Enhanced Compliance to Opioid Sparing Anesthesia for Improved Postoperative Outcomes in Bariatric Surgery

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Background & Significance

- Obesity rates rose from 30.5% to 41.5% over 20 years; severe obesity doubled from 4.7% to 9.2% (CDC, 2022).
- From 2019 to 2020, opioid-related deaths increased by 38%; 75% of overdose fatalities involved opioids (CDC, 2023).
- Opioid-related complications prolong hospital stays by 3.8–7.1 days, costing $8,458–$19,562 per patient (Gan et al., 2015).
- Opioid-free anesthesia (OFA) techniques reduce complications, improve recovery, and lower costs; adherence to ERAS protocols ≥80% is essential for optimal outcomes (Soffin et al., 2018).

Aims & Purpose

1. Review the literature to determine the evidence-based practice of opioid sparing anesthetic techniques administered to obese patients undergoing bariatric surgery to provide analgesia and decrease incidence of postoperative complications.
2. Survey inpatient CRNAs at Atrium Health Cabarrus on their implementation of opioid sparing techniques for the specified patient population, as well as identify barriers to implementation.
3. Compile and disseminate the results of the survey to key stakeholders.
4. Suggest & develop practice recommendations based on survey results and share them with key stakeholders.

Purpose: Assess compliance with the bariatric ERAS protocol, identify barriers to compliance based on survey results and disseminate education on recommendations to address these barriers and narrow the knowledge gap.

Table 1: ***CRNA Demographics***

CRNA years of experience	f (%)
<1 year	1 (4.5)
1-5 years	5 (22.7)
6-10 years	3 (13.6)
>10 years	13 (59.1)
Years practicing as a CRNA at AHC	f (%)
<1 year	4 (18.2)
1-5 years	9 (40.9)
6-10 years	2 (9.1)
>10 years	7 (31.8)
Employment status at AHC	f (%)
Full Time W2 (1.0 FTE)	12 (54.5)
Part Time (<1.0 FTE)	1 (4.5)
Per Diem W2 (<0.4 FTE)	2 (9.1)
Locums/1099 full-time (1.0 FTE)	6 (27.3)
Locums/1099 part-time (<1.0 FTE)	1 (4.5)

Most respondents were aware of the Bariatric ERAS protocol; however, only 38.9% strongly agreed it was accessible. Compliance of greater than 80% was reported by 83% of aware CRNAs but dropped to 68% when factoring in those unaware of the protocol.

Results

Figure 1: *Awareness of Bariatric ERAS Protocols*

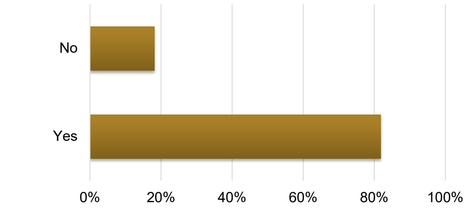


Figure 2: *Compliance Percentage to Bariatric Protocols*

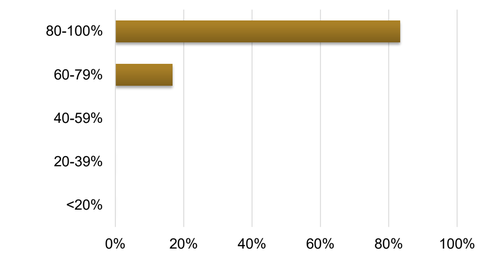
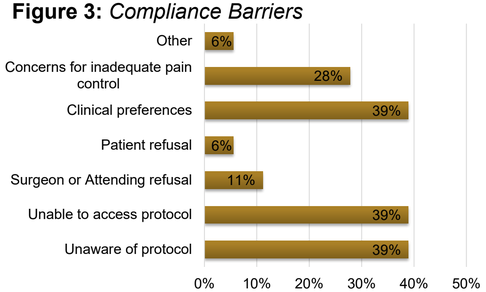


Figure 3: *Compliance Barriers*



Methodology

Project Design & Data Collection: Anonymous REDCap survey administered to 50 inpatient CRNAs at Atrium Health Cabarrus, using quantitative grading scales & qualitative free-text responses. IRB approval obtained.

Survey Implementation: Initial email introduction, morning conference presentation, & biweekly email reminders over four weeks

Conclusion

Literature Review: Evidence supports opioid-sparing protocols in bariatric surgery, reducing postoperative opioid use, nausea, and vomiting; ERAS protocol success requires ≥80% compliance.

Compliance Assessment: At Atrium Health Cabarrus, only 68% of CRNAs reported ≥80% adherence to opioid-sparing protocols, despite general awareness of ERAS guidelines.

Identified Barriers: Lack of protocol awareness, accessibility challenges, clinician preferences, and concerns about adequate pain control.

Limitations: Limited by self-reported data, small sample size (22 CRNAs), single site focus, & lack of direct observational data affecting generalizability

Recommendations

- Quick links on work-stations
- EPIC advisories
- integrating ERAS training for new staff
- Refining protocols to include IV hydration, sugammadex, dexmedetomidine, & IV acetaminophen

References