Three Es to Improving Outcomes: Education, Engagement and Enhanced Recovery

Melissa Johnson, MSN, RN, CPAN; Alida Wagner, MSN, RN, APN/CNS, CPHQ; Naomi Kroncke, RN; Kate Johnson, BSN, RN;
Stephanie Reed, BSN, RN; Stephanie Mikkelson, BSN, RN; and LeeAnn Jackson, RN
Northwestern Medicine Delnor Hospital, Geneva, Illinois

Introduction

- Delnor Hospital participated in a Northwestern Medicine collaborative to develop Enhanced Recovery protocols to improve patient outcomes after surgery.
- Enhanced Recovery is a multidisciplinary approach to surgical care which incorporates:
  - Best practices for preventable harms
  - Patient and family education and engagement
  - Standardized intraoperative anesthesia and multimodal analgesia
  - Early ambulation after surgery
  - Optimal perioperative nutrition and early resumption of oral intake
- Optimizing patient/family engagement in preoperative education is a focal point for the Enhanced Recovery Program (ERP) at Delnor.
- The team monitors 47 data elements.

Identification of the Problem

- Delnor was not able to operationalize the enriched education plan as achieved at the other hospitals in the system due to the:
  - Inability to support a nurse navigator role for the initial phase of the project.
  - Lack of resources and sufficient time in the surgeon's office.
- Implementation of an innovative preoperative education within our current preadmission model was necessary.

Figure 1: Baseline Performance and Goals

Metric	Baseline Performance*	Goal
Length of Stay	7 days	6 days or less
30-day Readmission Rate	10.72% (6th decile)	< 10.72% and/or 6th decile
Post-operative Venous Thromboembolism Rate	2.35% (9th decile)	< 2.35% and/or 9th decile
Morphine Milligram Equivalents (MME)	73 MME**	Not established

*Data retrieved from the National Surgical Quality Improvement Program Semiannual (NSQIP) and represents all (106) Colorectal cases done in FY16. **Data specific to the Colorectal cases preformed by the surgeons in this project

QI Question

- Does the use of the Enhanced Recovery Nurse Coordinator (ERNC) role to provide preoperative education, influence patients/family engagement and improve post-operative outcomes?

Methods

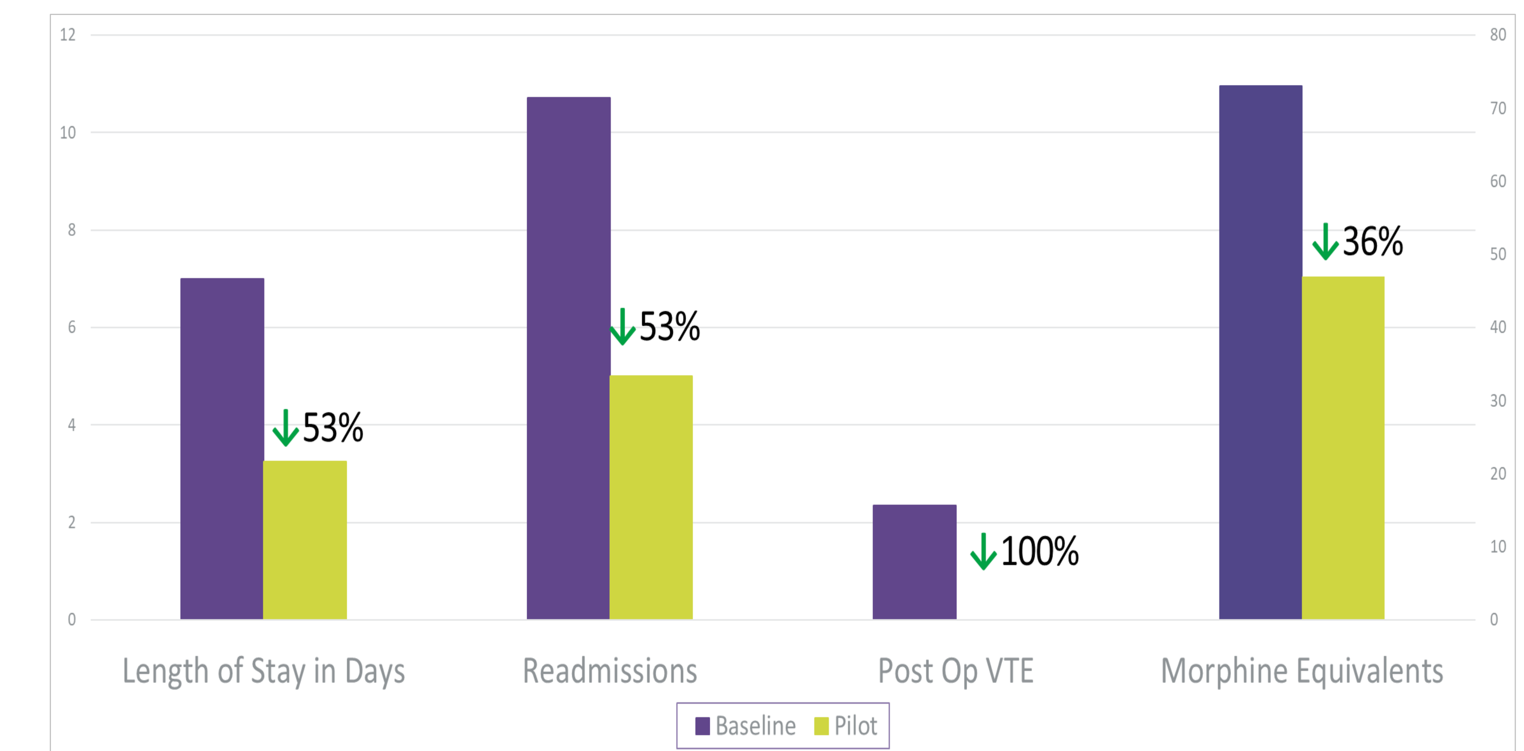
- The enhanced preoperative education program includes a dedicated coordinator and standardized education materials.
- The ERNC role was established within the PAT department to guide patients through the education and pre-surgical preparation.
- A patient education binder was created to prepare for surgery and support the ERP.
  - Includes evidence-based best practices for early ambulation, nutritional optimization, and pain management.
- The binder is introduced and education begins in the surgeon's office
- Education continues via multiple ERNC/patient touch points:
  - The patient receives a scheduled call with the ERNC and a visit is scheduled.
  - During the scheduled visit, the ERNC reviews binder contents and provides opportunity for questions. The patient receives an individualized calendar and ERNC contact information.
  - The patient receives 2 additional ERNC phones calls 7 days and 1 day prior to surgery.

Outcomes/Results

- The initial phase of the program was piloted with 4 surgeons for a total of 20 patients.
- All 20 patients received the binder and education with an ERNC
- Post-pilot performance demonstrates reduction in Length of Stay (LOS), 30-day readmission rate, Venous Thromboembolism (VTE), and opioid use. **Figure 2**

References
- NSQIP data reference
- Ljunggvist, O, Scott, M, Fearon, KC. *Enhanced Recovery After Surgery: A Review. JAMA* Surg. 2017:152(3):292-298
- Crosson, Jacque A. *Enhanced Recovery After Surgery—The Importance of the Perianesthesia Nurse on Program Success.* JOPAN. 2017: 33 (4): 366-374

Figure 2: Pilot Results



Discussion

- Patients in the pilot program report high engagement in the process and provided positive feedback. High engagement likely translates to the improved outcomes and program success.
- The Perianesthesia nurses who operationalized the role of the ERNC were highly committed to the patients and the ERP, further contributing to the overall success.
- Data comparison includes some limitation as majority of the baseline performance includes all surgeons performing colorectal procedures.
- The project utilized a quality improvement methodology, therefore direct correlation is not possible.

Conclusions

- Implementation of the ERNC role enhanced patient education and favorably impacted patient/family engagement, LOS, readmission, VTE, and opioid use.

Implications for Perianesthesia Nurses and Future Research

- ERNC scope now includes additional colorectal surgeons and will likely expand to other service lines.
- Conduct a second analysis comparing baseline data for the 4 specific surgeons to pilot data.
- Comparison of Delnor outcomes to the other hospitals within the system since a unique education model was used.
- As ERP expands at Delnor, the team will continue to review and evaluate the effectiveness of the perioperative education delivery method.