Enhanced Recovery for Enhanced Outcomes: The Mayo Clinic in Arizona Experience

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Objective

In the realm of a rapidly developing evidence-based medicine, organizations are focusing on strategies to improve value by delivering the highest quality care for the lowest possible cost. One area of focus is the perioperative (peri) recovery of hospital patients. A surgical pathway is a medical development strategy that allows the healthcare team to work collaboratively in a way that standardizes perioperative care to reduce complications, improve patient outcomes, and minimize length of stay (LOS). Typically, the healthcare team has focused on pre-operative, intra-operative, and post-operative care, but the perioperative pathway is much broader than just the surgical procedure. In order to improve the perioperative process, the Mayo Clinic in Arizona focused on improving the patient journey, from diagnosis to discharge. The team worked together with surgery, nursing, pharmacy, and administration to deliver a coordinated, efficient, and cost-effective care plan for patients undergoing colorectal and gynecologic procedures.

Implementation

Implementation required involvement from a range of areas that "touch" the patient during the surgical care continuum. The following areas were affected by the enhanced recovery pathway:

1. Pre-operative intervention
2. Intra-operative intervention
3. Post-operative intervention

Pre-operative intervention

• Surgeon properly educates patient on what enhanced recovery is and what to expect before surgery
• Nutritional supplements and fluids are available before surgery
• Patients may not have a bowel prep before surgery. This may result in the post-operative nausea and vomiting (PONV), delaying patient’s ability to return to normal bowel function

Intra-operative intervention

• A minimal approach to fluid administration is done intra-operatively

Post-operative intervention

• Patients are kept in fluid restriction at the discretion of anesthesiology
• Patients are discharged only when driven by the evaluation of normothermia
• Post-operative pain management is pain-driven

Innovations

• The protocol was implemented on July 1, 2013 and patient data was collected during the same time period the year prior. There were 99 patient encounters and one gynecological surgeon who participated in the initial ERAS rollout. Data Collection: Included all patient encounters for three colorectal surgeons and one gynecological surgeon who participated in the enhanced recovery pathway. Analysis was performed on 2012 and 2013 patient encounters from July 1 through December 31, 2013 and compared to patient data during the same time period the year prior. All patients were analyzed by American Society of Colon and Rectal Surgeons Clinical Nutrition, Volume 29, Issue 4, August 2010, 434–440. ERAS 

Lessons Learned

1. Successful operational implementation of the pathway involved tailoring communication and buy-in early stages of implementation to each team
2. Implementing the pathway was key to ensuring ongoing support, adherence, and buy-in from key stakeholders
3. Based on the overall LOS reduction in 2013 and cost per patient encounter reductions in 2013, the pathway was continued

References
