A Comparison of Robotic and Laparoscopic Colectomy Using the 2019 ACS NSQIP Database
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INTRODUCTION: In the past decade, robot-assisted laparoscopic surgeries (RLS) have become more common alongside conventional laparoscopic surgeries (CLS). RLS have been reported to be superior to CLS, therefore, we compared both methods among patients undergoing colectomies for differences in perioperative factors and postoperative complications.

METHODS: Using the 2019 American College of Surgeons National Surgical Quality Improvement Program (ACS NSQIP) database, we stratified 8,249 patients into two cohorts according to their preoperative diagnosis of either colon cancer or chronic diverticulitis. Patients who underwent emergency operations were excluded from our analysis.

RESULTS: In total, 5,603 colon cancer and 2,646 chronic diverticulitis patients underwent an elective colectomy. In both cohorts, there were no differences in length of stay (LOS) and time from operation to discharge between RLS and CLS. However, RLS had significantly longer operation times (minutes) (colon cancer: RLS 240.8 ± 2.5 vs CLS 175.6 ± 1.3, p<0.001) (chronic diverticulitis: RLS 226.8 ± 3.0 vs CLS 181 ± 1.8, p<0.001). Among all colon cancer patients, RLS demonstrated higher rates of postoperative sepsis, cardiac arrest, and return to the operating room (OR). For chronic diverticulitis patients, RLS exhibited higher rates of postoperative sepsis, anastomotic leak, and organ space surgical site infection (SSI).

CONCLUSION: Overall, RLS demonstrated longer operation times and increased rates of postoperative complications, while there were no differences in hospital LOS and time from operation to discharge. Although RLS may confer benefits by being minimally invasive, this review of ACS NSQIP data showed that RLS were not superior to CLS.

A Descriptive Analysis of a Learning-Curve Cohort: Prospective Study of the First 2 Years of a Newly Established Robotic Colorectal Surgery Program at a Tertiary Care Centre
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INTRODUCTION: The latest robotic platform has made 4-quadrant robotic abdomino-pelvic surgery technically easier. A direct beneficiary of this development is colorectal surgery. Worldwide, there is an increasing uptake of robotic-assisted surgery (RAS) for colorectal conditions including for cancer.

METHODS: Within a 6-speciality multi-disciplinary robotic surgery service, a colorectal RAS program was established. A 2-consultant team led the program from November 2017 to December 2019. The program was paused at the beginning of the COVID-19 pandemic. All data was captured prospectively in a dedicated database. The 30-day outcome measures of the first 2-years of activity are reported.

RESULTS: In the 2-year study period, 65 patients (35-males, 30-females) underwent colorectal RAS. The mean age of patients was 61-years (21 to 86). Forty-four (68%) resections were for cancer and 27 (43%) were total mesorectal excisions. The conversion rate was 12.3% (8 of 65). The median anaesthetic, docking, console, surgery and total times for colorectal robotic procedures was 34 (25 to 44), 5 (3 to 8), 103 (74 to 145), 161 (102 to 249) and 255 (195 to 324) minutes respectively. The median length of hospital stay was 8-days (6 to 12 days). 12%, 7.7% and 1.5% of patients had a complication, an unplanned return to theatre or an unplanned readmission within 30 days with no recorded mortality.

CONCLUSION: The reported 30-day outcomes of a newly established colorectal RAS program confirm its feasibility and safety. Dual consultant team during its implementation facilitated shared experiential learning. Case selection remains critical for the success.

Delphi Consensus Recommendations on Intraoperative Technical Aspects for the Prevention of Surgical Site Infection in Colorectal Surgery Compared with Global/National Surgical Site Infection Prevention Guidelines
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INTRODUCTION: Colorectal surgery has the highest surgical site infection (SSI) rates among elective procedures. Broad recommendations exist for SSI prevention that are often non-specific to procedure type. The study objective was to develop expert consensus on intraoperative practices for SSI prevention, specific to colorectal surgery, and to compare these results with published guidance.

METHODS: A modified Delphi panel was comprised of 15 colorectal surgeons and involved three rounds of anonymous voting on draft consensus statements. A comprehensive literature review of meta-analyses, randomized trials, guidelines, and observational studies informed statements, along with observed surgical practices. Consensus was defined using a pre-specified threshold of ≥70%. Consensus statements were qualitatively compared with recommendations from published guidance.

RESULTS: Consensus was reached on 15 topics. Ten of the 15 topics were addressed in at least one guideline and five topics...