (one out of 72) in patients who had undergone cholecystectomy prior to the event, versus 12.2% (five out of 41) in those without cholecystectomy (HR=0.21; 95%-CI: 0.02–2.03; p=0.178). Among those who had received BS prior to the event, the biliary event rate was 6.6% (four out of 61) compared to 3.9% (two out of 52) in the non-BS group (HR=2.01; 95%-CI: 0.35–11.38; p=0.432).
When analyzing a combined endpoint of either recurrent pancreatitis or biliary event, there was no statistically significant association with cholecystectomy (HR = 1.33; 95%-CI: 0.47–3.76; p = 0.588) or sphincterotomy (HR = 1.17; 95%-CI: 0.47–2.90; p = 0.740).
Conclusion: This retrospective study indicates, that neither subsequent cholecystectomy nor BS was significantly associated with a reduced risk of recurrent AP. Likewise, neither cholecystectomy nor BS showed significantly reduced risk in regards of a biliary event. There was, however, a trend toward fewer biliary events among patients who underwent cholecystectomy, whereas BS showed no protective effect on biliary event.

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Do you want to apply for the British Journal of Surgery Prize?: Yes

DKS 2025: Abstract 112

Examining the impact of propranolol on preoperative anxiety and on tumorigenic changes in patients with pancreatic ductal adenocarcinomas: a protocol for a randomized, triple-blinded, placebo-controlled pilot trial (The IMPULS trial)

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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 6: Hepato-Pancreato-Biliary (HPB)

Background: Studies have found that enhanced beta-adrenergic signaling suppresses antitumor immunity by impairing CD8+ T-cell cytotoxicity while fostering immunosuppressive cell populations. Moreover, beta-adrenergic signaling is found to enhance cancer cell proliferation and stimulate angiogenesis. Inhibiting the beta-adrenergic pathway through repurposing of beta-blockers offers a potential therapeutic strategy to counteract stress-mediated cancer progression. Furthermore, receiving preoperative propranolol may reduce symptoms of anxiety prior to surgery.
Method: The IMPULS trial is a randomized, triple-blinded, placebo-controlled, single center, pilot trial that examines the efficacy, safety and feasibility of preoperative propranolol in patients scheduled for pancreatic cancer surgery at Rigshospitalet. In total, 30 patients will be enrolled in a 1:1 ratio to receive either 40 mg propranolol or placebo twice daily for 7-14 days prior to surgery. Patients undergoing curatively intended elective surgery for suspected pancreatic cancer that are at least 18 years old and can provide oral and written informed consent are eligible. Patients eligible have normal blood pressure and heart rate and no history of cardiovascular diseases or lung emphysema.
Results: The *IMPULS* (NCT06145074) trial started the recruitment of patients in late April 2024. As of August 2025, 15 patients have been included in the study and 11 patients have finalized the study course. The primary aim is to examine whether propranolol may modify the tumor microenvironment in terms of increasing the presence of cytotoxic immune cells and reducing the expression of pro-tumorigenic genes. In addition, the effects of propranolol on symptoms of anxiety prior to surgery in patients with suspected pancreatic cancer will be examined using the HADS and HAMA questionnaires. The secondary aim is to assess safety and tolerability of the dosing strategy of propranolol (40 mg twice daily). The tertiary aim is to explore factors related to the study implementation, including feasibility and compliance.
Conclusion: The inclusion is ongoing. Based on the current recruitment flow, the trial is expected to continue until the end of 2026. Patients will be followed up till 5 years from surgery or until death. Results on the translational data (such as changes in the tumor microenvironment of resected cancer specimens) are expected to be published during 2027.

General
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Do you want to apply for the British Journal of Surgery Prize?: Yes

DKS 2025: Abstract 6

Evaluating the Efficacy of Suture Mesh vs. Planar Mesh in Ventral Hernia Treatment – a protocol for a randomized, blinded multicenter study

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[1]Regionshospital Nordjylland, Surgery, Hjørring, Denmark, [2]Regionshospital Nordjylland, Center for klinisk Forskning, Hjørring, Denmark

Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 7: Hernia

Background: Surgery for small ventral hernia (< 2 cm) is one of the most frequently performed operations in Denmark (2469 procedures in 2023). Despite it being a relatively small operation, up to 7.1% of patients are readmitted to emergency departments <90 days after surgery, primarily due to wound problems, and up to 2.2% of patients are reoperated <30 days after surgery. Historically, the two most important outcome measures following small ventral hernia repair are postoperative wound events and long-term hernia recurrence. Current standard treatment of these hernias in Denmark is open surgery with onlay planar mesh placement. This method is proven superior to closure of the hernia defect with only a suture in terms of recurrence rates, however with a higher risk of wound events. Recently, a mesh-suture has been developed combining the properties of both suture and mesh, allowing ingrowth of tissue, while having the tensile strength nearly identical to those of a surgical suture.
Thus, the aim of this trial is to investigate differences in wound complication rates (SSO), PROM (Quality of Life, QoL) and operation time in small ventral hernia repair either with mesh-suture or planar mesh as well as evaluate potential influence of mesh-suture on wider socio-economic parameters as well as recurrence (below).
Method: Multicenter, blinded, randomized controlled trial with up to four participating centers. Included patients will be randomized to either standard treatment with planar mesh or interventional treatment with mesh-suture, powered as a superiority study, with planned sample size of 280 patients. Investigator-initiated, not company sponsored.
Primary outcome: Surgical site occurrences (SSO) on postoperative day 7-13. Definition: Standardized CDC (Centers for Disease Control and Prevention) and VHWG (Ventral Hernia Working Group) definitions. Evaluation: Clinical examination and ultrasound..
Secondary outcomes: QoL on postoperative day 7-13 and day 90. Definition and evaluation: The EHS (European Hernia Society) validated QoL score.
Duration of surgery (min).

Sub-study 1: Long-term recurrence. Hernia recurrence events in both study subgroups after 1, 3 and 5 years.
Sub-study 2: Long-term outcomes. QoL as defined above in both subgroups after 1 year.
Sub-study 3: Socio-economic aspects. Socio-economic parameters (specifically time to return to work, analgesic use and contact with the primary sector) in both groups on postoperative day 7-13, 90 and after 1, 3 and 5 years.
Results: -
Conclusion: -

General
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Do you want to apply for the British Journal of Surgery Prize?: No

DKS 2025: Abstract 19

Smoking cessation and weight loss before ventral hernia repair – can we really justify this? a single center cohort study

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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 7: Hernia

Background: Smoking and adiposity are risk factors for poor postoperative outcomes after hernia surgery. This study investigated the consequences of a preoperative smoking cessation and weight loss program prior to ventral hernia repair.
Method: In this retrospective cohort study, patients enrolled in a smoking cessation or weight loss program prior to ventral hernia repair between June 2021 and December 2024 were included. All patients were referred to a municipal course on smoking cessation and/or weight loss. Patients in the weight loss program received a target weight and dietary guidance. Follow-up consisted of motivational interviews by telephone or in person. Success was defined as achieving smoking cessation and/or reaching target weight and undergoing ventral hernia repair.
Results: 107 patients were identified: 12 (11.2%) participated in the smoking cessation program, 77 (72.0%) in the weight loss program, and 18 (16.8%) in both programs. 28 patients (26.2%) completed pre-optimization and underwent surgery. Another 28 (26.2%) had not reached their goal and remained in the program at the end of follow-up. 27 (25.2%) dropped out, 14 (13.1%) were discontinued due to lack of progress, and 8 (7.4%) were lost to follow-up. 3 patients (2.8%) required emergency surgery during the program. The median time from initiation of pre-optimization to surgery was 325 days (range, 47–953).
Conclusion: Only 1 in 4 patients completed preoperative optimization and underwent surgery. The program was resource intensive, with substantial dropout and failure rates. These results highlight the challenges of prehabilitation and maybe the entire approach should be reconsidered.

General
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Do you want to apply for the British Journal of Surgery Prize?: Yes

DKS 2025: Abstract 30

Supervision of hernia surgery

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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 7: Hernia

Background: Inguinal herniotomy is one of the most frequently performed surgical procedures in Denmark and a mandatory competency in the national surgical training curriculum. However, many junior surgeons report a lack of confidence in performing this procedure, and often require assistance from a senior colleague when performing herniotomy. To assess whether inguinal herniotomy cases are sufficiently utilized for surgical training, this study investigates how often inguinal herniotomies are performed under supervision by a more experienced surgeon.
Method: A retrospective cohort study using data from the Danish Hernia Database. Patients undergoing planned open/laparoscopic inguinal herniotomy (2017-2023) were included. Primary outcome was the percentage of supervised herniotomies.
Results: Overall, 16% (9,021 of 56,269) of laparoscopic or open inguinal herniotomies were performed under supervision. Supervision occurred in 28% (5,444 of 19,284) of open herniotomies and 10% (3,577 of 36,985) for laparoscopic herniotomies. In stratified analysis, 22% of herniotomies (8,938 of 39,733) were performed under supervision in the public sector opposed to 0.5% (83 of 16,536) in the private sector.
Conclusion: 16% of open or laparoscopic were supervised. These findings show a missed opportunity for surgical training that could be better utilized, particularly in open procedures.

General
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Do you want to apply for the British Journal of Surgery Prize?: No

DKS 2025: Abstract 36

Female patients are more often dissatisfied with perioperative information when undergoing ventral hernia repair: a nationwide survey and register-based cohort study

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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 7: Hernia

Background: Good preoperative information is associated with reduced preoperative anxiety and improved postoperative pain, satisfaction, and quality of life. This study examined sex-based disparities in perceived sufficiency of perioperative information among patients undergoing ventral hernia repair.
Method: This study is a part of the AFTERHERNIA project, which included patients ≥18 years who underwent primary or incisional hernia repair between January 2014 and March 2024. Patients identified via the Danish National Patient Register completed the Abdominal Hernia Questionnaire (AHQ), with responses linked to the Danish Ventral Hernia Database. Perceived sufficiency of perioperative information was assessed using three AHQ items: prepared for surgery, postoperative emotions, and recovery concerns.
Results: Among 26,169 patients (10,000 females, 16,169 males; 79% response rate), crude rates indicated that female patients were more often dissatisfied in all three items: prepared for surgery (14.4% vs 8.9%), postoperative emotions (39.2% vs 21.8%), and recovery concerns (33.7% vs 21.8%). In adjusted analyses (n=23,009), female patients were also found to be more dissatisfied: prepared for surgery (OR 1.39; 95% CI, 1.27–1.53), postoperative emotions (OR 2.00; 95% CI, 1.88–2.13), and recovery concerns (OR 1.60; 95% CI, 1.50–1.71).
Conclusion: Female patients consistently reported greater dissatisfaction with perioperative information than males. These findings highlight the need to tailor perioperative counselling to better address female patients' informational needs.

General
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DKS 2025: Abstract 51

Establishment and overall results of the ventral hernia cohort in the AFTERHERNIA project: a nationwide register- and survey-based cohort study

J.J. Baker[1], *H. Reistrup*[1], *A. Gram-Hanssen*[1], *A. Joensen*[2], *J. Bullock*[3], *J. Rosenberg*[1]

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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 7: Hernia

Background: The complication rate after ventral hernia repair remains high. This paper aimed to present the overall results of the ventral hernia cohort in the AFTERHERNIA project.
Method: The AFTERHERNIA project is a nationwide survey including all living adult Danish residents who underwent ventral hernia repair between 2014-2024, identified through the Danish National Patient Register. The survey included questions on the reasons for undergoing hernia repair, the Abdominal Hernia Questionnaire (AHQ), recurrence status, and lifestyle factors.
Results: The survey was distributed to 34,833 patients, yielding a response rate of 78% for complete responses. Patients selected multiple reasons for undergoing surgery; the most frequently reported were pain, concerns about the hernia, impact on sexual activity, cosmetic reasons, and reduced functional capacity. The median AHQ score was 59 (IQR 54–63) out of 64, with higher scores indicating better outcomes. Depending on whether the procedure was for a primary or an incisional hernia, the prevalence of severe chronic pain ranged from 12% to 22%, foreign body sensation from 23% to 35%, and no improvement in quality of life from 9% to 16%. Hernia recurrence was reported by 14 to 24% of respondents.
Conclusion: The ventral hernia cohort of the AFTERHERNIA project has been successfully established, revealing a significant proportion of patients experiencing chronic pain, foreign body sensation, and hernia recurrence. The cohort will be merged with data from the Danish Hernia Database, forming the basis for future studies aimed at optimizing ventral hernia management.

General
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DKS 2025: Abstract 61

Staples versus sutures for skin closure after surgery: A systematic review and meta-analysis

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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 7: Hernia

Background: The choice of skin closure method may influence postoperative outcomes such as surgical site infection and wound dehiscence. This systematic review and meta-analysis compared staples versus either absorbable or non-absorbable sutures for skin closure.
Method: We systematically searched PubMed, Embase, and Cochrane Library up to July 2025 for randomised controlled trials (RCTs) enrolling adult patients undergoing neck, trunk, or extremity surgery comparing skin closure with staples versus either absorbable or non-absorbable sutures. Meta-analyses were performed using random-effects models. Risk of bias (RoB) was assessed with the Cochrane RoB 1 tool, and certainty of evidence was rated using the GRADE framework.
Results: Sixty-seven RCTs involving 13,433 patients were included. Staples significantly increased the risk of surgical site infection (RR 1.52; 95% CI [1.18, 1.95]), dehiscence (RR 2.32; [1.82, 2.96]), and overall wound complications (RR 1.45; [1.23, 1.73]) compared with absorbable sutures. No significant differences were observed between staples and non-absorbable sutures. Staples reduced skin closure time (MD –6.89 minutes; [–8.30, –5.49]) compared to suture.
Conclusion: Wound closure with absorbable suture as compared with staples reduced wound complications. Outcomes following wound closure with non-absorbable suture and staples appeared comparable. Staples were faster to apply. The overall certainty of evidence was low to moderate due to risk of bias and heterogeneity.

Funding: No external funding.

Trial registration: PROSPERO ID: CRD420251087421

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DKS 2025: Abstract 73

Slowly absorbable sutures do not increase the risk of reoperation for recurrence compared with non-absorbable sutures in primary ventral hernia repair: a nationwide register-based cohort study.

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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 7: Hernia

Background: Primary ventral hernias are common, and the choice of suture material may influence the risk of recurrence. This study investigated the risk of reoperation for recurrence following primary ventral hernia repair using slowly absorbable or fast-absorbable sutures compared with non-absorbable sutures.
Method: This study used prospectively collected data from the Danish Ventral Hernia Database (2007–2024). Data were linked with the Danish National Patient Register and the Danish Civil Registration System to ensure complete follow-up. We included patients with primary ventral hernias with a defect width ≤4 cm, stratified into suture-only and onlay mesh cohorts.
Results: We included 31,189 patients, and suture-only repairs accounted for 68% (n = 21,202) of cases, while onlay mesh repairs accounted for 32% (n = 9,987). In the suture-only cohort, there was no difference in reoperation risk for slowly absorbable sutures (HR 1.02, 95% CI [0.88, 1.19]) or fast-absorbable sutures (HR 1.16, 95% CI [0.93, 1.45]) compared with non-absorbable sutures. Similarly, in the onlay mesh cohort, no difference was found for slowly absorbable (HR 1.19, 95% CI [0.83, 1.67]) or fast-absorbable sutures (HR 0.80, 95% CI [0.20, 3.23]).
Conclusion: Slowly absorbable sutures did not increase the risk of reoperation compared with non-absorbable sutures, regardless of mesh use. Although no significant difference was found between non-absorbable and fast-absorbable sutures, this should be interpreted with caution due to limited data. These findings suggest that slowly absorbable sutures are a safe option and may be preferred due to complications associated with non-absorbable sutures.

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DKS 2025: Abstract 75

Patients’ motivation for undergoing elective repair of a primary ventral hernia: a descriptive mixed-methods study

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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 7: Hernia

Background: Primary ventral hernias, including umbilical and epigastric hernias, can impair quality of life through pain, functional limitations, and aesthetic concerns. Surgical repair is the only definitive treatment, yet patient motivations for electing surgery remain poorly understood. This study aimed to describe the reasons patients choose elective repair of a primary ventral hernia and to identify the proportion whose motivations may not strictly warrant surgical intervention.
Method: As part of the AFTERHERNIA Project, we conducted a nationwide descriptive mixed-methods study among Danish adults who underwent elective repair of a primary ventral hernia between 2014 and 2024. Participants were identified via the Danish National Patient Registry, they were invited to participate through the Danish Digital Post system, and they completed the survey through REDCap. The survey collected structured responses on preoperative motivations, postoperative improvement, and demographics, as well as open-ended questions for qualitative input. Response options were not mutually exclusive. Quantitative data were summarized descriptively, and free-text responses underwent systematic text condensation. Survey data were linked to clinical variables from the Danish Hernia Database.
Results: In total, 21,532 participants completed the survey (response rate 81.9%). Pain or discomfort (63.4%), risk of hernia progression (36.0%), doctor’s recommendations (34.5) and aesthetic concerns (28.2%) were the most frequent motivations. Postoperative improvement rates exceeded 90% across most domains. Qualitative analysis is ongoing and will explore patients’ motivation in greater depth.
Conclusion: Patients electing primary ventral hernia repair report diverse motivations for seeking surgery. A notable subset undergoes surgery for potentially modifiable issues, highlighting opportunities for enhanced preoperative counselling and shared decision-making. Integrating patient perspectives into surgical planning may optimize outcomes and reduce unwarranted interventions. This study is a part of the AFTERHERNIA Project, which is a nationwide initiative to map patient outcomes after hernia surgery across Denmark, and to provide a better understanding of what constitutes a successful hernia operation.

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DKS 2025: Abstract 76

Impact of obesity and smoking on reintervention risk after elective umbilical hernia repair with mesh – A nationwide study

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Topic: 7: Hernia

Background: To investigate the impact of obesity and smoking on reinterventions following elective primary umbilical hernia repair (UHR).
Method: A retrospective nationwide study of patients who underwent UHR from 2011 to 2020. Complete follow-up was obtained on 31/12/2023, through nationwide registries, and complete scrutiny of operative notes. Primary and secondary outcomes were the impact of obesity and smoking on risk of overall reoperation, operation for recurrence and operation for non-recurrence complication. Multivariable analyses were performed using Cause-specific hazard model.
Results: Among 3,761 patients included, 77,6% underwent mesh repair. Follow-up was 99.9%, median 4.8 years. A total of 640 (17.0%) smokers: 120 (14.2%) had suture repair and 520 (17.8%) had mesh repair. In non-smokers, mesh decreased the risk of overall reoperation (HR 0.60, p=0.015) and recurrence reoperation (HR 0.34, p<0.001) compared with suture. Mesh increased the non-recurrence reoperation-risk in smokers (HR 3.83, p=0.028), compared to suture. Mesh and suture had similar risk of overall reoperation and non-recurrence reoperation in both obese and non-obese. Mesh reduced the risk of recurrence reoperation in non-obese (HR 0.39, p=0.005), compared to suture.
Conclusion: Mesh is effective in reducing overall reoperation and recurrence reoperation in non-smoking patients, while it causes more non-recurrence reoperations in smokers, compared to suture. Mesh only reduced risk of recurrence reoperation in non-obese. Mesh and suture performed similarly in obese and non-obese.

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Do you want to apply for the British Journal of Surgery Prize?: No

DKS 2025: Abstract 106

Shorter operative times following robotic-assisted transabdominal preperitoneal inguinal hernia repair (TAPP) compared to laparoscopic TAPP

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Topic: 7: Hernia

Background: Despite the perception of higher procedural costs and longer operative time, robotic-assisted inguinal hernia repair has emerged as an alternative to the laparoscopic procedure. The present study was conducted to determine the time required for robotic and laparoscopic transabdominal preperitoneal (TAPP) inguinal hernia repair and to determine whether these time profiles differ between the two groups
Method: One hundred thirty-eight patients were randomized to a robotic-assisted r-TAPP (n= 74; 54%) or a laparoscopic l-TAPP (n=64; 46%) procedure by experienced surgeons. The hernia defect was classified as either simple or complicated according to hernia size, involvement of the scrotum, and whether the hernia was a primary defect, a recurrence, or a bilateral defect.
Results: Time from intubation to skin closure ($P<0.05$) and from air insufflation to removal of instruments ($P<0.05$) were shorter for the r-TAPP than for the l-TAPP procedure. This difference was observed for both simple and complex hernias, the difference between groups being larger for the complicated than for the simple defects. The analysis demonstrated that an additional 5 minutes were needed to dock the robotic platform and place the instruments. Despite this delay, the time required for the procedure remained shorter for the r-TAPP than for the l-TAPP repair.
Conclusion: Robotic-assisted inguinal hernia repair is associated with a shorter operative time than conventional laparoscopy. While the time required for docking and instrument placement caused a minor delay of the procedure, the operating time for the robotic repair was shorter than for the laparoscopic procedure.

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DKS 2025: Abstract 110

Reduced risk of recurrence following laparoscopic transabdominal preperitoneal (TAPP) inguinal hernia repair using the self-fixating ProGripTM mesh compared to tack fixation (PROTACK Trial): A prospective randomized clinical trial of 342 cases

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Topic: 7: Hernia

Background: Minimal invasive inguinal hernia repair can be performed using the transabdominal preperitoneal (TAPP) or the extended totally extraperitoneal (eTEP) approach. To reduce the risk of recurrence, a mesh-based procedure is used. Although a variety of fixed and non-fixed meshes are available, the long-term complications associated with these devices remain unresolved. The present study aimed to determine the risk of long-term recurrence following TAPP inguinal hernia repair and determine whether the risk differed between procedures using the self-gripping ProGrip™ mesh (PG) and conventional tack fixation (TF).
Method: Three hundred forty-two male patients referred for laparoscopic TAPP inguinal hernia repair were randomized to either a ProGrip™ mesh repair without fixation (n=185) or a polypropylene mesh with tacks (n=157). Kaplan-Meier curves and Cox proportional hazards regression were used to assess hernia recurrence. Reoperation for recurrence was determined based on data retrieved from individual patient files and the Danish Hernia Database.
Results: The Kaplan-Meier curves for the two groups showed a higher cumulative incidence of recurrence in the TF group compared to the PG group (7.6 vs 3.2; $P < 0.05$). Consistent with this observation, the Cox regression demonstrated a higher risk of recurrence in the TF group with a hazard ratio (HR) of 0.35 (95% CI: 0.12–0.99; $P<0.05$). Median follow-up was 6.4 years for the TF group and 6.5 years for the PG group.
Conclusion: The present study demonstrates that laparoscopic TAPP for inguinal hernia repair using the self-griping ProGripTM mesh is associated with a lower risk of recurrence than a repair using tack fixation of a polypropylene mesh.

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Do you want to apply for the British Journal of Surgery Prize?: Yes

DKS 2025: Abstract 3

Ulcerative Colitis and the development of colorectal cancer: A systematic review and meta-analysis

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Topic: 8: Colorectal

Background: Ulcerative colitis (UC) is a chronic inflammatory bowel disease. Previous literature advocates an association between UC and an increased risk of colorectal cancer (CRC). The existing literature on the assessment of the magnitude of the risk for CRC shows varying results. The aim of this systematic review was to assess the literature on the incidence and risk factors for CRC in UC.
Method: A systematic review was performed using PubMed, Embase and Google Scholar. Studies including cohorts of UC patients with reported CRC outcomes was included. Extracted data included study design, population size, number of UC and CRC cases, as well as potential previously reported risk factors for CRC in UC, such as the extent and location of colitis and CRC. A random-effect meta-analysis was performed.
Results: Twenty-four studies comprising 150 103 UC patients were included. CRC incidence ranged from 0.25% to over 10% across regions and study designs. Median follow-up time was 12.5 years. In total, the reported number of CRC cases in UC patients was 2007 (1.34% of the included UC patients). The meta-analysis estimated a pooled CRC incidence of 1.13% (95% CI: 0.71%–1.56%) among UC patients. Extensive colitis and a long disease duration was associated with increased CRC risk. When reported, the cancer location was most frequent in the rectum and and the left-side of the colon.
Conclusion: In this systematic review the incidence of CRC in UC patients was 1.34%. The incidence of 1.13% for CRC in UC patients found in this systematic review emphasizes the need for surveillance in UC patients with extensive colitis and long disease duration.

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DKS 2025: Abstract 16

Same-day discharge after laparoscopic colorectal surgery: A systematic review

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Topic: 8: Colorectal

Background: Same-day discharge (SDD) after colectomy has received increasing attention in interest in recent years, with a growing body of supporting literature. This study aims to systematically review and assess current evidence regarding patient selection criteria, postoperative outcomes, and follow-up protocols, with the ultimate goal of proposing a standardized approach to ambulatory colectomy.
Method: A systematic literature search was conducted from March the 1st-15th 2025 using Cochrane Central Register of Controlled Trials, PubMed, and Google Scholar. Additional studies were identified through reference screening of previous systematic reviews on the topic.
Primary outcomes include SDD rates, emergency department visits, readmissions, postoperative complications, reoperations, and mortality. Secondary outcomes include patient eligibility characteristics, patient satisfaction, and follow-up protocol strategies.
Results: 22 studies are included in the study, twice the number compared with previous reviews. Only one randomized controlled trial was identified, the remainder are retrospective- or prospective observational. Significant heterogeneity exists in the patient selection, surgical and anesthesia techniques, discharge criteria and follow-up strategies. Preliminary findings suggest high rates of SDD without increased rates of emergency presentations, readmissions, complications, and mortality. Full data will be presented at the DKS annual meeting.
Conclusion: Preliminary results support the safety and feasibility of implementing SDD after laparoscopic colorectal surgery. Successful implementation is only seen in carefully selected patients. Furthermore, implementation is only seen under well-established *enhanced recovery after surgery* principles, optimized patient education and postoperative pain management, and a structured follow-up protocol. A standardized protocol is yet to be established

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DKS 2025: Abstract 20

The prognostic impact of lymph node yield in deficient and proficient mismatch repair colon cancers: a retrospective national cohort study

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Topic: 8: Colorectal

Background: Lymph node yield (LNY) is a recognized prognostic factor in patients with localized colon cancer. Traditionally, LNY was thought to reflect surgical quality, but recent studies suggest it may in fact be a surrogate for tumour biology and anti-tumour immune responses. Given the recognized differences in anti-tumour immunity according to mismatch repair status, we investigated whether LNY and its association with prognosis differed between deficient (dMMR) and proficient (pMMR) mismatch repair.
Method: National retrospective cohort study using the Danish Colorectal Cancer Group database. Patients diagnosed with new Stage I-III colon cancers undergoing right or left hemicolectomies between 2016-2022 were included. Patients with synchronous cancers or who underwent segmental resection or colectomies were excluded. LNY was reported as both a continuous and categorical variable (<12, 12-21, ≥22).
Results: A total of 9,705 patients were included, of whom 7,175 had pMMR cancers (74%). When compared to those with dMMR cancers, these patients were younger and with fewer comorbidities. Median LNY for the whole cohort was 27 (IQR 20-36), and LNY <12 nodes was seen in only 178 patients (2%). Median LNY was higher in patients with dMMR cancers (28 vs 26 nodes, $p < 0.001$), as were the proportion of patients with LNY ≥ 22 (73% vs 66%, $p < 0.001$). No difference in the number of lymph node metastases was noted. LNY <12 was associated with poorer overall survival both in patients with pMMR and dMMR cancers and was independently associated with all-cause mortality. However, this effect was more marked in patient with dMMR than pMMR cancers (HR 4.23 (95% CI 2.42-7.41) vs 1.94 (95% CI 1.21-3.13).
Conclusion: LNY was significantly higher in patients with dMMR cancer when compared with pMMR cancers. Furthermore, the prognostic impact of low LNY was much greater in patients with dMMR cancers. These findings support the theory that LNY reflects anti-tumour immunity rather than surgical quality.

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DKS 2025: Abstract 23

Quality of life in diverticular disease: Translation and validation of the Danish version of the diverticulitis quality of life instrument (DV-QOL)

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Topic: 8: Colorectal

Background: The impact of diverticular disease on quality of life (QOL) is increasingly acknowledged, and QOL has become a central outcome in both clinical decision-making and research. Until now, no validated tool has existed for assessing disease-specific QOL in Danish-speaking populations.
This study aimed to translate and validate the Danish version of the diverticulitis quality of life (DV-QOL) questionnaire, initially developed in 2015 to assess the impact of diverticular disease on quality of life (QOL) in Danish-speaking patients with diverticulosis.
Method: The DV-QOL was translated in accordance with international standards. A cross-sectional survey was conducted in 2023 with Danish-speaking subjects diagnosed with diverticulosis. The survey included the Danish DV-QOL, an anchor QOL question, and the EuroQol Visual analogue scale. Psychometric properties were evaluated for convergent and discriminant validity, reliability in terms of internal consistency, and sensitivity and specificity by determining the ability of the score to identify significant impacts on QOL.
Results: The validation cohort included 16,766 subjects. The DV-QOL score showed a strong correlation with overall QOL ($p < 0.001$) and high discriminative validity ($p < 0.001$). Reliability was confirmed with an inter-item correlation of 0.41 and a Cronbach's α of 0.92. The score accurately identified patients with a significant impact of bowel function on QOL, achieving 82% sensitivity and 79% specificity.
Conclusion: The Danish DV-QOL is a valid and reliable instrument for measuring diverticular disease-specific QOL in subjects with diverticulosis, including those without a history of acute diverticulitis. It provides a standardised disease-specific outcome measure for use in both clinical and research settings. Clinically, it may support decisions regarding elective surgical intervention by offering a structured assessment of symptom burden and its effect on patients' everyday life.

General
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DKS 2025: Abstract 26

Chronic diverticular disease - Validity of a register-based diagnosis of chronic diverticular disease

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Topic: 8: Colorectal

Background: This study aims to assess the positive predictive value (PPV) of a register-based algorithm designed to identify patients with chronic diverticular disease (cDD). There is currently no established diagnosis or internationally accepted definition of cDD, and research remains limited. As cDD incidence rises, a clear and standardized definition is essential to support high-quality research.
Method: The algorithm defines a cDD case as a patient with two relevant hospital contact for diverticular disease. A relevant contact is either (1) an inpatient admission with diverticular disease as the primary diagnosis or (2) an outpatient visit for diverticular disease without a colonoscopy or sigmoidoscopy. Data were extracted from the Business Intelligence Warehouse portal. The study cohort included all patients diagnosed with diverticular disease in the Central Denmark Region from 2010 to 2022 (n = 40,079). After excluding specific subgroups, 10710 patients remained eligible for journal review. Of these, 963 patients met the algorithm's criteria for cDD. A weighted sample of 150 patient records was randomly selected to ensure representation across subgroups. The PPV will be calculated as the proportion of patients meeting the algorithm's criteria, who are confirmed to have cDD after a systematic medical chart review.
Results: Currently, medical chart reviews are ongoing. Final results will be presented at the meeting.
Conclusion: This study seeks to support the refinement of register-based research on cDD in Denmark by validating the algorithm through journal review.

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Do you want to apply for the British Journal of Surgery Prize?: No

DKS 2025: Abstract 27

Disease severity and quality of life among patients with chronic diverticular disease – baseline characteristics of a prospective cross-regional multicenter cohort

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Topic: 8: Colorectal

Background: Chronic diverticular disease is characterized by recurring abdominal pain, bowel dysfunction, or repeated episodes of acute diverticulitis and may be complicated by stenosis or fistula. Elective sigmoid resection may improve quality of life. However, clear evidence-based guidelines regarding patient selection and the timing of surgery are lacking.
Method: We conducted a prospective multi-centre cohort study including patients with chronic diverticular disease referred for specialist evaluation of the indication for elective sigmoid resection in six colorectal centres in Central and North Denmark Regions. Patient inclusion is still ongoing.
Data on previous admissions for acute diverticulitis are extracted from patients' electronic records. Patients complete comprehensive questionnaires on quality of life at inclusion and one year after inclusion or surgery. Disease-specific quality of life is assessed using the validated Diverticulitis Quality of Life instrument (DV-QoL), scored 0 (best) to 10 (worst).
In this preliminary study, we evaluate the baseline severity of diverticular disease and its impact on quality of life among patients selected for surgery and conservative treatment, respectively.
Results: To date, we have included 379 patients, of whom 183 patients underwent elective sigmoid resection and 177 patients were treated conservatively.
A higher proportion of patients in the surgery group had 3 or more previous admissions due to acute diverticulitis compared to the conservative group (33% and 17%, respectively).
More patients in the surgery group reported daily abdominal pain (22% vs 10%), severe worry about flare-ups (27% vs 10%), and frequently needing to avoid social engagements (21% vs 10%) compared to the conservative group.
Further analysis of results will be ready for presentation at the *Danish Society of Surgery's Annual Meeting 2025*.
Conclusion: Patients selected for elective sigmoid resection reported more severe symptoms due to chronic diverticular disease and lower quality of life compared to patients selected for conservative treatment. Comparing these findings with one-year follow-up data may contribute significantly to creating evidence-based guidelines for patient selection for elective surgery in chronic diverticular disease.

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DKS 2025: Abstract 31

Less severe complications in high anterior resections with Single-Stapling Colorectal Anastomosis

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[1]Odense University Hospital, Department of Surgery, Odense C, Denmark, [2]University of Southern Denmark, Department of Clinical Research, Odense M, Denmark, [3]University of Southern Denmark, Department of Puiblic Health, Odense C, Denmark

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Topic: 8: Colorectal

Background: In laparoscopic or robot-assisted high anterior resections the double-stapled technique (DST) is the current standard treatment, however weak points in stapling intersections may increase risk of anastomotic leakage. The single-stapling technique (SST) eliminates these, potentially improving outcomes. This study compared SST and DST using the Comprehensive Complications Index (CCI).
Method: From Jan 2021 - Jan 2025, 45 patients who underwent laparoscopic or robotic high anterior resection for colorectal cancer with SST were identified and propensity-score matched to 493 patients with DST from the Region of Southern Denmark hospitals (Jan 2019–Jan 2023).
Results: After propensity matching CCI and leakage rates did not significantly differ between groups. The SST group had shorter lenghts of hospital stay (2.6 vs. 4 days, p = 0.001). Among patients with complications, SST patients had less severe complications (−36.6 CCI, p = 0.001) compared to DST. Robot-assisted surgery reduced the relative risk of complications by 90.1% in both groups (p = 0.0001).
Conclusion: In cases of complications, SST was associated with reduced severity and shorter hospital stay compared to DST, supporting its safety and potential benefits. Further studies are needed to confirm these findings.

General
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DKS 2025: Abstract 33

Transanal irrigation in clinical practice: a scoping review

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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 8: Colorectal

Background: Transanal irrigation is a minimally invasive technique promoting predictable bowel emptying and managing constipation and fecal incontinence. It is used after rectal cancer surgery and in neurological or pelvic floor disorders. This scoping review aimed to map the clinical use of self-administered transanal irrigation in adults in outpatient settings.
Method: The review was reported in accordance with the PRISMA-ScR guideline and was preregistered on the Open Science Framework. A systematic search was conducted in PubMed, Embase, CINAHL, and Cochrane CENTRAL. We included original studies on adults (≥18 years) using self-administered transanal irrigation in outpatient settings. The review focused on irrigation protocols, equipment, patient selection, outcome measures, and reported harms.
Results: Eighty-six studies with 4,064 adults (53% female) were included, with 57% published in the past decade. Transanal irrigation was most commonly used for neurogenic bowel dysfunction (36%) and post-surgical conditions (28%). Irrigation was typically performed daily or every other day. Volumes ranged from 400 to 2,400 ml and durations from 20 to 70 minutes. Outcome measures varied with 40 different outcome tools used. Most harms were minor. Rare but serious harms included rectal perforation.
Conclusion: Transanal irrigation is applied across several patient groups with heterogeneous protocols and outcome measures. Standardized core outcome sets are needed to strengthen evidence and guide clinical practice.

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DKS 2025: Abstract 34

Impact of timing of ileostomy reversal and anastomotic leakage on bowel function and health-related quality of life following rectal cancer surgery: a cross-sectional study

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Topic: 8: Colorectal

Background: This study aimed to characterize bowel function, anorectal physiology, and health-related quality of life (HRQoL) in rectal cancer patients following low anterior resection (LAR), comparing three groups: a control group with late stoma closure (LSC) (>3 months), an early stoma closure group (ESC) (8-10 days), and an anastomotic leakage group (AL).
Method: This cross-sectional study evaluated anorectal function using anorectal manometry. Bowel function and HRQoL were assessed using the low anterior resection syndrome (LARS) score and the EORTC QLQ-CR29 questionnaires.
Results: Of 124 eligible participants, 42 accepted participation. ESC and AL had significantly lower median (IQR) pressures in mmHg compared to LSC: rest: LSC: 54 (50-77), ESC: 35 (20-45), AL: 28 (22.5-33), p=0.001, p<0.001; squeeze: LSC: 140 (95-168), ESC: 70 (46-95), AL: 71 (45-81.5), p=0.010, p=0.004; squeeze pressure increments: LSC: 72 (60-89), ESC: 36 (30-48) and AL: 38 (25.5-54), p=0.003, p=0.004. ESC showed higher but non-significant median (IQR) volumes in ml: first sensation: LSC: 30 (20-40), ESC: 40 (30-50), p=0.153; urge: LSC: 55 (45-100), ESC: 90 (65-100) p=0.269; max: LSC: 110 (80-180), ESC: 142 (105-179), p=0.713. No differences in mean (95% CI) total LARS scores were observed: LSC: 26.5 (21.9-31.1), ESC: 29.5 (25.9-33.1), AL: 33.0 (28.0-38.0), p=0.320, p=0.051. Mean (95% CI) stool frequency was significantly higher in AL: 44.4 (32.1-56.8) compared to LSC: 29.4 (20.5-38.4), p=0.041. No differences in HRQoL were observed between the groups (p=0.681, p=0.129).
Conclusion: No differences in anorectal function and HRQoL were observed between early and late reversal of diverting loop ileostomy.

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DKS 2025: Abstract 40

The low anterior resection syndrome (LARS) score: A systematic review of translations and validations

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Topic: 8: Colorectal

Background: The low anterior resection syndrome (LARS) score is a patient-reported outcome measure developed in 2012 to screen for and assess the severity of bowel dysfunction following low anterior resection (LAR) for rectal cancer. Since its introduction, the LARS score has been translated to and validated in multiple languages. This systematic review aims to evaluate the methodological quality of the available translations and validation studies of the LARS score.
Method: This study is reported in line with PRISMA guidelines and was registered in PROSPERO. Studies were eligible for inclusion if they reported original data on translation and/or validation of the LARS score in rectal cancer patients. Systematic searches were conducted in PubMed, EMBASE, the Cochrane Library, and CINAHL. Titles and abstracts were screened, followed by full-text review for eligibility. Data regarding study populations, translation processes, and psychometric properties were extracted. The methodological quality was evaluated in terms of the translation processes and the psychometric properties. The psychometric properties were assessed using the COSMIN Risk of Bias checklist, evaluating test–retest reliability, construct validity, responsiveness, and content validity.
Results: Of 1,317 records identified, 26 studies met the inclusion criteria, encompassing translations and validations of the LARS score in 28 languages. The study is ongoing and will be completed by October 2025.
Conclusion: This systematic review provides a comprehensive assessment of the quality of the available translations and validations of the LARS score.

General
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DKS 2025: Abstract 41

Seeing is Believing: Enhancing Colorectal Surgery with Real-Time Laser Speckle Imaging

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Topic: 8: Colorectal

Background: Effective colorectal surgery (CRS) relies on adequate intestinal healing, which necessitates optimal microcirculation at the resection site. Traditionally, surgeons subjectively assess this. Laser speckle contrast imaging (LSCI) provides an objective, dye-free, and non-contact method for measuring the intestinal microcirculation.
The aim of this study was to determine the feasibility of LSCI and evaluate the surgeons' subjective opinions on its potential to assist in surgical decision-making.
Method: This feasibility trial was a non-interventional multicenter study. All patients undergoing elective CRS with extracorporeal anastomosis were eligible. LSCI measurements were conducted perioperatively before and after anastomosis formation. The surgeon was blinded to all measurements.
Postoperatively, LSCI images were presented to the surgeon, with a questionnaire asking whether these images, if presented perioperatively, would have influenced the surgical decision regarding the optimal anastomotic site. Additionally, the surgeon was asked to evaluate whether LSCI could be a useful intraoperative tool. As quality control, all cases with paired LSCI images were evaluated by an independent surgeon.
Results: LSCI was successfully measured in 20 patients operated by 17 different surgeons in one take, except one case, where two takes were needed. LSCI evaluation prolonged the procedure with an average of only 2 minutes. 15 of the 17 surgeons indicated that the images could have influenced surgical decision-making. Additionally, in 50% of cases, the surgeon reported a change in the resection site by an average of 1.2 cm, based on LSCI images, whereas the remaining 50% did not alter the resection site.
Conclusion: This study demonstrated that LSCI effectively visualizes colonic perfusion in real-time without disrupting the surgical procedure. The majority of surgeons find that the tool could be valuable in selecting the most optimal site for anastomosis placement, potentially improving surgical outcomes.

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DKS 2025: Abstract 43

The effect of Fecal Microbiota Transplantation on quality of life in patients with chronic pouchitis

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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 8: Colorectal

Background: Pouchitis is an inflammatory condition affecting the ileal pouch-anal anastomosis, which is constructed during the surgical treatment for ulcerative colitis. Pouchitis is a common complication and reduces quality of life. In cases of chronic pouchitis, standard treatments frequently prove ineffective. Fecal microbiota transplantation (FMT) has emerged as a potential treatment, offering the possibility of improving both clinical outcomes and quality of life. In this study, we aimed to investigate if treatment with FMT influences quality of life in patients with chronic pouchitis.
Method: Thirty patients with chronic pouchitis were recruited and allocated 1:1 to treatment with either FMT or placebo in a randomized placebo-controlled study with a 4-week intervention period and 12-month follow-up. Treatment was delivered daily by enema for 2 weeks, followed by every second day for 2 weeks. Disease severity was accessed at inclusion and 30-day follow-up, using the Pouchitis Disease Activity Index (PDAI). Quality of life was assessed with three questionnaires (Short Inflammatory Bowel Disease Questionnaire, Pouch Dysfunction Score and the 36-Item Short Form Survey) at inclusion and during follow-ups.
Results: At the 30-day follow-up, patients treated with FMT experienced a significant reduction in quality of life, measured by the Short Inflammatory Bowel Disease Questionnaire (p=0.03) compared to inclusion. No change in quality of life was measured by the Pouch Dysfunction Scores (P=0.36) in the FMT group compared to inclusion. A significant difference in quality of life was observed between the FMT and placebo group at inclusion and at the 30-days follow-up, measured by the 36-Item Short Form Survey (p=0.02), showing a higher quality of life in the placebo group. No changes in scores were detected from inclusion to the 30-day follow-up in either group using the 36-Item Short Form Survey.
Conclusion: The use of FMT in patients with chronic pouchitis may worsen symptoms and decrease quality of life, as indicated by the three quality of life questionnaires showing no change or poorer outcomes in FMT-treated patients compared to those receiving placebo.

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DKS 2025: Abstract 44

Systematic review on the incidence and risk factors for non-reversal of a diverting stoma after restorative rectal cancer resection

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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 8: Colorectal

Background: The purpose of this systematic review was to identify the incidence and risk factors for non-reversal of diverting stomas at least one year after curative intended restorative rectal resection for rectum cancer.
Method: This systematic review adhered to the PRISMA guidelines and was registered in PROSPERO. The databases PubMed, Cochrane, Embase and CINAHL were searched for eligible studies. Studies were screened on title and abstract followed by full-text screening, all conducted by two independent authors. Discrepancies were solved by consensus between the authors. Data extraction for non-reversal rates and risk factors for non-reversal, as well as quality assessment based on the Joanna Briggs Institute guidelines, was independently performed by two authors.
Results: A total of 15 studies were included (two prospective studies, 13 retrospective studies) comprising a total of 5.812 patients. The study populations ranged from 100 to 1.714 patients. Four studies reported non reversal rates <10%. Seven studies reported non-reversal rates between 10%-20% and four studies reported non-reversal rates between 20%-29.5%. Risk factors for non-reversal identified in this systematic review were anastomotic leakage, tumour stage, neoadjuvant treatment, postoperative complications, gender and age.
Conclusion: This systematic review demonstrated a substantial rate of non-reversals one year after restorative rectal resection for cancer. Both pre- and postoperative risk factors for non-reversal were identified. Incorporating these factors into the shared decision-making process may enhance preoperative counselling and contribute to more individualised and patient-centered surgical care.

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DKS 2025: Abstract 45

Navigating work life after colorectal cancer: Insights into work functioning – a Danish follow-up study.

P. Pedersen[1], L.S Berntsen[1], A.B Bräuner[2], P. Christensen[3], K.J Emmertsen[4], N.A Frederiksen[5], I. Gögenur[5], M. Krogsgaard[5], M.B Lauritzen[6], O. Thorlacius-Ussing[6], A. Tøttrup[2], T. Juul[3]
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Topic: 8: Colorectal

Background: Colorectal cancer (CRC) may affect both return to work and sustained work participation. While employment rates following CRC have been studied to some extent, there is limited knowledge regarding survivors' functioning in the workplace. This study aimed to investigate work participation and perceived work functioning among CRC patients at 12- and 24-month follow-up post-surgery (12mFU/24mFU).
Method: Data were collected from six Danish surgical centres participating in an ongoing prospective study that aims to examine the benefits of systematic screening for late sequelae following CRC. Patients aged 18 or older who were affiliated with the labour market at the time of diagnosis (2021-2024) were included in the analysis. Participants responded to *ad hoc* questions about their employment status and completed two validated measures: the Work Role Functioning Questionnaire (WRFQ) and the Work Ability Index (WAI). In both measures, higher scores indicate better functioning or work ability. Clinical data were obtained from the Danish Colorectal Cancer Group (DCCG) database. Multivariate logistic regression analyses, adjusted for cancer type, gender, and age, were employed to identify factors associated with work functioning.
Results: A total of 546 patients were affiliated with the labour market at the time of diagnosis and thus met the inclusion criteria. Among them, 474 remained affiliated with the labour market and completed 12mFU, of whom 295 had colon cancer and 179 had rectal cancer. Of these, 257 met the same criteria at 24mFU and were included in the corresponding analyses.
At 12mFU and 24mFU, 76% and 78% of patients were employed, respectively. A high WRFQ score was reported by 56% at 12mFU and 58% at 24mFU, while high work ability was reported by 80% and 85%, respectively. Bowel-related quality-of-life problems were associated with reduced WRFQ scores (12mFU: OR=0.35 (CI95%: 0.20-0.62); 24mFU: OR=0.40 (CI95%: 0.18-0.86)) and lower work ability (12mFU: OR=0.26 (CI95%: 0.15-0.46); 24mFU: OR=0.20 (CI95%: 0.08-0.51)). Higher UICC stage was associated with reduced work ability (12mFU: OR=0.42 (CI95%: 0.24-0.72; 24mFU: OR=0.36 (CI95%: 0.15-0.83)).
Conclusion: Most CRC survivors return to and remain in work within two years, but persistent bowel-related problems negatively impact work functioning. Rehabilitation should include systematic screening and targeted support to promote long-term work participation.

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DKS 2025: Abstract 52

Efficacy and safety of freshly collected autologous adipose tissue for complex anal fistulas in non-IBD patients: a prospective cohort study

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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 8: Colorectal

Background: Complex cryptoglandular anal fistulas present a treatment challenge, with many surgical options associated with recurrence, variable healing rates, and risk of incontinence. Freshly collected autologous adipose tissue (FCAAT) has been proposed as a minimally invasive, one-step alternative. This study aimed to assess clinical healing or clinical improvement and to evaluate the safety of the procedure.
Method: This prospective cohort study included 31 patients without inflammatory bowel disease (IBD) with complex single-tract cryptoglandular anal fistulas treated with FCAAT between May 2019 and December 2023 and followed until August 2024. The surgical procedure involved closure of the internal opening, liposuction, processing of adipose tissue, and local injection along the fistula tract.
Results: The patient cohort presented with advanced disease. Median disease duration was 20 months, and one-third of patients had undergone previous attempts at surgical closure. Clinical healing was achieved in 23 patients (74%), with an additional 4 patients (13%) demonstrating clinical improvement. Five of 27 responders healed more than three months post-procedure.
The most frequent adverse events were proctalgia in 8 patients (22%), donor site pain in 5 (14%), and minor graft site haematomas in 4 (11%) One Clavien-Dindo IIIa event (graft site bleeding) was managed with a single suture; all other complications were minor and resolved conservatively.
Conclusion: FCAAT is a safe and effective one-step treatment for complex anal fistulas in non-IBD patients, offering a high healing rate with predominantly minor complications. A delayed effect was observed in some patients.

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Do you want to apply for the British Journal of Surgery Prize?: Yes

DKS 2025: Abstract 53

Autologous Adipose Tissue Injection as Treatment for Ileoanal Pouch-Related Fistulae

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Topic: 8: Colorectal

Background: Ileoanal pouch-anal anastomosis (IPAA) is the standard restorative procedure following proctocolectomy for ulcerative colitis and familial adenomatous polyposis. However, pouch-related fistulae (PRF) are a significant complication, affecting 5-10% of patients and can lead to pouch failure. There is currently no consensus on optimal management. This study evaluates the effectiveness and safety of autologous adipose tissue injection (AATI) as a minimally invasive, sphincter-preserving treatment for PRF.
Method: This prospective cohort study included 21 patients with IPAA, and a total of 29 PRF were treated with AATI. Repeated injection were offered to patients who did not achieve fistula healing after a single procedure. Patients were followed for a median of 16 months after AATI. Outcomes including clinical healing, treatment complications, and recurrence of PRF, were registered.
Results: After a single AATI, 48% of PRF achieved clinical healing. Repeat AATI increased the healing rate to 69%. An additional 14% responded to AATI by reduced secretion from PRF. The procedure was well-tolerated, with only two cases of post-operative abscesses. Imaging confirmed healing in a subset of patients.
Conclusion: Autologous adipose tissue injection is a promising, minimally invasive treatment for PRF with a high healing rate and favorable safety profile. Given its ease of application and sphincter-preserving nature, it may serve as a viable alternative to more invasive surgical approaches. Further studies with larger cohorts are necessary to validate these findings.

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DKS 2025: Abstract 64

Perforeret divertikulitis (Hinchey III): Laparoskopisk lavage eller resektion?

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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: No
Topic: 8: Colorectal

Background:
Behandlingen af perforeret divertikulitis (Hinchey III) varierer nationalt. Formålet var at sammenligne laparoskopisk lavage med sigmoideumresektion.
Method:
En systematisk litteratursøgning identificerede relevante randomiserede kontrolstudier (RCTs). Studierne blev systematisk analyseret med efterfølgende meta-analyse.
Results:
Tre RCTs og 7 publikationer danner baggrund for meta-analysen. Data fra mellem 292 og 380 patienter som enten blev behandlet med sigmoideumresektion eller laparoskopisk lavage blev inkluderet. 90-dages mortalitet var ens (OR: 0.69 (0.32-1.49)). Sigmoideumresektion er associeret med færre alvorlige komplikationer (OR: 0.61 (0.38-0,98)) og lavere recidivrate (OR: 0.15 (0.05-0.44)), men med højere stomifrekvens efter et år (OR: 2.27 (1.30- 6.81)). Ingen signifikant forskel sås i reoperationsrater. Yderligere analyse på to af RCT'erne viste at rygning og brug af immunsuppresiva er associeret med dårligere outcome efter laparoskopisk lavage.
Conclusion:
Laparoskopisk lavage bør undgås i patienter med HIII som ryger og/eller er immunsuprimmerede. Efter lavage er der en risiko for recidiv med divertikulitis, dog ofte ukompliceret. Sigmoideumresektion med primær anastomose er muligt hos stabile patienter, mens resektion med samtidig stomi er den sikreste behandling ved en øget risiko.

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DKS 2025: Abstract 65

Surgeons’ perspectives on the treatment of adults with acute appendicitis

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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 8: Colorectal

Background: Appendicitis is the most common acute general surgical condition worldwide. However, management of patients with suspected appendicitis varies and often depends on the admitting surgeon’s preferences. Here we investigated surgeons’ perspectives on the management of appendicitis and their own preferences if they themselves were admitted with suspicion of appendicitis.
Method: A 15-point questionnaire was distributed to all acute general surgical departments in Denmark over a 1-month period. The first 10 items addressed the treatment of patients with suspected appendicitis. The last 5 items explored surgeons’ personal treatment preferences.
Results: 213 complete responses were received. Most respondents were < 50 years old (86%), with even distribution across career stages. Regarding assessment of patients with suspected appendicitis, most respondents rarely or never use appendicitis scoring systems (77%). Most felt pre-operative imaging was rarely needed in patients < 50 years with typical presentations (4%), although this rose in the case of atypical presentations (56%). Less than 5% routinely discuss non-operative management with patients who are otherwise fit for surgery. In afebrile patients with acute uncomplicated appendicitis, 9% would operate during the night based on a clinical diagnosis, rising to 21% if the diagnosis was confirmed on imaging, and to 49% if the patient also had raised inflammatory markers (CRP > 100). Regarding preferences for their own treatment, only a minority would want to be assessed using scoring systems (13%), whereas almost half would want pre-operative imaging (47%). Most would not want to be treated non-operatively (86%).
Conclusion: Considerable variation is noted in surgeons’ perspectives on the management of patients with acute appendicitis. Furthermore, discrepancies are noted in surgeons’ opinions on the treatment of patients and their preferences for their own treatment, particularly regarding pre-operative imaging.

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DKS 2025: Abstract 66

Understanding surgery refusal in patients with colorectal liver metastases

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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 8: Colorectal

Background: Surgery is the only curative treatment for CRLM, however, some patients still refuse. The objective with this study is to investigate the risk factors, reasons, and survival outcomes associated with refusal of surgery for colorectal liver metastases (CRLM).
Method: Patients with CRLM referred for treatment at Copenhagen University Hospital between 2013 and 2023, were identified through the Danish Liver Cancer Group registry. Resectable, and operable patients who refused the offered surgery were included. They were matched in a 1:4 ratio based on WHO performance status with patients who accepted the offered surgery. Data were retrieved from medical records. Risk factors were evaluated using Conditional Logistic Regression. Reasons for refusal were described by frequencies. Survival was analyzed using the Kaplan-Meier estimator and Cox Regression.
Results: The refusal rate was 1.4% (21 patients). Lower BMI and longer time since the primary tumor diagnosis increased the odds of refusing surgery by 15% per kg/m^2 (95% CI 0.76-0.99) and 3% per month (95% CI 1.01-1.06), respectively. Reasons for refusal included not wanting additional surgery, self-assessed unfitness, not wanting further treatment, and preferring palliative chemotherapy. The 5-year survival for patients who refused surgery was lower compared to those who accepted ($p < 0.003$). Refusal of surgery was associated with an increased risk of mortality (HR: 1.87, 95% CI: 1.02–3.43).
Conclusion: This study was the first to investigate risk factors for refusal of surgery in patients with CRLM. Further research is needed into refusal reasons across cancer types, incorporating detailed patient perspectives. Such efforts could optimize patient care.

General
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DKS 2025: Abstract 70

Method of Anal sparing versus extirpation in rectal cancer (MAVEREC)

M. Al-Jumaili[1], *A. Al-Sudany*[1], *K.M. Sørensen*[1], *L.A.M. Vanderberg*[1], *M.B. Ellebæk*[1], *N. Nielsen*[1], *P. Fuhlendorf*[1], *I. Al-Najami*[1]
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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 8: Colorectal

Background: Non-restorative surgical options for rectal cancer patients when primary anastomosis is not suitable includes; Hartmann's procedure (HP) or intersphincteric abdominoperineal excision (IAPE). Previous studies suggest higher pelvic sepsis after laparoscopic HP, but no data exist comparing exclusively robot-assisted approaches.
Method: This retrospective study included rectal cancer patients with significant comorbidities precluding anastomosis. Those patients underwent robot-assisted HP or IAPE at Odense University Hospital (2012–2022). Demographic, 30-day postoperative medical and surgical complications, reoperation, readmission, and 90-day mortality were analyzed.
Results: A total 224 patients were included (HP: n = 57; IAPE: n = 167), HP patients were older (77.0 ± 9.3 vs. 71.7 ± 11.5 years, p = 0.002) and had higher ASA scores (p = 0.001). Postoperative medical complications were low and comparable in both groups. Intra-abdominal abscess was also comparable (3.5% for HP vs. 5.4% for IAPE, p = 0.832) Perineal wound infection still present in the IAPE group (6.6%) and perineal pain at 14 day was relatively high (11.4%) after IAPE. No significant difference was observed in the rate of readmission, reoperation and 90-day mortality.
Conclusion: Complications rates did not significantly differ between HP and IAPE. However, IAPE was associated with perineal wound-related morbidity. In patents unfit for anastomosis, robot-assisted HP may be considered a safe alternative for IAPE. Further studies are warranted to compare the outcome robotic HP and robotic IAPE, and to better define the optimal surgical strategy for this patient population.

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Do you want to apply for the British Journal of Surgery Prize?: Yes

DKS 2025: Abstract 71

Risk factors for High grade dysplasia and cancer in endoscopically removed lesions in denmark 2014-2021

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Topic: 8: Colorectal

Background: Colorectal cancer (CRC) remains the second leading cause of cancer-related deaths worldwide. Following introduction of national CRC screening programs in several western countries, numbers of colonoscopy and polypectomy rates have increased substantially. This nationwide study characterize all endoscopically removed colorectal lesions in Denmark from in the period 2014–2021
Method: Data regarding all colorectal lesions resected endoscopically in patients aged ≥18 years between 2014 and 2021 in Denmark were sourced from the Danish National Patient Registry, Pathology Registry, and Screening Database. Prevalence of histological subtypes was analyzed, and predictors of high-grade dysplasia and adenocarcinoma were evaluated using logistic regression.
Results: Among 663,624 individuals undergoing 1,074,236 colon endoscopies, 504,386 lesions had been removed. Tubular adenomas were the most common removed lesion constituting 66.8% of all lesions. Advanced polyps declined from 22.7% to 10.2% in the period. Lesion size had the strongest association with high-grade dysplasia, outweighing: Villous or tubullovillous histology. Adenocarcinoma was present in 0.65% of the removed lesions, predominantly in lesions from the left side (83.9%). Linear regression analysis showed women to have a significantly higher risk of cancer in endoscopically removed lesions compared to men in young individuals (OR of 1.46 at age 40.)
Conclusion: Lesion size was the strongest risk factor for the presence of high-grade dysplasia, outweighing histologic subtype. Younger women exhibited a higher malignancy risk per polyp compared to men, but the risk difference diminishing with age.

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DKS 2025: Abstract 74

Exploring colorectal neoplasia pathogenesis in normal appearing colonic mucosa: the eicosanoid pathways

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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 8: Colorectal

Background: Colorectal cancer is a leading cause of cancer-related death. Early detection and prevention are critical and detection of molecular changes in normal appearing mucosa could improve risk stratification and chemoprevention. Aspirin, which inhibits cyclooxygenase (COX) enzymes in one of the arachidonic acid pathways, appears to reduce colorectal cancer risk.
Method: We investigate signaling pathways involved in colorectal neoplasia, focusing on the arachidonic acid pathways and present key findings form 7 of our studies. Studies are performed on fresh colonic biopsies from normal appearing mucosa obtained during colonoscopy in patients with and without colorectal neoplasia. Biopsies were examined with qPCR, Western blot and functionally in Ussing chambers.
Results: We found consistent alterations in the expression and function of enzymes, receptors, and transporters related to the arachidonic acid signaling, such as increased COX activity and prostaglandin expression in colorectal neoplasia patients. These molecular changes suggest early events in colorectal neoplasia development.
Conclusion: Early molecular alterations in normal mucosa may indicate colorectal neoplasia risk and provide targets for prevention of colorectal cancer. This highlights opportunities for earlier intervention. The findings presented are currently under publication.

General
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DKS 2025: Abstract 77

Prognostic importance of tumour deposits with and without concurrent lymph node metastases in patients with Stage III colon cancer

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Topic: 8: Colorectal

Background:
Tumour deposits (TDs) have a recognised association with poor prognosis in patients with colon cancer. However, TDs are only acknowledged in the current staging system in patients without lymph node metastases (LNM). This study investigated the prognostic impact of TDs with or without LNM in patients with Stage III colon cancer and variations in adjuvant treatment in these patients.

Method:
National retrospective cohort study using the Danish Colorectal Cancer Group database. Patients diagnosed with new Stage III colon cancers undergoing curative surgery between 2016-2022 were included. Patients were divided into 3 groups according to tumour deposit (TD) and lymph node metastases (LNM) status: TD alone; LNM alone; TD and LNM. The primary endpoint was overall survival (OS).

Results:
Of 4,290 patients included, 1,301 had TDs (30.3%). 1,051 had TD and LNM (24.5%), whereas 250 had TD alone (5.8%). Patients with TD and LNM had significantly poorer survival when compared to those with LNM alone (5-year OS 53% vs 70%, $p < 0.001$). On subgroup analyses, the presence of TD was associated with poorer OS across all N subdivisions. On multivariable analyses, TD were independently associated with all-cause mortality (HR 1.23 (95% CI 1.07-1.41, $p = 0.004$).

Conclusion: TDs are common in patients with Stage III colon cancer and are associated with poorer prognosis across all N stage subdivisions. However, this prognostic information is inadequately used as the current staging system ignores TDs in the majority of patients with Stage III disease.

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DKS 2025: Abstract 80

Post-colonoscopy colorectal cancer and the association with endoscopic findings in the Danish colorectal cancer screening programme

S.L. Rasmussen[1], L. Pedersen[2], C. Torp-Pedersen[3], M. Rasmussen[4], I. Bernstein[5], O. Thorlacius-Ussing[1]

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Topic: 8: Colorectal

Background: Colorectal cancer (CRC) is the third most common cancer in Denmark, with a five-year mortality of 40%. To reduce CRC incidence and mortality, a FIT-based screening programme was introduced in 2014. Adenoma detection rate (ADR) is an established quality marker inversely associated with post-colonoscopy CRC (PCCRC), but evidence mainly stems from non-FIT populations. Using ADR in a FIT-based setting may be costly due to histopathological examination. Alternative markers like polyp detection rate (PDR) and sessile serrated lesion detection rate (SDR) could be viable but lack evidence for their association with PCCRC.
Method: We conducted a nationwide cohort study of 77,009 FIT-positive participants undergoing colonoscopy (2014–2017). National registry data on CRC outcomes were linked, and endoscopy units were grouped by ADR, PDR, and SDR levels. Poisson regression adjusted for age, sex, and comorbidities was used to assess PCCRC risk.
Results: Among 70,009 colonoscopies within six months of FIT positivity, 4,401 (92.7%) had CRC, while 342 (7.2%) were PCCRC cases. PCCRC risk was inversely associated with ADR, PDR, and SDR. High ADR endoscopy units had a 35% lower PCCRC risk than low ADR units. Similar associations were found for PDR and SDR, with high SDR units showing a 33% lower PCCRC risk than low SDR units.
Conclusion: ADR, PDR, and SDR predict PCCRC risk, with SDR emerging as a feasible, cost-efficient quality marker in FIT-based screening. This study supports SDR as a primary performance indicator in future protocols.

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DKS 2025: Abstract 82

Genital Bar Electrode Insertion for Dorsal Genital Nerve Stimulation - Feasibility and Safety of a Novel Approach for Managing Faecal Incontinence and Overactive Bladder

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Topic: 8: Colorectal

Background: Dorsal genital nerve (DGN) stimulation shows potential for treating faecal incontinence and urgency (FI/FU) and urinary urgency and incontinence (UU/UUI). Patch electrodes may detach, highlighting the need for a more reliable solution. The aim was to evaluate the feasibility and safety of inserting and using a Genital Bar electrode for DGN stimulation in treating FI/FU or UU/UUI.
Method: This three-centre safety and feasibility study included women aged ≥18 years with either FI (≥1 episode/week) and/or FU (≥3 episodes/week) and a St. Mark's Incontinence Score of ≥9, or UU with either UUI (≥1 episode/week) and/or frequency (≥8 voids/day). Eligibility required a positive patient-reported response to transcutaneous patch stimulation, defined as any subjective improvement in symptoms before bar electrode insertion. Under sterile conditions and topical anaesthesia, the Genital Bar electrode was placed beneath the clitoral hood, followed by a four-week healing period. Subsequently, 30-minute daily DGN stimulation using the Genital Bar electrode was initiated for four weeks. Patients completed diaries and questionnaires at baseline and at the end of the stimulation period for assessment.
Results: The Genital Bar electrode was successfully inserted in 14 women (median age 52 years; Q1–Q3: 36-61), three with FI/FU and 11 with UU/UUI. All patients completed the stimulation period. During insertion, no complications occurred. Throughout the healing period, only minor events were reported: mild bleeding (n = 7), minor pain (n = 7), swelling (n = 4), redness (n = 3), numbness (n = 1), irritation (n = 1), itching (n = 1), and granulation tissue (n = 1).
During stimulation, minor events included: burning sensation in the labia (n = 2), mild electrical shock (n = 2), discomfort (n = 2), and urinary infection (n = 2).
Preliminary data showed that FU median reduced from 25 (4-38) to 2 (0-4) (P: 0.159), FI median reduced from 3 (0-5) to 0 (0-3) (P: 0.199), St. Mark's Incontinence Score median reduced from 14 (14-18) to 11 (8-13) (P: 0.128). Patient Perception of Intensity of Urgency Scale median reduced from 17 (12-19) to 7 (4-9) (P: 0.004), UUI median reduced from 3 (0-17) to 1 (0-6) (P: 0.038), International Consultation on Incontinence Questionnaire-Overactive Bladder improved from 10 (8-12) to 9 (6-10) (P: 0.279).
Conclusion: The insertion and use of the Genital Bar electrode was feasible and safe. Four weeks of DGN stimulation using the Genital Bar electrode demonstrated overall symptom reduction.

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DKS 2025: Abstract 91

Plasma oncofetal chondroitin sulfate proteoglycans enable sensitive minimally invasive detection of colorectal cancer

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Topic: 8: Colorectal

Background: The search for liquid biopsies for colorectal cancer diagnostics has been ongoing for decades. A tumour-associated glycosaminoglycan, known as oncofoetal chondroitin sulfate (ofCS), is expressed across a wide range of tumours. The presence of ofCS on free-circulating proteoglycans in plasma makes them promising candidates for use as a colorectal cancer biomarker.
Method: ofCS-modified proteoglycans were identified by high-affinity interaction with the recombinant rVAR2 protein, a lectin derived from the malaria parasite *P. falciparum*, which selectively binds to ofCS in cancerous tissues. By utilising rVAR2 to enrich ofCS-modified proteoglycans from plasma, followed by mass spectrometry analysis, we identified a panel of ofCS-modified proteoglycans elevated in plasma from patients undergoing colorectal cancer resection. Subsequently, the diagnostic performance of selected proteoglycans was evaluated using a novel ofCS-capture enzyme-linked immunosorbent assay (ELISA).
We tested four specific ofCS-modified proteoglycans in a discovery cohort of 39 patients with CRC undergoing resection and 25 healthy adults. The results were validated in a cohort of 95 patients undergoing resection for colorectal diseases and 40 healthy individuals aged 50 years or older. In the patient group, 69 were diagnosed with CRC while five had adenomas.
Results: In the discovery cohort, four ofCS-modified proteoglycans were significantly higher in plasma from patients with CRC compared with healthy donors (t-test, $p<0.0001$), and these findings were confirmed in the validation cohort. Combining all four targets resulted in in an area under receiver operator characteristics (ROC) curve of 0.96, with a sensitivity of 86 % and a specificity of 97 %. Furthermore, for two of the identified proteoglycans, the selective capture through the ofCS-modification was essential for achieving high diagnostic sensitivity and specificity.
Conclusion: Detection of four ofCS-modified proteoglycans can discriminate with high sensitivity and specificity between colorectal cancer (CRC) and healthy controls, regardless of UICC stage. Notably, levels of the four targets were also elevated in plasma from patients with large adenomas, suggesting a potential for identifying patients with adenomas and early CRC.

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DKS 2025: Abstract 94

Pre-Surgery Physical Performance and AI-Driven Mortality Risk Prediction in Colorectal Cancer Surgery

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Topic: 8: Colorectal

Background: Colorectal cancer (CRC) is the third most common cancer worldwide, with surgery as a primary curative treatment. However, postoperative complications occur in 25% of all patients and 31% of elderly patients, negatively impacting recovery and physical function. Prehabilitation help reduce these risks, but selecting the right patients is crucial for optimizing outcomes and cost-effectiveness. This study evaluates baseline physical performance in patients stratified using an AI-based decision support tool (DST) and the impact of multimodal prehabilitation on high-risk patients.
Method: This cross-sectional study included 152 CRC patients scheduled for curative-intent surgery at Zealand University Hospital (February 2023–June 2024). Patients were stratified into low-risk (≤5% predicted 1-year mortality) or high-risk (>5%). High-risk patients received a 4-week multimodal prehabilitation program, while low-risk patients received standard care (ERAS). Primary outcomes included baseline comparisons of hand-grip strength (HGS) and 30-second sit-to-stand (STS) between risk groups. Secondary outcomes assessed changes in STS, HGS, and the 6-minute walk test (6MWT) after prehabilitation in high-risk patients.
Results: 111 high-risk and 41 low-risk patients were included. Low-risk patients performed significantly better at baseline in the hand grip strength test (40.6 ± 13.9 kg vs. 28.7 ± 8.7 kg, $p < 0.001$) and sit to stand test (16.2 ± 4.4 reps vs. 9.3 ± 3.5 reps, $p < 0.001$). Follow-up data were available for 80 high-risk patients. Sit to stand improved significantly (9.0 to 10.5 reps, $\Delta = 1.5$, $p < 0.001$), and 6 min walk test distance distance increased (298.8 m to 335.7 m, $\Delta = 36.9$ m, $p = 0.001$), while HGS remained unchanged (27.58 kg to 27.65 kg, $\Delta = 0.07$, $p = 0.87$).
Conclusion: The difference in physical performance between the two groups identified by the AI-supported decision support tool suggests that the model effectively selects patients for prehabilitation. The improvements in two of the functional tests after four weeks of supervised training indicate that patients enhanced their functional capacity prior to surgery. This study highlights the potential of AI prediction models in identifying colorectal cancer patients for prehabilitation. However, larger studies incorporating post-operative outcomes are needed to confirm these findings.

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Do you want to apply for the British Journal of Surgery Prize?: Yes

DKS 2025: Abstract 98

The impact of intraoperative radiotherapy on survival outcomes in localized colorectal cancer: a systematic review and meta-analysis

A. Righult[1], *A. Orhan*[1], *C. Alexandersen*[1], *T. Freyberg Justesen*[1], *M. Tvilling Madsen*[2], *I. Gögenur*[1]
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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 8: Colorectal

Background: Colorectal cancer is one of the leading causes of cancer-related deaths worldwide, with recurrence after curative surgery contributing to poor outcomes. IORT is a potential strategy to reduce recurrence risk, especially in patients at high risk for positive resection margins.
Method: A comprehensive search was conducted in PubMed, Embase, Cochrane Library, and Web of Science using a PICO-based strategy. Eligible studies assessed IORT in localized colorectal cancer. Risk of bias was evaluated using the Newcastle-Ottawa Scale for retrospective studies and the Risk of Bias Tool 2 for randomized trials.
Results: Seventeen studies were included in the systematic review, of which 10 studies with 1,254 patients (43% received IORT) were included in the meta-analysis. The meta-analysis showed significantly improved overall survival with IORT (hazard ratio [HR] = 0.65, 95% confidence interval [CI]: 0.50-0.84, I^2 = 24%), however, subgroup analysis showed non-significant results in randomized data. Disease-free survival showed a tendency towards improvement in IORT treated patients (HR = 0.77, 95% CI: 0.57-1.05) and the effect was less pronounced in randomized data. Local recurrence, postoperative complications, resections margins, or tumor-microinviroment was reported heterogeneously or not at all, hence, meta-analytical summation was not feasible.
Conclusion: In conclusion, IORT could be a potential strategy to improve overall survival and disease-free survival in patients with colorectal cancer. Further large scale randomized controlled trials with consistent reporting of recurrence and surgical complications are needed to define its role.

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Do you want to apply for the British Journal of Surgery Prize?: Yes

DKS 2025: Abstract 100

Risk of re-operation after Bascom pit pick for pilonidal sinus disease. A Danish population-based cohort study

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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 8: Colorectal

Background: The optimal management of chronic pilonidal sinus disease (PSD) remains a matter of debate. In Denmark, minimally invasive approaches are standard for simple PSD, with Bascom's Pit Pick procedure (Bascom I) being the most commonly employed. This study aimed to assess reoperation rates after elective Bascom I treatment and to identify potential risk factors.
Method: From the nationwide Danish health registries (2010–2021), we identified all individuals with PSD who underwent Bascom I as their first documented definitive intervention. According to previous surgical history, patients were allocated to four categories: Bascom I as primary PSD treatment, Bascom I after one or two incision and drainage (I&D) procedures, or other. Follow-up continued until reoperation, death, emigration, or study termination. Risks of reoperation at 1, 2, and 5 years were calculated and stratified by sex. Additionally, a subgroup analysis assessed outcomes following two sequential Bascom I procedures.
Results: Among 3,555 patients (79% male), 2,417 received Bascom I as their initial treatment, 382 following one incision and drainage (I&D), 108 after two I&Ds, while 648 could not be categorised. At five years, the cumulative reoperation risk was 30% for men and 29% for women, with 65% of re-operations occurring within the first year. The greatest risk seen in younger patients. In the subgroup who underwent two Bascom I operations, the five-year reoperation risk rose to 46% in men and 40% in women.
Conclusion: Reoperation rates around 30% question the suitability of Bascom I as a definitive treatment option. Improved patient selection, refinement of surgical technique, and systematic training programmes may help reduce failure rates.

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DKS 2025: Abstract 103

Marked compositional, spatial, and functional shifts occur in mucosal bacteria associated with pre-cancerous colonic lesions: a systematic review

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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 8: Colorectal

Background: Most colorectal cancers (CRCs) arise from precursor lesions that occur sporadically. Alterations in the gut microbiota, termed dysbiosis, are well-established within CRC but less so in precancerous disease. To investigate this, a systematic review of the microbial features associated with precancerous lesions was performed.
Method: Pubmed, Embase, and Web of Science were systematically searched from January 2015 to June 2025 using the following strings: ('colon' OR 'colorectal') AND (adenoma' OR 'polyp' OR 'neoplasia') AND ('microbiota' OR 'bacteria') AND ('mucosa' OR 'tissue'). Studies conducted in human adults diagnosed with pre-cancerous lesions compared with healthy controls were included.
Results: The search yielded 722 articles with 67 duplicates. 27 studies were included. Alpha diversity was unchanged in most reporting studies (n=11/14, 78.6%), whereas beta diversity was divergent in the majority (n=7/13, 53.8%). *E.Coli*, *B.fragilis,* and *F.nucleatum* were consistently enriched species across studies. Virulence factors including adhesins, invasins, genotoxins, and capacity for biofilm formation were upregulated in polyp subjects. Metabolic processes favouring survival from anaerobic, inflammatory, oxidative, and osmotic stressors were augmented in polyp samples, whereas probiotic organisms were defined by short-chain fatty acid production and balanced metabolism. A decrease in the Firmicutes:Bacteroidetes (F:B) ratio is proposed as a potential biomarker of dysbiosis. Overall, studies were limited by scarce histopathologic metadata.
Conclusion: Dysbiosis within polyp lesions precedes carcinogenesis, and is significant, consistent, and measurable. Changes in the microbiota are observed across multiple dimensions including differentially enriched species, altered metabolism, upregulated biofilm production, and transcription of invasive and toxic virulence factors. Translation of these findings to the clinical setting requires exploration and validation of broadly adoptable biomarkers, paired with histopathology data. Change in the F:B ratio holds promise as a potential diagnostic and treatment target.

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DKS 2025: Abstract 104

The NEOLAR Insight Strategy: from a national randomized clinical trial to tissue-based analyses of predictive biomarkers in rectal cancer

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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 8: Colorectal

Background: The choice of neoadjuvant therapy in locally advanced rectal cancer remains debated and predictive biomarkers to guide treatment are lacking. The NEOLAR trial is a national randomized phase II study comparing standard neoadjuvant chemoradiotherapy with experimental neoadjuvant combination chemotherapy. The translational analysis aims to identify predictive tissue-based biomarkers for tailored treatment.
Method: Pretreatment diagnostic biopsies (FFPE blocks) were retrieved via the respective pathology departments. All samples were centrally reviewed on H&E. Tissue microarrays (TMAs) are under construction, and multiplex immunofluorescence (IF) with digital image analysis is planned, including quantification of cell densities and spatial relationships, to be correlated with treatment arm, pathological response (TRG/pCR), survival, and recurrence in order to identify predictive biomarkers.
Results: A total of 113 patients were enrolled across 7 centers and randomized to standard neoadjuvant chemoradiotherapy (n = 56) or experimental neoadjuvant combination chemotherapy (n = 57). Baseline characteristics were generally balanced, except for age. Diagnostic biopsies were available for all 113 patients and on H&E evaluation 91 % were deemed suitable for tissue microarray (TMA) construction. Pathological response assessment is ongoing, preliminary data indicate pCR in 16 % in the standard arm vs. 9 % in the experimental arm and TRG 1–2 in 28 % vs. 19%, respectively. Translational biomarker analyses are underway and will be presented.
Conclusion: The NEOLAR trial is a fully recruited national randomized clinical trial with available clinical data and pretreatment tissue from all patients. This provides a solid translational platform combining TMA, multiplex IF, and digital spatial analyses to identify predictive biomarkers for tailored neoadjuvant therapy in rectal cancer.

General
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Do you want to apply for the British Journal of Surgery Prize?: No

DKS 2025: Abstract 105

A national perspective on CME as surgical treatment for right sided colonic cancer among Danish colorectal surgeons

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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 8: Colorectal

Background: In the absence of standardized guidelines regarding Complete Mesocolic Excision (CME) as surgical treatment for right sided colonic cancer – approaches may vary between regions. To develop guidelines that address all areas of uncertainty, it is necessary to outline the differences in CME understanding among certified Danish colorectal surgeons.
Method: The authors developed an anonymous electronic survey. The final revised version included 15 questions for certified colorectal surgeons performing CME. Invitations to participate were sent to 19 leads of surgical departments in Denmark on 31 August 2023, with a 14-day response deadline.
Results: Of 87 Danish colorectal surgeons, 53 responded (60.9%); 49 performed CME, 4 did not, mainly due to lack of training or evidence. Most performed CME in ≥80% of cases, and 84% considered it their departmental gold standard. Age, BMI and tumor stage were rarely seen as contraindications. Poor ASA and performance score were in 50% seen as contraindications. Most dissected from the ileocolic vein (ICV) to superior mesenteric vein (SMV), extending to middle colic vein (MCV) and gastrocolic trunk (80%), with tumor location influencing approach (22%). Approaches to the gastrocolic ligament varied and over half never perform Kocher's maneuver. After CME surgery, ~37% sometimes questioned if CME criteria were fully met.
Conclusion: Many, but not all, departments use CME as the gold standard, even though it is not nationally recommended and lacks a clear definition regarding extent of use and surgical approach. Further studies are needed to generate sufficient evidence to determine whether CME should be adopted as a national recommendation and to establish a precise definition of the procedure.

General
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DKS 2025: Abstract 109

Refined algorithm for identifying recurrence among patients with non-metastatic colorectal cancer based on Danish national health data registries

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[1]Zealand University Hospital, Center for Surgical Science, Department of Surgery, Køge, Denmark, [2]Copenhagen University Hospital - North Zealand, Department of Surgery, Hillerød, Denmark, [3]University of Copenhagen, Institute for Clinical Medicine, Copenhagen, Denmark

Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 8: Colorectal

Background: Recurrence of colorectal cancer (CRC) is not routinely recorded in Danish national health registries. Existing algorithms for identifying recurrence often introduce selection bias due to pre- or postoperative exclusion criteria. This study aimed to refine an existing registry-based algorithm to improve its generalizability.
Method: Patients with non-metastatic CRC diagnosed between 2008–2019 were included. Recurrence data from electronic health records served as the reference. The existing algorithm incorporated codes for metastasis, chemotherapy, pathology, and local recurrence with several pre- and postoperative exclusion criteria. Refinements included additional therapy codes, revised pathology codes, removal of preoperative exclusions, and inclusion of patients who died within 180 days post-surgery. Performance was evaluated using 10,000 bootstrapped runs. Cumulative recurrence and overall survival were estimated by stage.
Results: The refined algorithm identified more patients (4,388 vs. 3,684) and showed slightly improved sensitivity (0.92 (95% CI 0.89-0.94) vs. 0.90 (95% CI 0.87-0.92)) and specificity (0.97 (95% CI 0.97-0.98) vs. 0.96 (95% CI 0.95-0.96). For UICC stage I, recurrence incidence differed significantly between the conventional algorithm and reference (6.9% (95% CI 5.2-8.9) vs. 3.5% (95% CI 2.3-4.9), but not with the refined algorithm (5.6% (95% CI 4.2-7.2))
Conclusion: The refined algorithm increased eligible patients and marginally enhanced performance, supporting its use for identifying CRC recurrence in registry-based research.

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DKS 2025: Abstract 113

The effect of perioperative Interferon alpha-2a on postoperative immune suppression in patients undergoing colon cancer surgery: A randomized controlled trial

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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 8: Colorectal

Background: Colorectal cancer affects more than 5,000 patients annually in Denmark, and surgery remains the only curative treatment option. However, surgery itself induces profound physiological stress and transient immunosuppression in the immediate postoperative period. This impaired immune surveillance is believed to contribute to disease recurrence, as up to one-third of patients experience relapse within five years due to undetected micrometastases. A strong immune infiltration within the tumor microenvironment is associated with improved prognosis, highlighting the importance of perioperative immune competence. Interferon alpha-2a, used in viral hepatitis, has been shown to enhance cytotoxic immune cell activity and increase immune infiltration in tumor tissue. We therefore hypothesize that perioperative treatment with Interferon alpha-2a may mitigate surgery-induced immunosuppression and improve long-term outcomes in colon cancer patients.
Method: This is a randomized, double-blinded, placebo-controlled clinical trial including 68 pMMR colon cancer patients scheduled for curative colon cancer surgery. Participants are randomized in a 1:1 ratio to receive either Interferon alpha-2a (45 µg subcutaneously) or placebo (1 mL saline). Treatment consists of two administrations: the first at least seven days prior to surgery, and the second on the day of surgery. The primary endpoints are changes in immune cell infiltration and composition within resected tumor tissue, assessed by immunohistochemistry, and systemic alterations in immune cell subsets in peripheral blood, assessed by flow cytometry.
Results: To date, 49 out of the planned 68 patients have been enrolled.
Conclusion: This trial will provide important insight into whether perioperative immune modulation with Interferon alpha-2a can counteract surgery-induced immunosuppression in colon cancer patients. If effective, this low-cost, well-established treatment could represent a novel adjunct to standard surgical management. Inclusion is expected to finalize in early 2026, followed by data analysis.

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DKS 2025: Abstract 115

Rectal Reality Check: What's the Right Way to Insert a Suppository? – A Protocol

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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 8: Colorectal

Background: Suppositories are used worldwide for a slew of indications, by young and old alike, yet the question of *how* to insert them has been settled more by tradition than science. The prevailing recommendation – blunt-end first – rests almost entirely on a single, small 1991 *Lancet* study with results too good to be true, limited transparency, and no replication. Despite this fragile evidence base, the finding has propagated through textbooks, package leaflets, and teaching, becoming accepted dogma. This project seeks to revisit the question systematically, using contemporary methods to test whether orientation matters for patient comfort and clinical outcomes.
Method: We propose a three-part study:

1. **Survey**: Laypersons, doctors, nurses, and pharmacists will be asked about their personal practice, recommendations to patients, and whether orientation is discussed.
2. **Simulation**: In collaboration with engineering students, bench simulations will model suppository placement, rectal peristalsis, and melting dynamics under different orientations.
3. **Clinical studies**:
    1. *Mechanistic study*: Healthy volunteers will insert a dummy-suppository with a measuring string to track migration over 10 minutes.
    2. *Crossover study*: Volunteers will self-administer suppositories in alternating orientations, rating discomfort and reporting expulsion.
    3. *Randomized study*: Participants will receive suppositories from health professionals, blinded to orientation, with outcomes of discomfort and expulsion.

Results: We anticipate that health professionals will predominantly recommend blunt-end first, whereas laypersons may assume apex-first. Simulation and clinical results may show limited differences across orientations, challenging the strength of current dogma.
Conclusion: This project addresses a neglected but clinically relevant question. By combining survey, simulation, and patient data, we may finally learn whether 30 years of teaching was upside-down.

General
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Do you want to apply for the British Journal of Surgery Prize?: No

DKS 2025: Abstract 118

Long-Term Pain Impact After Rectal Cancer Surgery: Trajectories and Predictive Factors from a Cohort Study

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Topic: 8: Colorectal

Background: **Abstract**
Aim
Rectal cancer (RC) accounts for one-third of colorectal cancers worldwide, with survival rates improving due to advances in screening and treatment. However, chronic pain affects approximately 30% of RC survivors, impacting quality of life, physical function, and mental health. This study aimed to evaluate chronic pain prevalence, identify risk factors, and explore predictors of requesting contact concerning pain management following RC surgery.
Method: **Method**
Prospectively collected patient-reported outcome measures were extracted from a cohort study conducted among patients with RC who underwent surgery at three Danish hospitals.
Patients completed the validated Rectal Cancer Pain Score at 3, 12, 24, and 36 months after surgery and indicated whether they wished to be contacted to discuss treatment options.
Clinical data were sourced from the Danish Colorectal Cancer Group (DCCG) database.
Pain trajectories were displayed in a Sankey diagram. A mixed-effects model was employed to examine factors affecting changes in pain scores over time.
Results: **Results**
Among 729 patients, 32% reported pain at 3 months, decreasing to 25% at 36 months. Some patients showed improvement, while others experienced worsening symptoms.
17% of patients requested to be contacted due to pain. Only 13% of these were referred for further pain treatment, while 58% were referred for management of other late sequelae to the RC treatment. Female gender ($p = 0.001$), younger age ($p \leq 0.001$), obesity ($p \leq 0.003$), and radiotherapy ($p \leq 0.001$) were associated with higher pain scores.
Conclusion: Chronic pain in rectal cancer survivors is dynamic and influenced by identifiable risk factors over time. The findings underscore the need for proactive, tailored pain management strategies.
The findings support a shift toward proactive, individualised pain management in survivorship care to address evolving patient needs over time.

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DKS 2025: Abstract 120

Surgical outcomes in pelvic reconstruction using robot-assisted rectus abdominis muscle flaps: A systematic review

C. Alexandersen[1], *A.A. Righult*[1], *J.A. Zahid*[1], *A. Orhan*[1], *N. Krezdorn*[2], *I. Gögenur*[1]
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Topic: 8: Colorectal

Background: Pelvic cancer resections increase the risk of pelvic dead space, which increases the risk of postoperative complications. Robot-assisted surgery provides a possible benefit in the pelvic reconstruction phase of the surgery, but is still a novel approach, and its impact on surgical outcomes in pelvic reconstruction with rectus abdominis muscle flaps remains unclear.
Method: This study aimed to systematically review the surgical outcomes of robot-assisted pelvic reconstruction using rectus abdominis muscle flaps in patients with pelvic cancers.
A systematic search of the literature was conducted in PubMed, Web of Science, Cochrane Library, and Embase. Studies reporting surgical outcomes of robot-assisted pelvic reconstruction with rectus abdominis muscle flaps were included. Articles were screened based on predefined inclusion and exclusion criteria.
Results: Five studies, including 143 patients in total, met the inclusion criteria, comprising two retrospective cohort studies and three case series. Of these, 36 patients underwent robot-assisted pelvic reconstruction using rectus abdominis muscle flaps. All studies reported wound complications, which were lower in the robot-assisted groups compared to open surgery groups. One retrospective cohort study reported a shorter length of stay. Two studies reported better visualization and avoidance of excessive blood loss when performing robot-assisted surgery.
Conclusion: Early reports indicate that robot-assisted surgery with flaps in pelvic reconstruction could improve postoperative outcomes. Further research should investigate the potential benefits through larger and controlled patient groups.

General
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DKS 2025: Abstract 121

Neoadjuvant Immunotherapy and Watchful Waiting for Localized dMMR Colon Cancer: The RESET C2 Study Protocol

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Topic: 8: Colorectal

Background: Standard treatment for localized colon cancer consists of surgery followed by cytotoxic chemotherapy for high-risk cancers. Recently, immune checkpoint inhibitors have shown capacity to induce complete pathologic responses in deficient mismatch repair (dMMR) cancer subtypes when positioned in the neoadjuvant setting. This raises the potential to explore watchful waiting (WW) approaches.
Method: The RESET C2 study is a national, multi-arm, interventional trial aiming to enroll 152 patients at 12 hospitals throughout Denmark. The trial will start in January 2026 with planned enrollment of two years. The protocol combines AI-enhanced risk assessments with UICC staging data to assign incremental neoadjuvant pembrolizumab doses and graded perioperative care. Patients will receive 1-4 cycles of up-front pembrolizumab before disease re-evaluation via colonoscopy, CT imaging, and blood testing. In the case of complete response, patients will undergo watchful waiting with regular assessments to detect relapses. Where there is partial response or stable disease after initial treatment, patients may be offered additional pembrolizumab before further re-evaluation. Any patients who have not achieved compete response at the end of pembrolizumab treatment will undergo salvage resection.
Results: The trial has co-primary outcomes of clinical complete response (cCR) rates after pembrolizumab treatment and change in quality of life (QoL) at 12 months follow up (EORTC QLQ-C30 instrument). Secondary outcomes include safety data, exploration of cCR predictive factors, cost-benefit analyses, and patient reported outcome measures (PROMs).
Conclusion: The RESET C2 study aims to demonstrate that neoadjuvant pembrolizumab can induce cCR, which can facilitate a safe and effective WW strategy in colon cancer. Through capture of PROMs, we aim to measure the impact on QoL for clinical deployability. This study will additionally aim to demonstrate how AI-tools can be used to optimally select patients, and how personalized dosing regimens and prehabilitation programs may improve patient care.

General
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DKS 2025: Abstract 21

Optimising the prediction of lymph node metastases in patients with T1 colorectal cancer

A.L. Ebbehøj[1], *L.N. Jørgensen*[1], *H. Smith*[1], *P.-M. Krarup*[1]
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Topic: 11: PhD Cup (only PhD theses submitted in 2023, 2024, or 2025 are eligible for evaluation)

Background: Selection criteria including predicted risk of lymph node metastases (LNM) for choosing either surveillance or additional surgical resection (completion colectomy) following initial polypectomy or local tumour excision (LE) in patients with T1 colorectal cancer (CRC) are inaccurate. The aim of this thesis was to examine current practices and explore novel predictors of LNM to improve treatment of these patients.
Method: Four studies were conducted: 1) meta-analysis of existing literature on histopathological risk factors (HRFs) for LNM in T1 CRC, 2) nationwide cohort study examining current practices in treatment of patients with T1 colon cancer (CC), 3) investigation of potential differential impact of HRFs on LNM in T1 CRC in pedunculated vs non-pedunculated tumours, and 4) pilot study exploring the potential of gene expression profiles (GEPs) as predictors of LNM in T1 CC.
Results: Several risk factors were associated with LNM, including recognised HRFs such as lymphatic and vascular invasion (LI, VI), poor differentiation, tumour budding, and deep submucosal invasion, as well as polypoid growth pattern. However, the reviewed studies were observational and showed substantial heterogeneity. Initial polypectomy or LE did not adversely affect surgical or survival outcomes following subsequent completion colectomy compared to upfront colectomy. LNM rates were comparable between completion and upfront colectomy groups (10.2% vs 12.4%), and notably, 10.6% of patients without recognised HRFs still had LNM. Stratification of patients by tumour morphology (pedunculated vs non-pedunculated) showed that only LI and VI were associated with LNM in the entire cohort, as well as both subgroups. A series of differentially expressed genes (GEPs) were identified comparing patients with and without LNM or left- versus right-sided tumours, although results were hampered by high false discovery rates.
Conclusion: Current methods for prediction of LNM are inadequate. We suggest GEPs as potential predictors of LNM that could significantly improve patient stratification and reduce overtreatment.

General
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DKS 2025: Abstract 22

The DIVIPACT cohort: Evaluating the impact of diverticulosis on quality of life

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Topic: 11: PhD Cup (only PhD theses submitted in 2023, 2024, or 2025 are eligible for evaluation)

Background: Colonic diverticulosis is asymptomatic in most subjects, but may severely impact quality of life (QOL). Most studies investigating QoL with diverticulosis are based on patients with admissions or surgery, limiting generalizability to the broader population with diverticulosis.
This study aimed to evaluate the impact of diverticulosis on QOL.
Method: The DIVIPACT cohort comprises subjects diagnosed with diverticulosis (K572-9) in The Central Denmark Region (~1.3 million residents) from 2010-2022 who responded to a cross-sectional questionnaire survey conducted in 2023. QOL was assessed using the diverticulitis quality of life (DV-QOL) instrument. Responders were categorised according to previous hospital management (surgery, inpatient, outpatient, or diverticulosis, i.e. no hospital contact primarily due to diverticulosis). The DV-QOL includes four domains (symptoms, concerns, feelings, and behaviour) and a total score, all ranked 0 (best) to 10 (worst). Mean DV-QOL scores and the proportion with an unacceptable symptom burden (DV-QOL ≥3.2) were compared.
Results: With a response rate of 74%, the cohort comprises 19,244 responders consenting to data linkage. Among these, 713 (4%) had undergone surgery, 3,471 (18%) had been inpatients, 8,666 (45%) had been outpatients, and 6,394 (33%) had diverticulosis with no hospital contacts primarily due to diverticulosis. The mean DV-QOL total score was 3.4 in patients with surgery, 2.9 in inpatients, 2.5 in outpatients, and 2.3 in patients with diverticulosis ($p<0.001$). The proportion with an unacceptable symptom burden was 53% among those with surgery, 42% among inpatients, 32% among outpatients, and 24% among those with diverticulosis ($p < 0.001$).
Conclusion: Patients undergoing surgery reported a significantly greater impact of diverticulosis on QOL compared to those with inpatient or outpatient contact, while those with diverticulosis reported the lowest impact on QOL. Despite this gradient, one in four of those without hospital contact, primarily due to diverticulosis, reported an unacceptable symptom burden, indicating that diverticulosis may impact QOL even in subjects not requiring hospitalisation due to diverticulosis.

General
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DKS 2025: Abstract 116

The transversus abdominis plane (TAP) block in minimally invasive surgery: mechanisms, effect, and clinical relevance

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Only abstracts submitted in English can join the British journal of surgery competition. Is the abstract submitted in English?: Yes
Topic: 11: PhD Cup (only PhD theses submitted in 2023, 2024, or 2025 are eligible for evaluation)

Background: The transversus abdominis plane (TAP) block is widely used for postoperative analgesia, but its clinical relevance in minimally invasive surgery and underlying mechanisms remain unclear. This thesis aimed to (1) evaluate the analgesic efficacy of TAP blocks, (2) assess whether the laparoscopic-assisted TAP (L-TAP) block is non-inferior to the ultrasound-guided TAP (US-TAP) block, and (3) determine whether the cutaneous sensory block area (CSBA) reflects the analgesic mechanism of TAP blocks.
Method: Two observational studies investigated the CSBA of subcostal US-TAP and dual subcostal L-TAP blocks. A multicentre, randomised, blinded, controlled three-arm trial compared US-TAP, L-TAP, and placebo in patients undergoing minimally invasive colon surgery, with 24-hour opioid consumption as the primary outcome. Post-hoc sensitivity analyses examined the impact of incision type (Pfannenstiel vs. supraumbilical transverse) on block efficacy and evaluated CSBA as a mechanistic correlate.
Results: Both US-TAP and L-TAP blocks produced heterogeneous, non-dermatomal CSBAs. In the randomised trial, the US-TAP block showed no difference compared with placebo, whereas the L-TAP block significantly reduced opioid consumption by 5.9mg morphine equivalents, though this was below the predefined threshold for clinical relevance. The L-TAP block was non-inferior to the US-TAP block within a 10mg limit. Subgroup analysis revealed that, in patients with Pfannenstiel incisions, the L-TAP block significantly reduced opioid consumption by 10.3mg, reaching clinical relevance and demonstrating superiority over the US-TAP block. CSBA did not seem to correlate with analgesic efficacy.
Conclusion: The analgesic efficacy of TAP blocks in minimally invasive colon surgery varies according to technique and incision location. While the US-TAP block showed no benefit over placebo, the L-TAP block provided superior analgesia, particularly in patients with Pfannenstiel incisions, where a clinically meaningful reduction in opioid consumption was observed. The CSBA does not appear to represent a valid mechanism for the effect of the TAP block.

General
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