

Introduction

- Complex thoracic and lumbar spine surgeries have high complication rates and prolonged recovery risks.
- ERAS Society guidelines and SNACC Clinical Practice Guidelines were developed to optimize perioperative care.
- Our institution informally adapted these guidelines into a complex spine pathway.
- Objective: Evaluate provider adherence to pathway elements and determine associations with postoperative length of stay (LOS) and average daily opioid consumption.

Methods

- Design:** Single-center retrospective study (Jan 2021–Apr 2022).
- Population:** 166 adults undergoing elective multi-level thoracic and/or lumbar spine surgery.
- Exclusions:** Cervical, trauma, single-level, and staged procedures.
- Pathway Components Evaluated:**
 - Pre-op: acetaminophen, celecoxib, EKG for methadone safety
 - Intra-op: ketamine infusion, methadone dosing, TIVA, TXA, fluid and ventilation targets, avoidance of opioid infusion
- Outcomes:** Hospital LOS and average daily opioid consumption (OME/day).
- Analysis:** Compliance quantified; multivariate and ordinal logistic regression adjusted for age.

Results

