

Insurance Status Predicts 30-Day Serious Complications, Length of Stay, and Emergency Department Visits Following Bariatric Surgery: An Analysis of 3,867 Cases

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Background & Objectives

- Publicly insured patients experience higher complication rates and greater healthcare utilization following surgery
- While insurance-based outcome **disparities** are well described nationally, their persistence at **high-volume tertiary bariatric centers** remains poorly characterized
- We examined whether insurance status independently predicts **complications, ED visits, length of stay (LOS), and readmissions**

Methods

- Retrospective analysis of the Cleveland Clinic **MBSAQIP** database (2020–2024) of **primary** bariatric surgery at a high-volume tertiary bariatric center
- Private insurance** (PI) defined as **commercial** insurance or **self-pay**; **non-private insurance** (NPI) as **Medicare** or **Medicaid**
- Extended LOS defined as **≥3 days**
- Patient **characteristics** and **30-day outcomes** were compared using chi-squared and t-tests; **multivariable logistic regression identified independent predictors** of serious complications, ED visits, extended LOS, and readmission

Key Outcomes

- Of 3,867 patients, **55.3% had PI**; NPI patients were more likely **Black**, had **higher BMI**, and greater **comorbidity** burden (all $p < 0.001$)
- PI patients had **fewer serious complications** (3.4% vs. 5.6%, $p = 0.001$), **ED visits** (10.3% vs. 18.1%, $p < 0.0001$), **shorter LOS** (1.7 vs. 2.1 days, $p < 0.0001$), and **fewer readmissions** (2.9% vs. 4.5%, $p = 0.004$).
- Private insurance was independently **protective** against **ED visits** (OR 0.51), **serious complications** (OR 0.54), and **extended LOS** (OR 0.56) on **multivariable analysis** (Figure I).

Results

Protective Effect of Private Insurance on 30-Day Outcomes

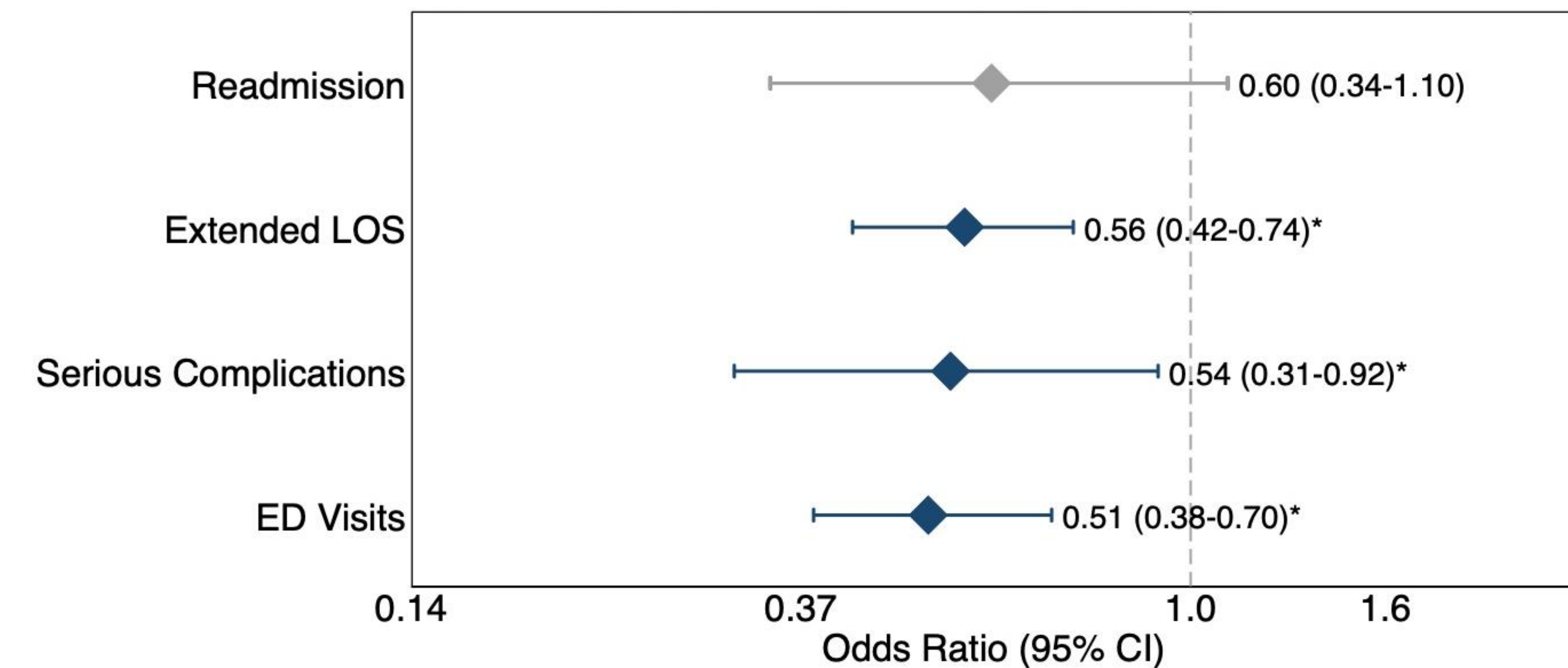


Figure I. Multivariable logistic regression analysis. * $p < 0.05$. OR, odds ratio; CI, confidence interval; LOS, length of stay.

Conclusions

- Private insurance** is **independently protective** against serious complications, ED visits, and extended LOS following **primary bariatric surgery**
- Insurance-based outcome **disparities persist** even at a high-volume tertiary bariatric center
- NPI patients present with higher comorbidity burden and are **disproportionately Black**, reflecting broader socioeconomic disparities
- High-risk NPI patients** may benefit from **dedicated perioperative pathways**, even at experienced bariatric centers