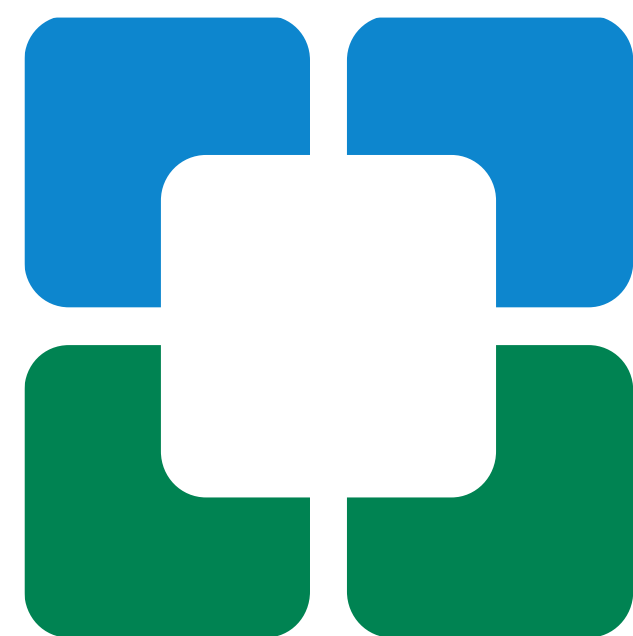


IMPACT OF SEVERE DIABETES (HbA1c >9%) ON SHORT-TERM OUTCOMES FOLLOWING BARIATRIC SURGERY: AN ANALYSIS OF 379,034 MBSAQIP PATIENTS



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INTRODUCTION

Bariatric surgery is an effective treatment for type 2 diabetes, but poor preoperative glycemic control is common and may delay surgery due to concerns about perioperative risk. The independent effect of HbA1c >9% on short-term outcomes remains unclear. We evaluated the association between HbA1c >9% and 30-day outcomes after sleeve gastrectomy and Roux-en-Y gastric bypass.

METHODS AND PROCEDURES

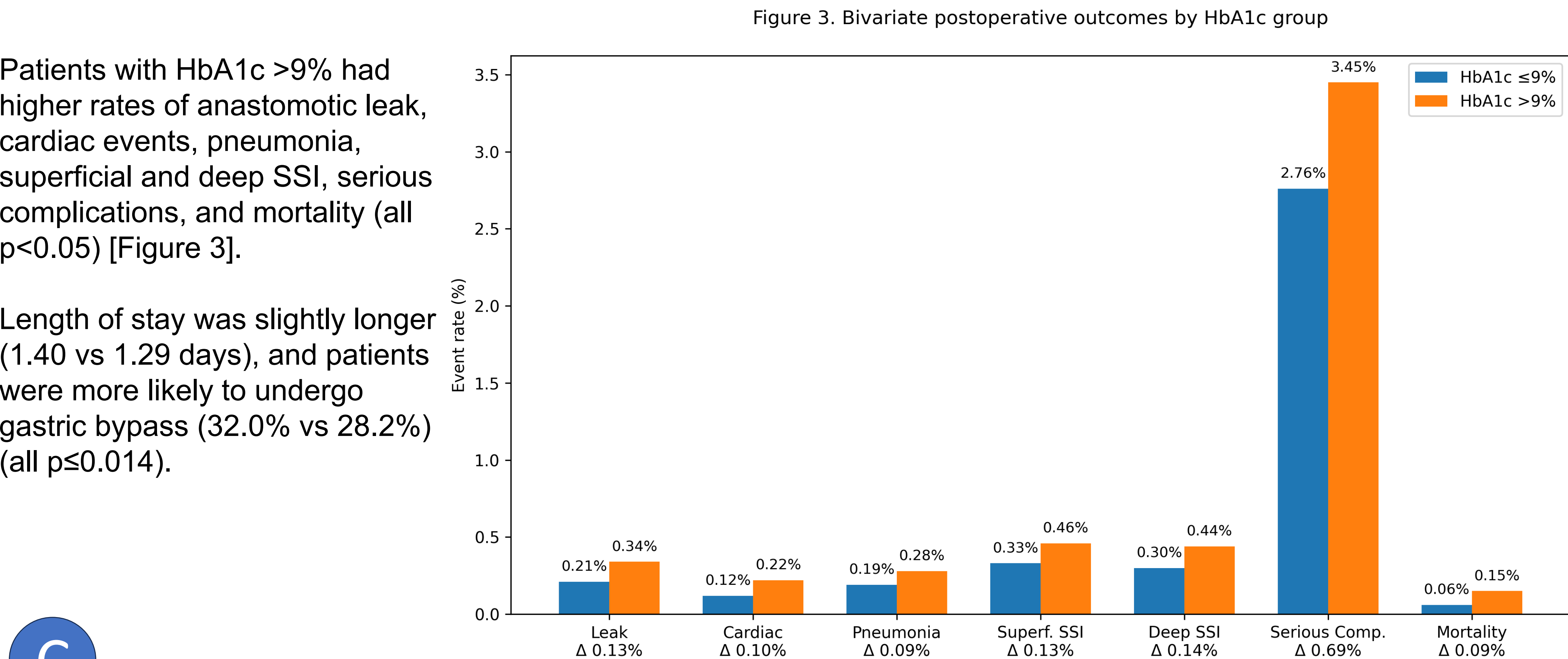
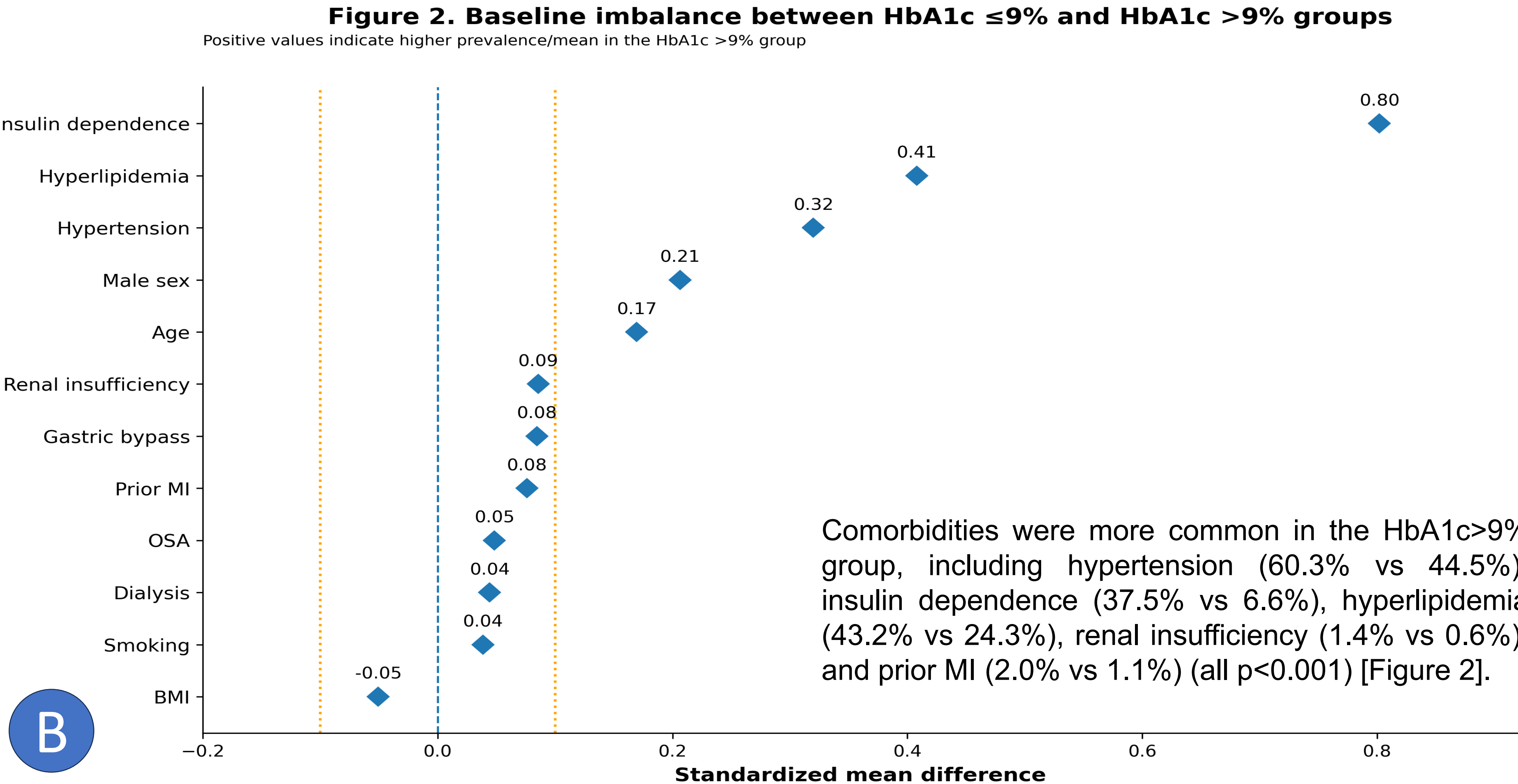
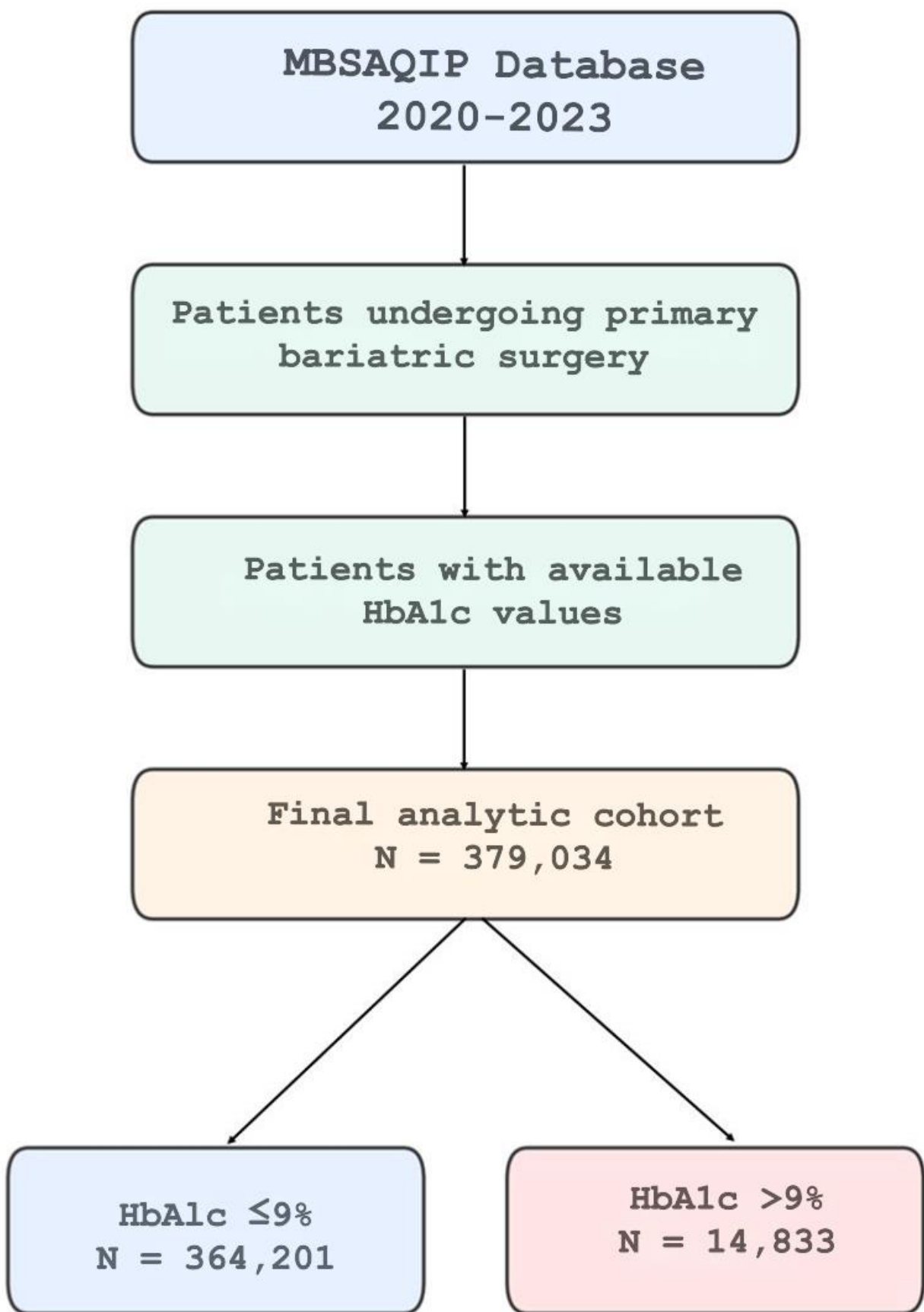
Retrospective MBSAQIP 2020–2023 analysis of adults undergoing primary laparoscopic sleeve gastrectomy or Roux-en-Y gastric bypass with available HbA1c values. Severe diabetes was defined as HbA1c >9%. Baseline characteristics and 30-day outcomes were compared between groups. Unadjusted analyses used chi-square and t-tests, and multivariable logistic regression assessed independent associations with serious complications, readmission, and mortality.

RESULTS

Among 379,034 patients, 3.9% (n=14,833) had HbA1c >9% [Figure 1].

Compared with non-severe diabetes mellitus cohort, HbA1c >9% patients were younger (43.2 vs 45.0 years), more often male (26.9% vs 18.3%), and had slightly lower BMI (44.6 vs 45.0 kg/m²) [Figure 2].

Figure 1. Study cohort selection



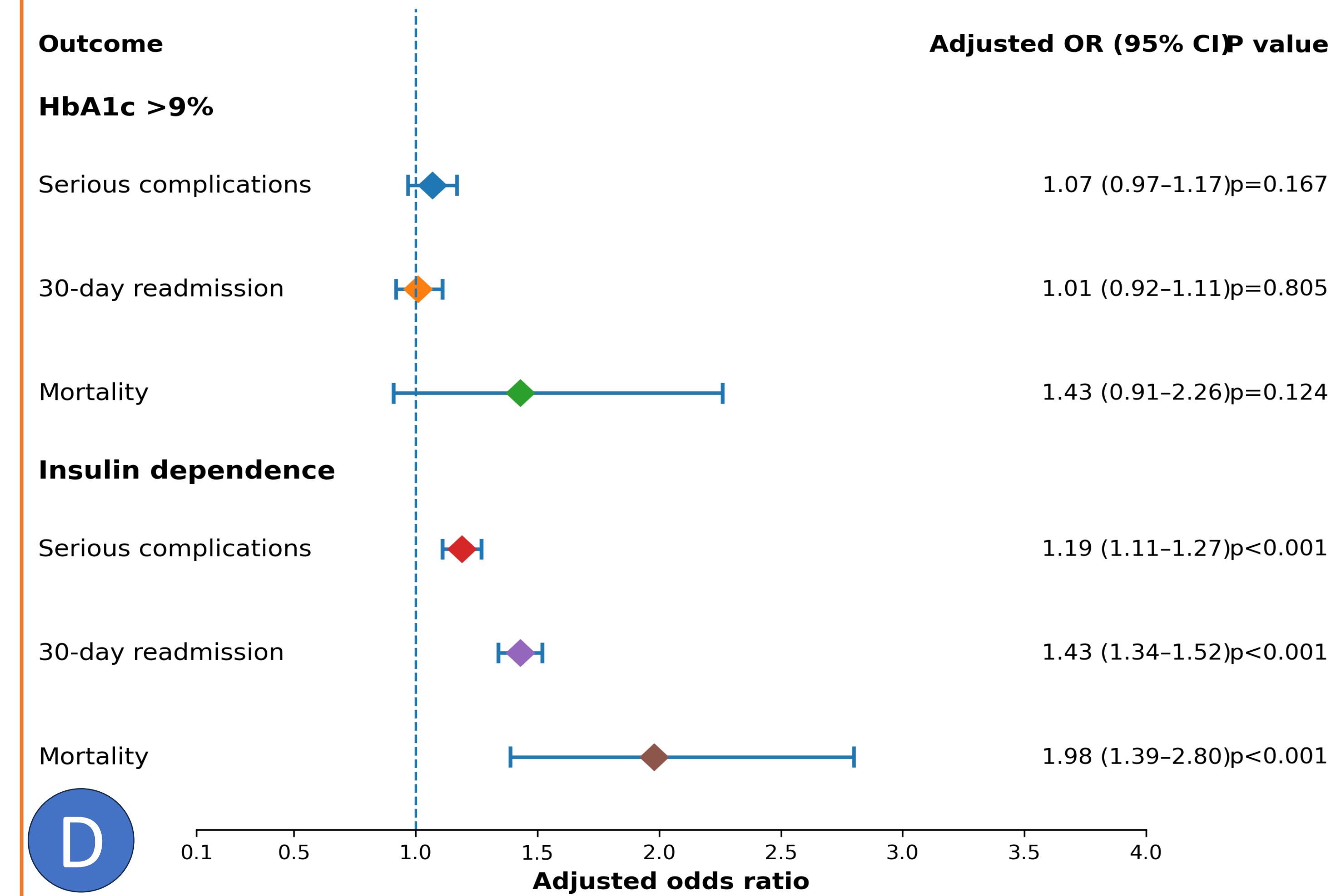
Patients with HbA1c >9% had higher rates of anastomotic leak, cardiac events, pneumonia, superficial and deep SSI, serious complications, and mortality (all p<0.05) [Figure 3].

Length of stay was slightly longer (1.40 vs 1.29 days), and patients were more likely to undergo gastric bypass (32.0% vs 28.2%) (all p≤0.014).

In multivariable models adjusting for demographic and clinical factors, HbA1c >9% was not independently associated with serious complications (OR 1.07, 95% CI 0.97–1.17, p=0.167), 30-day readmission (OR 1.01, 95% CI 0.92–1.11, p=0.805), or mortality (OR 1.43, 95% CI 0.91–2.26, p=0.124) [Figure 4].

However, insulin dependence remained independently associated with worse outcomes, including serious complications (OR 1.19, 95% CI 1.11–1.27, p<0.001), 30-day readmission (OR 1.43, 95% CI 1.34–1.52, p<0.001), and mortality (OR 1.98, 95% CI 1.39–2.80, p<0.001) [Figure 4].

Figure 4. Adjusted association of severe diabetes and insulin dependence with 30-day outcomes after bariatric surgery



CONCLUSIONS

- ❑ HbA1c >9 is associated with younger age and a greater burden of metabolic comorbidities, but it is not an independent predictor of serious complications, readmissions, or mortality after adjustment of demographic and clinical factors
- ❑ Perioperative risk is driven more by comorbidities than by diabetes severity itself.
- ❑ Insulin dependence was independently associated with higher risk of complications, readmissions, and mortality.