

## **Colorectal and Bariatric Enhanced Recovery After Surgery in a Non-Academic Institution: An Anesthesia Led Quality Initiative**

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**Introduction:** Enhanced Recovery after Surgery (ERAS©) pathways have been shown to improve patient outcomes by reducing hospital length of stay (LOS), decreasing post-surgical complications, and improving patient satisfaction. One in four surgical patients experiences a complication following surgery, each of which adds \$6500 to the cost of care. Additionally, independent of preoperative risk, the occurrence of a 30-day complication can reduce long-term survival by 69%.

ERAS© pathways were an anesthesia led initiative in colorectal surgery at a non-academic private hospital in May 2016, which then expanded to include bariatric surgery in February 2017.

**Methods:** As of May 2016, all colorectal surgical patients for two specific surgeons were identified as ERAS© when scheduled for surgery. The pathway focused on multiple elements: preoperative patient education beginning in the surgeon's office, more extensive education when seen at the pre-admission testing (PAT) clinic, carb loading the night before surgery and 3 hours before surgery, postoperative nausea and vomiting (PONV) protocol, multimodal analgesia to include transversus abdominal plane blocks, reducing or eliminating opioid consumption, intraoperative goal directed fluid therapy utilizing a stroke volume optimization protocol, early PO intake, and early and frequent mobilization. As of February 2017, a bariatric pathway for 3 specific surgeons was implemented and includes the same above elements.

**Results:** 2 patients were included in the intervention group with matched retrospective controls. The intervention was associated with reductions in LOS: colorectal 4.5 to 1.95 days, bariatric 2.15 to .95 days. Readmission rates for both groups have remained unchanged. Both groups also showed significant reductions in postoperative opioid consumption as well as decreased PACU time. Overall, there has been a reduction in cost per case by 20% in the colorectal ERAS group. Financial analysis of the bariatric program is underway.

**Conclusion:** The Anesthesia led quality initiative has proven to be successful. The success can be attributed to collaboration with the colorectal and bariatric surgeons, adding a dedicated clinical and quality outcomes position to the anesthesia group for program expansion and oversight, outcomes and compliance data collection/analysis, and continual re-education of the nursing staff. The ERAS© pathway has since expanded to 2 additional hospitals in the system and additional surgical lines have been added to the pathway to include: urology, gynecology/oncology, and obstetrics/gynecology. This expansion has allowed us to help over 1,000 patients to date.