



ENHANCED RECOVERY WITH MULTI-MODAL ANALGESIA IN SPINE SURGERY

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INTRODUCTION



- Spine surgery is particularly painful, leading to an increased risk of developing chronic pain.
- The diagnosis and treatment of back pain in the United States is currently estimated at 50 billion dollars annually
- A growing concern of overtreatment of pain has led many providers to employ alternative pain relieving strategies, such as multimodal analgesia to treat perioperative pain.
- The newest evidence-based practice pathways emphasize the use of multimodal analgesia to treat pain as part of a relatively new clinical pathway known as the Enhanced Recovery After Surgery (ERAS).
- The goal of ERAS is to reduce pain and surgical stress.

PURPOSE

- The purpose of this quality improvement project was to implement multi-modal analgesic techniques for patients having elective spine surgery and to evaluate postoperative pain scores, postoperative nausea and vomiting, post anesthesia care unit (PACU) length of stay and post-op opioid administration

PROBLEM STATEMENT

- ERAS clinical pathways demonstrated success in colorectal surgery
- Have **not** been used in elective spine surgeries/ **Not** in use at project site
- Evidence supports that multi-modal analgesia/ERAS clinical pathways, significantly reduces the number of opioids given or needed (80%)
- Implementation of an ERAS clinical pathway promotes consistent use of current evidence based practice guidelines

METHODS

- Retrospective data was collected for patients under going elective spine surgery from August/September 2018 and compared to August/September 2017
- Data gathered: post-operative pain scores, post-op nausea and vomiting, PACU length of stay and opioid equivalents
- Statistical analysis via descriptive statistics

RESULTS

Figure 1. Pre-intervention vs. Post-intervention pain reduction

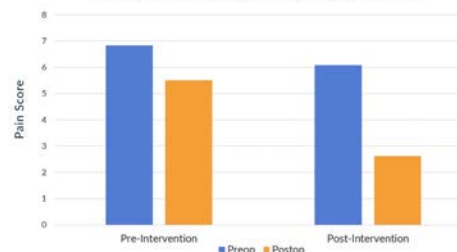


Figure 2. Morphine equivalents pre-intervention vs. post-intervention

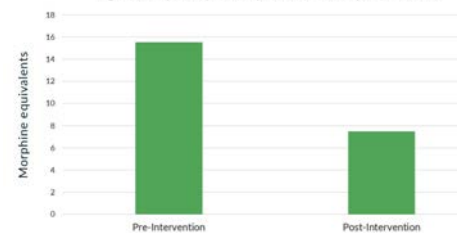
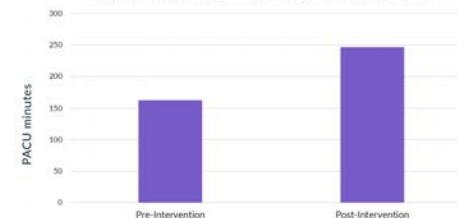


Figure 3. Time spent in the PACU pre-intervention vs. post-intervention



CONCLUSIONS

- Feasible to implement project
- Utilization of multimodal analgesia techniques significantly reduces pain scores and total opioid usage in Spine surgery
- Standardizing treatment creates less variability in care and enhances recovery after surgery
- Additional QI projects needed

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