

XXVIII IFSO World Congress

9-12 September 2025 | Santiago, Chile



Future of Metabolic and Bariatric Surgery Revival or Extinction?



IFSO 2025 Santiago

Combined Therapies, The Dawn of a New Era

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Presenter Disclosures

Philip R. Schauer MD

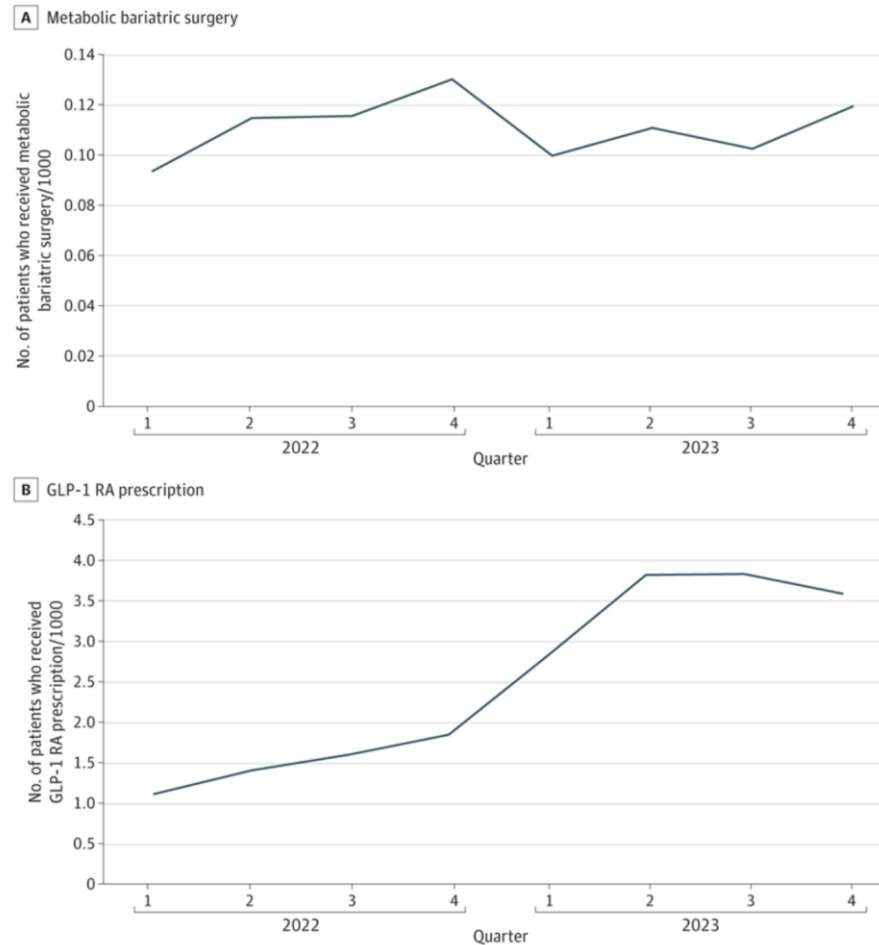
- Board Member/Advisory Panel – GI Dynamics; Persona; Keyron, Mediflix
- Consultant – Ethicon, Medtronic, Keyron, Novo Nordisk, Lilly, Heron, Regeneron
- Research Support – Ethicon, NIH, Medtronic,
- Stock/Shareholder - SEHQC, LLC, Mediflix, MHI LTD
- **Clinical Trials:**
- **STAMPEDE-Diabetes**
- **MS-MACE**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



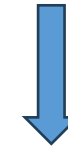
Metabolic Bariatric Surgery in the Era of GLP-1 Receptor Agonists for Obesity Management

Kevin Lin, BA¹; Ateev Mehrotra, MD, MPH²; Thomas C. Tsai, MD, MPH³

Figure. Quarterly Trends in Obesity Treatment, 2022-2023



8.7%



105%



Optum National Database
16.8 Mil Adults

Published Online: October 25, 2024

2024;7;(10):e2441380. doi:10.1001/jamanetworkopen.2024.41380



Superiority of Surgery Over Medical Treatment in 2025



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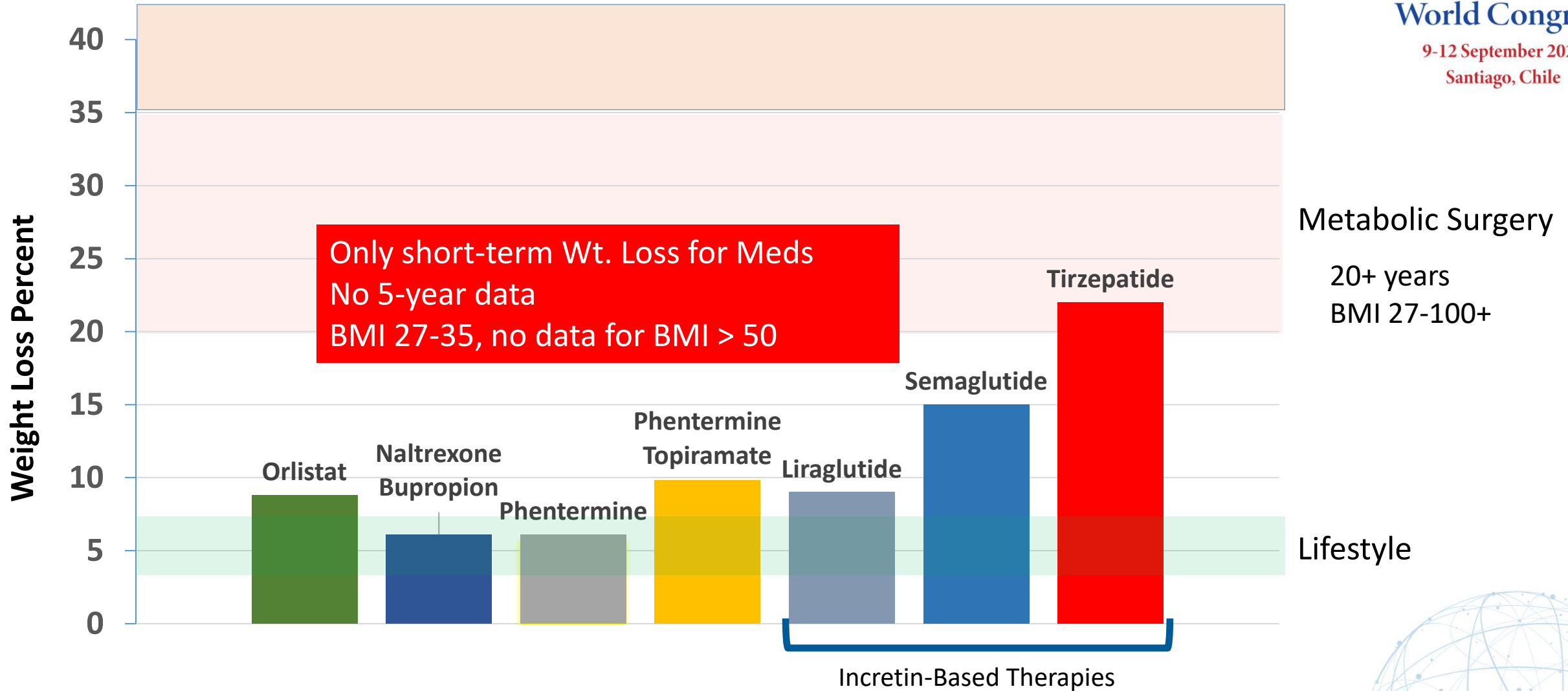
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- Magnitude of Weight loss
- Durability of Weight loss
- Effective in High BMI
- Reduction of Medications
- Quality of Life
- Co-morbidity Improvement
- Cardiovascular Benefit
- Cancer Reduction !
- Cost-effectiveness, Cost Saving!

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



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RYGB > 10 YEAR F/U



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AOM'S
NO 5 YR
DATA

Table 1 Gastric bypass

OBES SURG (2019) 29:3-14

Reference	Type	Initial #	FU %	Duration of FU	# pts at max. years	% EWL at max. years	% reoperation
Fobi, 1993 [14]	RYGB	100	NR	10	46	55	12
Wolfel, 1994 [15]	RYGB	143	71	10	83	49	NR
Pories, 1995 [16]	RYGB	608	97	14	10	49	38
Sugerman, 2003 [17]	RYGB	1025	37	10-12	135	52	NR
Gunther, 2006 [5]	RYGB	195	69	25	72	27	8
Christou, 2006 [18]	RYGB	274	84	12	161	68	NR
Sjostrum, 2007 [19]	RYGB	265	NR	15	10	66	17
Higa, 2011 [20]	RYGB	242	29	10	65	57	32
Angrisani, 2013 [13]	RYGB	24	84	10	21	69	29
Obeid, 2016 [21]	RYGB	328	46	10	134	59	64
Chen, 2016 [22]	RYGB	173	NR	11	78	67	NR
Maciejewski, 2016 [23]	RYGB	1787	82	10	564	56	NR
Monaco-Ferreira, 2017 [24]	RYGB	166	26	10	44	52	NR
Valezi, 2013 [25]	RYGB	211	55	10	116	65	NR
Mehaffey, 2016 [26]	RYGB	1087	61	10	651	52	NR
Kothari, 2017 [27]	RYGB	1402	70	10	191	56	NR
Carbajo, 2017 [28]	SAGB	1200	72	12	29	70	2
Sheikh, 2017 [29]	SAGB*	156	89	11	102	84	14

= 30% TWL

* indicates silastic ring used

SLEEVE GASTRECTOMY > 10YEAR F/U

Reference	Procedure type	Initial #	Follow-up %	Duration of FU	# pts at max. years	%EWL at max. years	Reoperation %
Arman, 2016 [54]	Sleeve	110	59	11	47	62	32
Felslenreich, 2016 [55]	Sleeve	53	60	10	32	53	36

= 22% TWL

18 Studies
Av. BMI 47
BMI Range 35-60+

2 Studies



One-Year Weight Reduction with Semaglutide or Liraglutide in Clinical Practice



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Hamlet Gasoyan, PhD; Elizabeth R. Pfoh, PhD, MPH; Rebecca Schulte, MPH; Phuc Le, PhD, MPH; W. Scott Butsch, MD, MSc; Michael B. Rothberg, MD, MPH
JAMA Network Open. 2024;7(9): September 13, 2024

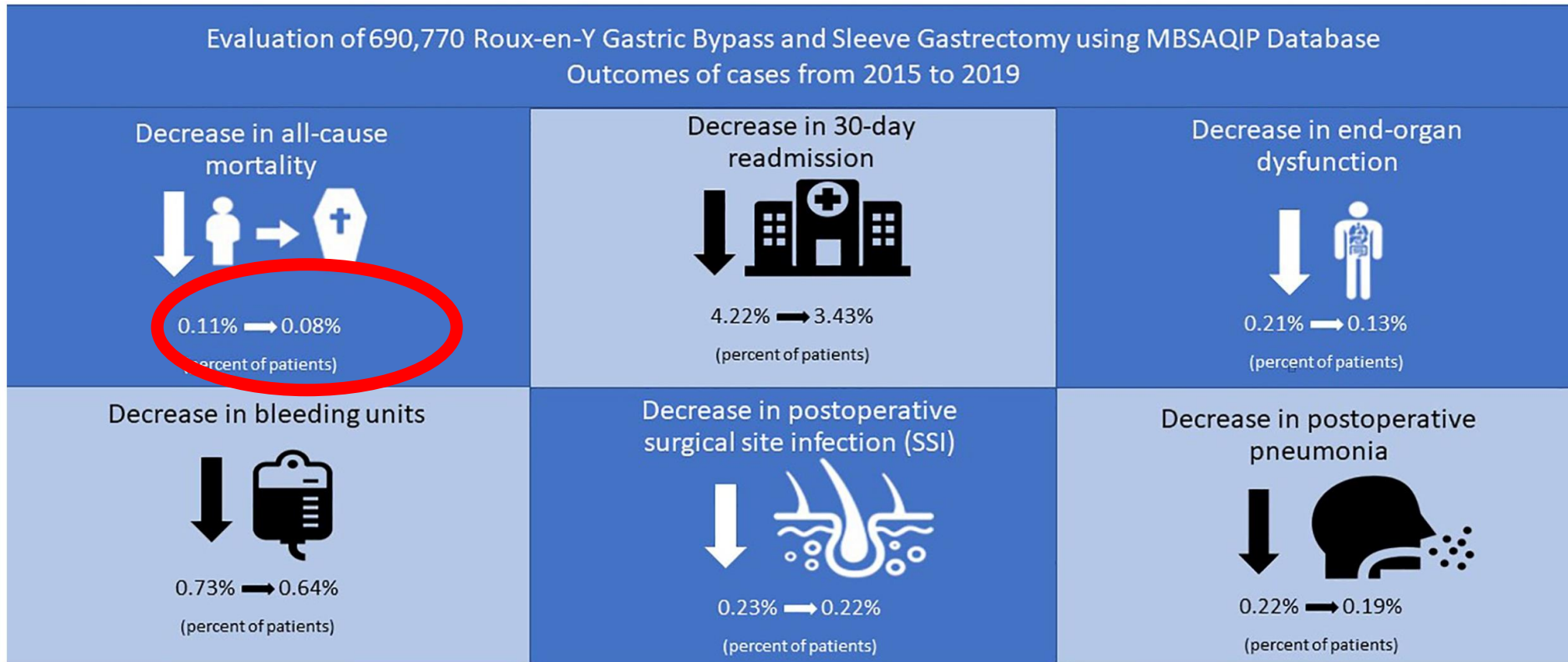
- Cleveland Clinic
- 3389 patients started Semaglutide or Liraglutide
- Semaglutide wt. loss = 5.1%
- Liraglutide wt. loss = 2.2%
- Persistent coverage = 5.5% vs. 2.8%
- 60% stopped meds within 1 year !

Risks of Surgery Still Dropping



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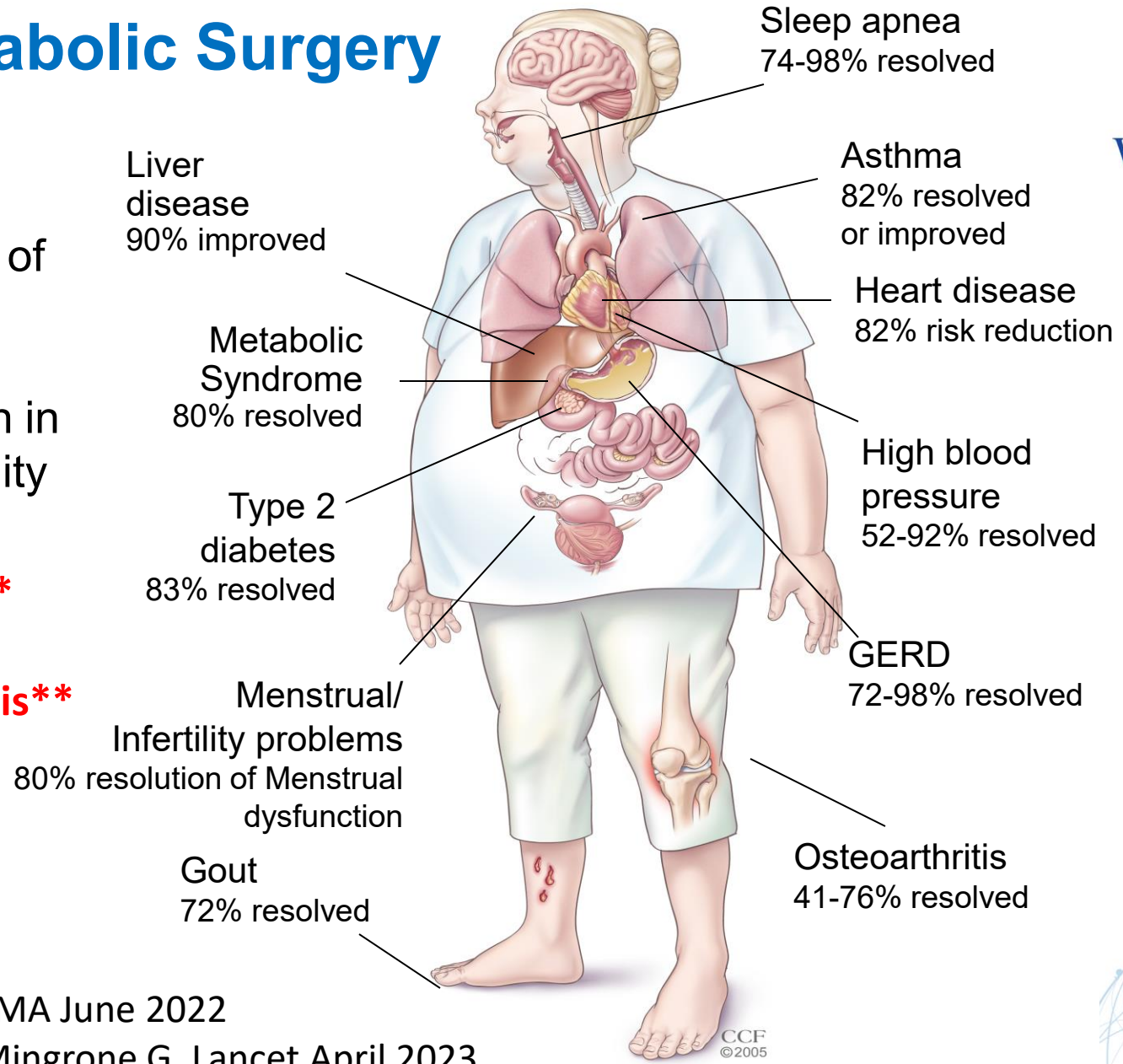


Clapp et al. J Am Coll Surg, June 2022



Benefits of Metabolic Surgery

- Quality of Life improved in 95% of patients
- 30-49% reduction in Long-term mortality
- **Reduction in Cancer (17%)***
- **Resolution of MASH Fibrosis****



*Aminian et al. JAMA June 2022

**Verrastro O.....Mingrone G. Lancet April 2023

Metabolic Surgery Meta-analysis 2022

A.fib, HF, MI, CVA

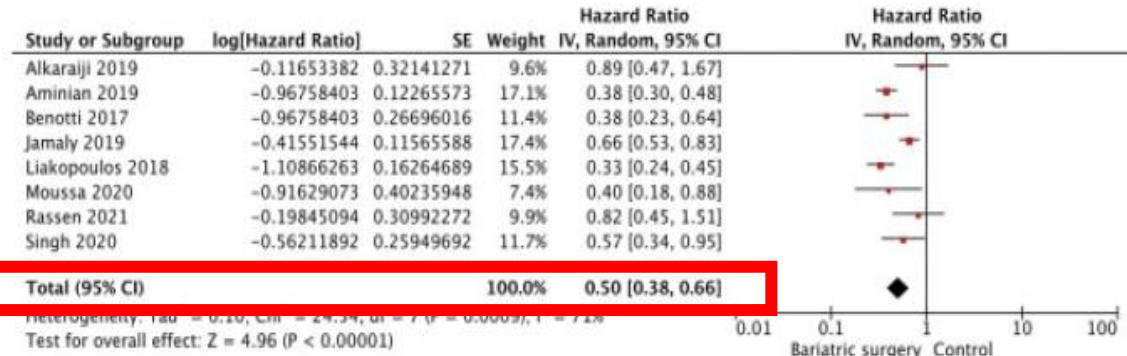
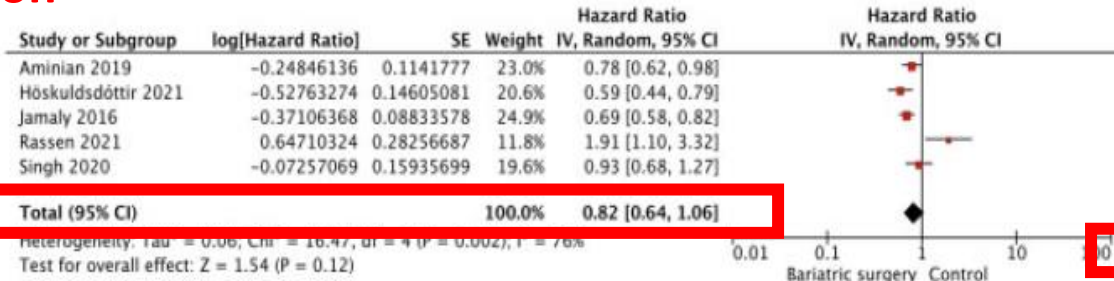


N=39
Studies
Primary Prevention

Atrial fibrillation 18 % risk reduction

B

Heart failure 50% risk reduction



C

Myocardial infarction 42 % risk reduction

D

Stroke 36 % risk reduction

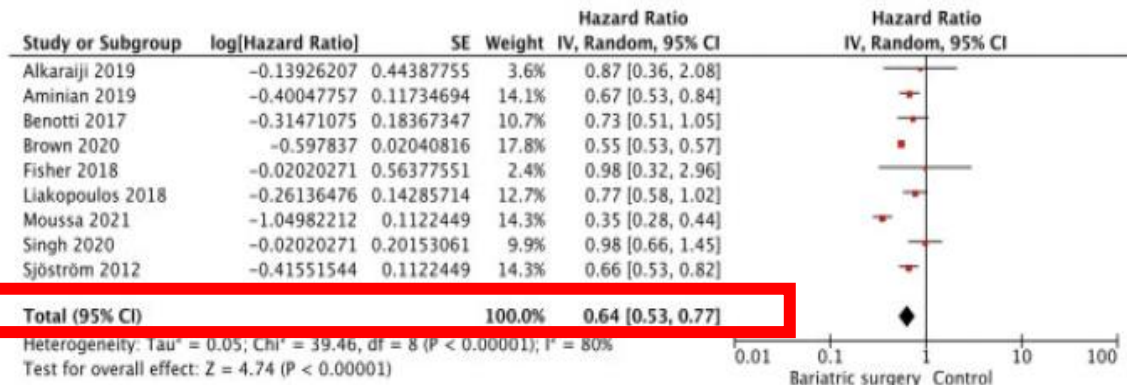
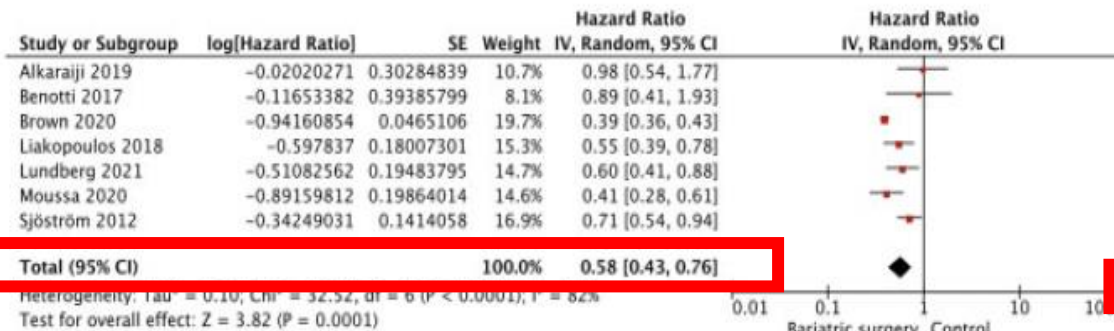
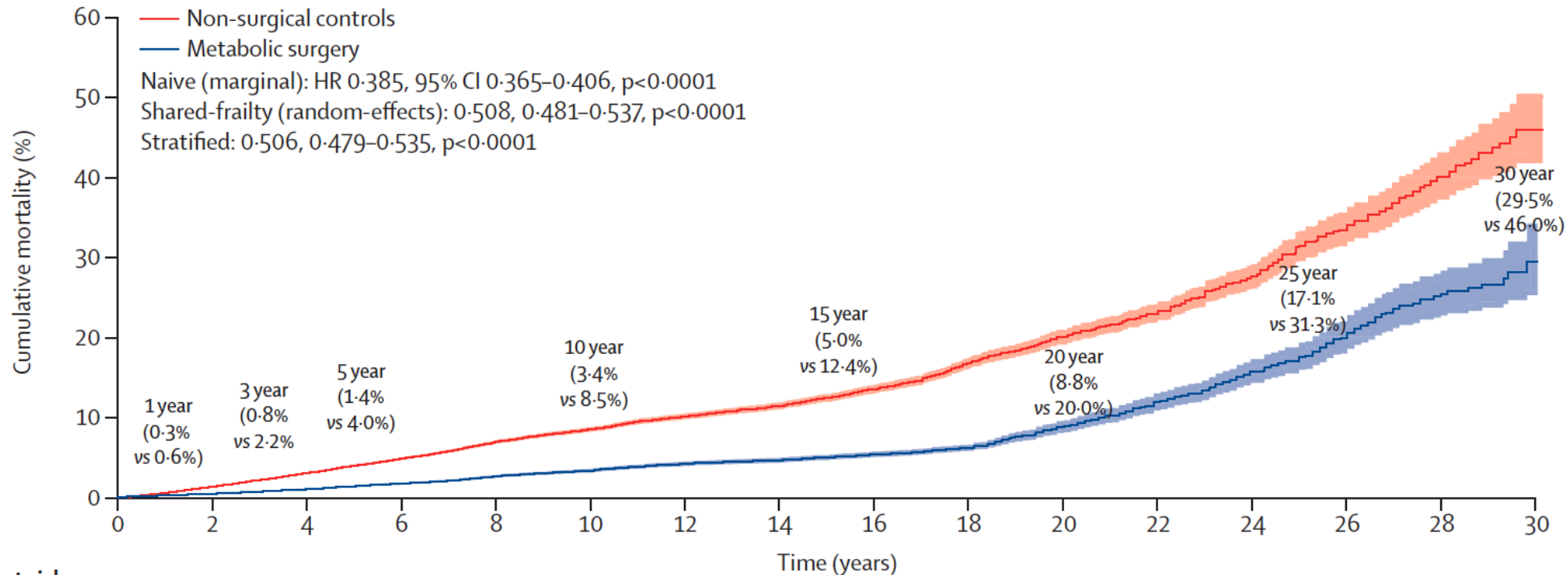


Figure 3 Forest plot of pooled hazard ratios of atrial fibrillation, heart failure, myocardial infarction, and stroke. CI, confidence interval; standard error.



49% Mortality Risk Reduction with Bariatric Surgery (n=174,772)

A



Number at risk		0	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30
Non-surgical	108 987	96 181	70 908	46 202	19 899	12 878	9 230	7 399	6 019	2 756	2 101	1 566	813	413	206	26	
Metabolic surgery	65 785	61 183	48 240	34 847	16 482	13 098	11 605	10 483	9 811	6 844	1 997	1 456	878	474	239	34	



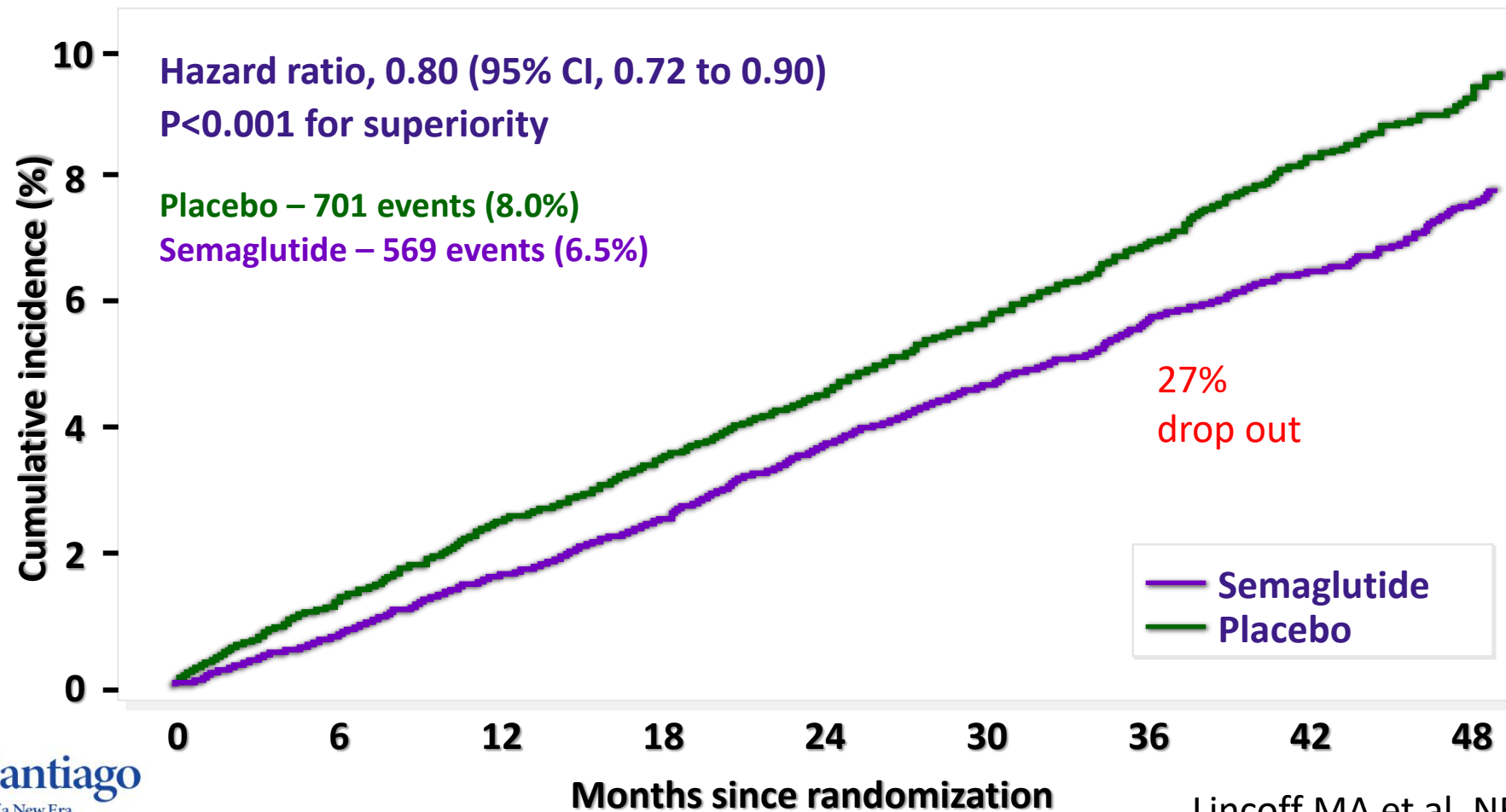
SELECT Trial – Cardiovascular Efficacy



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CV Death, Nonfatal MI, or Nonfatal Stroke Primary Cardiovascular Composite Endpoint



Semaglutide
20% Risk Reduction
NNT = 67




Metabolic Surgery
>50% Risk Reduction
NNT = 13



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Lincoff MA et al. NEJM November 2023

Quality of Life after Bariatric Surgery—A Systematic Review

Regina Sierżantowicz ^{1,*}, Jerzy Robert Ładny ² and Jolanta Lewko ³



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- 18 Studies (2007-2021), all with ≥ 9 yr follow-up
- HRQOL Instruments: SF-36, BAROS, IWQOL, BQL, GIQLI
- Improvement in Physical Component Scores (PCS) and Mental Component Scores (MCS) at yrs 1-2, some deterioration 5-6 yrs. PCS improvement $>$ MCS
- 8/10 studies at 9-12 yrs overall scores sig. higher than baseline
- Improvement correlated with wt. loss
- MCS deteriorated faster than PCS and returned to baseline
- Conclusion: Bariatric Surgery provides persistent improvement in HRQOL





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Bariatric surgery is a cost-saving treatment for obesity-A comprehensive meta-analysis and updated systematic review of health economic evaluations of bariatric surgery

Health economist group from Australia

- 61 studies (1995-2018) analyzed
- Included cost of complications and reoperations
- Bariatric surgery was cost saving over a lifetime scenario with out including indirect cost savings
- Sensitivity analysis for indirect costs (work productivity etc) increased cost savings
- Medication costs savings were dominant





Cost-Effectiveness of Newer Pharmacologic Treatments in Adults With Type 2 Diabetes: A Systematic Review of Cost-Effectiveness Studies for the American College of Physicians

John T. Schousboe, MD, PhD; Adrienne Landsteiner, PhD, MPH; Tyler Drake, MD; Shahnaz Sultan, MD, MHSc; Lisa Langsetmo, PhD; Anjum Kaka, MD; Maylen Anthony, MPH; Charles J. Billington, MD; Caleb Kalinowski, MS; Kristen Ullman, MPH; and Timothy J. Wilt, MD, MPH

April 19, 2024

1st line GLP1 RA, oral or injectable, *had an incremental cost-effectiveness ratio of \$1 089 000 per QALY*



WTP threshold

Bariatric surgery < \$20,000 per QALY

To fit in the WTP of worldwide health systems, we need a decrease in 70% (oral) to 90% (injectables) of GLP1RA cost



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> [Ann Surg](#). 2025 May 6. doi: 10.1097/SLA.0000000000006748. Online ahead of print.

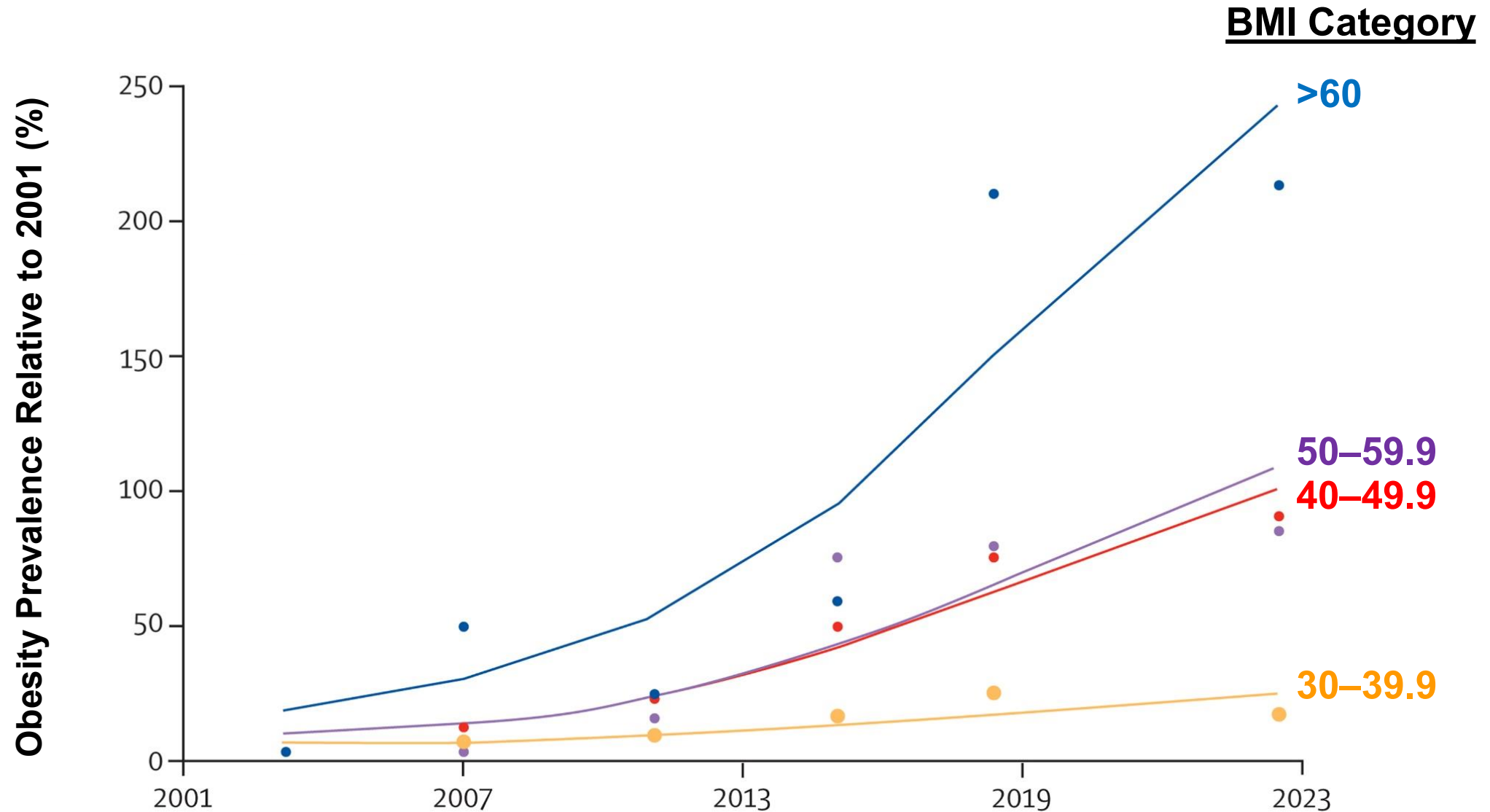
GLP-1RA in the Real World: 1-year Compliance and Outcomes of Semaglutide use in Patients With or Without Previous History of Bariatric Surgery

Pourya Medhati ^{1 2}, Thomas H Shin ³, Katherine Wasden ², Vasundhara Mathur ²,
Caroline Apovian ⁴, Abdelrahman Nimeri ^{2 4}, Eric G Sheu ^{2 4}, Ali Tavakkoli ^{2 4}

- 1,072 prescribed Semaglutide
- 18% never started
- 54% did not complete one year
- %TWL = 8.8%, 10.9% for those completing 1 year



~250% Increase of Extreme Obesity Prevalance in 20 Years

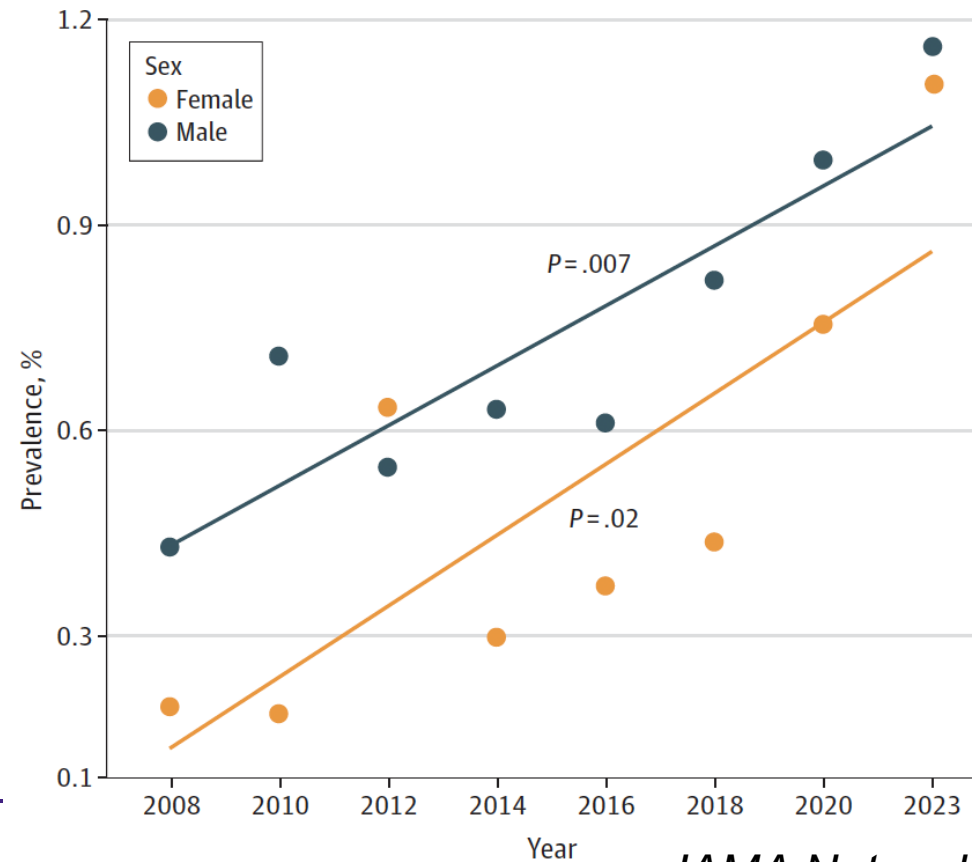


Original Investigation | Nutrition, Obesity, and Exercise

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

B | Obesity class 4-5 by sex



250% Growth
In Childhood Extreme
Obesity !!

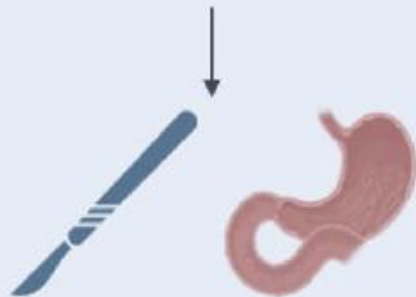
BMI ≥70: A Multi-Center Institutional Experience of the Safety and Efficacy of Metabolic and Bariatric Surgery Intervention

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%)



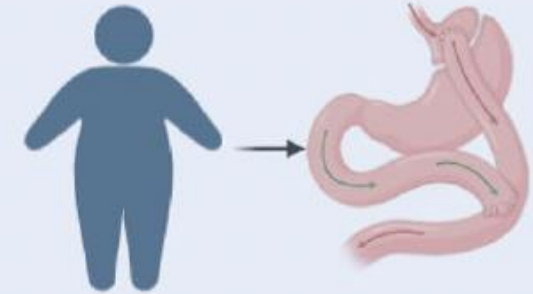
Key Finding 2: Regardless of preoperative weight-loss, patients showed robust BMI reductions at 1 year

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 PhD², Devan Lenhart DO^{1,2}, Michael Cook MD^{2,3}, Vance L. Albaugh MD PhD^{1,2}, Philip R. Schauer MD^{1,2}

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³University Medical Center, New Orleans, LA, USA.



Obesity Medical Treatment vs. Metabolic Surgery

Score Card per Philip Schauer MD



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	Medical	Metabolic Surgery	Winner
Short-term Wt. Loss	15%	25-50%	Metabolic Surgery
Long-term Wt. Loss	9% (4 yr)	22-45% (20+ yrs)	Metabolic Surgery
Effective in High BMI	Modest	Major	Metabolic Surgery
Short term Serious Adverse Events	<1%	3%	AOM's
Health-Related Quality of Life	Modest	Major	Metabolic Surgery
Steatohepatitis	Modest	Major	Metabolic Surgery
Cancer Reduction	?	17%	Metabolic Surgery
Long-term CV Benefit (MACE)	20% reduction	> 50% reduction	Metabolic Surgery
Long-term Mortality Benefit	19% reduction	45% reduction	Metabolic Surgery
Cost (including GLP1–RA's)	\$10,000/yr	\$1,500/yr	Metabolic Surgery

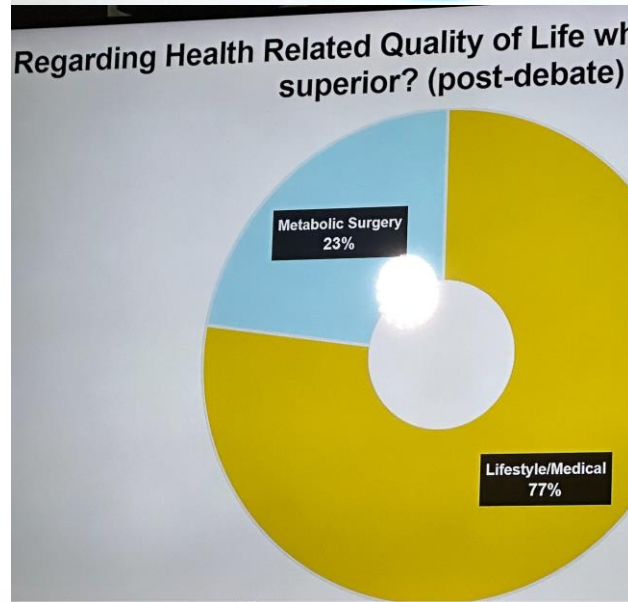
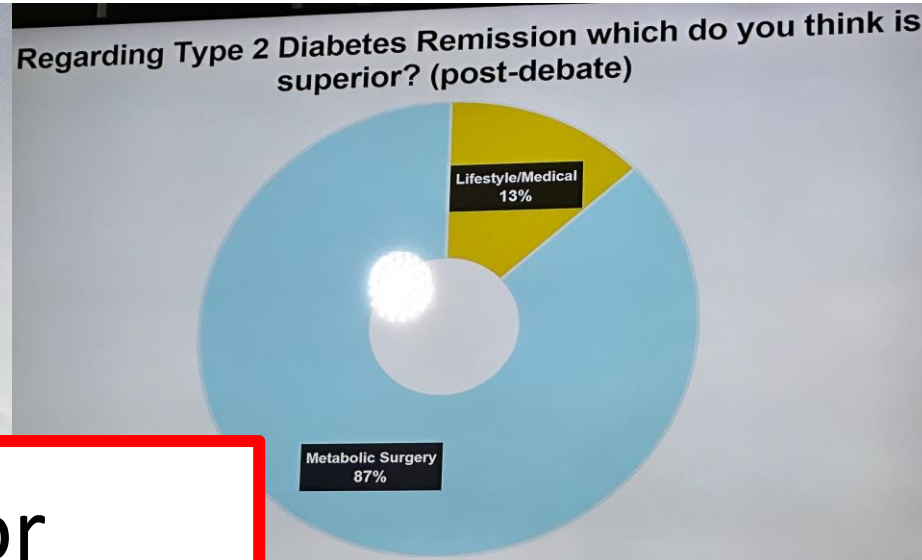
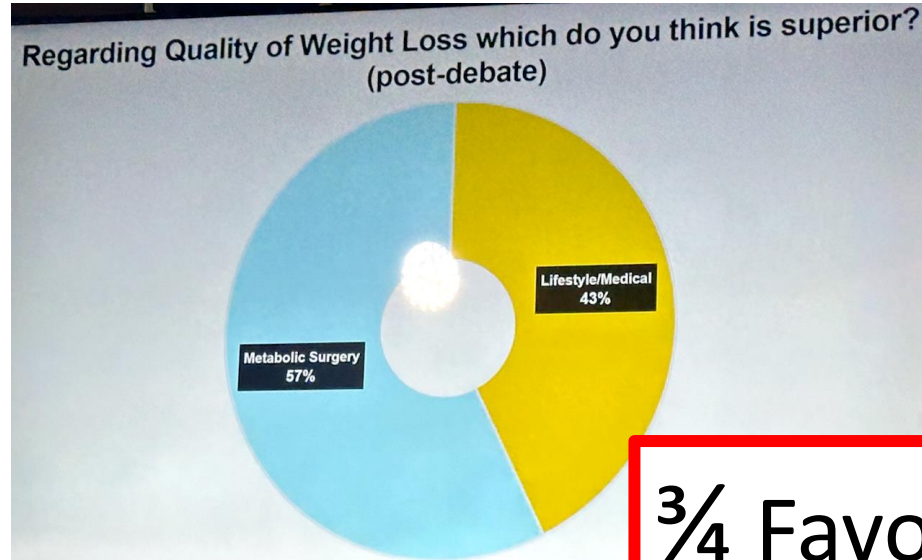


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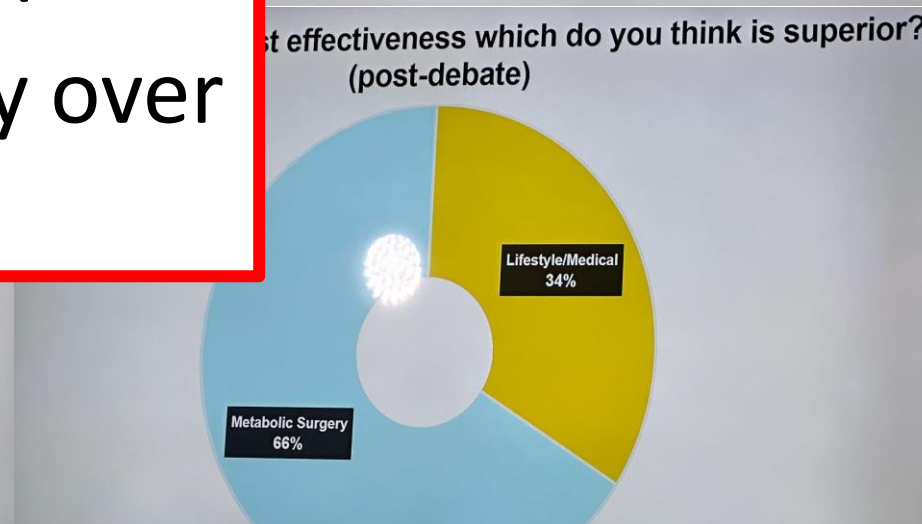
What do Endocrinologists Think?

Endocrine Society Meeting 2024, Boston

Debate: Surgery vs Med
Phil Schauer MD
Vs.
Amy Rothberg MD



3/4 Favor Surgery over AOM's





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How AOM's Will Increase Metabolic Surgery World-wide

- Millions more will seek Obesity Treatment
- Many will not be satisfied with AOM's only
 - Side effects
 - Cost
 - Efficacy
 - Long-term wt. loss
- What's next- Metabolic Surgery

