

Supplementary File 4. Significant Predictors from Logistic Regression Models Across Selected Surgical Subgroups

Surgical Subgroup	Postoperative Outcome	Predictor	Odds Ratio (95% CI)
SG	All Complications	Age	0.98 (0.98–0.98)
SG	All Complications	ASA Class	1.04 (1.03–1.05)
SG	All Complications	Functional Status	0.78 (0.75–0.81)
SG	All Complications	COPD	1.33 (1.29–1.38)
LRYGB	Serious Complications	ASA Class	1.06 (1.04–1.07)
BPD/DS	30-Day Reoperation	GERD	0.91 (0.86–0.95)
LAGB	30-Day Readmission	Creatinine	1.05 (0.83–1.31)
Revision procedure	SSI	Albumin	0.75 (0.69–0.81)
Initial Procedure	Serious Complications	Functional Status	0.67 (0.65–0.69)
Conversion procedure	All Complications	COPD	1.69 (1.54–1.86)

Footnotes

- Models used preoperative variables only.
- Continuous laboratory values were median-imputed when missing; missingness indicators were included in the models but are not shown here.
- Full logistic regression outputs for all subgroups and predictors appear in Supplementary File 1.

Abbreviations: SG, sleeve gastrectomy; LRYGB, laparoscopic Roux-en-Y gastric bypass; BPD/DS, biliopancreatic diversion with duodenal switch; LAGB laparoscopic adjustable gastric band; ASA, American Society of Anesthesiologists; COPD, chronic obstructive pulmonary disease; GERD, gastroesophageal reflux disease; SSI, surgical site infection; OR, odds ratio; CI, confidence interval.

