

## MULTIDICPLINARY ERAS APPROACH IN ESOPHAGECTOMY USING A CLINICAL CARE PATHWAY

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**Background:** Enhanced recovery after surgery (ERAS) programs for esophagectomy have been discussed, however, there is lack of consensus in the perioperative care of these patients due to lack of sufficient evidence. We sought to implement an evidence based care pathway to reduce variation in postoperative treatment, enhance patient experience, and subsequently reduce length of stay (LOS).

**Methods:** Multidisciplinary clinical teams involving thoracic surgery, general surgery, anesthesiology, nursing, physical therapy, and the hospital's value-based care team partnered to develop an evidence based clinical pathway and implement corresponding order sets since April 2017. Adult individuals undergoing esophagectomy surgery at a single academic institution from September 2014 and November 2017 were identified using CPT codes and/or scheduling codes in our internal electronic medical record (EMR) system and matched with National Surgical Quality Improvement Program (NSQIP) datasets. Patient demographic information, operative type, postoperative complications, and LOS were compared using student t-test and logistic regression between 2 phases, defined as pre-implementation (September 2014 to April 2017) and post-implementation (April - November 2017). Patients who had achalasia or major concurrent procedures were excluded from analysis.

**Results:** Among 132 patients meeting criteria for inclusion, average LOS was 13.2 ± 9.0 days and 11.2 ± 9.6 days (p<0.01), respectively (Figure 1). Patient demographics, postoperative complication rate, mortality rate, readmission rate didn't show significant difference. ERAS process measures showed significantly increased ambulation rate on postoperative day 1 and earlier swallow test in the post-implementation phase (Table 1).

**Conclusion:** Implementation of an evidence based care pathway and an order set using ERAS principle showed significant impact in postoperative outcomes of esophagectomy patients within a short period. Expected multiple iterations in enhanced prehabilitation, postoperative care process would be granted. This approach seems promising to reduce LOS with similar level of clinical outcomes.

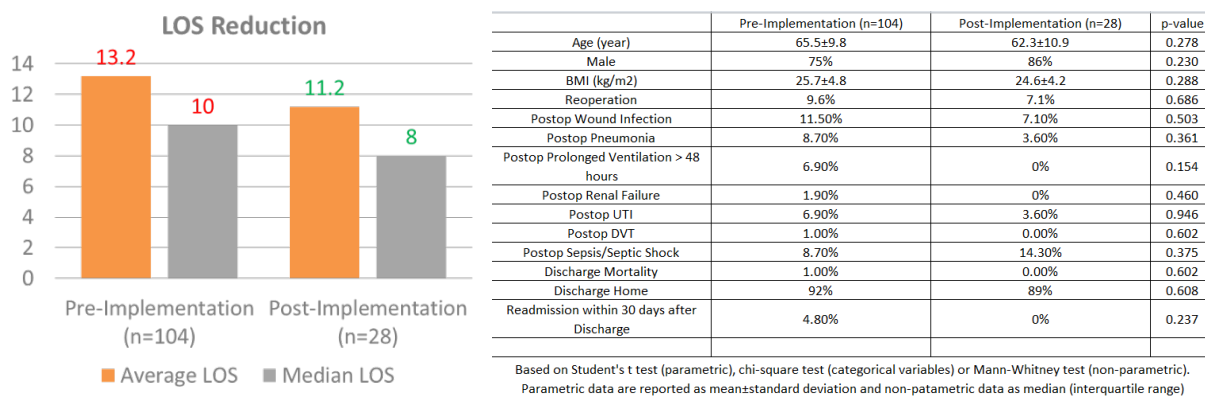


Figure1: LOS reduction pre- and post-implementation; Table1: ERAS process measures pre- and post-implementation

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Image(s) (at least 300x300 pixels per inch in JPEG or TIFF file format)

