Supplementary Table 1 Variable availability audit

Requested item	Dataset variable used	Availability	Handling note
Adult status	age_years	Available indirectly	No explicit adult flag; all included patients were checked by age_years.
Preoperative endoscopy availability	preoperative_endoscopy_available	Available	Used for cohort inclusion/exclusion.
Postoperative endoscopy availability	postoperative_endoscopy_available	Available	Used for cohort inclusion/exclusion.
Follow-up duration	followup_months, followup_group	Available	Used as continuous months and grouped as 24–36, 36–60, >60 months.
GERD symptoms	preop_gerd_symptoms, postop_symptomatic	Available	No validated symptom score available; binary recorded status only.
PPI use	preop_ppi, postop_ppi	Available	Binary recorded status only; dose/duration unavailable.
Bile reflux	preop_bile_reflux, postop_bile_reflux	Available	Binary recorded endoscopic status.
Hiatal hernia	preop_hiatal_hernia, postop_hiatal_hernia, concomitant_hiatal_hernia_repair	Available	Size/measurement details unavailable.
Erosive esophagitis	preop_erosive_esophagitis,	Available	Binary status plus LA

	postop_erosive_esophagitis		grade available.
LA-B-or-higher esophagitis	preop_la_b_or_higher_esophagitis, postop_la_b_or_higher_esophagitis	Available	Used directly from dataset.
Barrett's esophagus	preop_barrett, postop_barrett	Available	Used directly from dataset.
Histology-confirmed Barrett's	barrett_histology_confirmed, intestinal_metaplasia_confirmed, denovo_barrett_histology_confirmed	Available	Histology variables available; pathology reports are not available for all patients.
Esophageal stricture	postop_stricture	Available	Sparse event; descriptive analysis prioritized.
Treatment change details	treatment_changed	Limited	Binary status only; exact medication/procedure change details unavailable.
Weight-loss outcomes		Unavailable	No postoperative weight, BMI change, %TWL, or %EWL variable identified.
Objective reflux testing		Unavailable	No pH monitoring, impedance, or manometry variables identified.

Sleeve morphology		Unavailable	No sleeve shape, twist, imaging, or morphology variable identified beyond stricture.
Validated GERD questionnaire score		Unavailable	Only binary symptom variables are available.

Abbreviations: BMI, body mass index; GERD, gastroesophageal reflux disease; PPI, proton pump inhibitor; LA, Los Angeles classification; OR, odds ratio; CI, confidence interval.

Supplementary Table 2 Predictors of treatment change after postoperative endoscopy

Variable	OR	95% CI	p-value
Postoperative GERD symptoms: yes vs no	5.22	3.35–8.11	<0.001
Postoperative Barrett's esophagus: yes vs no	6.55	3.24–13.26	<0.001
Postoperative bile reflux: yes vs no	0.59	0.31–1.12	0.106
Follow-up 36–60 months vs 24–36 months	1.89	1.06–3.39	0.032
Follow-up >60 months vs 24–36 months	6.14	3.41–11.07	<0.001

Abbreviations: BMI, body mass index; GERD, gastroesophageal reflux disease; PPI, proton pump inhibitor; LA, Los Angeles classification; OR, odds ratio; CI, confidence interval.

Supplementary Table 3 Sensitivity analyses

Sensitivity cohort	Main cohort N	De novo eligible N	Broader clinically actionable postoperative pathology	Strict clinically significant postoperative endoscopic pathology	Postoperative Barrett's	De novo Barrett's	Treatment change
Exclude preoperative Barrett's	502	502	190/502 (37.8%)	90/502 (17.9%)	34/502 (6.8%)	34/502 (6.8%)	168/502 (33.5%)
Postoperative endoscopy >36 months	375	363	169/375 (45.1%)	90/375 (24.0%)	43/375 (11.5%)	31/363 (8.5%)	147/375 (39.2%)
Postoperative endoscopy ≥36 months	376	364	169/376 (44.9%)	90/376 (23.9%)	43/376 (11.4%)	31/364 (8.5%)	147/376 (39.1%)
Follow-up >60 months	175	169	102/175 (58.3%)	53/175 (30.3%)	23/175 (13.1%)	17/169 (10.1%)	90/175 (51.4%)
Asymptomatic postoperatively	295	286	70/295 (23.7%)	35/295 (11.9%)	21/295 (7.1%)	12/286 (4.2%)	57/295 (19.3%)
Symptomatic postoperatively	225	216	128/225 (56.9%)	73/225 (32.4%)	31/225 (13.8%)	22/216 (10.2%)	115/225 (51.1%)
Histology-confirmed Barrett-only subgroup	52	34	42/52 (80.8%)	52/52 (100.0%)	52/52 (100.0%)	34/34 (100.0%)	38/52 (73.1%)

Abbreviations: BMI, body mass index; GERD, gastroesophageal reflux disease; PPI, proton pump inhibitor; LA, Los Angeles classification; OR, odds ratio; CI, confidence interval.