Postoperative Outcomes of Emergency Revisional Bariatric Surgery: A 2023 MBSAQIP Analysis

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INTRODUCTION

- Revisional bariatric surgery carries a higher risk of complications compared to primary procedures, particularly in emergent cases.
- National data comparing short-term outcomes between elective and emergent revisional operations remains limited.
- This study aimed to evaluate outcomes between emergency and elective revisional bariatric surgeries using the 2023 MBSAQIP database.

METHODS

- A retrospective cohort analysis was conducted using 2023 MBSAQIP data.
- Patients were stratified by emergency status and surgery type.
- Outcomes of Interest: 30-day postoperative complications; secondary endpoints included 30-day readmission and reoperation
- All statistical analyses were performed using SAS version 9.4.

RESULTS

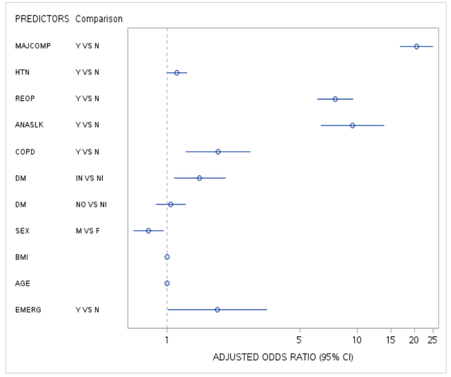

Figure 1. Multivariate Regression for 30-Day Readmission. GIB = GI Bleed; VTEt = VTE requiring treatment; BO = Bowel Obstruction; ANASLK = anastomotic leak; IN = insulin-dependent; NI = non-insulin-dependent; NO = no diabetes

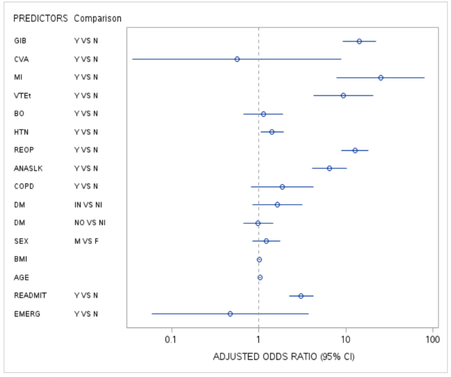

Figure 2. Multivariate Regression for Unplanned ICU Admission in 30 days. GIB = GI Bleed; VTEt = VTE requiring treatment; BO = Bowel Obstruction; ANASLK = anastomotic leak; IN = insulin-dependent; NI = non-insulin-dependent; NO = no diabetes

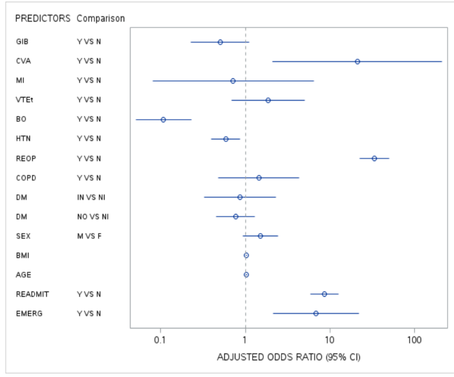

Figure 3. Multivariate Regression for Postoperative Anastomotic Leak. GIB = GI Bleed; VTEt = VTE requiring treatment; BO = Bowel Obstruction; ANASLK = anastomotic leak; IN = insulin-dependent; NI = non-insulin-dependent; NO = no diabetes

- A total of 26,536 revisional cases were analyzed. Patient demographics and comorbidities were similar across groups.
- On univariate analysis, emergency cases were associated with significantly higher odds of overall complications (OR 2.75, 95% CI 1.66–4.53, P< 0.001) and 30-day readmission (OR 2.35, 95% CI 1.41 – 3.93, P= 0.001).
- Reoperation rates were higher in emergency cases, but this difference was not statistically significant (OR 1.58, 95% CI 0.64–3.87, P= 0.32).
- On multivariate analysis, emergent revisional surgery (OR = 1.83, CI = 1.01-3.35), female gender (OR = 1.26, CI = 1.05-1.51), insulin dependent diabetes (OR = 1.48, CI = 1.09-2.03), and COPD (OR = 1.85, CI = 1.25-2.73) were independently associated with increased odds of 30-day readmission.

CONCLUSIONS

- Emergency revisional bariatric surgery is associated with increased risk of complications and readmission at 30 days versus elective revisional bariatric surgery.
- Female gender, insulin-dependent diabetes, and COPD are independently associated with 30-day readmission.
- These findings highlight the importance of early surveillance, comorbidity optimization, and intervention in high-risk patients to avoid emergent revisional surgery.

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