Rate and Predictors of Opioid-Free Analgesia After Hospital Discharge Following Laparoscopic Bariatric Surgery: A Prospective Cohort Study

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KEY MESSAGE: A sizable proportion of patients undergoing laparoscopic bariatric surgery do not require opioids post-discharge. Those with minimal in-hospital opioid use and longer hospital stays may be suitable for opioid-free discharge prescriptions. These findings support further investigation of opioid-free analgesia in randomized trials.

INTRODUCTION

- Patients undergoing bariatric surgery are often **prescribed excessive opioids** for pain management after discharge *(Lin A, et al. Surg Endosc. 2023;37(1):62-74).*
- This may lead to **opioid-related harms** and contribute to the **opioid crisis** *(Bicket MC, et al. JAMA Surg. 2017;152(11):1066–71).*
- To overcome these issues, there has been increasing interest in opioid-free analgesia.
- However, evidence regarding the prevalence and characteristics of bariatric patients who do not consume opioids after discharge remains limited.

RESEARCH AIMS

1. To estimate the **rate of opioid-free post-discharge analgesia** after laparoscopic bariatric surgery; and
2. To identify **patient and perioperative factors associated with opioid-free recovery**.

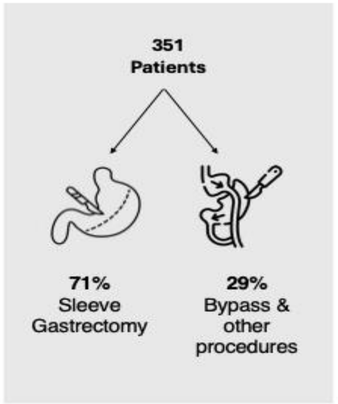
METHODS

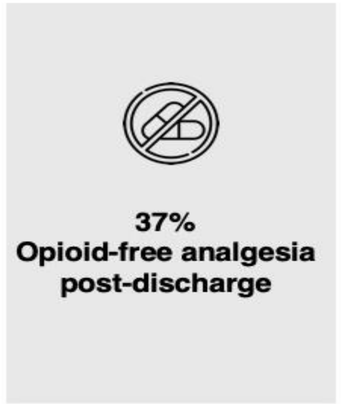
Study Design: **Prospective cohort study** at two academic hospitals in Montreal, Canada.

Participants: Adult patients (≥18yo) undergoing laparoscopic bariatric surgery.

Data Collection: Surgical and perioperative care data were retrieved from medical records. Following discharge, patients self-reported their opioid use weekly for up to 30 days (online questionnaire)

Data Analysis: Descriptive statistics and Bayesian Model Averaging (BMA). A posterior effect probability (PEP) ≥ 50% supported evidence of association (higher PEP = stronger evidence).







* Icons from www.flaticon.com

RESULTS

Patients: 351 (44±11 years, BMI 45±8.0 kg/m², 77% female)

Procedures: 71% sleeve gastrectomy

Hospital Stay: 1.6 ± 0.6 days

Opioid Use:

- Median inpatient consumption: 92.5 [55–142.5] MMEs
- Discharge prescriptions: 99.7% opioids, 100% acetaminophen, 3.7% NSAIDs
- **37% opioid-free post-discharge (39% sleeve, 31% anastomotic procedures)**

Predictors of Opioid-Free Recovery:

- Lower inpatient opioid use (≤100 MMEs): OR 0.45, 95%CI 0.26-0.78; PEP 97%
- Longer hospital stay (>1 day): OR 2.5, 95%CI 1.23-5.07; PEP 94%

Conclusion

A considerable proportion of patients undergoing laparoscopic bariatric surgery do not use opioids post-discharge. Patients with low in-patient opioid consumption and longer hospital stay may be suitable candidates for opioid-free discharge prescriptions.