



AB046. SOH24AB_122. Key risk factors and reasons for all-cause readmission following bariatric surgery: a systematic review and meta-analysis

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Background: In tandem with the rising popularity of bariatric surgery, its corresponding readmission rate has been increasingly gaining value as a quality benchmark for performance evaluation. Therefore, our study aims to shed light on the risk factors and reasons for readmission after bariatric surgery.

Methods: Medline and Embase were systematically searched through November 2022 for studies reporting the risk factors and causes of readmission. A pairwise meta-analysis with odd ratios was used to estimate the risk factors for readmission using the generalized linear mixed model. A single-arm meta-analysis of proportions was used to determine the reasons for readmissions.

Results: A total of 1,794,884 patients from 17 studies were included, of whom 88,513 (4.9%) were readmitted. Compared to White race/ethnicity, Black race/ethnicity [odds ratio (OR): 1.49, 95% confidence interval (CI): 1.36–1.63, $P < 0.0001$] was associated with significantly higher readmission risks. Patients who had adjustable gastric banding (OR 0.43, 95% CI: 0.30–0.60, $P = 0.0004$) and sleeve gastrectomy (OR: 0.68, 95% CI: 0.56–0.82, $P = 0.0009$) performed had lower odds of readmission than those who had gastric bypass performed. A body mass index of 50 kg/m² and above was correlated with readmission, compared to a body mass index of less than 40 kg/m². In relation to

comorbidities, readmission was significantly associated with hypertension, diabetes, and obstructive sleep apnea. The most common causes of hospitalizations were infections (10.48%), followed by leaks (10.42%), and abdominal pain (9.81%).

Conclusions: This review identified numerous risk factors and reasons leading to readmission. Better recognition of key risk factors and causes could improve decision-making for targeted preventive measures.

Keywords: Bariatric surgery; meta-analysis; systematic-review; readmission; risk factors

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Footnote

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Ethical Statement: The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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