IFSO 2026 · TORONTO | RAPID FIRE ORAL PRESENTATION

Preoperative GLP-1 Receptor Agonist Use and 30-Day Outcomes After Bariatric Surgery

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CONFLICT OF INTEREST

Nothing to Disclose

Mark Salib, BHSc, MD and John Salib, BHSc, MD have no financial relationships or conflicts of interest relevant to this presentation.

BACKGROUND & OBJECTIVE

GLP-1 receptor agonists are increasingly used preoperatively for weight optimization before metabolic and bariatric surgery (MBS).

Their impact on perioperative outcomes and early postoperative complications **remains incompletely understood.**

OBJECTIVE

Systematically evaluate the effects of preoperative GLP-1RA therapy on weight loss, perioperative optimization, and 30-day outcomes after MBS.

25

observational & retrospective studies included

Adult patients undergoing primary bariatric procedures — sleeve gastrectomy and Roux-en-Y gastric bypass

METHODS

1

Systematic Review

25 observational and retrospective studies identified evaluating preoperative GLP-1RA use before MBS.

2

Population

Sleeve gastrectomy (SG) and Roux-en-Y gastric bypass (RYGB) patients — predominantly adult cohorts
(with limited adolescent-specific data (e.g., Chinn 2026, COSMIC study)).

3

Outcomes Assessed

Preoperative weight loss, postoperative %TWL, PONV, acute kidney injury, intraoperative adhesions, and 30-day morbidity.

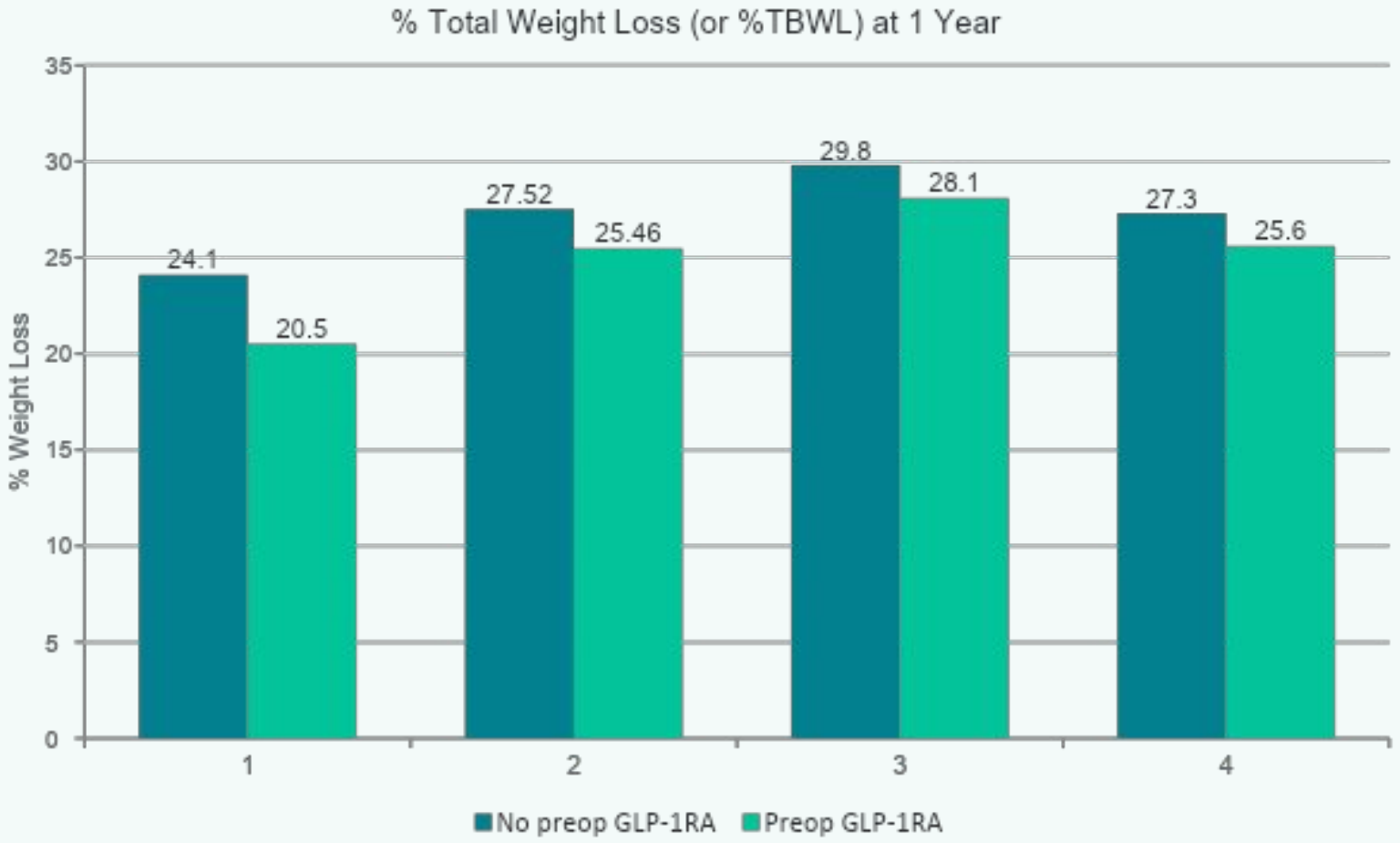
4

Scope & Limitations

Formal risk-of-bias assessment not performed.
Confounding by indication cannot be excluded.

RESULTS · WEIGHT LOSS TRAJECTORY

A consistent pattern across 4 independent cohorts: preoperative GLP-1RA use is associated with modestly lower %TWL at 1 year



p = .003 | **p < .001** | NS | NS (95% CI crosses 0)

Observational design across all cohorts — confounding by indication and inter-study heterogeneity (e.g., Martines 2024, next slide) cannot be fully excluded despite propensity matching in most cohorts.

WHAT IT MEANS

All four cohorts point the same direction — not "similar," but a real, reproducible gap.

Gap ranges 1.7–3.6 percentage points, significant in the two largest cohorts (Friesch, Faran).

Friesch's own 5-yr data shows the gap narrows to 0.4% — consistent with a head-start effect, not a durable deficit.

RESULTS · PERIOPERATIVE SAFETY

No increase in major complications or readmissions *— three specific signals worth flagging:*

OR 6.78

Postoperative Nausea & Vomiting

84.7% vs 58.2% (Shan 2024)

95% CI 3.31–13.91, p<.001

PONV risk goes up substantially (highly significant)

ARI +26.5 pts

37% vs 10%

Intraoperative Adhesions

preop liraglutide 3.0mg (Martines 2024)

p<.005 — no diff. in complications

Intraoperative Adhesions goes up substantially (highly significant)

ARI +27 pts

HR 0.68

Acute Kidney Injury — Lower Risk

1.6% vs 2.3% at 90 days (Hung 2025)

95% CI 0.52–0.89, p=.005

Lower risk of AKI with preop GLP-1RA (likely reflects better perioperative glycemic control)

ARR −0.73 pts, NNT 137

CONCLUSION

- Effective adjunct for preoperative optimization — improved glycemic control and lower AKI risk in patients.
- Consistent, modest reduction in 1-year %TWL across cohorts that appears to narrow with longer follow-up, not a durable deficit.
- Minor GI effects and elevated adhesion rates observed, but major postoperative morbidity is not increased.
- Findings support selective preoperative use; prospective data needed on optimal dosing, timing, and washout.

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