Who May Benefit from OMM Before Surgery?

Nasreen Alfaris M.D., M.P.H.

Consultant Endocrinology, Diabetes, Metabolism and Obesity Medicine

Program Director of the Obesity Medicine Fellowship

Obesity, Endocrine, and Metabolism Center

King Fahad Medical Center, Riyadh, K.S.A

Disclosures

- Consultant: Novo Nordisk

  Eli Lilly

  Ethicon

Why are OMMs needed prior to surgery

Rational supporting use of OMM in the preoperative setting:

1) Reduction of perioperative risk

2) Increased proportion of those achieving weight loss goals and comorbidity resolution after surgery

Preoperative Weight Loss Reduces 30 Day Mortality

JAMA Network | Open

Original Investigation | Surgery

Association of Preoperative Body Weight and Weight Loss With Risk of Death After Bariatric Surgery

Yangbo Sun, MD, PhD; Buyun Liu, MD, PhD; Jessica K. Smith, MD; Marcelo L. G. Correia, MD, PhD; Dana L. Jones, DNP; Zhanyong Zhu, MD; Adeyinka Taiwo, MD; Lisa L. Morselli, MD, PhD; Katie Robinson, PhD; Alexander A. Hart, MPH; Linda G. Snetselaar, PhD; Wei Bao, MD, PhD

Sun Y, Liu B, Smith JK, et al. Association of Preoperative Body Weight and Weight Loss With Risk of Death After Bariatric Surgery. *JAMA Netw Open*. 2020;3(5):e204803.

Preoperative Weight Loss Reduces 30 Day Mortality

Reduction in 30 day mortality:

- 0%–5.0%,: 24%
- 5.0%–9.9%,: 31%
- 10.0% : 42%,

Sun Y, Liu B, Smith JK, et al. Association of Preoperative Body Weight and Weight Loss With Risk of Death After Bariatric Surgery. *JAMA Netw Open*. 2020;3(5):e204803.

Preoperative Weight Loss Reduces 30 Day Mortality

Original article

Preoperative weight loss is linked to improved mortality and leaks following elective bariatric surgery: an analysis of 548,597 patients from 2015–2018

Valentin Mocanu, M.D.*, Gabriel Marcil, M.D., Jerry T. Dang, M.D., Daniel W. Birch, M.D., M.Sc., Noah J. Switzer, M.D., M.P.H., Shahzeer Karmali, M.D., M.P.H.

Department of Surgery, University of Alberta, Edmonton, Alberta, Canada

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Surgery for Obesity and Related Diseases -(2021) 1–8

Preoperative Weight Loss Reduces 30 Day Mortality

When compared to individuals who did not lose weight prior to surgery, >10% TBWL preoperatively :

- 30% decreased odds of leak : (OR 5.68%; 95% CI:0.56–0.84; P ≤0.0001)

- 40% decrease in odds of mortality (OR 5 .60; 95% CI: 0.39– 0.92; P = 0.02)

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Surgery for Obesity and Related Diseases -(2021) 1–8

Preoperative Weight loss may result in lesser complications

Journal of Gastrointestinal Surgery
https://doi.org/10.1007/s11605-021-05055-5

ORIGINAL ARTICLE

Preoperative Weight Loss as a Predictor of Bariatric Surgery Postoperative Weight Loss and Complications

Jamil S. Samaan[1] · Jasmine Zhao[2] · Elaine Qian[2] · Angelica Hernandez[2] · Omar Toubat[2] · Evan T. Alicuben[2] · Yousaf Malik[2] · Kulmeet Sandhu[2] · Adrian Dobrowolsky[2] · Kamran Samakar[2]

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Samaan, Jamil S., et al. "Preoperative weight loss as a predictor of bariatric surgery postoperative weight loss and complications." *Journal of Gastrointestinal Surgery* 26.1 (2022): 86-93.

Preoperative Weight loss may result in lesser complications

	Roux-en-Y gastric bypass			Sleeve gastrectomy		
	%EWL < 10	%EWL > 10	P	%EWL < 10	%EWL > 10	P
Demographics, past medical history, and past surgical history						
Average age	44.2	43.6	0.37	43.2	45.9	0.53
Female sex (%)	56 (80.0)	45 (70.3)	19.4	14 (19.7)	49 (41.9)	< 0.01
Diabetes mellitus (%)	21 (30.0)	22 (34.4)	0.59	13 (18.3)	41 (35.0)	0.02
Hypertension (%)	43 (61.4)	37 (57.8)	0.67	29 (40.8)	64 (54.7)	0.07
Hyperlipidemia (%)	28 (40.0)	21 (32.8)	0.39	16 (22.5)	44 (37.6)	0.03
Abdominal surgery (%)	29 (41.4)	27 (42.2)	0.93	28 (41.8)	44 (37.9)	0.61
Foregut surgery (%)	6 (8.6)	7 (10.9)	0.64	9 (13.4)	12 (11.0)	0.63
Average preop BMI	45.3	43.9	0.95	45.7	44.6	0.84
Complication rates						
Intraoperative complications	0 (0)	0 (0)	--	0 (0)	0 (0)	--
Estimated blood loss ≥ 100 cc	10 (14.3)	4 (6.5)	0.17	3 (4.2)	1 (0.9)	0.15
Intraoperative transfusions	0 (0)	0 (0)	--	0 (0)	0 (0)	--
Pperative time (h)	3.08	3.15	0.22	2.02	1.98	0.80
Perioperative complications	6 (8.6)	8 (12.5)	0.46	5 (7.0)	5 (4.3)	0.51
Length of stay (days)	1.9	1.7	0.75	1.8	1.3	< 0.01
ICU admission	3 (4.3)	2 (3.1)	0.72	3 (4.2)	1 (0.9)	0.15
Hospitalization transfusions	2 (2.9)	0 (0)	0.50	0 (0)	2 (1.7)	0.53

Samaan, Jamil S., et al. "Preoperative weight loss as a predictor of bariatric surgery postoperative weight loss and complications." *Journal of Gastrointestinal Surgery* 26.1 (2022): 86-93.

Original article: integrated health

Preoperative weight loss: is waiting longer before bariatric surgery more effective?

Victor Eng, B.S.[a], Luis Garcia, M.S.[a], Habib Khoury, B.S.[b], John Morton, M.D., M.P.H.[a], Dan Azagury, M.D.[a,*]

[a]*Bariatric and Minimally Invasive Surgery, Stanford School of Medicine, Stanford, California*
[b]*David Geffen School of Medicine, University of California at Los Angeles, Los Angeles, California*

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Surgery for Obesity and Related Diseases 15 (2019) 951–957

Conclusions: Longer preoperative wait times do not result in improved weight loss or reduced adverse events. Determination of patient eligibility for bariatric surgery should rest with the health team and delay of treatment should be minimized. (Surg Obes Relat Dis 2019;15:951–957.)

Surgery for Obesity and Related Diseases 15 (2019) 951–957

Kim JJ, Rogers AM, Ballem N, Schirmer B. ASMBS updated position statement on insurance mandated preoperative weight loss requirements.

Surg Obes Relat Dis 2016;12(5):955–9

It should be noted that no high-quality data exist to support insurance-mandated preoperative weight loss. This practice is scientifically unfounded and discriminatory toward patients with obesity. The practice leads to attrition or delay in access to lifesaving treatment via MBS

Original article

2022 American Society for Metabolic and Bariatric Surgery (ASMBS) and International Federation for the Surgery of Obesity and Metabolic Disorders (IFSO): Indications for Metabolic and Bariatric Surgery

Dan Eisenberg, M.D.[a,*], Scott A. Shikora, M.D.[b], Edo Aarts, M.D., Ph.D.[c], Ali Aminian, M.D.[d], Luigi Angrisani, M.D.[e], Ricardo V. Cohen, M.D., Ph.D.[f], Maurizio De Luca, M.D.[g], Silvia L. Faria, Ph.D.[h], Kasey P. S. Goodpaster, Ph.D.[d], Ashraf Haddad, M.D.[i], Jacques M. Himpens, M.D., Ph.D.[j], Lilian Kow, B.M.B.S., Ph.D.[k], Marina Kurian, M.D.[l], Ken Loi, M.B.B.S., B.Sc. (Med)[m], Kamal Mahawar, M.B.B.S., M.Sc.[n], Abdelrahman Nimeri, M.D., M.B.B.Ch.[o], Mary O'Kane, M.Sc., R.D.[p], Pavlos K. Papasavas, M.D.[q], Jaime Ponce, M.D.[r], Janey S. A. Pratt, M.D.[a,s], Ann M. Rogers, M.D.[t], Kimberley E. Steele, M.D., Ph.D.[u], Michel Suter, M.D.[v,w], Shanu N. Kothari, M.D.[x]

Surgery for Obesity and Related Diseases 18 (2022) 1345–1356

"While there has been initial enthusiasm for weight loss prior to surgery, there are no data to support the practice of insurance-mandated preoperative weight loss; this practice is understood to be discriminatory, arbitrary, and scientifically unfounded, contributing to patient attrition, unnecessary delay of lifesaving treatment, and progression of life-threatening co-morbid conditions . A multidisciplinary team can help assess and manage the patient's modifiable risk factors with a goal of reducing risk of perioperative complications and improving outcomes; the decision for surgical readiness should be primarily determined by the surgeon. "

Surgery for Obesity and Related Diseases 18 (2022) 1345–1356

Orlistat for Pre-operative Weight Loss

Use of Orlistat 60 mg in the Management of Weight Loss before Bariatric Surgery

Margaret Malone, Sharon A Alger-Mayer, and Jennifer Lindstrom View all authors and affiliations

Volume 46, Issue 6 | https://doi.org/10.1345/aph.1Q556

Orlistat for Pre-operative Weight Loss

- The mean BMI was 47.2 Kg/m2

- At 6 months, the percent TBWL was 2.0 (3.4) versus 5.4 (4.2) ($p = 0.048$).

CONCLUSIONS:

Some patients felt that orlistat was beneficial for weight loss; however, overall, they did not show benefit from its addition to their preoperative weight loss management.

Orlistat for Pre-operative Weight Loss

RESEARCH ARTICLE

Effectiveness of a preoperative orlistat-based weight management plan and its impact on the results of one-anastomosis gastric bypass: A retrospective study

Hung-Chieh Lo[1,2,3]*, **Shih-Chang Hsu**[4,5]

- Reduction in OR time by 22 min
- There was no difference in the incidence of 30-day complications
- No difference in weight loss at 24 months

Phentermine and Phentermine/Topiramate

THURSDAY, NOVEMBER 15, 2018 1:30 PM–3:00 PM

A140

UTILIZING LOW-DOSE PHENTERMINE FOR PREOPERATIVE WEIGHT LOSS PRIOR TO BARIATRIC SURGERY: A PROSPECTIVE, RANDOMIZED, AND PLACEBO-CONTROLLED TRIAL

John Morton [a]; Homero Rivas [b]; Luis Garcia [b]; Dan E Azagury [b];
[a] *Menlo Park CA;* [b] *Stanford CA*

Surgery for Obesity and Related Diseases 14 (2018) S33–S37

Phentermine and Phentermine/Topiramate

Treatment group (n=32)

- The average baseline weight 290 ±55.0 lbs. and
- The average BMI 49.3 ±7.9 kg/m2,

Control group (n=21)

- The average baseline weight 278 ±58.6 lbs.
- The average BMI: 47.1 ±8.7 kg/m2

%TBWL= (4.7 ±4.3% vs. 1.1 ±3.6%, p = 0.001)

Surgery for Obesity and Related Diseases 14 (2018) S33–S37

Phentermine and Phentermine/Topiramate

ELSEVIER

Check for updates

Surgery for Obesity and Related Diseases 15 (2019) 1039–1043

SURGERY FOR OBESITY AND RELATED DISEASES

Original article

Use of phentermine-topiramate extended release in combination with sleeve gastrectomy in patients with BMI 50 kg/m^2 or more

Jamy D. Ard, M.D.[a,b,*], Daniel P. Beavers, Ph.D.[c], Erica Hale, M.S.[b], Gary Miller, Ph.D.[b,d], Stephen McNatt, M.D.[b,e], Adolfo Fernandez, M.D.[b,e]

[a]*Wake Forest School of Medicine, Department of Epidemiology and Prevention, Winston Salem, North Carolina*
[b]*Wake Forest Baptist Health, Weight Management Center, Winston Salem, North Carolina*
[c]*Wake Forest School of Medicine, Department of Biostatistical Sciences, Winston Salem, North Carolina*
[d]*Wake Forest University, Department of Health and Exercise Science, Winston Salem, North Carolina*
[e]*Wake Forest School of Medicine, Department of Surgery, Winston Salem, North Carolina*

Received 21 January 2019; accepted 16 April 2019

Phentermine and Phentermine/Topiramate

Table 1
Baseline characteristics of the study sample

Description	LSG alone (n = 40) mean ± SD or n (%)	LSG + phen/top (n = 15) mean ± SD or n (%)	Overall (n = 55) mean ± SD or n (%)
Age (yr)	45.0 ± 10.8	43.4 ± 7.3	44.6 ± 10.0
Female (%)	33 (82.5)	12 (80.0)	45 (81.8)
Initial weight (kg)	159.5 ± 21.0	178.9 ± 31.1	164.8 ± 25.4
Excess weight (kg)	89.5 ± 17.6	106.0 ± 26.3	94.0 ± 21.4
Preop weight (kg)	147.2 ± 17.4	150.8 ± 25.1	148.2 ± 19.6
Weight change, initial to preop (kg)	–12.3 ± 12.5	-28.1 ± 12.8	–16.6 ± 14.3
Initial BMI (kg/m^2)	57.0 ± 5.6	61.2 ± 7.1	58.1 ± 6.3
Preop BMI (kg/m^2)	52.7 ± 5.3	51.7 ± 6.2	52.4 ± 5.5
Operative time (min)	87.2 ± 22.2	100.4 ± 23.6	90.8 ± 23.1
Length of stay (d)	1.2 ± .4	1.3 ± .5	1.3 ± .4
Hiatal hernia repair (count)	7	5	12
30-d complication (count)	6	1	6

LSG = laparoscopic sleeve gastrectomy; SD = standard deviation; BMI = body mass index

Phentermine and Phentermine/Topiramate

- BMI change was significantly different starting at 6 months postoperatively between the 2 groups, with greater improvement seen in the SG + AOM group. This difference remained significant to the end point of the study at 24 months .

- It is not clear from this study if increased BMI change in the MBS + AOM group was from preoperative AOM use or continued use postoperatively

GLP-1RA

Efficacy of Intragastric Balloon versus Liraglutide as Bridge to Surgery in Super-Obese Patients

Gennaro Martines Agnese Dezi Carlo Giove Valerio Lantone
Maria Tersa Rotelli Arcangelo Picciariello Giovanni Tomasicchio

Department of Precision and Regenerative Medicine and Jonic Area (DiMePRe-J), General Surgery Unit "M. Rubino," University of Bari Aldo Moro, Bari, Italy

GLP-1RA

	IGB + LSG (n = 44)	Liraglutide + LSG (n = 42)	p value
Gender (M/F)	10/34 23% versus 77%	3/39 7% versus 93%	0.06
Age (years)	41.50 (37.5–49.25)	41 (35.50–48)	0.58
Weight (kg)	151 (140–163)	145 (133.5–164.5)	0.302
BMI (kg/m^2)	55.9 (53.3–59.3)	57.5 (51.2–59.2)	0.391
Comorbidity, n (%)			
None	1 (2.3)	1 (2.3)	1
Cardiac	31 (70.5)	22 (52.4)	0.13
Respiratory	22 (50)	18 (42.8)	0.65
Diabetes	38 (86)	35 (83.3)	0.76
Osteoarthritis	12 (27)	9 (21.4)	0.61

Continuous parameters were reported as median and interquartile ranges. Categorical variables were recorded as numbers and percentages. IGB, intragastric balloon; LSG, laparoscopic sleeve gastrectomy.

GLP-1RA

Table 3. Relationship between different two-stage management and BMI, %EWL, and %EBWL at 6 and 12 months

	IGB + LSG (n = 44)	Liraglutide + LSG (n = 42)	p value
Weight, 6 months, kg	101 (99–107)	124 (109.5–141)	<0.05
BMI, 6 months, kg/m^2	38.9 (39.10–40.5)	47.5 (41.1–53)	<0.05
%EWL, 6 months	29.84 (26.8–34.6)	15.8 (11.1–21.1)	<0.05
%EBWL, 6 months	55.6 (49.9–61.7)	27.8 (19.6–38.9)	<0.005
Weight, 12 months, kg	89 (85–91)	112 (95.2–128.75)	<0.05
BMI, 12 months, kg/m^2	33.9 (32.2–35)	41.86 (36.8–48.9)	<0.05
%EWL, 12 months	39.9 (37.6–42.9)	25 (16.8–31)	<0.05
%EBWL, 12 months	71.2 (68.8–76.5)	42 (24.25–64)	<0.05

Continuous parameters were reported as median and interquartile ranges. IGB, intragastric balloon; LSG, laparoscopic sleeve gastrectomy; BMI, body mass index; %EWL, percent excess weight loss; %EBWL, percent excess body weight loss.

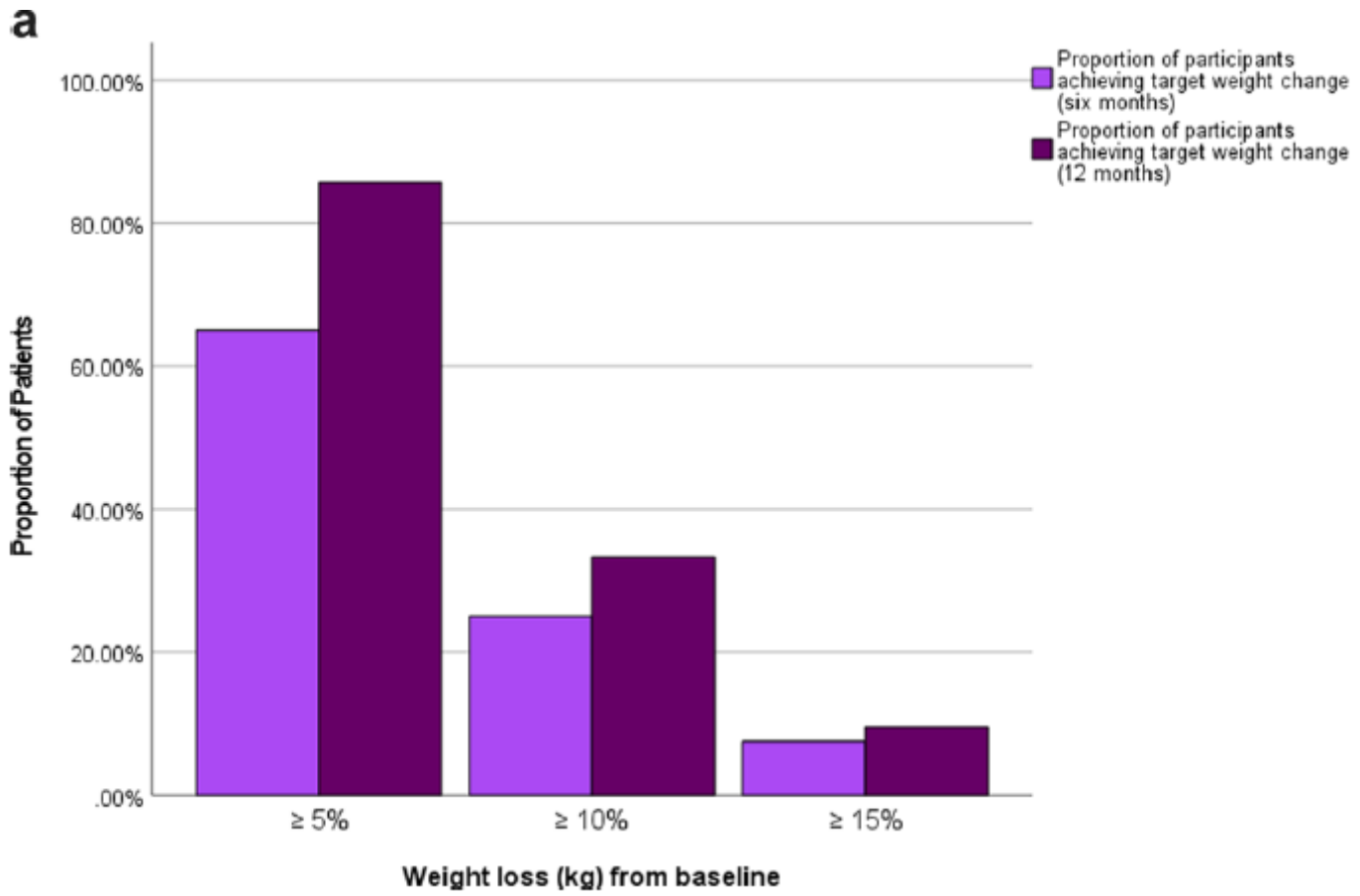
GLP-1RA

Liraglutide 3.0 mg (Saxenda©) for Weight Loss and Remission of Pre-Diabetes. Real-World Clinical Evaluation of Effectiveness among Patients Awaiting Bariatric Surgery

Rebekah Wilmington[1,2] · Arash Ardavani[2] · Amelia Simenacz[3] · Carol Green[1] · Iskandar Idris[1,2]

Obesity Surgery (2024) 34:286–289

GLP-1RA



Obesity Surgery (2024) 34:286–289

GLP-1RA

Remission of prediabetes:

92.3% and 72.2% achieved remission of pre-diabetes by 6 and 12 months

Obesity Surgery (2024) 34:286–289

GLP-1RA

Impact of Treatment with GLP1 Receptor Agonists, Liraglutide 3.0 mg and Semaglutide 1.0 mg, While on a Waiting List for Bariatric Surgery

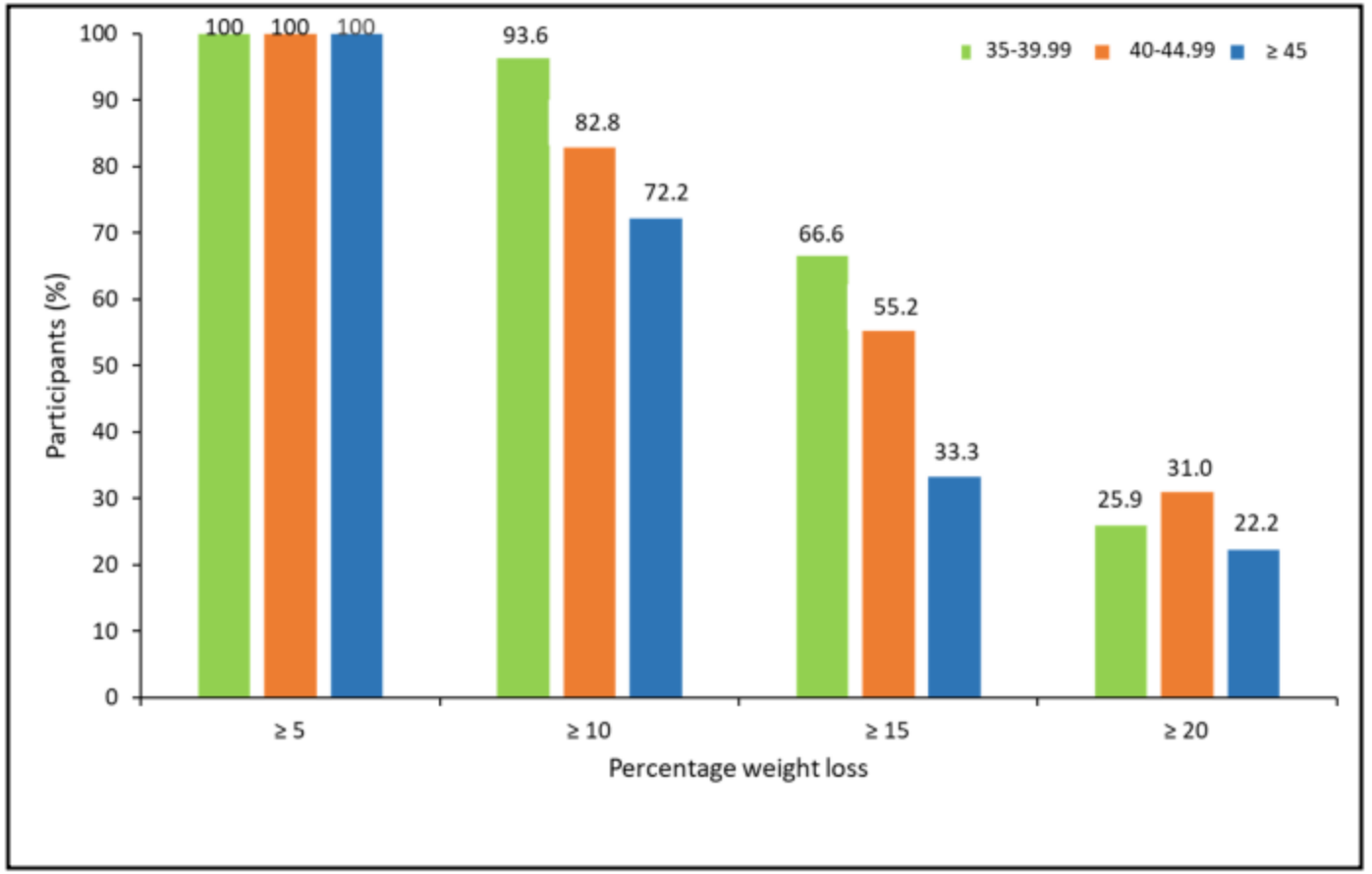
Miguel A. Rubio-Herrera [1,2,*,†], Sara Mera-Carreiro [1], Andrés Sánchez-Pernaute [3,4] and Ana M. Ramos-Levi [4,†]

GLP-1RA

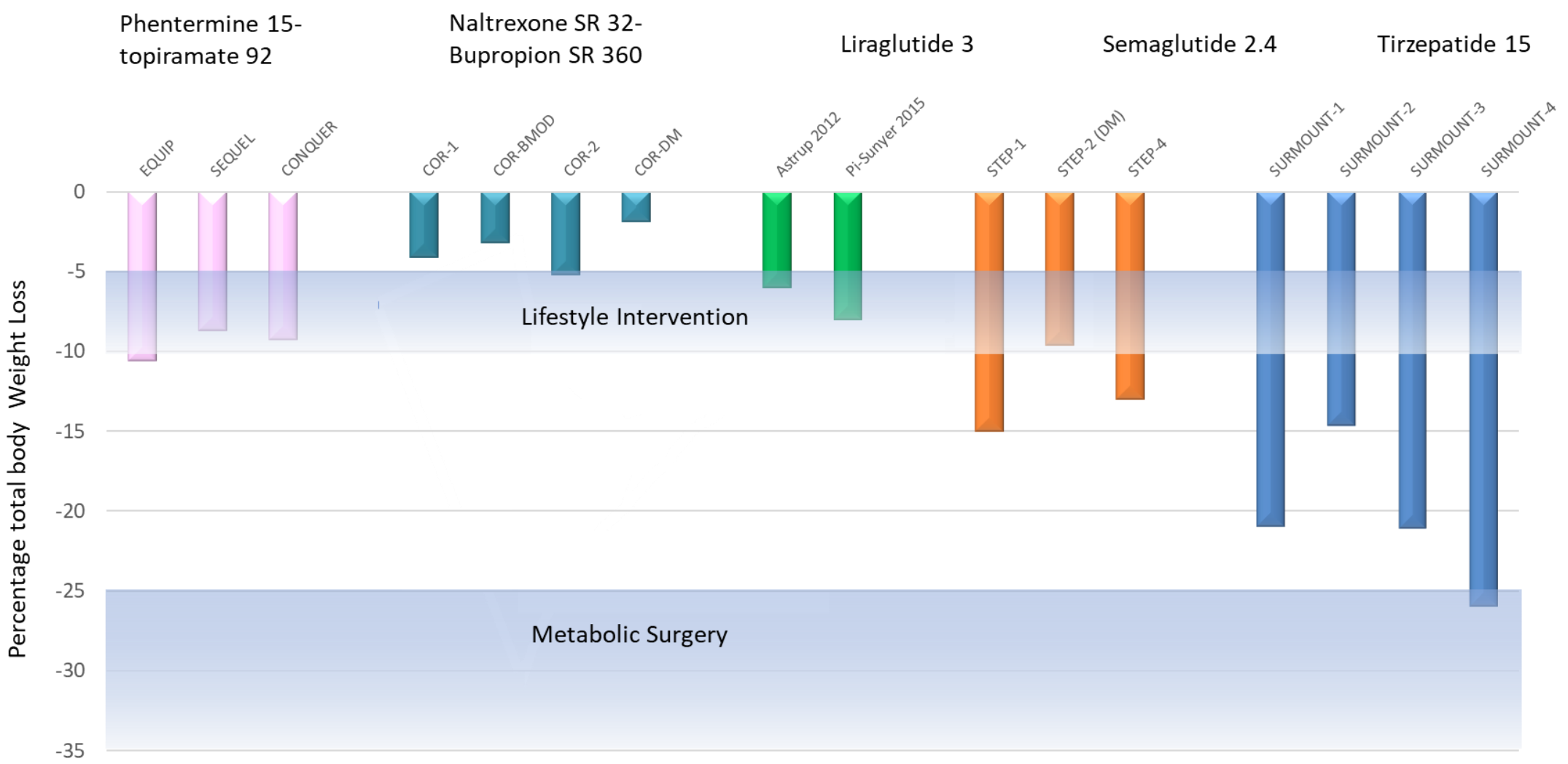
Table 1. Demographic characteristics, comorbidities, and laboratory tests at baseline and according to the type of pharmacological treatment received (semaglutide 1.0 mg or liraglutide 3.0 mg).

Characteristics	Semaglutide 1.0 mg (n = 35)	Liraglutide 3.0 mg (n = 67)	Statistic (*p*-Value)
Age, years	57.22 ± 5.79	50.61 ± 11.50	3.19 (0.002) [a]
Sex, female (%)	60.0	74.62	2.32 (0.127) [b]
Body weight, kg	117.77 ± 13.80	119.60 ± 29.47	−0.34 (0.729) [a]
BMI, kg/m^2	43.05 ± 4.25	43.92 ± 8.14	−0.58 (0.557) [a]
BMI 35–39.99 n (%)	10 (28.6)	24 (35.8)	0.661 (0.719) [b]
BMI 40–44.99 n (%)	15 (42.9)	24 (35.8)	
BMI ≥ 45 n (%)	10 (28.6)	19 (28.4)	
Comorbidities			
Arterial hypertension (%)	77.1	38.80	13.53 (<0.001) [b]
Dyslipidemia (%)	54.28	31.3	5.07 (0.024) [b]
Obstructive sleep apnea (%)	28.57	17.91	1.54 (0.214) [b]
Knee osteoarthritis (%)	22.85	22.38	0.003 (0.957) [b]

GLP-1RA


35-39.99
40-44.99
≥ 45
Participants (%)
100
90
80
70
60
50
40
30
20
10
0
100
100
100
93.6
82.8
72.2
66.6
55.2
33.3
25.9
31.0
22.2
≥ 5
≥ 10
≥ 15
≥ 20
Percentage weight loss

Currently available OMMs



In Conclusion

- Currently, there is insufficient high-quality data to recommend routine use of anti-obesity medication (AOM) for preoperative weight loss.

- For individuals with severe obesity (BMI ≥ 50 kg/m^2), current evidence does not support the routine use of pre-operative anti-obesity medications (AOM)

- Future research is needed to explore the advantages of using anti-obesity medications (AOM), especially with the advent of newer, more effective therapies, to assess their benefits and long-term outcomes when used for pre-operative weight loss

In Conclusion

Food for thought:

1) OMM in the pipelines seem to result in > 20% TBWL (question becomes pharmacotherapy vs. surgery rather than preoperative weight loss).

2) Titration periods for newer therapies May reach up to 6 months. (? Delay of surgery)






Thank You