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Trends in revisional bariatric surgery: comparing outcomes based on specialty of the primary surgeon using the MBSAQIP database.

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Introduction

Previous investigations of revisional bariatric surgery have evaluated outcomes when procedures are assisted by residents and/or fellows but not based on the specialty of the primary surgeon. The objective of this study is to compare the outcomes of revisional bariatric surgery when performed by self-reported metabolic and bariatric surgeons (MBS) versus those performed by self-reported general surgeons (GS) utilizing the Metabolic and Bariatric Surgery Accreditation and Quality Improvement Program (MBSAQIP) Registry.

Methods

The MBSAQIP registry was queried (2016-2018) for revisional procedures based on the self-reported specialty of the primary surgeon. Surgical complications, reoperations, reinterventions, operative time and approach were compared with univariate, multivariate, and propensity matching analyses.

Results

87,250 revisional procedures were performed by MBS (versus 2209 by GS). Of those performed by MBS, 89.3% were laparoscopic or robotic (versus 75% by GS), 3.3% were open (versus 13.5% by GS), and 7.4% were other approaches (versus 11.5% by GS). The average operative time was 106 minutes for MBS (versus 109 for GS). When compared with MBS cases, those performed by GS were associated with an increased risk of deep incisional SSI (OR=3.6, 95% CI 2.4-5.3, p<0.001), organ space SSI (OR=2.2, 95% CI 1.7-2.8, p<0.001), sepsis (OR=2.2, 95% CI 1.6-3.2, p<0.001), septic shock (OR=2.4, 95% CI 1.6-3.8, p<0.001), ventilator use >48 hours (OR=2.5, 95% CI 1.5-4, p<0.001), transfusion (OR=1.4, 95% CI 1.1-1.9, p<0.001), 30-day reoperation (OR=1.6, 95% CI 1.3-1.9, p<0.001), and 30-day readmission (OR=1.3, 95% CI 1.1-1.5, p=0.002).

Case Characteristics by Specialty		
Characteristic	**Metabolic and Bariatric Surgeons**	**General Surgeons**
Laparoscopic	72662 (83.3%)	1475 (66.8%)
Robotic Assisted	5266 (6.0%)	182 (8.2%)
Open	2890 (3.3%)	298 (13.5%)
Operative Time	106 minutes	109 minutes

Table 1: Case Characteristics

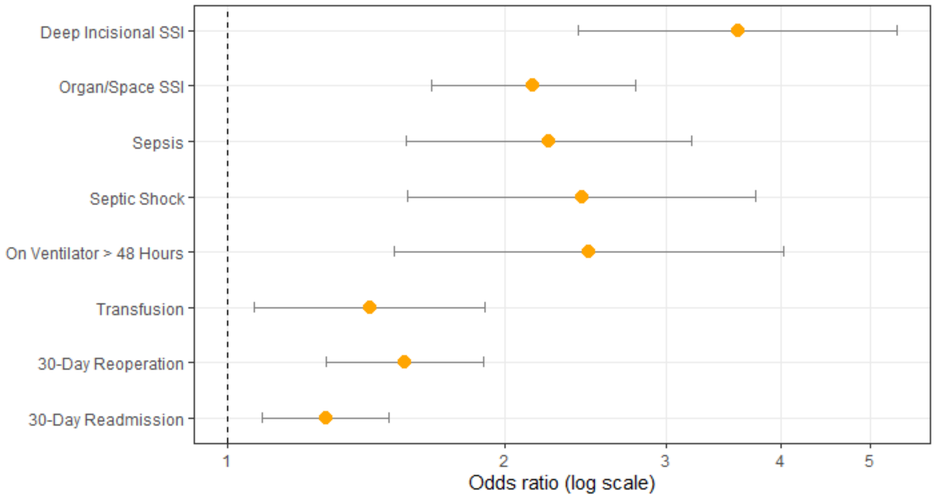


Figure 1: Plot of Significant Outcomes

Conclusion

This study found significant differences in the immediate peri-operative and short-term outcomes of revisional bariatric surgery depending on the primary specialty of the surgeon as reported in the MBSAQIP registry. When performed by self-reported GS (compared to self-reported MBS) revisional bariatric procedures were more often open, and were associated with significantly more complications, reoperations, and readmissions. Factors underlying these significant outcome differences are unclear and should prompt further investigation. However, these initial findings suggest a benefit to patients of focusing revisional bariatric operations at high volume bariatric centers.

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