Enhanced Recovery After Surgery (ERAS®) Process and Continuous Improvement Methodology

Mary Korte, MSN, MHA, RN, CNOR, Kristin Wheeler, BSN, RN, CCRN, Erick Cooper DO, Nazar Kalivoshko MD
Kartik Gopal, PhD, Victoria Wells, MSN, RN-BC, CAPA, Tim Norman, RN, CCRN, Shelly Sykes, BSN, CAPA
Summa Health System – Akron Campus Akron , OH

Abstract

Enhanced Recovery After Surgery (ERAS®) processes were implemented in 2015 and continue to evolve based on patient outcomes.

Initial steps included:

- A postoperative nausea and vomiting (PONV) plan of care to identify PONV risk and standardize physician orders based on patient co-morbidities
- A multi-modal pain management plan for perioperative care to reduce previous opioid requirements
- RN awareness for plan of care change management

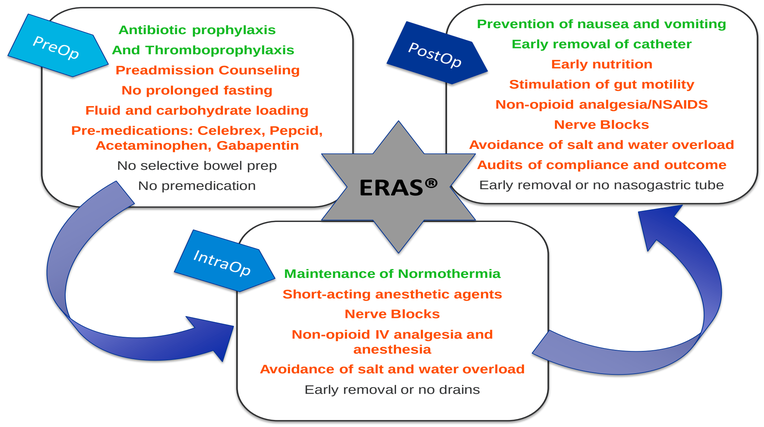
Objective

- To improve the patient's postoperative nausea and vomiting symptoms and decrease opioid use

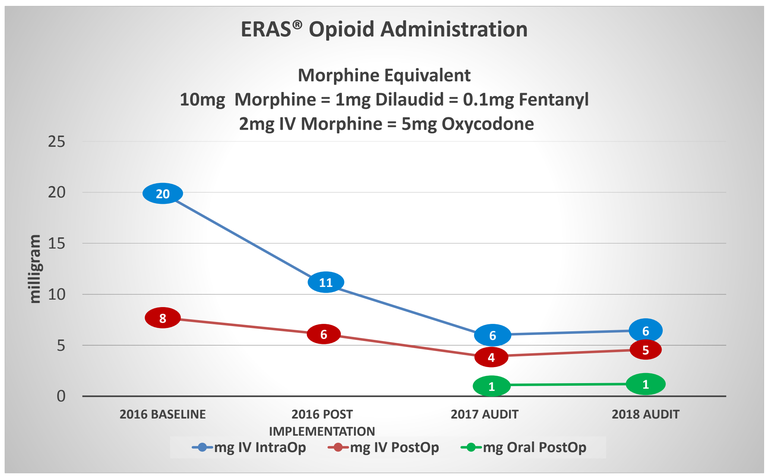
Methods

- A pilot was trialed which included specific surgeons and specialty cases
- Surgeons collaborated with anesthesia about the multimodal plan of care
- Anesthesia leadership developed the ERAS® orders
- Clinical process improvement included changes in current practice in the Preadmission Testing (PAT), Sameday Surgery Department (SDS), Operating Room (OR) and Post Anesthesia Care Unit (PACU)
- Preop medications: aprepitant, acetaminophen, and gabapentin
- IntraOp interventions: transverse abdominis plane blocks (TAP); ketamine, lidocaine bolus/drip and esmolol bolus/drip
- Chart audits were completed and reported to all stakeholders
- Celecoxib, famotidine and dimenhydrinate were added to the patient medication regimen
- Preop NPO status changes included carbohydrate loading

ERAS® Improvements



Results



Discussion and Outcomes

- Reported PONV reduced by 6% (baseline -14%; post implementation - 8%)
- Opioid use reduction of 64% (baseline - 27.6 mg; 4th qtr 2017 - 9.9 mg)
- Phase I – Avg Length of stay reduced 8%; 2016 - 92 mins; 2018 - 85 mins
- Phase II - Avg Length of stay reduced 14%; 2016 - 74 mins; 2018 - 65 mins
- Continued care improvements with additional nerve blocks, re-evaluation, and changes in pre-op medications
- Continuing quarterly audits

PeriAnesthesia Nursing Implications

- Embracing Evidence Based Practice for continuous quality care
- Nurses are expecting patients to require less opioids based on ERAS® medication protocols and blocks
- Interdisciplinary collaboration and asking questions guides our practice
- Assisting patients to recognize expected "pain and comfort goals"
- Continuing education and understanding

References

1. Brady, JM (2016). The migration of enhanced surgical recovery protocols. *Journal of PeriAnesthesia Nursing, 31*(6), 532-534.
2. Clifford, T (2016). Enhanced recovery after surgery. *Journal of PeriAnesthesia Nursing, 31*(1), 182-183.
3. Enhanced Recovery After Surgery (ERAS®). http://www.erassociety.org/index.php.eras-nursing-group.
4. Enhanced Recovery After Surgery (ERAS®). Fast-track / ERAS® Nursing Care. Retrieved 1/26/2018 from http://erassociety .org/bibliography.
5. Ljungqvist O, Scott M & Fearon K. (2017). Enhanced recovery after surgery: a review. *Journal of American Medical Association (JAMA), 152*(3), 292-298.
6. American Association of Nurse Anesthetists Board of Directors. (2017). Enhanced Recovery After Surgery Pathway Development.

Acknowledgement

Kaye Reiter, MSN, RN, NE-BC, Dr. Thomas Mark, Dr. John Fink
Anesthesia Department, and CRNAs,
Surgical Services RNs in PAT, SDS, OR and PACU