



**#IFSO2025**

# **The Adjuvant Revolution: Anti-Obesity Medications Enhancing Bariatric Outcomes**

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**IFSO2025.ORG**



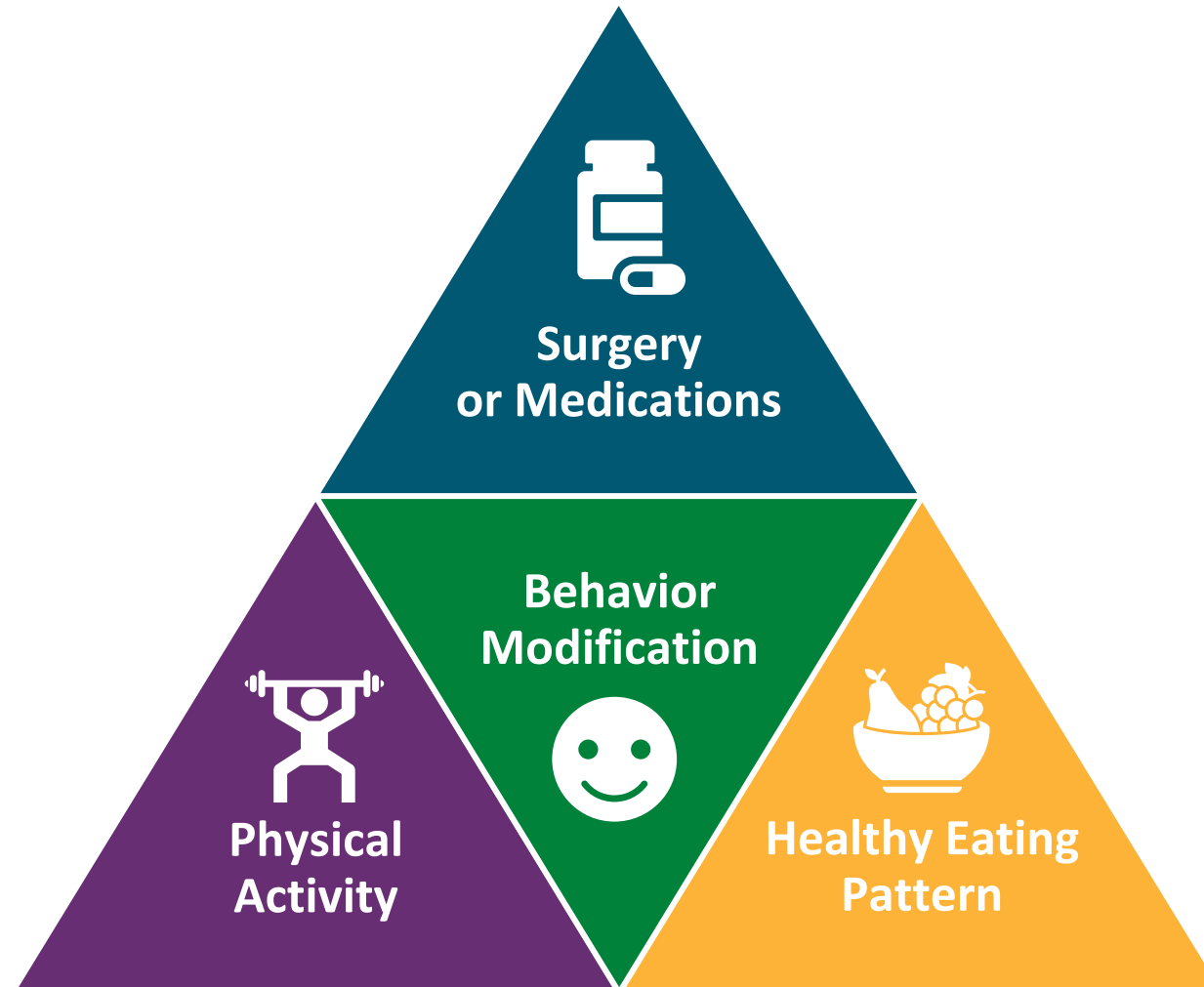
Obesidad • Diabetes  
Cirugía Bariátrica y Metabólica



**FACULTAD  
DE MEDICINA**  
Universidad Nacional  
del Nordeste



# Components of an Effective Obesity Management Program



*Wadden. Med Clin North Am. 2000;84:441.*

*Stumbo. Surg Clin North Am. 2005;85:703.*

**NO SINGLE TOOL IS ENOUGH—WE NEED A MULTIMODAL APPROACH**

# Weight Loss Options

## ■ Lifestyle Changes

- Macronutrient based:
  - Low carb, low fat
- Pattern focused
  - Mediterranean, plant-based, DASH
- Time-restricted eating/intermittent fasting
- **Physical Activity**
- **Behavioural Changes**

## ■ Pharmacotherapy:

- GLP-1 receptor agonists
  - Semaglutide, liraglutide
- GIP/GLP-1 coagonist
  - Tirzepatide
- Naltrexone-bupropion
- Orlistat
- Phentermine-topiramate
- Phentermine

## ■ Surgery:

- Gastric bypass
- Sleeve gastrectomy
- Biliopancreatic diversion with duodenal switch
- Intra-gastric balloon
- Endoscopic sleeve gastroplasty

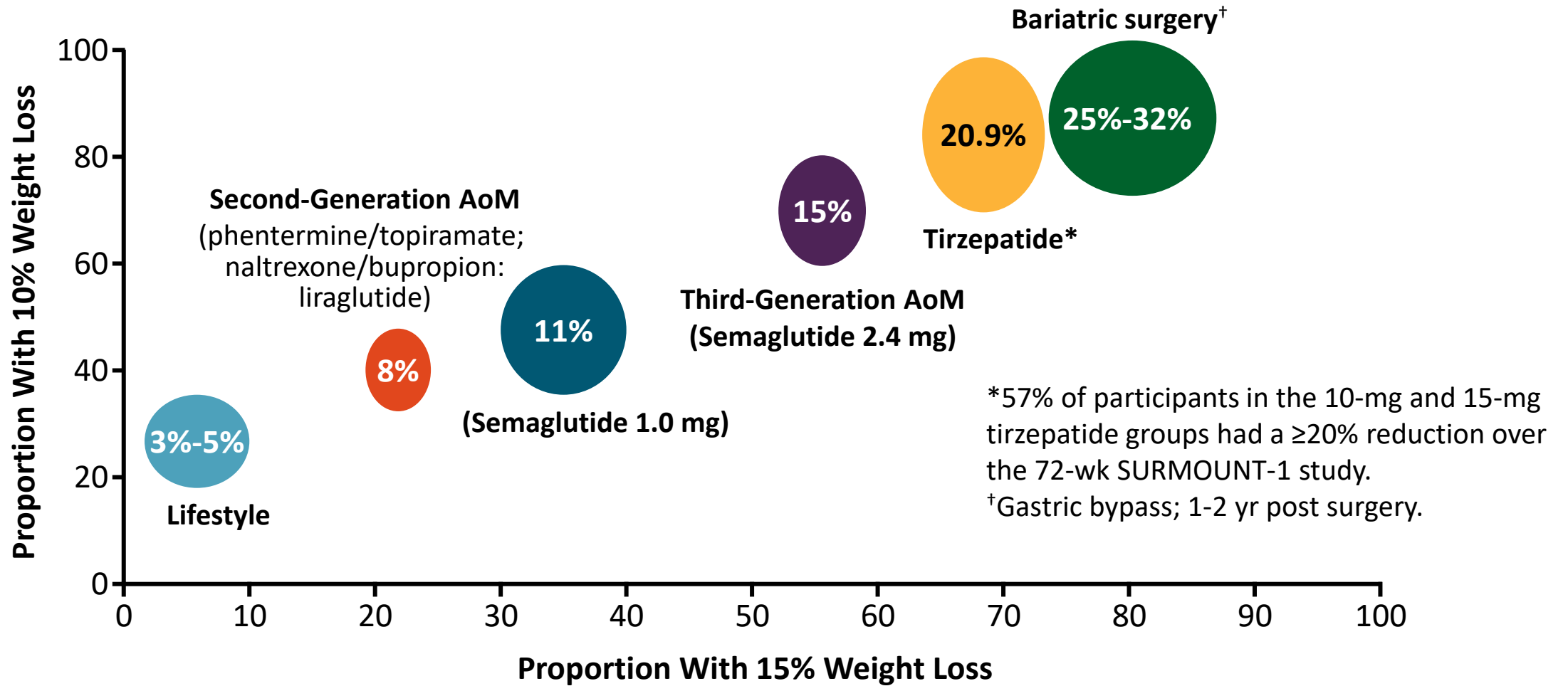
We are facing an *inflection point*  
in obesity treatment,  
with *powerful new drugs* now available

PAST

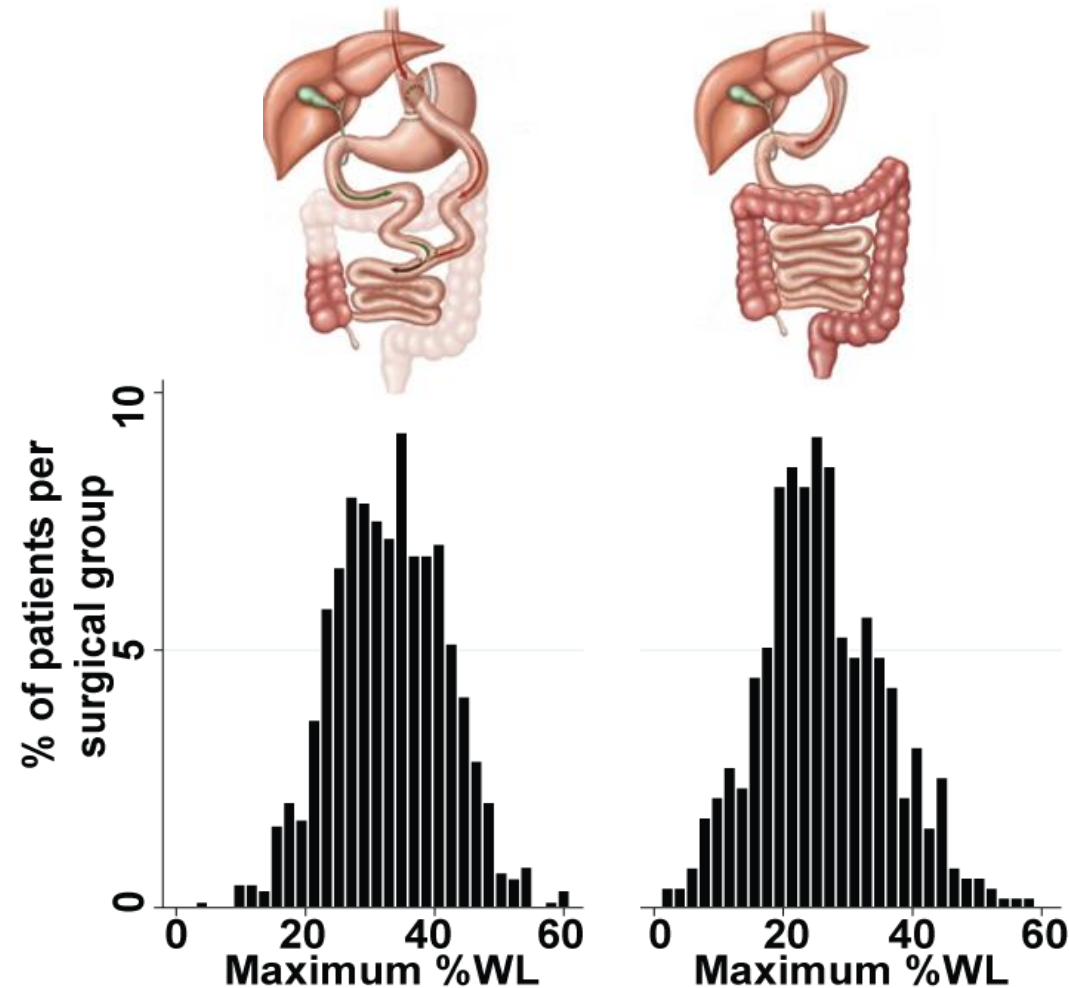


FUTURE

# Efficacy of Obesity Treatments

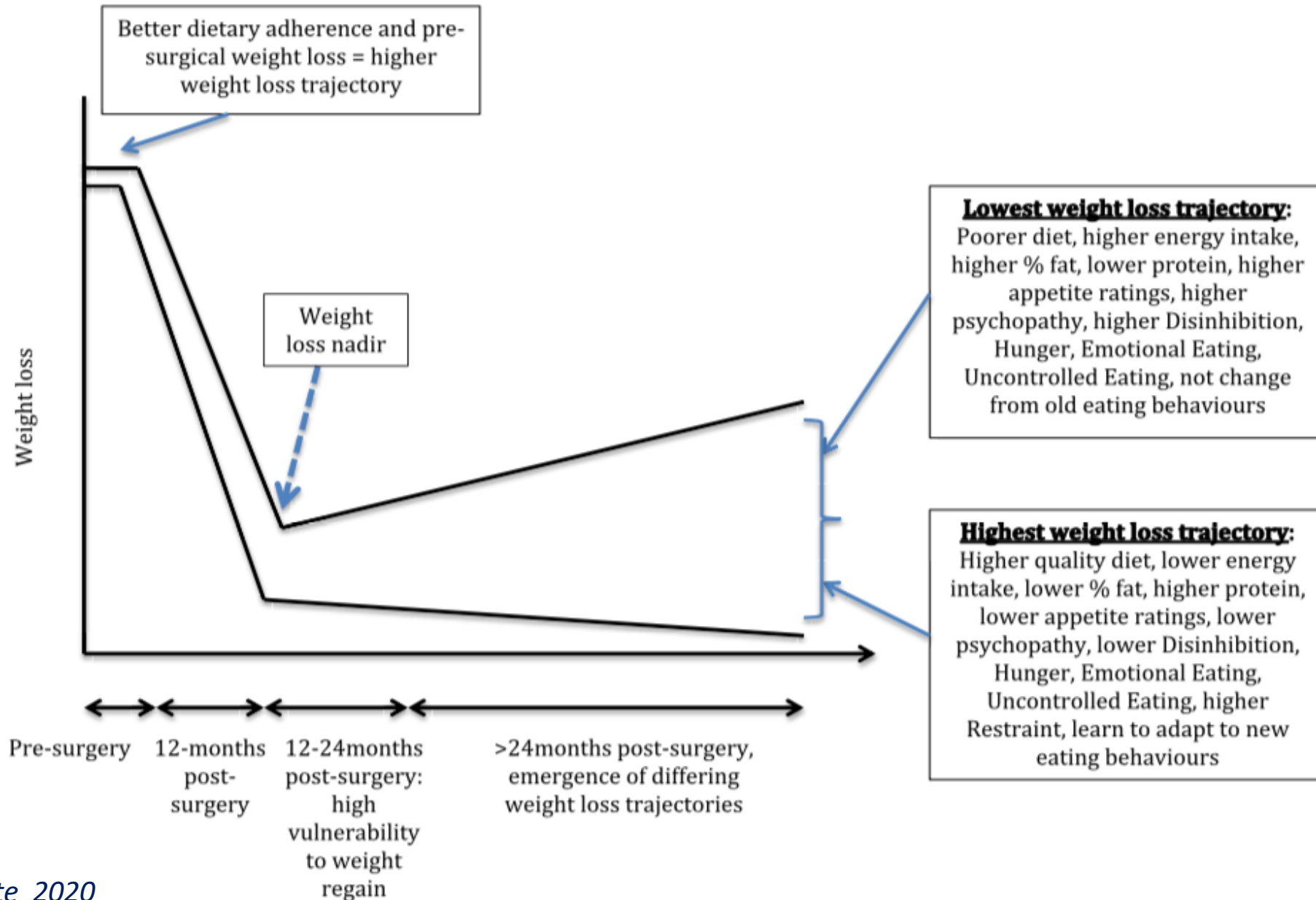


# Variation in post-surgery weight loss & metabolic response

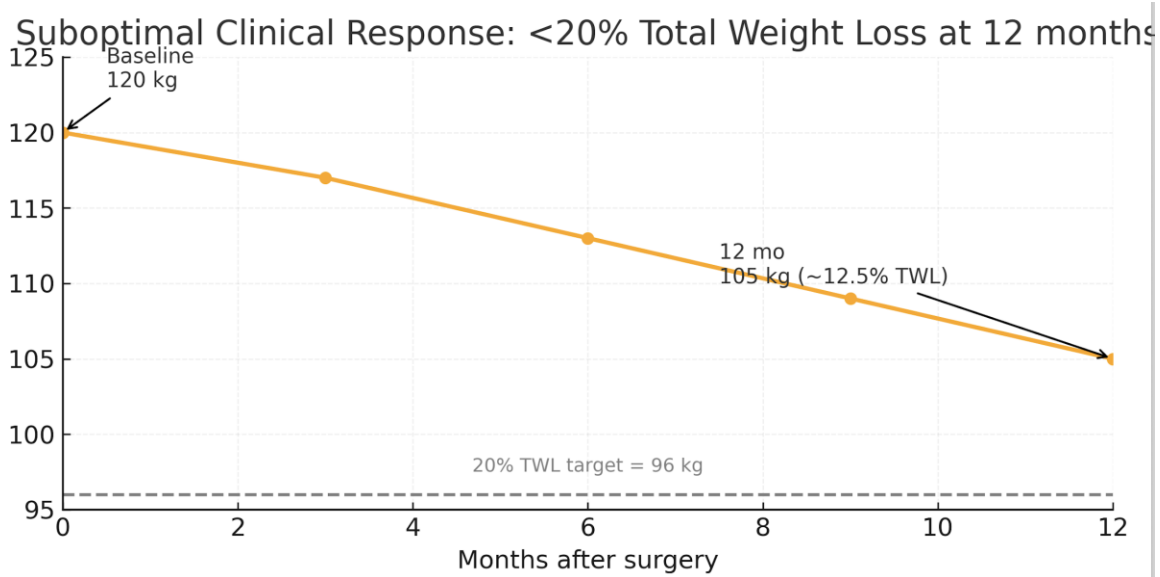


**Greater weight loss linked to prolonged improvement/remission of co-morbidities**

# Weight loss trajectories post-bariatric surgery



# Definitions (IFSO, 2024)



## Suboptimal Clinical Response

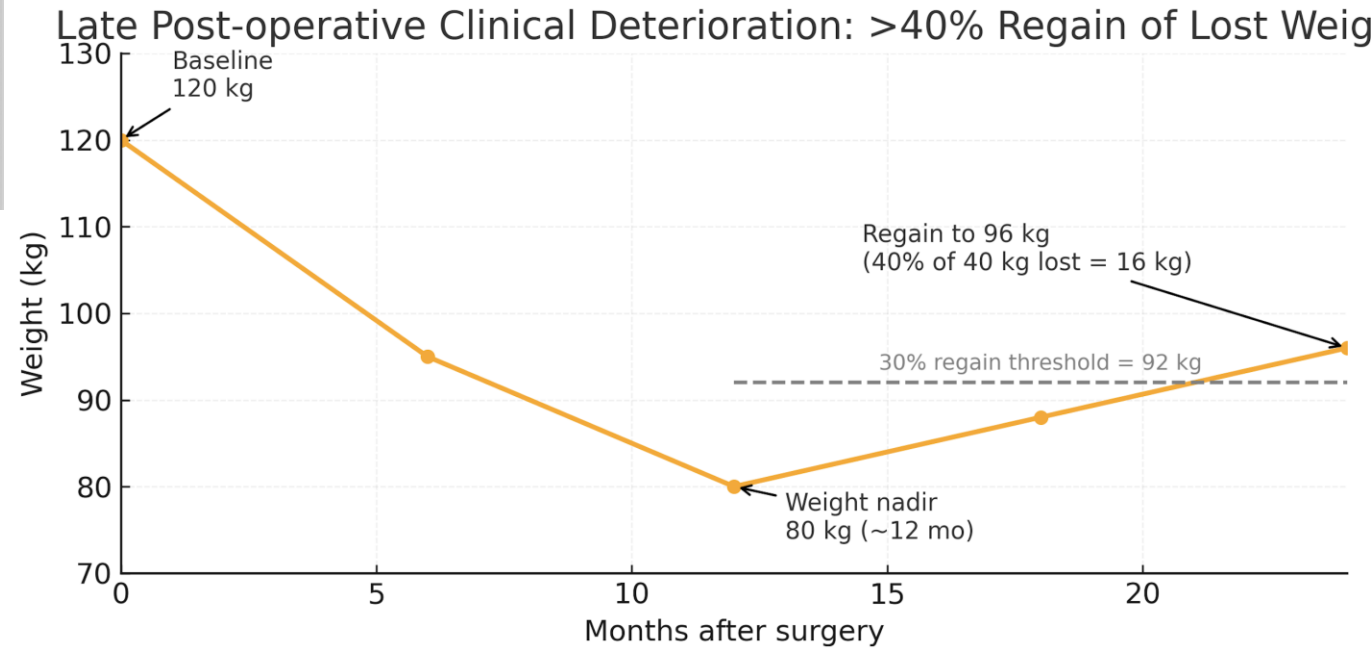
**<20% TWL from baseline after surgery**

**OR**

**No improvement in obesity-related complications**

**Clinically significant recurrent weight gain after an adequate initial response.**

**Threshold: >30% of the weight initially lost is regained.**



## Late Post-operative Clinical Deterioration

# What is “adjuvant pharmacotherapy”?

Lifestyle

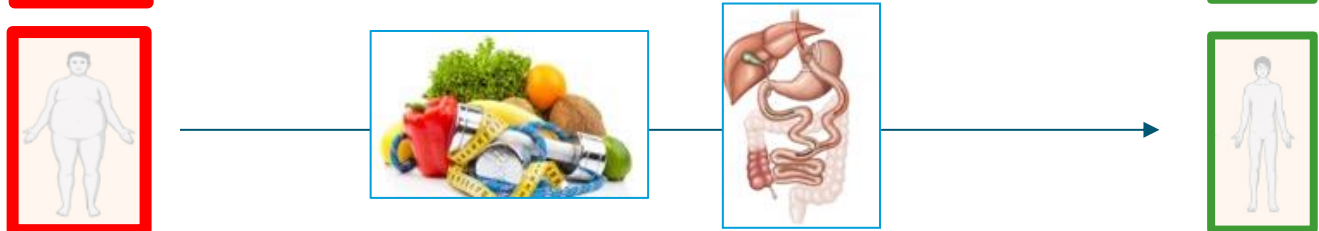


Lifestyle + pharmacotherapy

Many new drugs available



Lifestyle + MBS



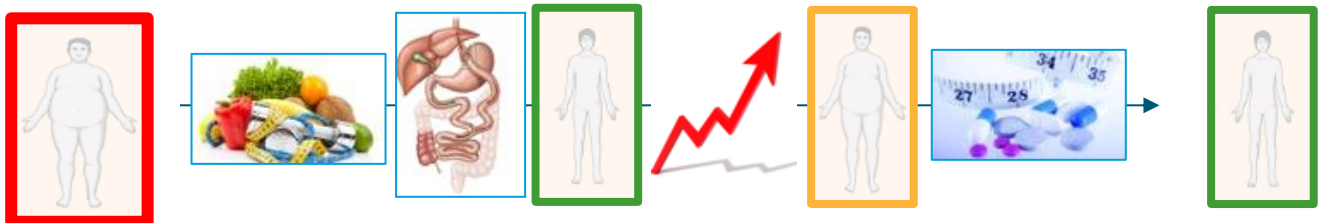
Lifestyle + pharmacotherapy + MBS

Neoadjuvant



Lifestyle + MBS + pharmacotherapy

Adjuvant





## Adjunctive liraglutide treatment in patients with persistent or recurrent type 2 diabetes after metabolic surgery (GRAVITAS): a randomised, double-blind, placebo-controlled trial

Alexander Dimitri Miras\*, Belén Pérez-Pevida\*, Madhawi Aldhwayan, Anna Kamocka, Emma Rose McGlone, Werd Al-Najim, Harvinder Chahal, Rachel L Batterham, Barbara McGowan, Omar Khan, Veronica Greener, Ahmed R Ahmed, Aviva Petrie, Samantha Scholtz, Stephen R Bloom, Tricia M Tan

Research

JAMA Surgery | Original Investigation

### Safety and Efficacy of Liraglutide, 3.0 mg, Once Daily vs Placebo in Patients With Poor Weight Loss Following Metabolic Surgery The BARI-OPTIMISE Randomized Clinical Trial

Jessica Mok, BMBS, MPhil; Mariam O. Adeleke, PhD; Adrian Brown, PhD; Cormac G. Magee, MBBChir, MA; Chloe Firman, MRes; Christwishes Makahamadze, MRes; Friedrich C. Jassil, PhD; Parastou Marvasti, PhD; Alisia Carnemolla, PhD; Kalpana Devalia, MBBS, MS; Naim Faki, MD; Mohamed Elkalaawy, MRCSEd, MS, MD; Andrea Pucci, MD, PhD; Andrew Jenkinson, MBBS, MS; Marco Adamo, MD; Rumana Z. Omar, PhD; Rachel L. Batterham, MBBS, PhD; Janine Makaronidis, MBChB, PhD

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ORIGINAL ARTICLE  
Clinical Trials and Investigations

Obesity THE OBESITY SOCIETY WILEY

### Effectiveness of semaglutide versus liraglutide for treating post-metabolic and bariatric surgery weight recurrence

Natia Murvelashvili<sup>1</sup> | Luyu Xie<sup>2,3</sup> | Jeffrey N. Schellinger<sup>1</sup> |  
M. Sunil Mathew<sup>2,3</sup> | Elisa Morales Marroquin<sup>2,3</sup> | Ildiko Lingvay<sup>1,4</sup> |  
Sarah E. Messiah<sup>2,3,5</sup> | Jaime P. Almandoz<sup>1</sup>

# OMM After Metabolic Bariatric Surgery



- **Management:** OMMs should be considered for the treatment of a **suboptimal initial clinical response or recurrent weight regain after MBS**
- **Timing** of Treatment Initiation: Generally, OMM treatments after MBS should be delayed until the patient reaches a weight plateau
  - **However**, some patients may benefit from **early and concomitant OMMs and MBS**

# OMM After Metabolic Bariatric Surgery

- **Need for Continuous Use:** For patients requiring OMMs to maintain a healthy weight after MBS, **ongoing use of the medications is likely needed.**

Discontinuation of OMMs can lead to weight regain.

- In summary IFSO recommended

**These therapies are a valuable and effective option for the *long-term management of obesity after surgery, especially in cases of suboptimal response, weight regain, or before revisional surgery.***



# Safety and Efficacy of Liraglutide, 3.0 mg, Once Daily vs Placebo in Patients With Poor Weight Loss Following Metabolic Surgery

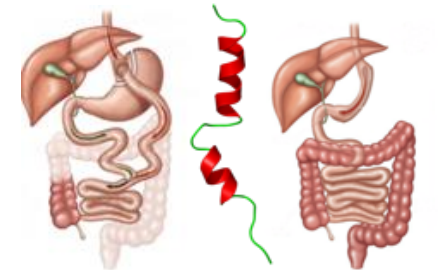
## The BARI-OPTIMISE Randomized Clinical Trial

Jessica Mok, BMBS, MPhil; Mariam O. Adeleke, PhD; Adrian Brown, PhD; Cormac G. Magee, MBBChir, MA; Chloe Firman, MRes; Christwishes Makahamadze, MRes; Friedrich C. Jassil, PhD; Parastou Marvasti, PhD; Alisia Carnemolla, PhD; Kalpana Devalia, MBBS, MS; Naim Fakih, MD; Mohamed Elkalaawy, MRCSEd, MS, MD; Andrea Pucci, MD, PhD; Andrew Jenkinson, MBBS, MS; Marco Adamo, MD; Rumana Z. Omar, PhD; Rachel L. Batterham, MBBS, PhD; Janine Makaronidis, MBChB, PhD

## Hypothesis

**GLP-1 ra administration** to patients with **poor weight loss** and a **sub-optimal nutrient stimulated GLP-1 response**

**following RYGB or SG will lead to a greater reduction in body weight, adiposity and improvement in health compared to placebo.**

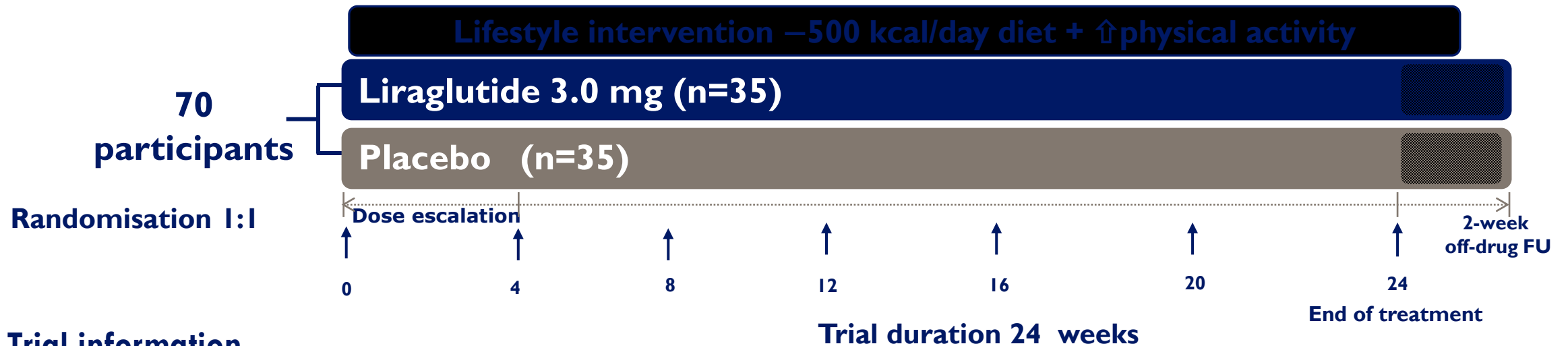


# Trial design



## Trial objective

To confirm superiority of liraglutide 3.0 mg vs. placebo, as an adjunct to a reduced-calorie diet and increased physical activity, on weight loss effectiveness in individuals with poor weight loss after SG/RYGB with a suboptimal GLP-1 response

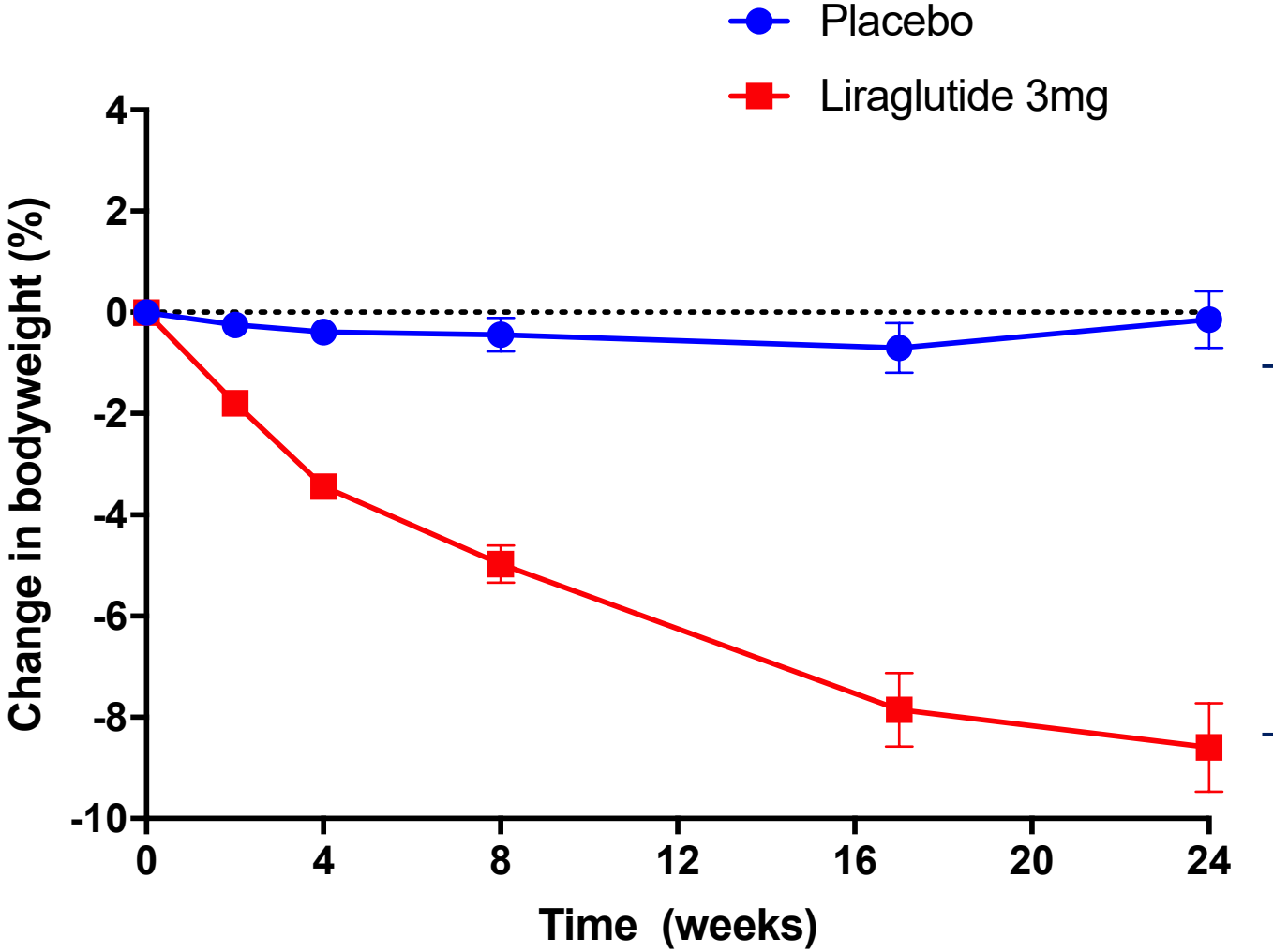


## Trial information

- Sept 2018 to August 2020
- Single site
- Randomised, placebo-controlled, double-blind trial



# Change in bodyweight (%), 0-24 weeks



**The mean change in bodyweight in patients treated with liraglutide 3.0mg was -8.82% versus -0.54% in the placebo group**

**The mean difference in percentage bodyweight change was -8.03**

**p<0.001**



# Barioptimise summary

**IMPORTANTLY, PARTICIPANTS *DID NOT REACH WEIGHT LOSS NADIR AT THE END OF THE 24-WEEK TREATMENT PERIOD, SUGGESTING FURTHER WEIGHT REDUCTION MAY BE ACHIEVABLE WITH A LONGER TREATMENT PERIOD***

## Clinical Efficacy



**Liraglutide 3.0 mg of once-daily subcutaneous liraglutide, as an adjunct to diet and exercise, was associated with clinically meaningful weight loss in individuals with poor weight loss after bariatric surgery**

## Risk factors



**Liraglutide 3.0 mg was also associated with improvements in glycaemia, cardiometabolic risk factors and health-related quality of life**



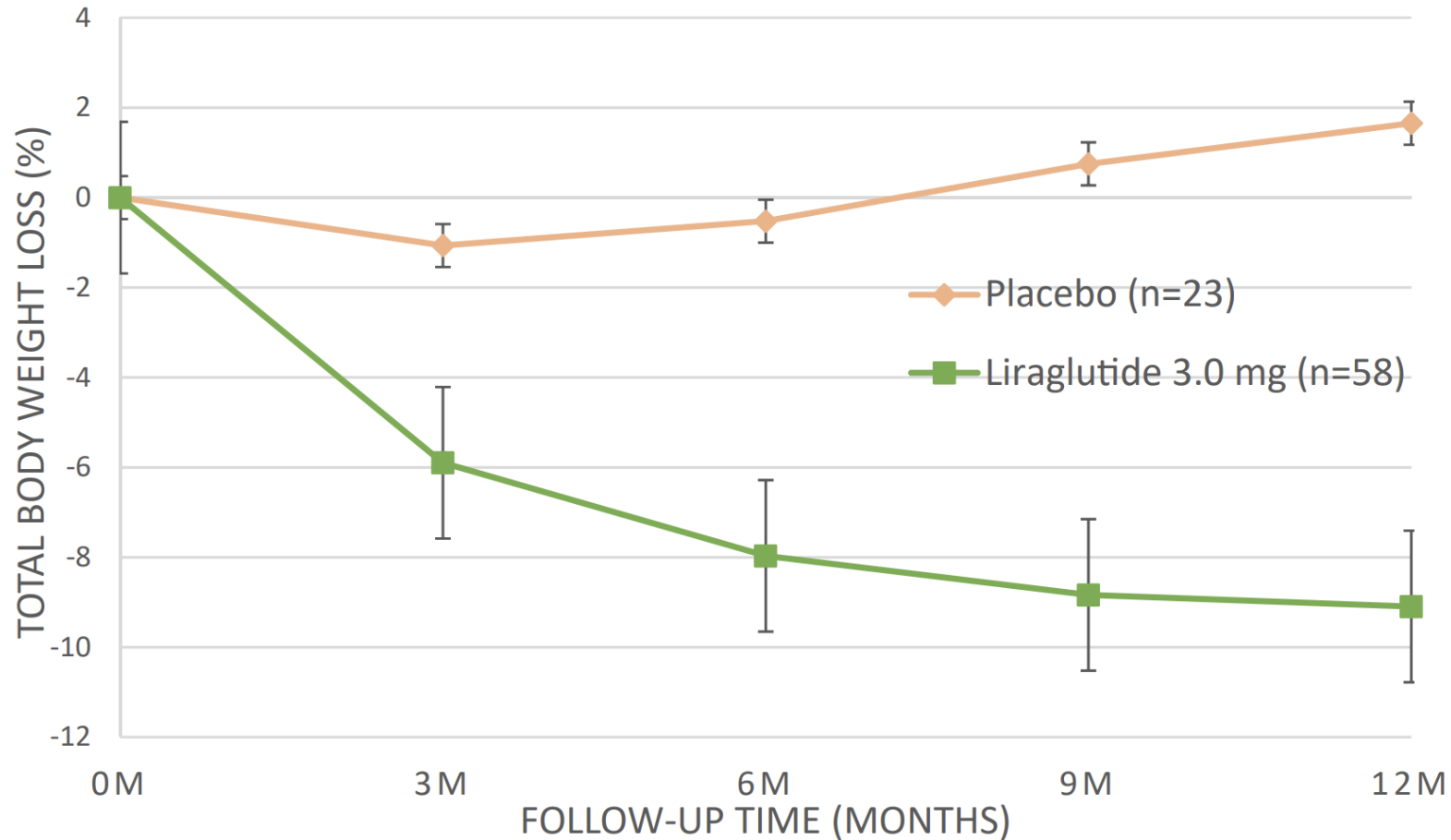
## Safety profile



**Liraglutide 3.0 mg was generally well tolerated with nausea, decreased appetite and constipation being the most commonly reported adverse events  
There were no serious adverse events**

# RCT Liraglutide 3.0 mg in post-bariatric *weight regain*

- 132 patients Regain  $\geq 10\%$  18-120 months post RYGB
- Liraglutide 3.0 mg/day



**Week 56:**

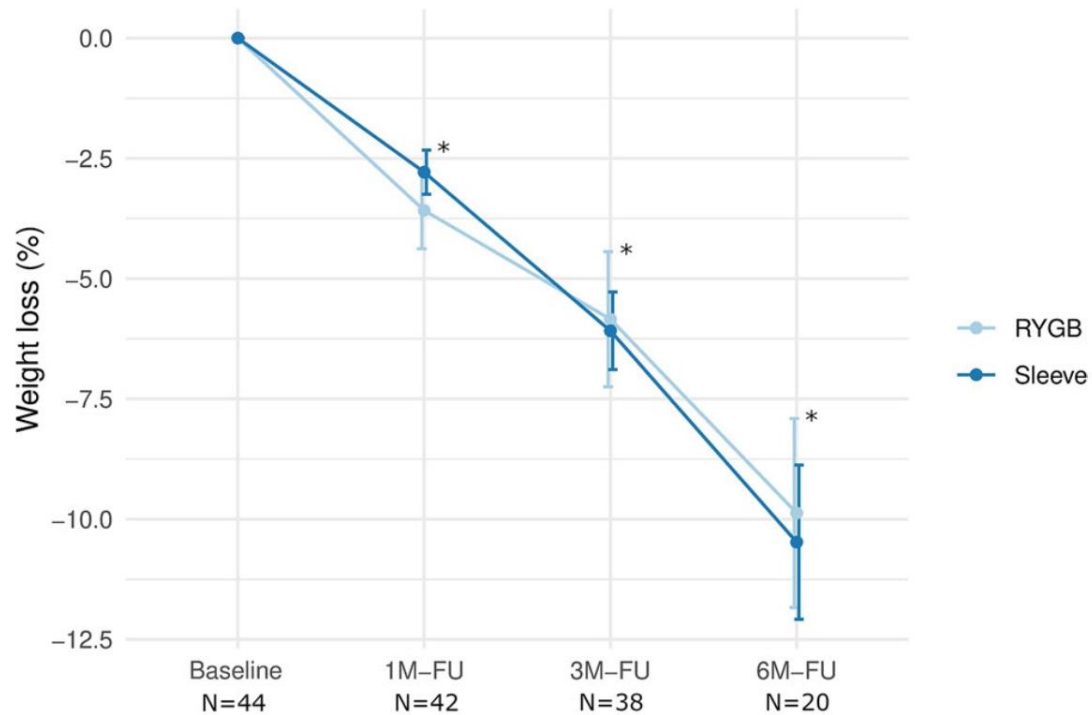
**↓8.8% liraglutide ( $p < 0.00001$ )**

**76% lost  $\geq 5\%$  ( $p < 0.0001$ )**

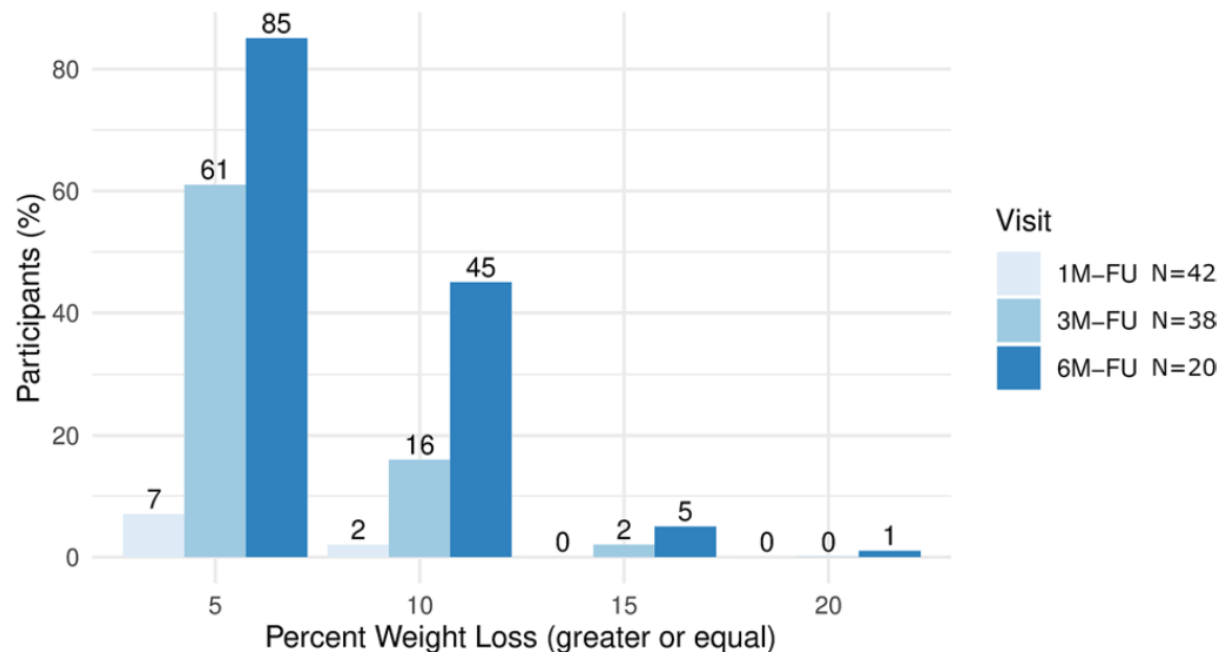


## The Potential of Semaglutide Once-Weekly in Patients Without Type 2 Diabetes with Weight Regain or Insufficient Weight Loss After Bariatric Surgery—a Retrospective Analysis

Anne Lautenbach<sup>1</sup> · Marie Wernecke<sup>1</sup> · Tobias B. Huber<sup>1</sup> · Fabian Stoll<sup>1</sup> · Jonas Wagner<sup>2</sup> · Sebastian M. Meyhöfer<sup>3,4</sup> · Svenja Meyhöfer<sup>3,4,5</sup> · Jens Aberle<sup>1</sup>



## Retrospective 44 p RYGB and SG Weight regain 5 years post CX



# RCT Semaglutide 2.4 mg Post Bariatric Surgery

## BARI-STEP: A Double-blinded, Randomised, Placebo-controlled Trial of Semaglutide 2.4 mg in Patients With Poor Weight-loss Following Bariatric Surgery.


ICH GCP > US Clinical Trials Registry > Clinical Trial NCT05073835

### Semaglutide 2.4 mg in Patients With Poor Weight-loss (BARI-STEP)

November 6, 2023 updated by: [University College, London](#)

BARI-STEP: A Double-blinded, Randomised, Placebo-controlled Trial of Semaglutide 2.4 mg in Patients With Poor Weight-loss Following Bariatric Surgery.

A double-blinded, randomised, placebo-controlled trial of semaglutide 3.0 mg/ml in patients with poor weight-loss following bariatric surgery. The primary aim of this trial is to determine whether, and the extent to which, 68 weeks of subcutaneous semaglutide 3.0 mg/ml causes greater percentage weight loss (%WL), reduction in adiposity, improvement in metabolic and inflammatory indices and health-related quality of life (HRQoL) than placebo, in patients with poor weight loss following gastric bypass or sleeve gastrectomy.



**Reframing obesity  
management to a  
multimodal approach**

# BARI-STEP Trial

A double-blinded, randomised, placebo-controlled trial of semaglutide 2.4 mg in patients with poor weight-loss following bariatric surgery

## Primary Objectives & Outcome Measures/Endpoints:

Semaglutide 3.0mg/ml  
dose of 2.4mg per  
week

Placebo

As an adjunct to diet and exercise on % weight loss

ClinicalTrials.gov Identifier: NCT05073835

Trial Status: Follow-up

Estimated completion date: Spring 2025

Estimated reporting: Autumn 2025

Trial CI: Dr Janine Makaronidis

Trial Sponsor: University College London

# Utilization of Anti-obesity Medications After Bariatric Surgery: Analysis of a Large National Database

Stephen A. Firkins<sup>1</sup> · Vibhu Chittajallu<sup>2</sup> · Bailey Flora<sup>1</sup> · Heesoo Yoo<sup>3</sup> · Roberto Simons-Linares<sup>1</sup> 

METHOD

RESULTS

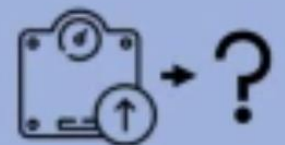
CONCLUSION

**AOMs are underutilized following bariatric surgery.**

Barriers to their use should be addressed and  
AOMs should be considered

**earlier and more frequently**

**in patients with insufficient weight loss or weight  
regain after bariatric surgery.**



Insufficient weight loss or  
weight regain after bariatric  
surgery, AOMs are  
underutilized in a  
subset of patients



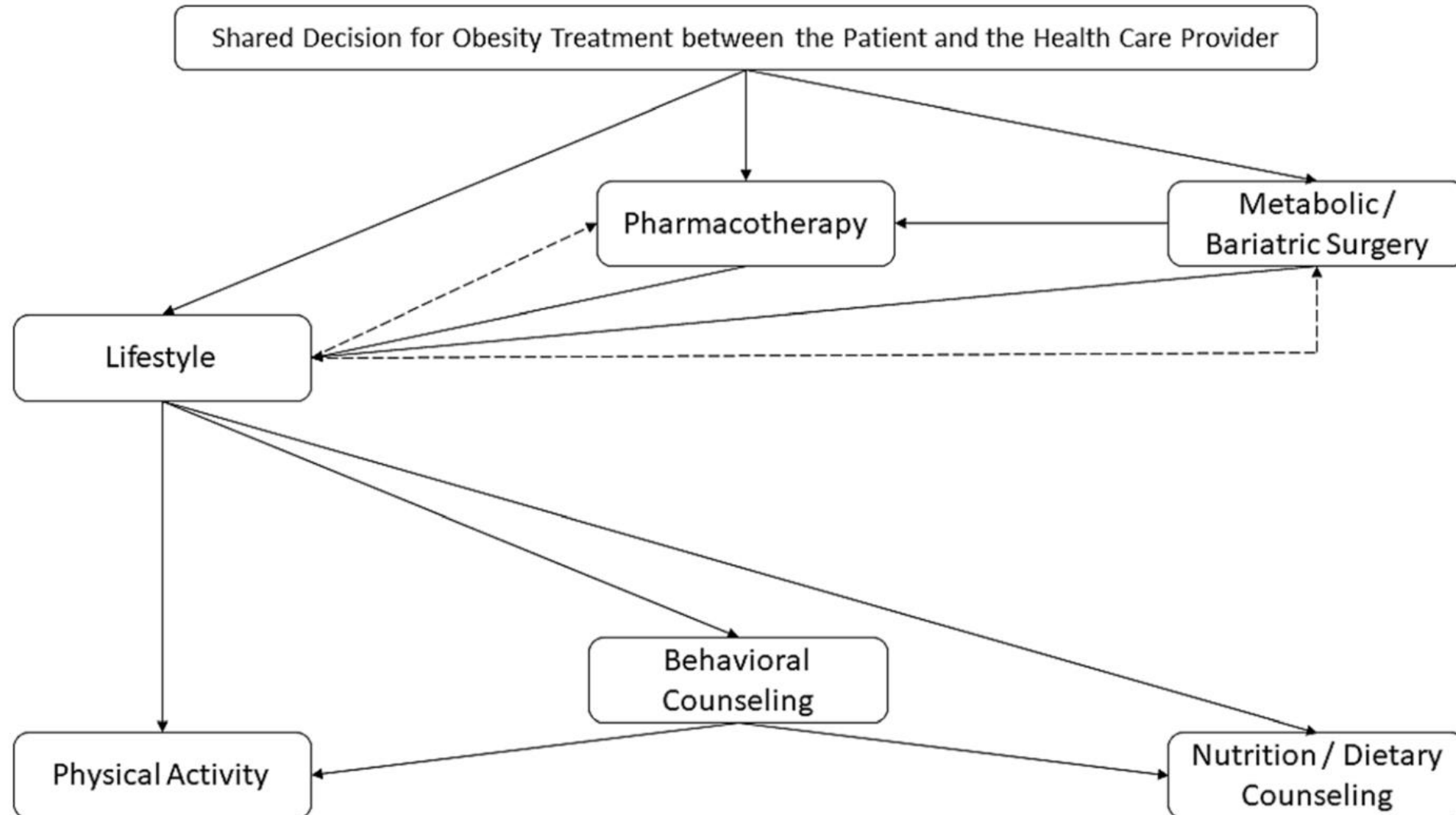
Barriers exist across different  
ethnic and socioeconomic  
groups, and  
these barriers  
must be addressed

Nearly 60,000 patients  
with prior sleeve  
gastrectomy or  
Roux-en-Y gastric bypass  
(2009-2020)

IBM® E

**Old paradigm: *Stepwise / stepped-care approach***

**New paradigm: *Personalized care / tailored intensity approach***



# The best strategy for the “best patient” that is likely to benefit most



# Combining treatment modalities is a promising approach

Adjuvant pharmacotherapy can maximise weight loss and metabolic outcomes  
More evidence is needed for:



**Duration**  
**Combinations to use**  
**Long-term safety**  
**Efficacy**



# ¡Muchas gracias!

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