Enhanced Recovery for the Bariatric Surgical Patient

Mindy Hinkel, BSN, RN-BC

Advocate Good Samaritan Hospital

Background/Introduction

- Enhanced recovery for surgical patients is gaining momentum in the United States.
- Bariatric surgical patients are a unique subset of patients who face many recovery challenges after surgery. Some challenges include:
  - Pain management,
  - airway management,
  - oral intake tolerance,
  - mobilization
  - addressing co-morbidities.
- The Metabolic and Bariatric Surgery Accreditation and Quality Improvement program (MBSAQIP) invited our hospital to participate in the Employing New Enhanced Recovery Goals to Bariatric Surgery (ENERGY) project in 2016-2018.
- The ENERGY protocol was broken down into four sections: preoperative, intraoperative, postoperative and discharge with goals set for each category

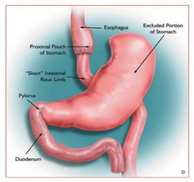
Purpose/ Objective

- The ENERGY enhanced recovery project was designed with the intent to reduce a bariatric surgical patient's length of stay and decrease their risk of 30-day readmissions.
- The goals of enhanced recovery are to decrease variability, utilize multimodal Opioid-sparing pain management, and improve the patients overall operative experience.

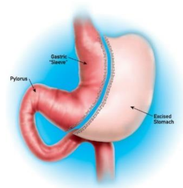
Figure 1. ENERGY variables collected

Methods/Approach

- Sample: All patients undergoing Roux-en-Y Gastric Bypass or Sleeve Gastrectomy in an in-patient hospital setting.
- Intervention: Preoperative, Intraoperative, Postoperative and Discharge.
  - Education was provided to the patient pre-operatively setting expectations for length of stay, pain management and the patient's responsibilities.
  - Anesthesiologists were to avoid Opioids, utilize regional blocks, goal oriented fluid management, temperature and glucose control and nausea prophylaxis.
  - Medical/Surgical Nursing staff were to encourage early oral intake, early ambulation, maintain scheduled non-narcotic medications, scheduled anti-emetics and to use Opioids for breakthrough pain.
  - Discharge goals included prescriptions provided for pain and nausea, VTE prophylaxis, glucose management, Bariatric Help card and a scheduled postoperative visit.
- The Bariatric Committee reviewed and made changes to the bariatric surgical standing orders to reflect compliance with the protocol.
- Methods of Evaluation:
  - Variables were determined by the MBSAQIP ENERGY committee were abstracted by the Bariatric Surgical Case Reviewer (BSCR) and entered into the MBSAQIP database (figure 1.).
  - MBSAQIP conducted monthly audits to monitor adherence to the protocol.
  - Audit reports received and reviewed with the Bariatric Committee and adjustments made as needed.
  - Additional data points were captured to evaluate the treatment of postoperative pain and nausea management.



Roux-en-Y Gastric Bypass



Sleeve Gastrectomy

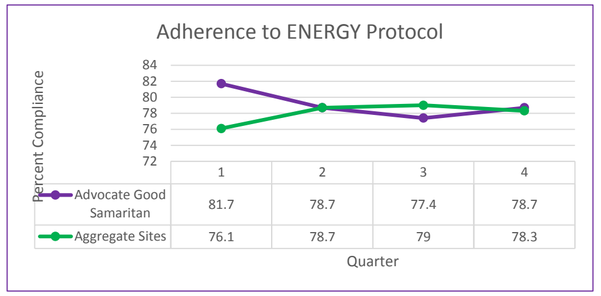


Figure 2. Protocol Adherence

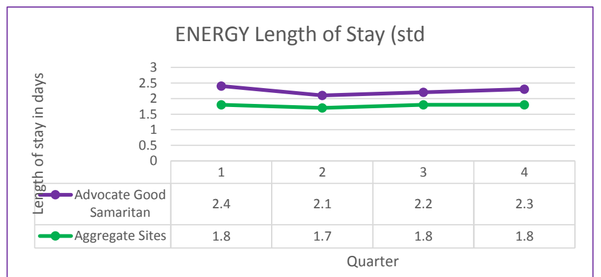


Figure 3. Length of Stay

Findings/ Results

- There was no correlation with adherence to the protocol and reduction in length of stay.
- Our length of stay was not significantly reduced, however, we did have a reduction in 30-day readmissions.
- The nursing staff was able to ambulate the patients and start oral fluids within two hours of arrival to the Unit from PACU.
- We were able to decrease the amount of narcotic pain medication and IV fluids given, although there was an increase in anti-emetic medications given.
- The bariatric surgeons encountered a small number of postoperative bleeding attributed to a non-opioid analgesic, resulting in non-adherence to the protocol in two categories.

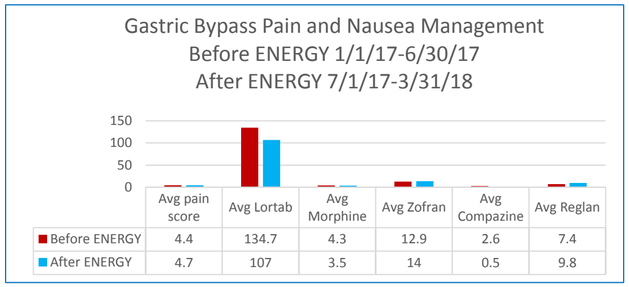


Figure 4. Gastric Bypass Pain and Nausea

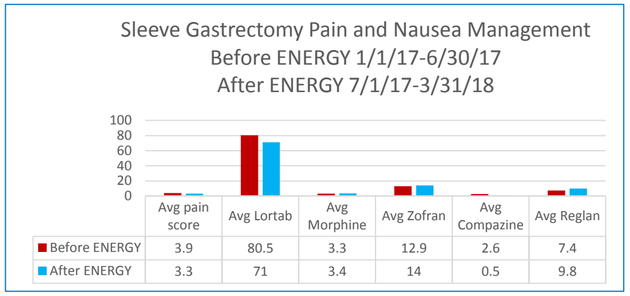


Figure 5. Sleeve Gastrectomy Pain and Nausea

Discussion/Conclusions

- Enhanced recovery did not reduce our length of stay.
- We were able to hardwire early ambulation and early initiation of oral intake in the nursing staff.
- Patient's response to anesthesia and level of pain tolerance were a factor in the requirement of pain and nausea medications.

Implications for Practice

- We continue to refine the enhanced recovery process and modify our postoperative order sets to facilitate a smooth safe recovery for our patients.
- Additional areas of future focus are the reduction in postoperative nausea and a goal of zero narcotic use postoperatively.

Acknowledgements

Thank you to the MBSAQIP for the invitation to participate in the ENERGY enhanced recovery project. Also thank you to the surgeons, anesthesiologists, pharmacists and nursing staff that took a leap to try something new.

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