XXVIII IFSO World Congress

9-12 September 2025 | Santiago, Chile

Combining Metabolic Surgery with Medications to Optimize Results

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IFSO 2025 Santiago

Combined Therapies, The Dawn of a New Era

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Presenter Disclosures

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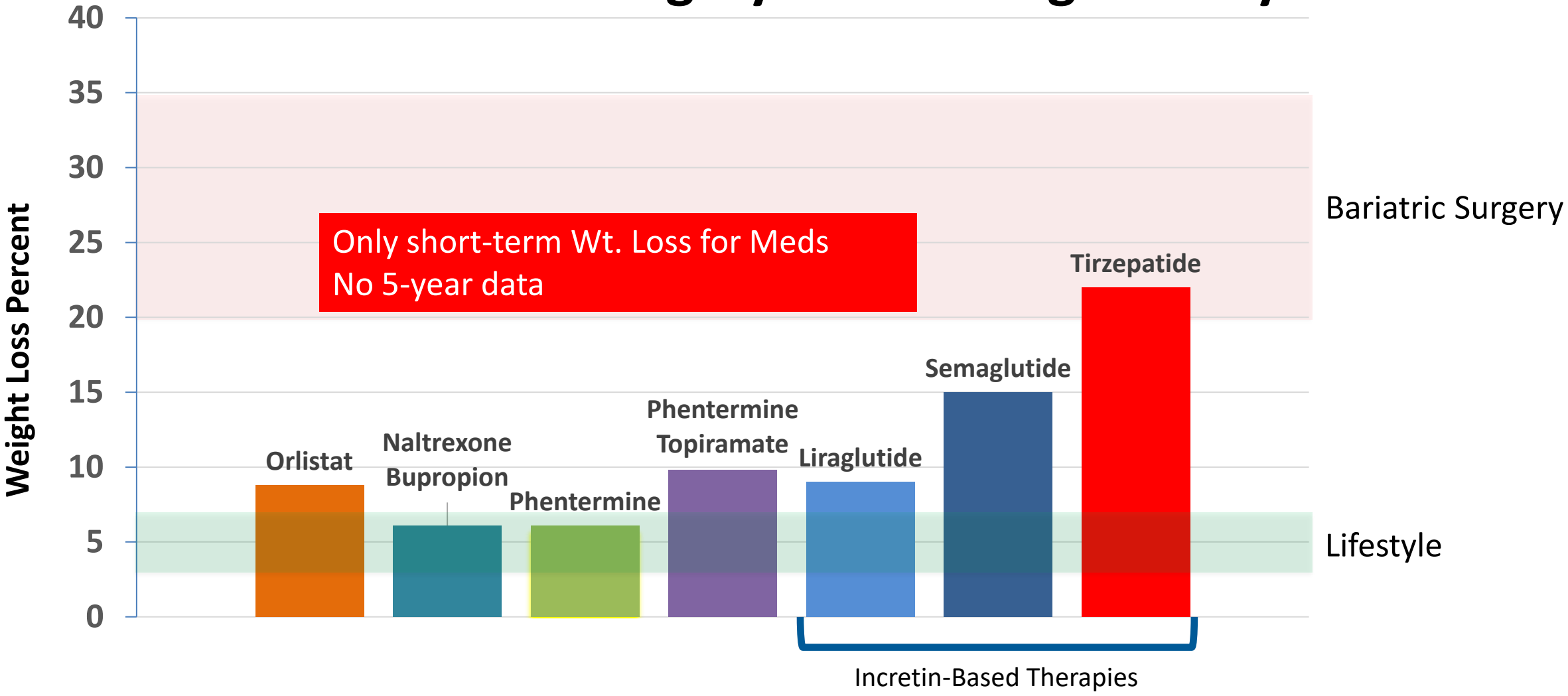
Philip R. Schauer MD

- Board Member/Advisory Panel – GI Dynamics; Persona; Keyron, Mediflix
- Consultant – Ethicon, Medtronic, Keyron, Novo Nordisk, Lilly, Heron, Regeneron
- Research Support – Ethicon, NIH, Medtronic,
- Stock/Shareholder - SEHQC, LLC, Mediflix, MHI LTD
- **Clinical Trials:**
- **STAMPEDE-Diabetes**
- **MS-MACE**
- **ARMMS-Diabetes**
- **SPLENDOR-NASH**
- **SPLENDID-Cancer**

Effectiveness of Anti-obesity Medications vs. Lifestyle and Bariatric Surgery for Treating Obesity



Combining OMM's with MBS

- Neo-adjuvant
- Adjuvant
- Post-Bariatric Surgery

Extreme Obesity

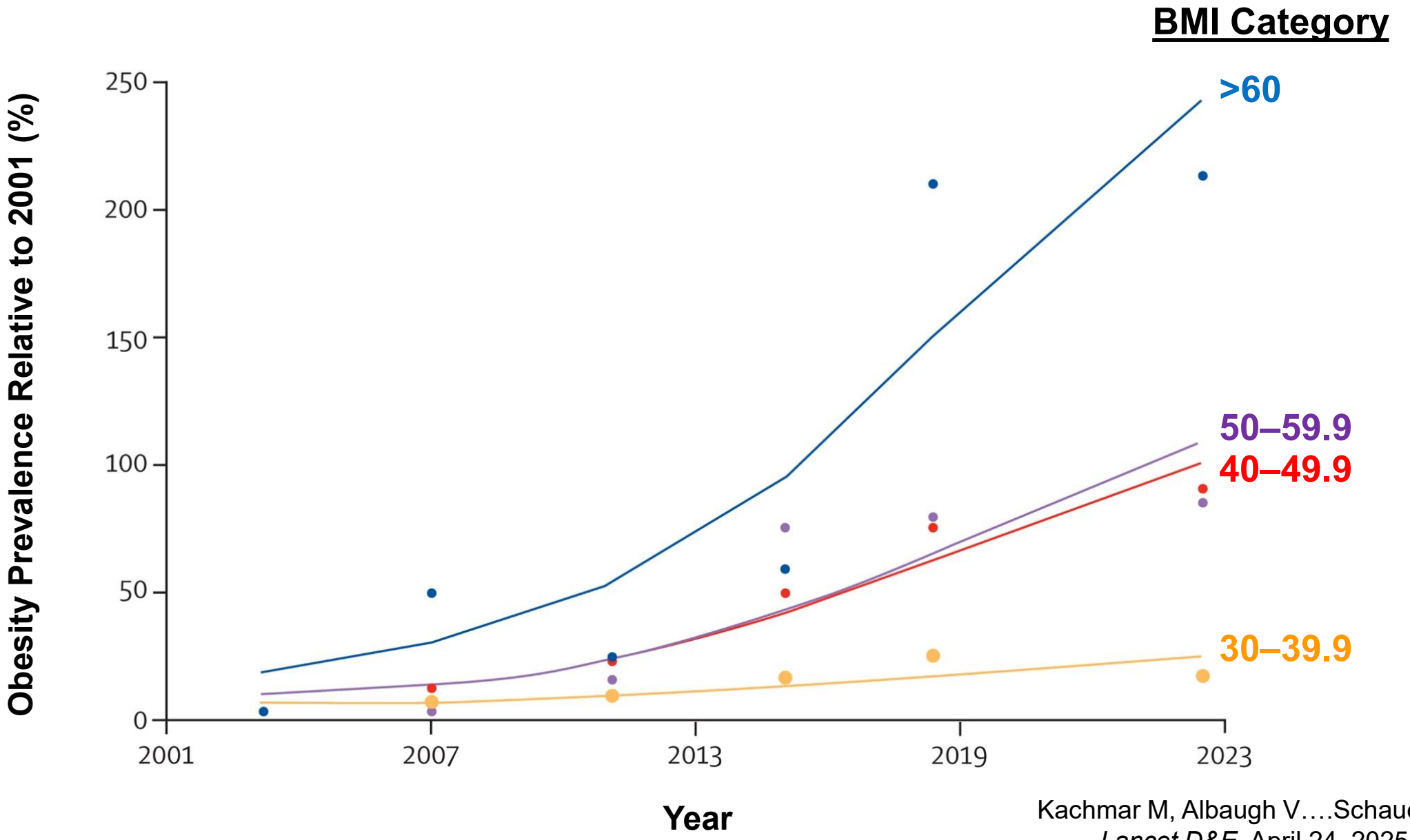
Obesity Surgery (2024) 34:790–813
https://doi.org/10.1007/s11695-023-06990-9

ORIGINAL CONTRIBUTIONS

Metabolic and Bariatric Surgery in Patients with Obesity Class V (BMI > 60 kg/m^2): a Modified Delphi Study

Guillermo Ponce de Leon-Ballesteros[1] · Sjaak Pouwels[2,3,4] · Gustavo Romero-Velez[5] · Ali Aminian[6] · Luigi Angrisani[7] · Mohit Bhandari[8] · Wendy Brown[9] · Catalin Copaescu[10] · Maurizio De Luca[11] · Mathias Fobi[12] · Omar M. Ghanem[13] · Till Hasenberg[14] · Miguel F. Herrera[15,16] · Johnn H. Herrera-Kok[17] · Jacques Himpens[18] · Lilian Kow[19] · Matthew Kroh[20] · Marina Kurian[21] · Mario Musella[22] · Mahendra Narwaria[23] · Patrick Noel[24,25] · Juan P. Pantoja[26] · Jaime Ponce[27] · Gerhard Prager[28] · Almino Ramos[29] · Rui Ribeiro[30] · Elena Ruiz-Ucar[31] · Paulina Salminen[32,33] · Scott Shikora[34] · Peter Small[35] · Christine Stier[36] · Safwan Taha[37] · Eren Halit Taskin[38] · Antonio Torres[39] · Carlos Vaz[40] · Ramon Vilallonga[41] · Sergio Verboonen[42] · Carlos Zerrweck[43] · Natan Zundel[44] · Chetan Parmar[45,46,47]

~250% Increase of Extreme Obesity Prevalance in 20 Years



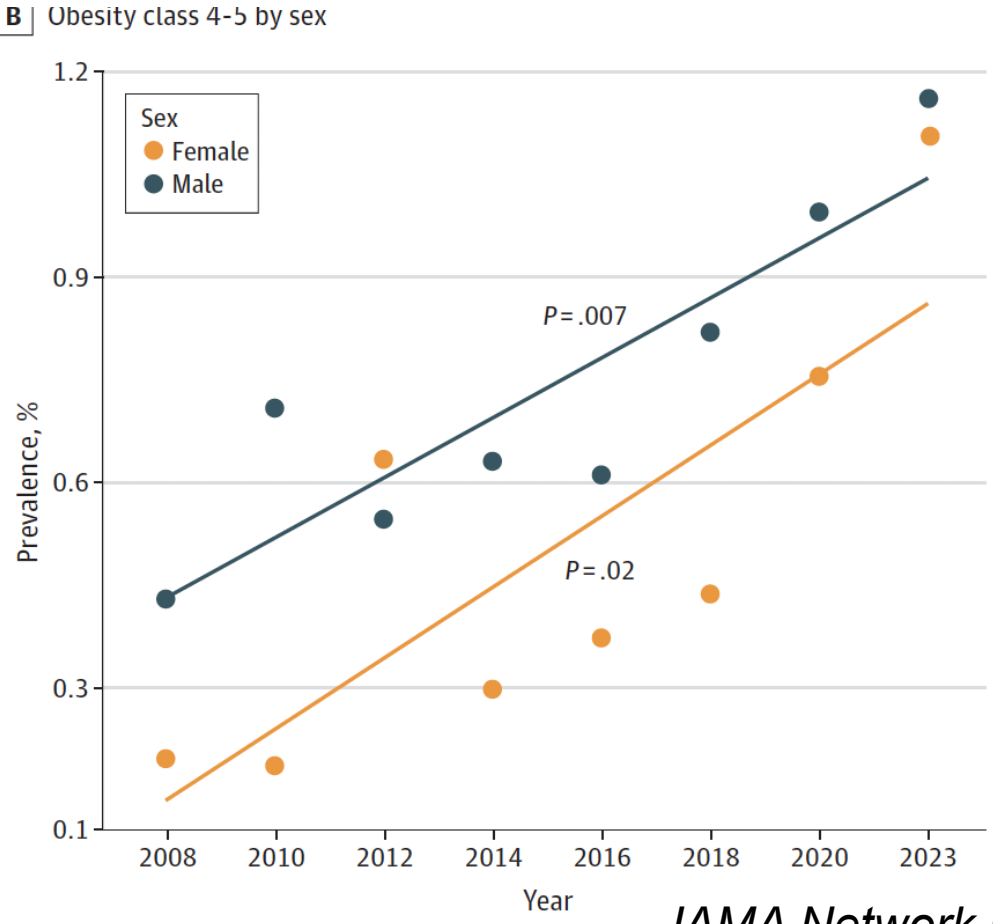
Kachmar M, Albaugh V….Schauer PR
Lancet D&E, April 24, 2025

JAMA Network Open™

Original Investigation | Nutrition, Obesity, and Exercise

Prevalence of Extremely Severe Obesity and Metabolic Dysfunction Among US Children and Adolescents

Eliane Münte; Xinlian Zhang, PhD; Amit Khurana, PhD; Phillipp Hartmann, MD, MAS



250% Growth
In Childhood Extreme Obesity !!

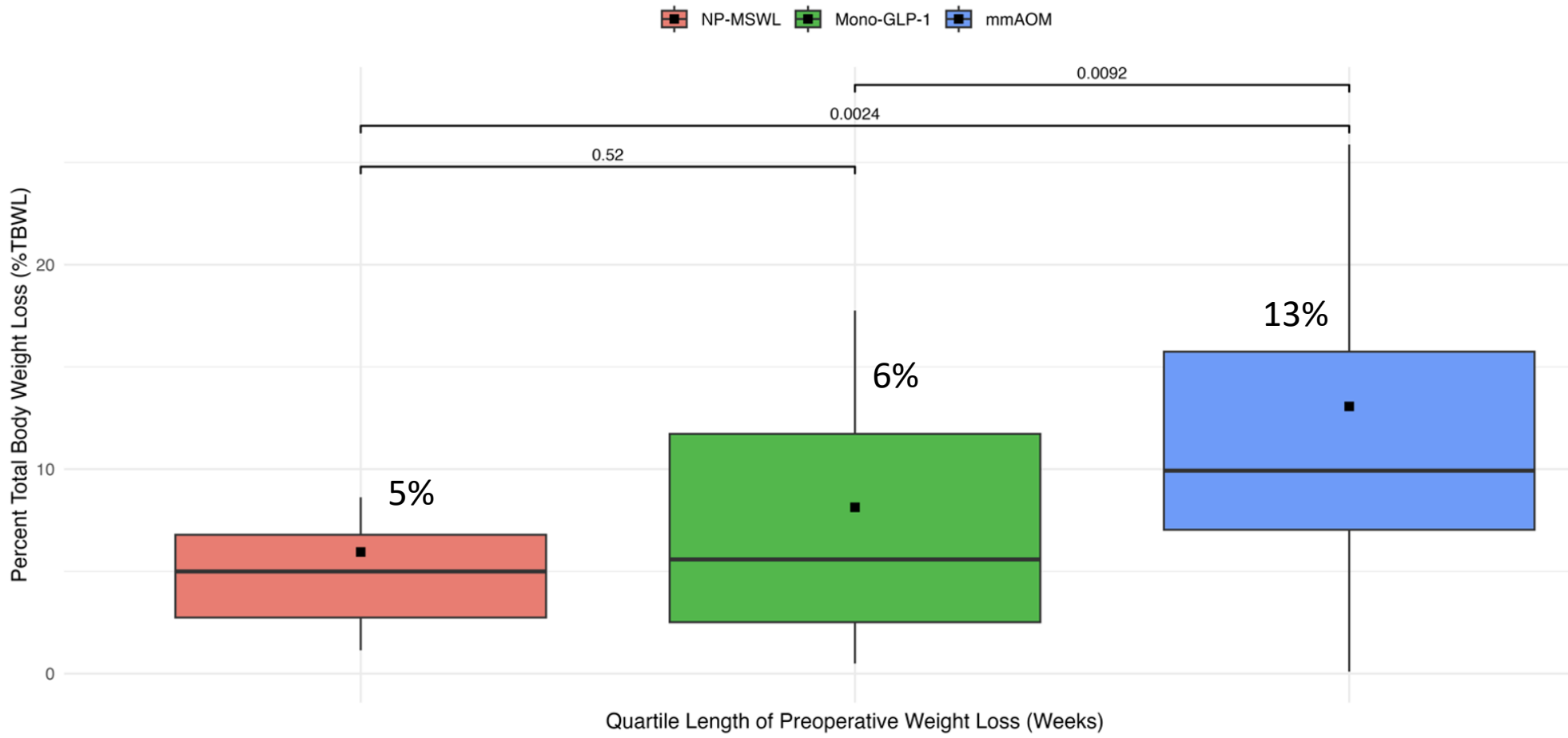
JAMA Network Open. 2025;8(7):e2521170.
doi:10.1001/jamanetworkopen.2025.21170

Extreme Obesity - High Risk of Complications

- BMI > 50
  - High comorbidity
  - Poor mobility
  - Reduced functional capacity
- BMI > 50 associated with 3-4 X higher risk of complications
- Preop wt. Loss – may reduce risk of surgery

Obesity Surgery 34.9 (2024): 3165-3172.

Preop Wt. Loss for BMI >70



Kachmar M……Schauer P ASMBS IJO 2025

BMI ≥70: A Multi-Center Institutional Experience of the Safety and Efficacy of Metabolic and Bariatric Surgery Intervention

METHODS

N=84 patients

Patients presenting to MBSAQIP weight loss centers with BMI ≥ 70

Underwent either sleeve gastrectomy, RYGB, or DS

Study Period: 2020-2023

RESULTS

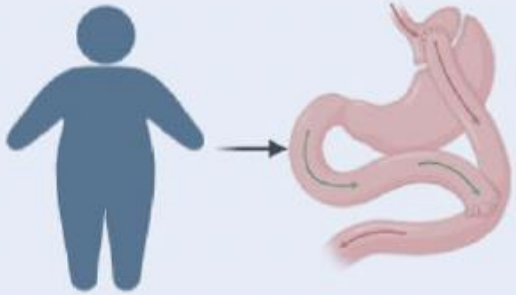
Key Finding 1: Patients with BMI ≥ 70 had low 30-day complications (0.7%)

Key Finding 2: Regardless of preoperative weight-loss, patients showed robust BMI reductions at 1 year

27% wt. loss

Key Finding 3: ED readmissions reached 25% at 1 year; readmissions/reoperation rates 6.45% and 4.83% respectively

CONCLUSIONS



Patients with BMI ≥ 70 have acceptable surgical risk despite increased ED utilization

Florina Corpodean MD[1,2], Michael Kachmar DO[1,2], Iryna Popiv DO[1,2], Kyle B. LaPenna PhD[2], Devan Lenhart DO[1,2], Michael Cook MD[2,3], Vance L. Albaugh MD PhD[1,2], Philip R. Schauer MD[1,2]

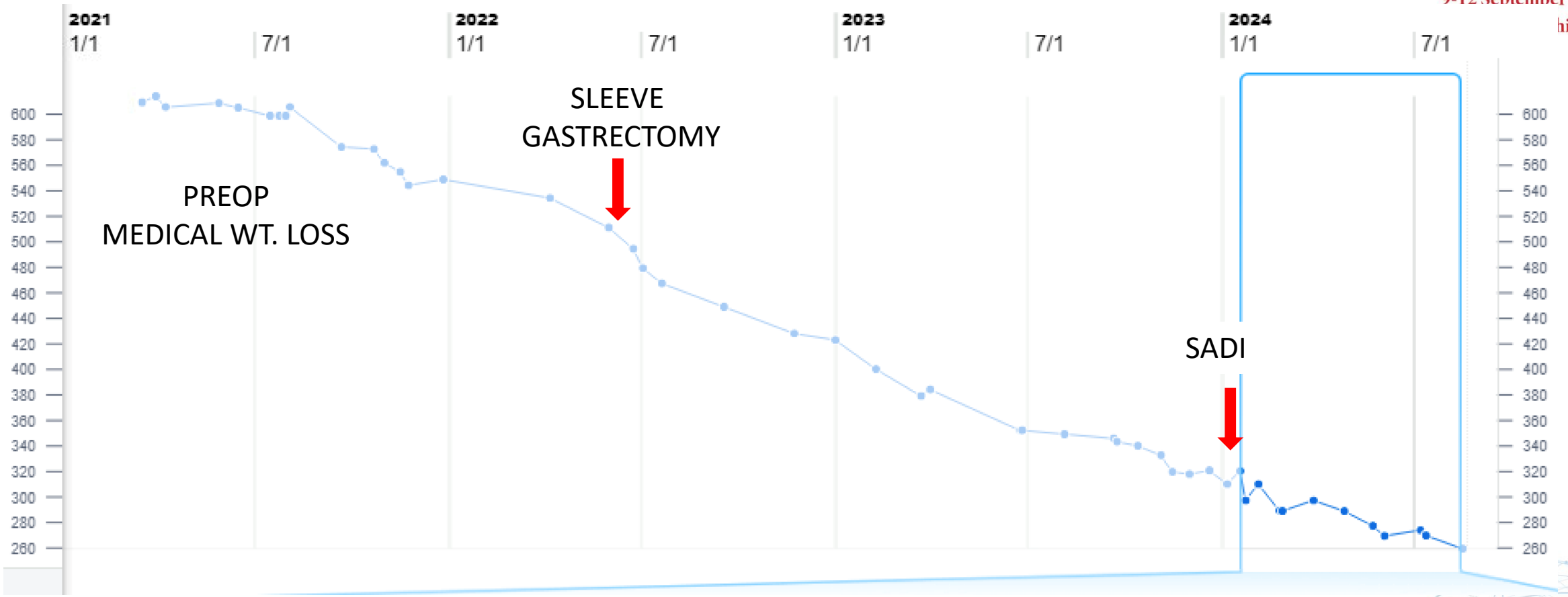
[1]Pennington Biomedical Research Center, Louisiana State University, Baton Rouge, LA, USA.
[2]Department of Surgery, Louisiana State University Health Sciences Center, New Orleans, LA, USA
[3]University Medical Center, New Orleans, LA, USA.

OBESITY SURGERY
The Journal of Metabolic Surgery and Allied Care

CASE STUDY

- Initial: 625 lbs, 284 Kg BMI = 100
- Preop: 494 lbs, 224 Kg, BMI=80
- SG
- 1 yr Postop: 352 lbs, 160 Kg, BMI=55
- SG to SADI
- 9 mo Postop: 259 lbs, 118 Kg , BMI = 40
- NET LOSS: 366 LBS, 166 KG, 60 BMI POINTS

Weight Loss Over Time



RESEARCH LETTER

Neoadjuvant Semaglutide, Bariatric Surgery Weight Loss, and Overall Outcomes

Vasundhara Mathur, MD
Katherine Wasden, BA
Thomas H. Shin, MD, PhD
Pourya Medhati, MD
Abdelrahman A. Nimeri, M
Ali Tavakkoli, MD
Eric G. Sheu, MD, PhD

JAMA Surgery Published online March 5, 2025

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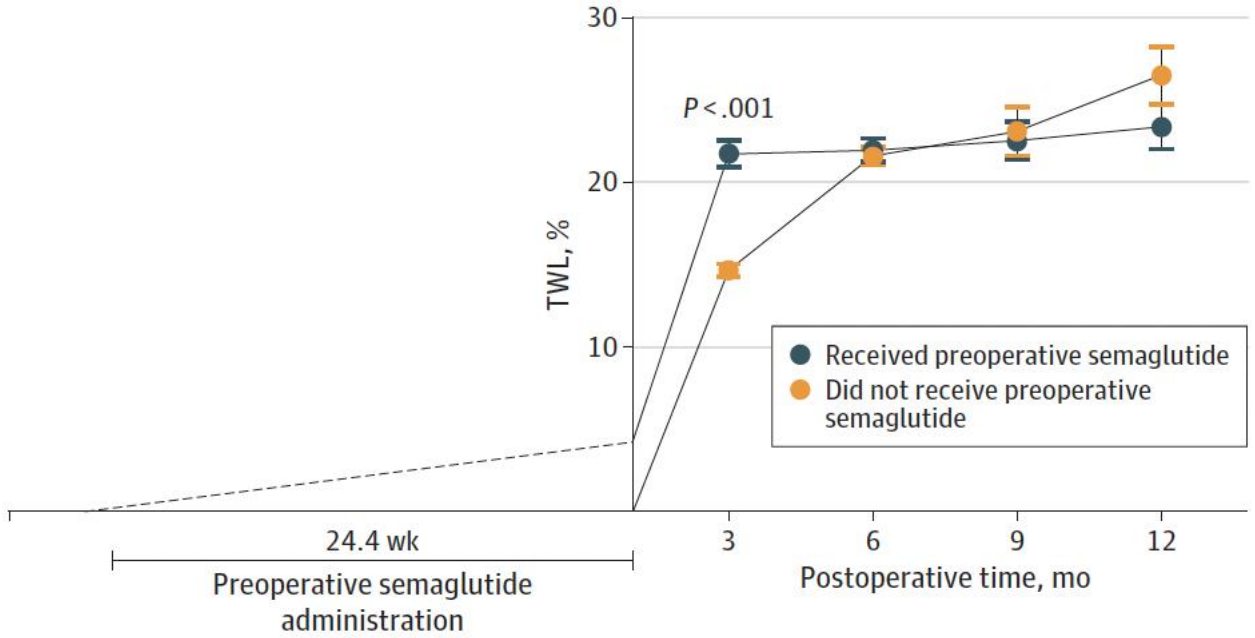
B Surgical and medical TWL



Neoadjuvant semaglutide:

- ✓ No WL benefits
- ✓ No greater intraop safety
- ✓ Surgical weight loss was significantly lower in patients treated with neoadjuvant semaglutide

Post-bariatric Weight Loss Varies and Weight Recurrence is Expected

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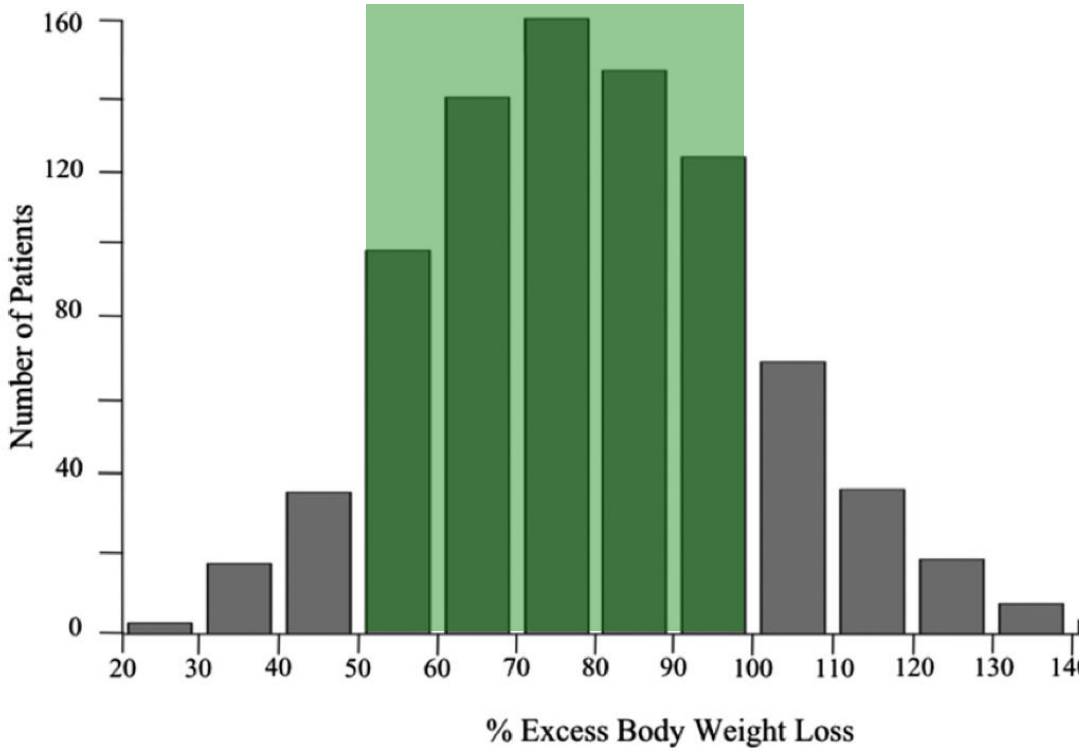

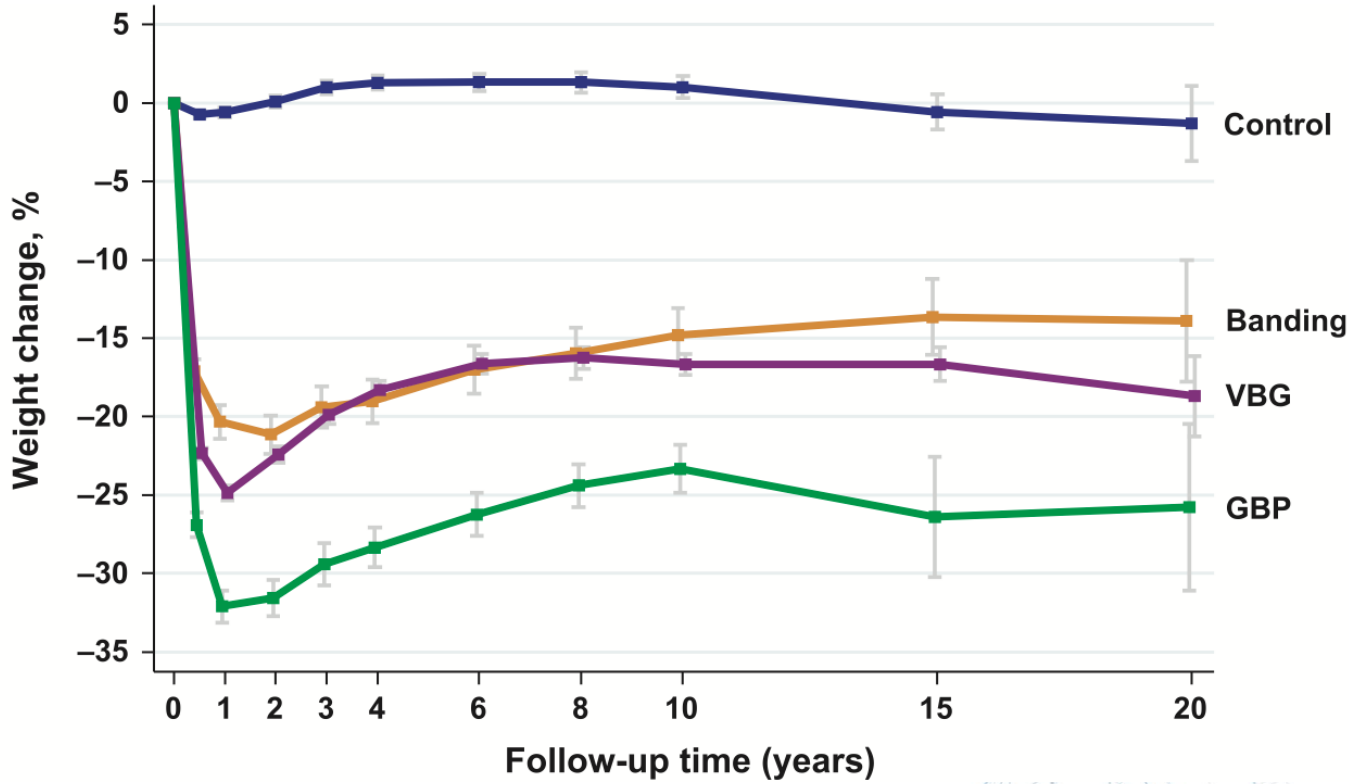

J Clin Endocrinol Metab 2011;96: E1630 –E1633

JAMA. 2012;307(1):56-65

Combining OMM's with MBS

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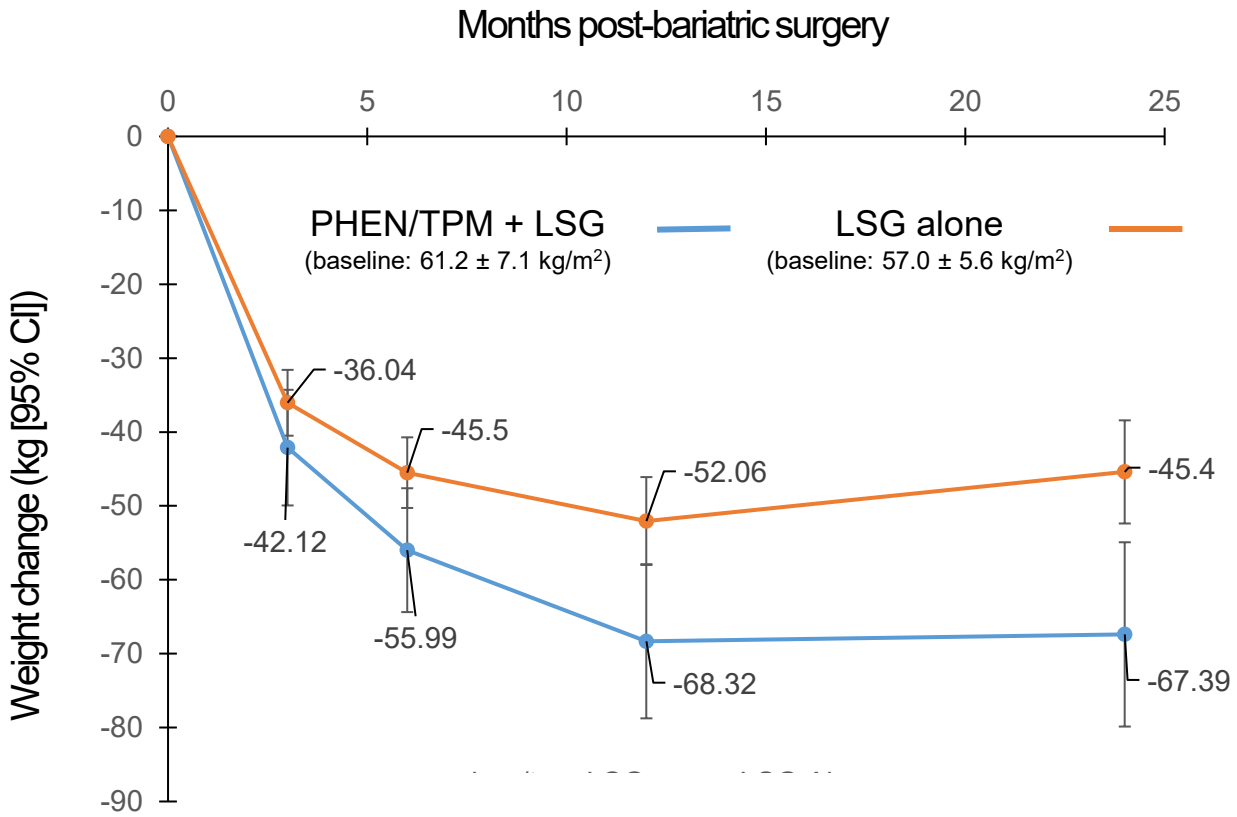
Use of PHEN/TPM in combination with LSG in patients with BMI ≥ 50 kg/m²

A single academic-center open-label study of 25 people with pre- and post-operative PHEN/TPM use



Visit (months)	Difference between LSG alone and LSG + PHEN/TPM % [95% CI]	*p* value
3	–3.77 [–8.27, 0.72]	0.098
6	–5.54 [–10.52, –0.56]	0.030
12	–7.91 [–14.43, –1.39]	0.018
24	–11.16 [–19.07, –3.24]	0.007

Visit-specific estimates and comparisons are from a mixed-model approach

BMI, body mass index; CI, confidence interval; LSG, laparoscopic sleeve gastrectomy; PHEN/TPM, phentermine/topiramate extended-release

Ard et al. *Surg Obes Relat Dis* 2019;15(7):1039–43

Combining OMM's with MBS

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OMMs after MBS

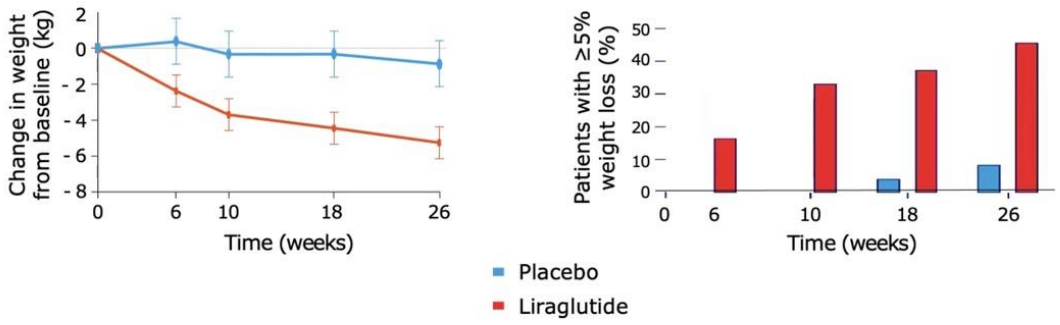
	Grade	Consensus (%)	Nr.of rounds	Nr.of total votes
Emerging evidence indicates that the weight loss induced by OMMs is similar among people who have or have not undergone MBS	A+	100	2	36

Mok et al, 2023

The BARI-OPTIMISE Randomized Clinical Trial

Postoperative pharmacotherapy augments surgical weight loss

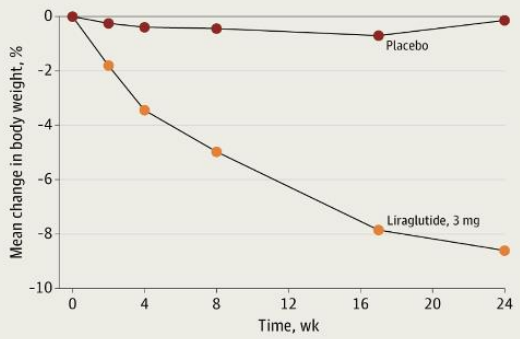
GRAVITAS Study
Liraglutide after Gastric Bypass in T2D



Miras AD *et al.*, *Lancet Diabetes Endocrinol* 2019

FINDINGS

Liraglutide, 3.0 mg once daily, resulted in a significantly greater reduction in body weight from baseline to week 24 compared with placebo



Mean difference: -8.0%; 95% CI, -10.4 to -5.7; *P* <.001

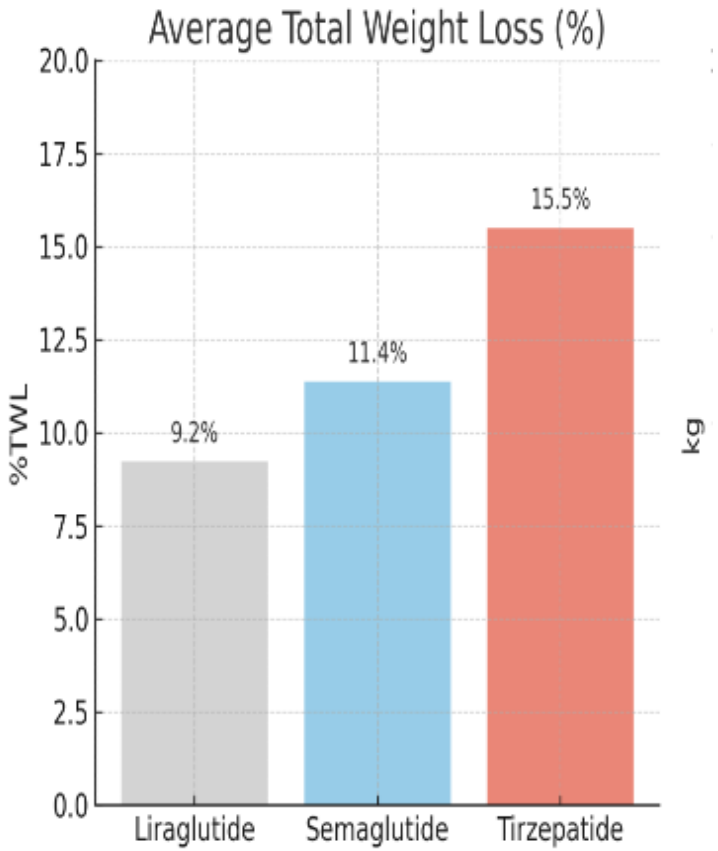
Cohen RV et al, BJS, 2024

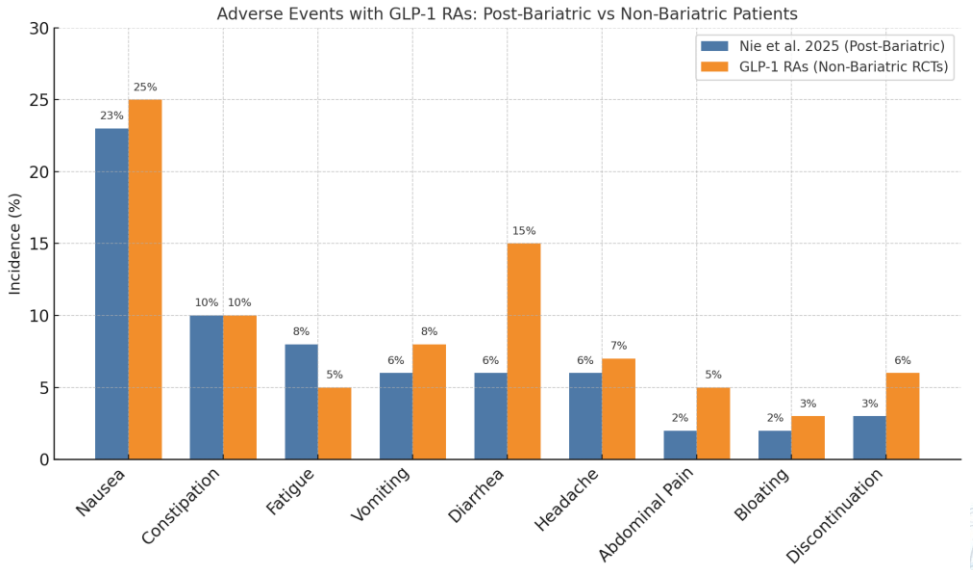
Obesity Surgery (2025) 35:808–822
https://doi.org/10.1007/s11695-025-07733-8

RESEARCH

Glucagon-Like Peptide-1 Receptor Agonists for the Treatment of Suboptimal Initial Clinical Response and Weight Gain Recurrence After Bariatric Surgery: a Systematic Review and Meta-analysis

Yuntao Nie[1] · Yiran Zhang[2] · Baoyin Liu[1] · Hua Meng[1]





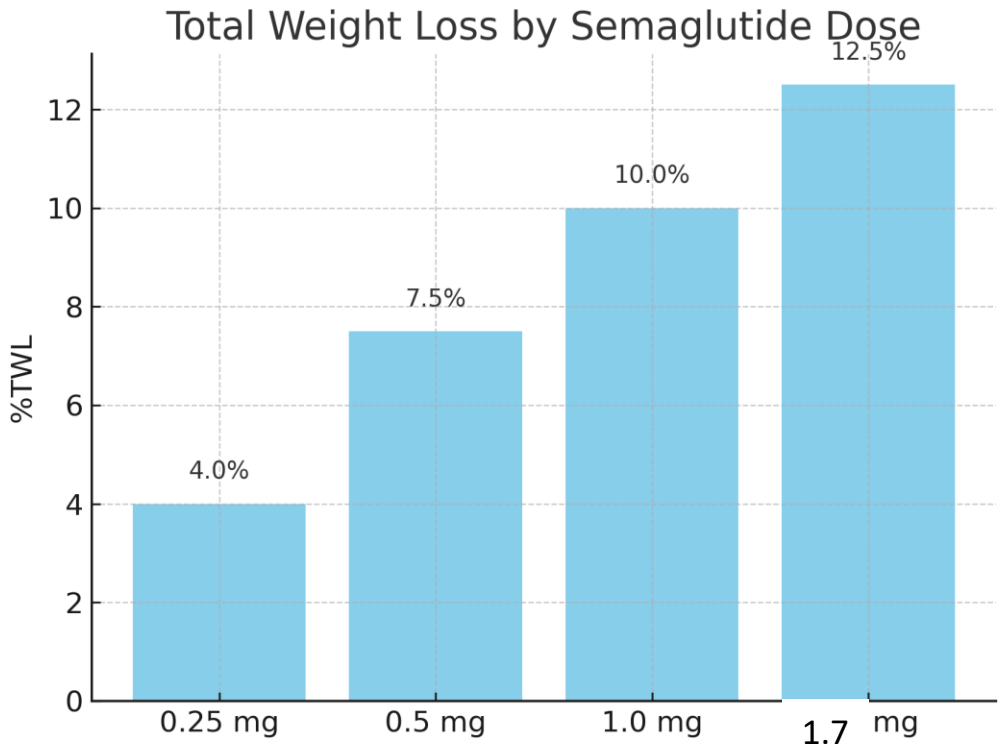
Indirect comparison with Step1 and Surmount 1 studies

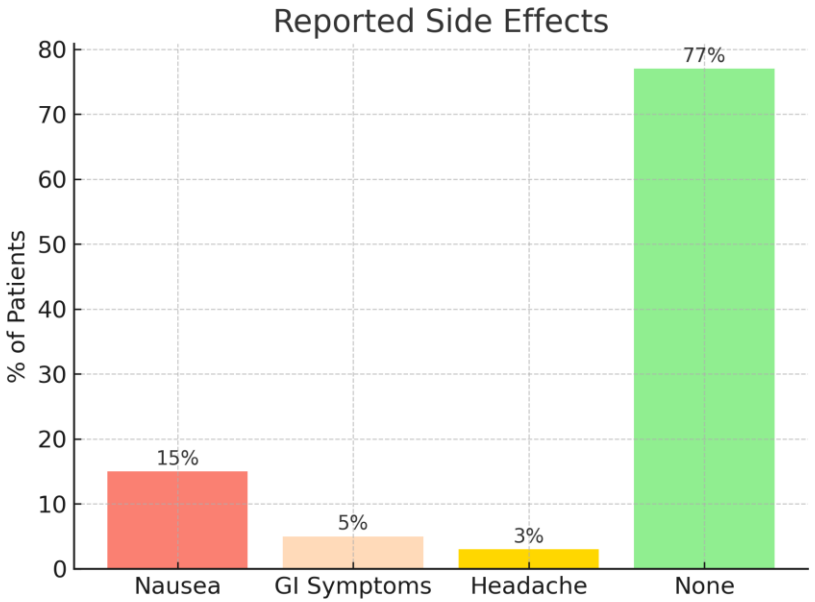
Obesity Surgery (2025) 35:694–700
https://doi.org/10.1007/s11695-025-07703-0

RESEARCH

Effectiveness of Adjuvant Semaglutide Following Bariatric Metabolic Surgery

Jorgen Ferguson[1] · Oliver Fisher[1] · Michael Talbot[1] · Georgia Rigas[1]



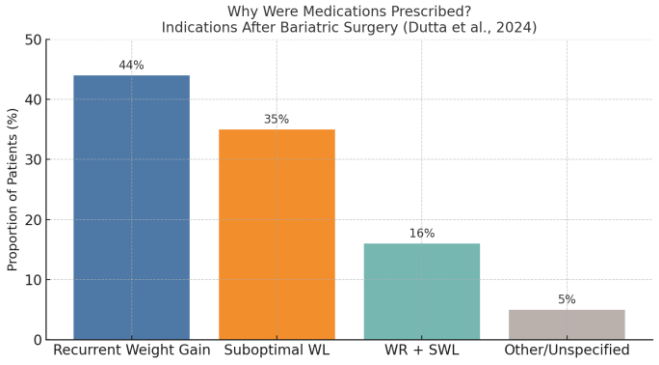


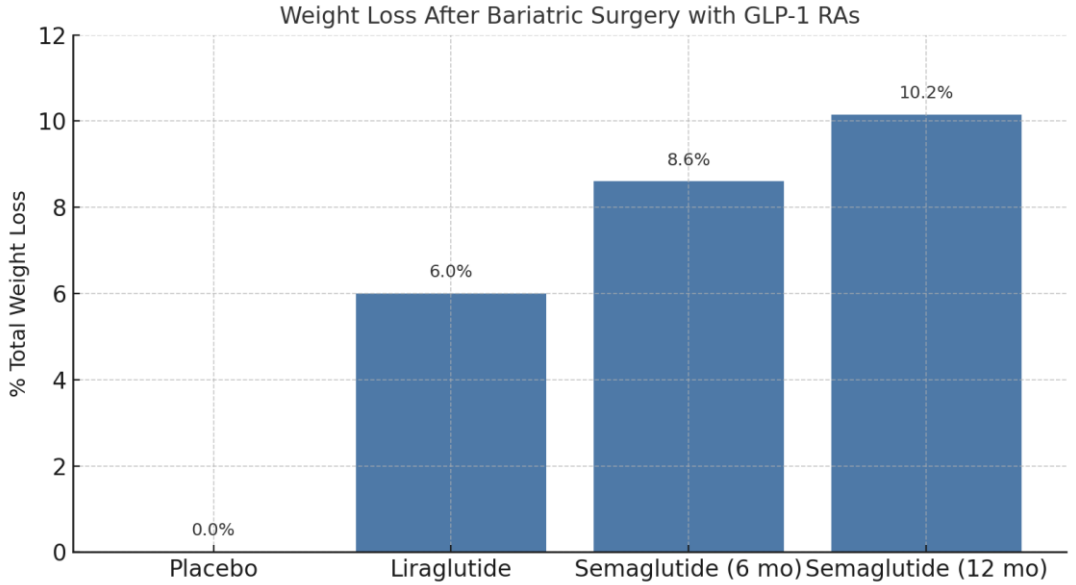
Obesity Surgery (2024) 34:1653–1664
https://doi.org/10.1007/s11695-024-07175-8

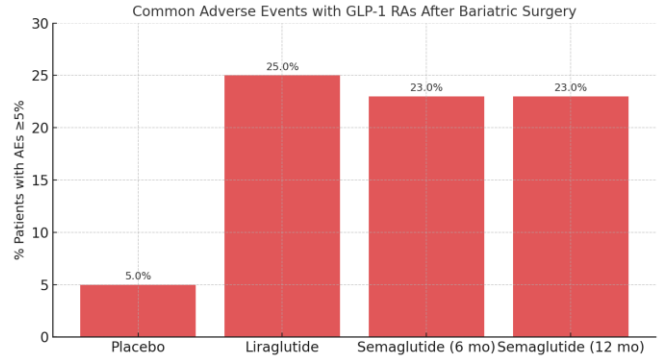
ORIGINAL CONTRIBUTIONS

Glucagon-Like Peptide-1 Receptor Agonists in Post-bariatric Surgery Patients: A Systematic Review and Meta-analysis

Deep Dutta[1] · Lakshmi Nagendra[2] · Ameya Joshi[3] · Suryashri Krishnasamy[4] · Meha Sharma[5] · Naresh Parajuli[6]







OMMs after MBS

	Grade	Consensus (%)	Nr.of rounds	Nr.of total votes
When used after MBS, there appears to be no increased incidence of side effects of OMMs compared to non-surgical cohorts	A	97	3	34

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Side Effects Reported with Liraglutide post-MBS in BARI-OPTIMISE compared with SCALE

Adverse Events (AE)[a] in the BARI-OPTIMISE Study Population

Event	Participants who experienced an AE, No. (%)		
	Placebo (n = 35)	Liraglutide (n = 35)	Total (N = 70)
Total	20 (57)	28 (80)	48 (67)
Total AEs, No.[b]	75	37	112
Gastrointestinal events			
Nausea	7 (20)	18 (51)	25 (36)
Diarrhea	2 (6)	2 (6)	4 (6)
Constipation	2 (6)	9 (26)	11 (16)
Vomiting	1 (3)	1 (3)	2 (3)
Abdominal pain	1 (3)	2 (6)	3 (4)
Abdominal bloating	0	1 (3)	1 (1)
Dyspepsia	0	1 (3)	1 (1)

Table 3. Adverse Events and Serious Adverse Events.[a]

Event	Liraglutide (N = 2481)			Placebo (N = 1242)		
	No. of Patients (%)	No. of Events	Event Rate per 100 Exposure-Years	No. of Patients (%)	No. of Events	Event Rate per 100 Exposure-Years
Adverse events in ≥5% of patients	1992 (80.3)	7191	321.8	786 (63.3)	2068	193.7
Nausea	997 (40.2)	1429	63.9	183 (14.7)	223	20.9
Diarrhea	518 (20.9)	754	33.7	115 (9.3)	142	13.3
Constipation	495 (20.0)	593	26.5	108 (8.7)	121	11.3
Vomiting	404 (16.3)	597	26.7	51 (4.1)	62	5.8
Dyspepsia	236 (9.5)	282	12.6	39 (3.1)	44	4.1
Upper abdominal pain	141 (5.7)	171	7.7	43 (3.5)	49	4.6
Abdominal pain	130 (5.2)	163	7.3	43 (3.5)	53	5.0
Nasopharyngitis	427 (17.2)	586	26.2	234 (18.8)	302	28.3
Upper respiratory tract infection	213 (8.6)	247	11.1	122 (9.8)	149	14.0
Sinusitis	128 (5.2)	141	6.3	73 (5.9)	95	8.9
Influenza	144 (5.8)	170	7.6	66 (5.3)	84	7.9
Headache	327 (13.2)	441	19.7	154 (12.4)	220	20.6
Dizziness	167 (6.7)	203	9.1	60 (4.8)	65	6.1
Decreased appetite	267 (10.8)	283	12.7	38 (3.1)	39	3.7
Back pain	171 (6.9)	210	9.4	105 (8.5)	121	11.3
Arthralgia	125 (5.0)	133	6.0	71 (5.7)	80	7.5
Fatigue	185 (7.5)	203	9.1	65 (5.2)	72	6.7
Injection-site hematoma	142 (5.7)	154	6.9	93 (7.5)	101	9.5

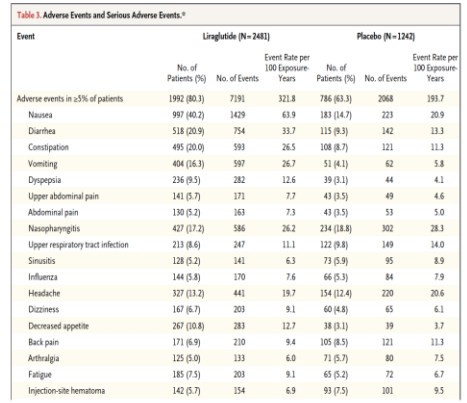
Mok et al, JAMA Surg 2023 (BARI-OPTIMSE); SCALE. Pi-Sunyer NEJM 2015

Side Effects Reported with Liraglutide post-MBS: Retrospective study of 117 patients compared to SCALE

TABLE 2 Side effects for liraglutide 3.0 mg

Symptom	n (%)[a]
Nausea	34 (29.1%)
Constipation	13 (11.1%)
Diarrhoea	8 (6.8%)
Fatigue	7 (6.0%)
Headache	4 (3.4%)
Rash	4 (3.4%)
Indigestion	3 (2.6%)
Vomiting	3 (2.6%)
Dry mouth	3 (2.6%)
Bloating	2 (1.7%)
Sweating	2 (1.7%)
Other[b]	9 (7.7%)

[a]Percent calculated as [(number of patients reporting the side effect)/117] × 100.
[b]Other includes abdominal pain (n = 1), bruising (n = 1), decreased glomerular filtration rate (n = 1), depression (n = 1), flu-like symptoms (n = 1), heartburn (n = 1), hot flashes (n = 1), gas (n = 1) and pancreatitis (n = 1).



Wharton S, et. al. Clinical Obesity. 2019;9:e12323; SCALE. Pi-Sunyer NEJM 2015

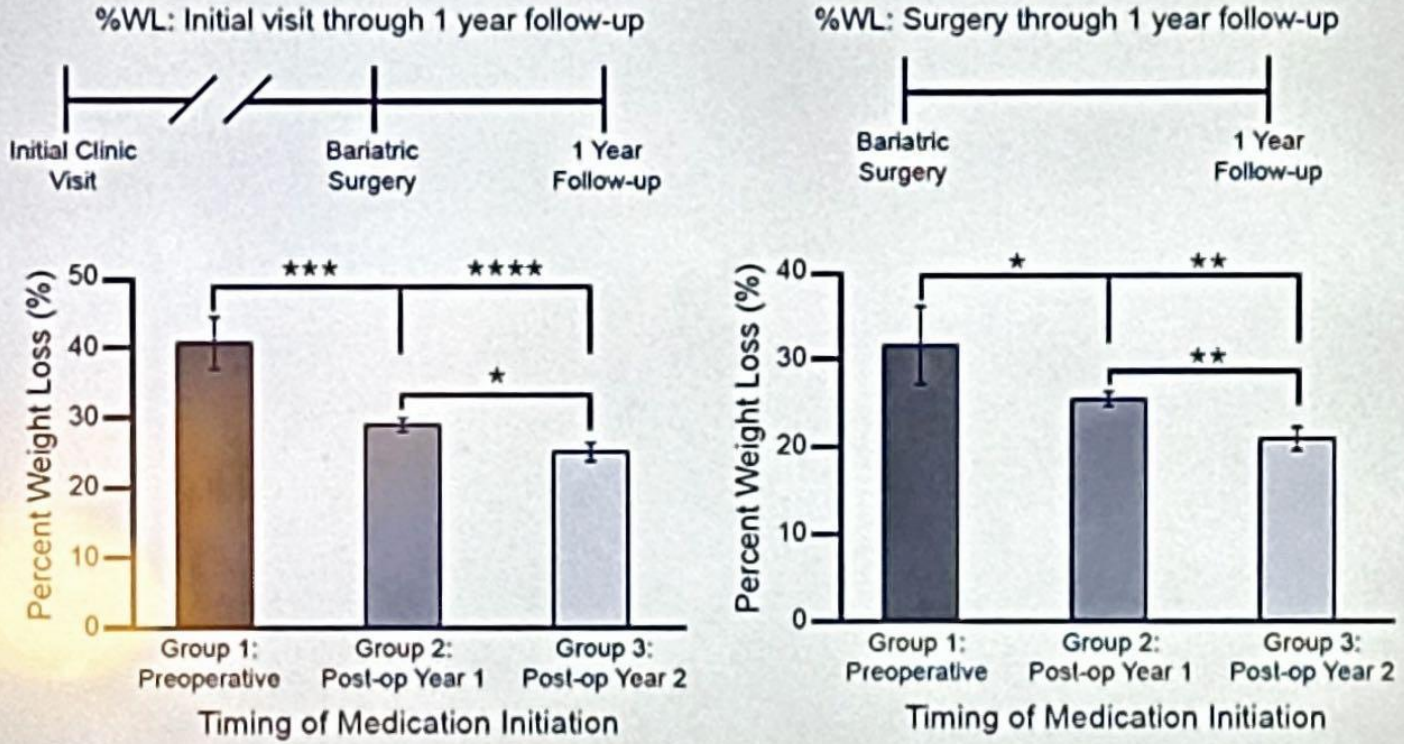
Conclusions

- Many patients who have undergone or who are candidates for bariatric surgery who may benefit from antiobesity medications
- Utilize antiobesity medications as complements to surgical interventions for patients with severe obesity
- More data necessary to guide use of AOM's before and after surgery

Pre-MBS and Early Adjuvant Obesity Meds

Patients BMI ≥60 receiving phentermine +/- topiramate earlier lost more weight by the 1-year follow-up

Starting a medication before surgery may lead to greater weight loss



Cuningham et al. Surg Obes Relat Dis. 2023 832-842