Outlook 2023: Are We Witnessing the End of Metabolic Bariatric Surgery?

Ildiko Lingvay, MD, MPH, MSCS
Tenured Professor of Medicine
University of Texas Southwestern
Dallas, TX, USA

UT Southwestern Medical Center

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10 Reasons Why MBS is out and OMMs are in!

OMMs are:

10.
9.
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10. OMMs are non-invasive

- ✓**No surgical risk:**
  - No anesthesia risk
  - No surgical risk
    - Immediate complications (bleeding, infection, pulmonary embolism, etc)
    - Long-term complications (leaks, strictures, etc)
  - No recovery time
- ✓**No alternation in anatomy**

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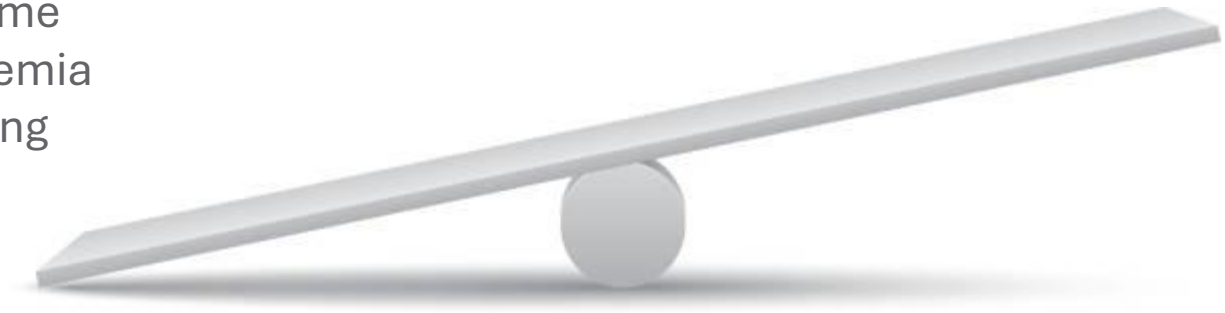
9. OMMs are reversible

MBS:

Potential for irreversible site effects:

- ❑ Malabsorption
- ❑ Dumping syndrome
- ❑ Severe hypoglycemia
- ❑ Recurrent vomiting



OMM:

All side effects are reversible with drug discontinuation

10 Reasons Why MBS is out and OMMs are in!

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8. OMMs are titratable

One “size” does not fit all!

- MBS is a “blunt tool” that cannot be tailored to the individuals’ needs, immediate or long-term

- OMMs can be titrated to goal, both for the induction phase as well as for the maintenance phase

10 Reasons Why MBS is out and OMMs are in!

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7. OMMs are versatile

Mode of administration:

- Pills, injections (vials, single use, multi-use pens)

Frequency of administration:

- Twice daily, daily, weekly, and in the future monthly, quarterly, semi-annually

Class of medicine:

- Can tailor to response, biology
- Can combine if needed
  - ✓ for efficacy
  - ✓ to minimize side effects
  - ✓ complementary modes of action

Compatibility with future therapies:

- Medical therapy can be adjusted or combined with future drugs
- MBS limits some later options and complicates anatomy for future procedures

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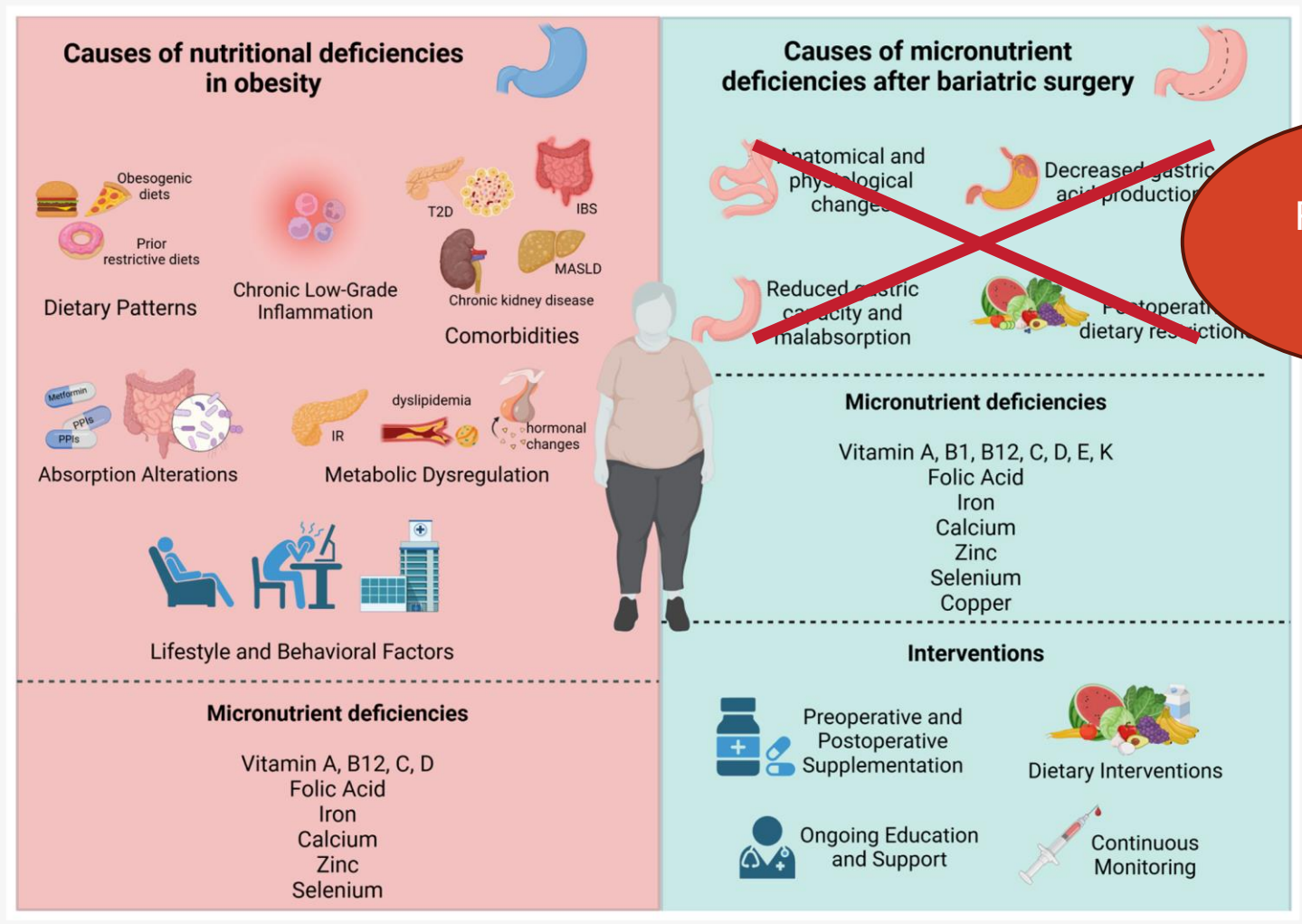
6. OMMs have less concern for nutritional deficiencies



OMMs: Restrictive eating patterns

Reytor-Gonzales C et al. Nutrients 2025, 17(5):741

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5. OMMs have a wider eligibility pool

- ✓**Label for weight management:**
  - ❑ BMI>27 with co-morbidities
  - ❑ BMI>30 irrespective of comorbidities
- ✓**Label for DM (when applicable)**
- ✓**Off label:**
  - ❑ Can be used for prevention of weight gain (menopause, PCOS, etc)
- ✓**Special populations with high surgical risk:**
  - ❑ Older age
  - ❑ Severe comorbidities

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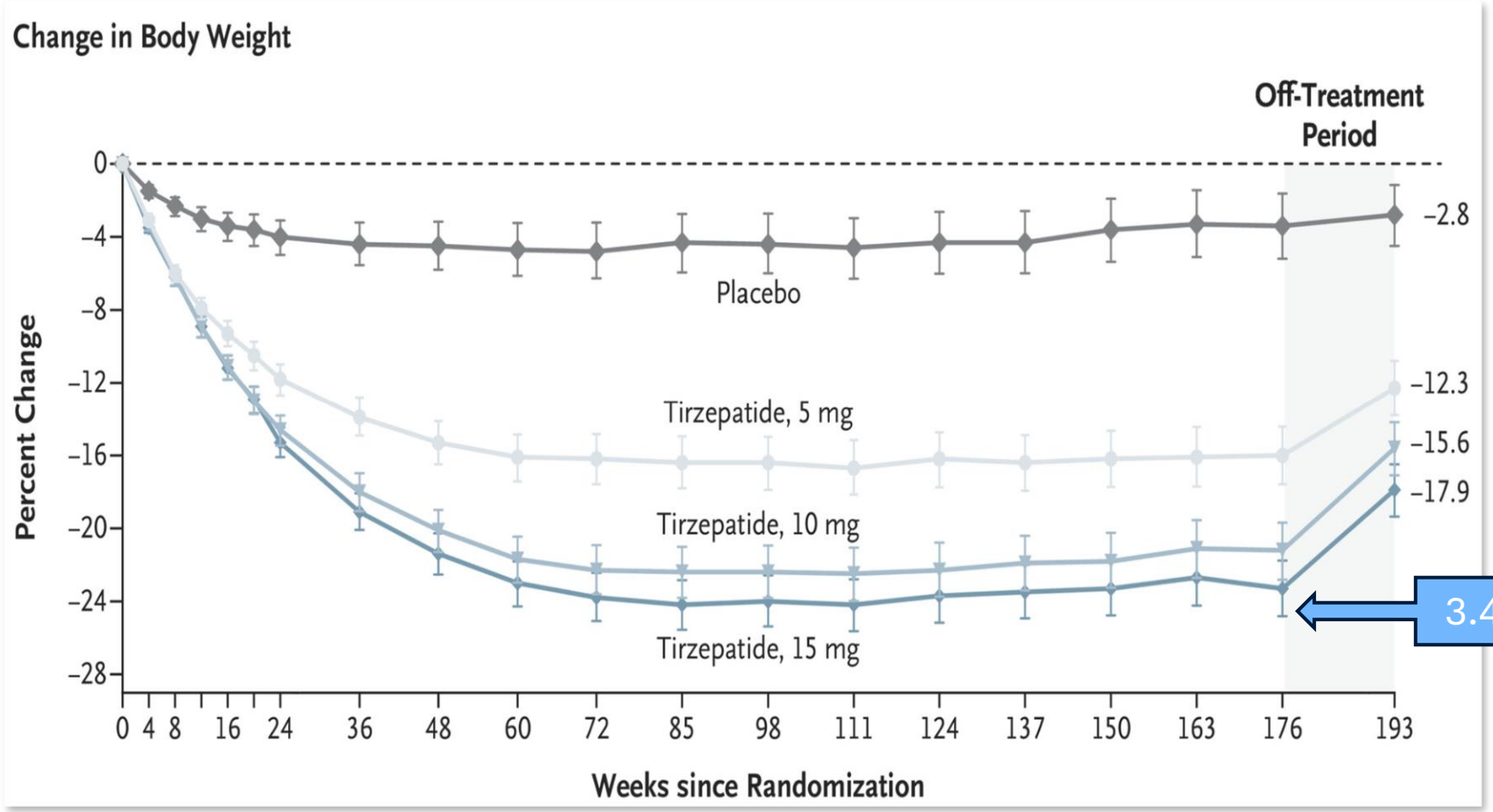
4. OMMs have high effectiveness…and durability?

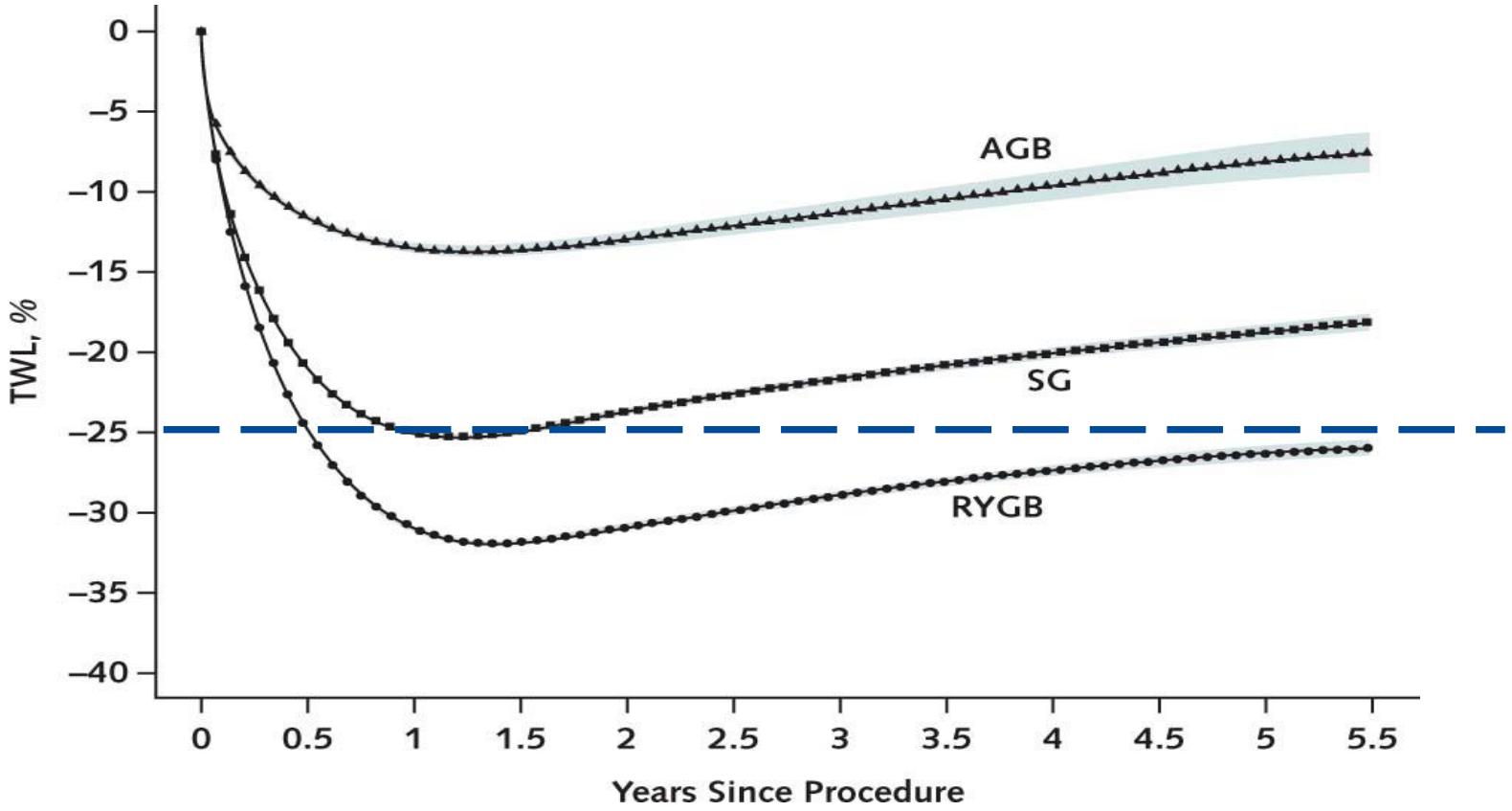
- Many OMMs have average BWL >20%, which is sufficient for reversal/improvement of most weight-related complications
  - Tirzepatide (15 mg)
  - High-dose semaglutide (7.2 mg)
  - Cagri-sema (2.4/2.4 mg)
  - Retatrutide
  - CT-388

4. OMMs have high effectiveness…and durability?



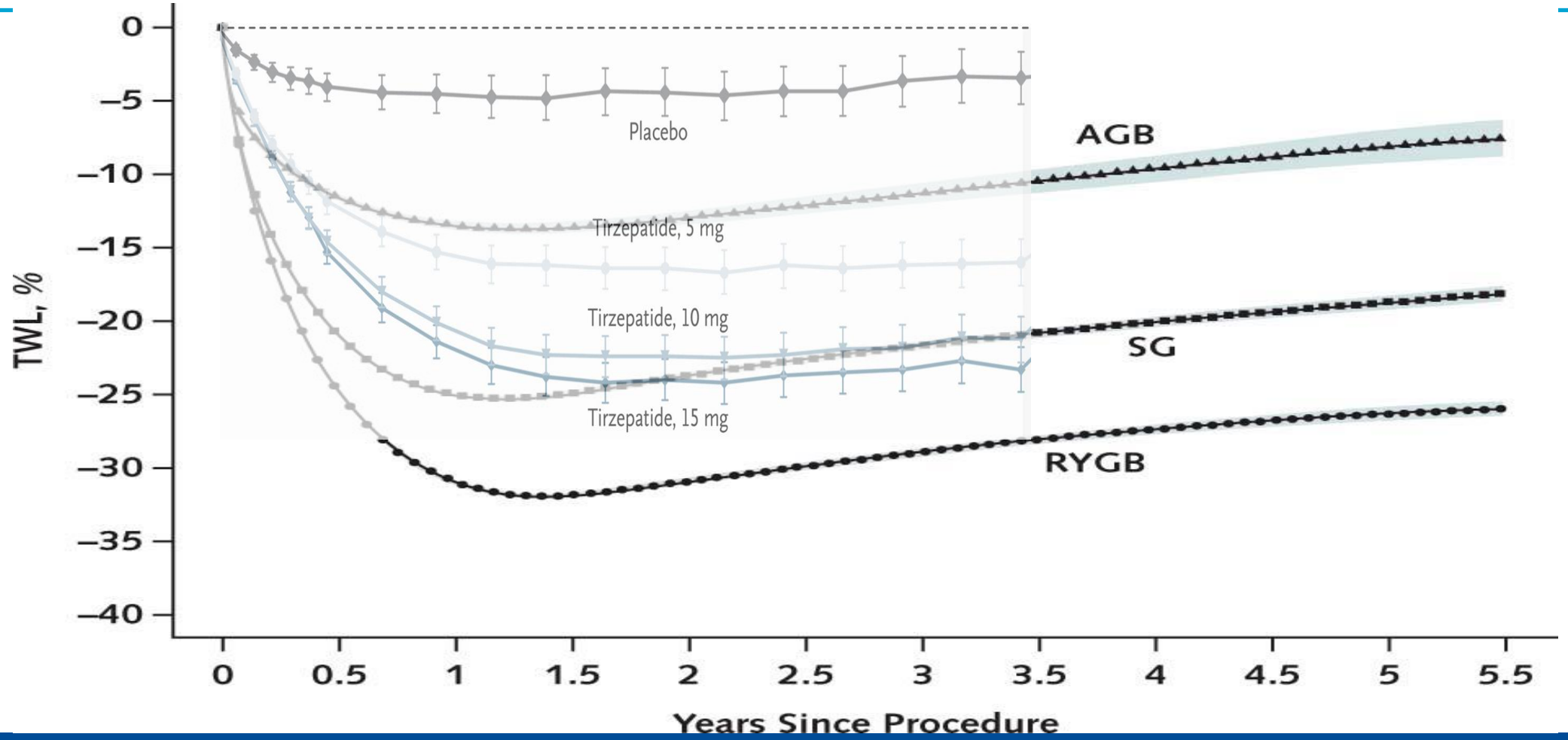
Jastreboff A. et al. N Engl J Med 2025;392:958

MBS: Initial efficacy, slow recidivism over time

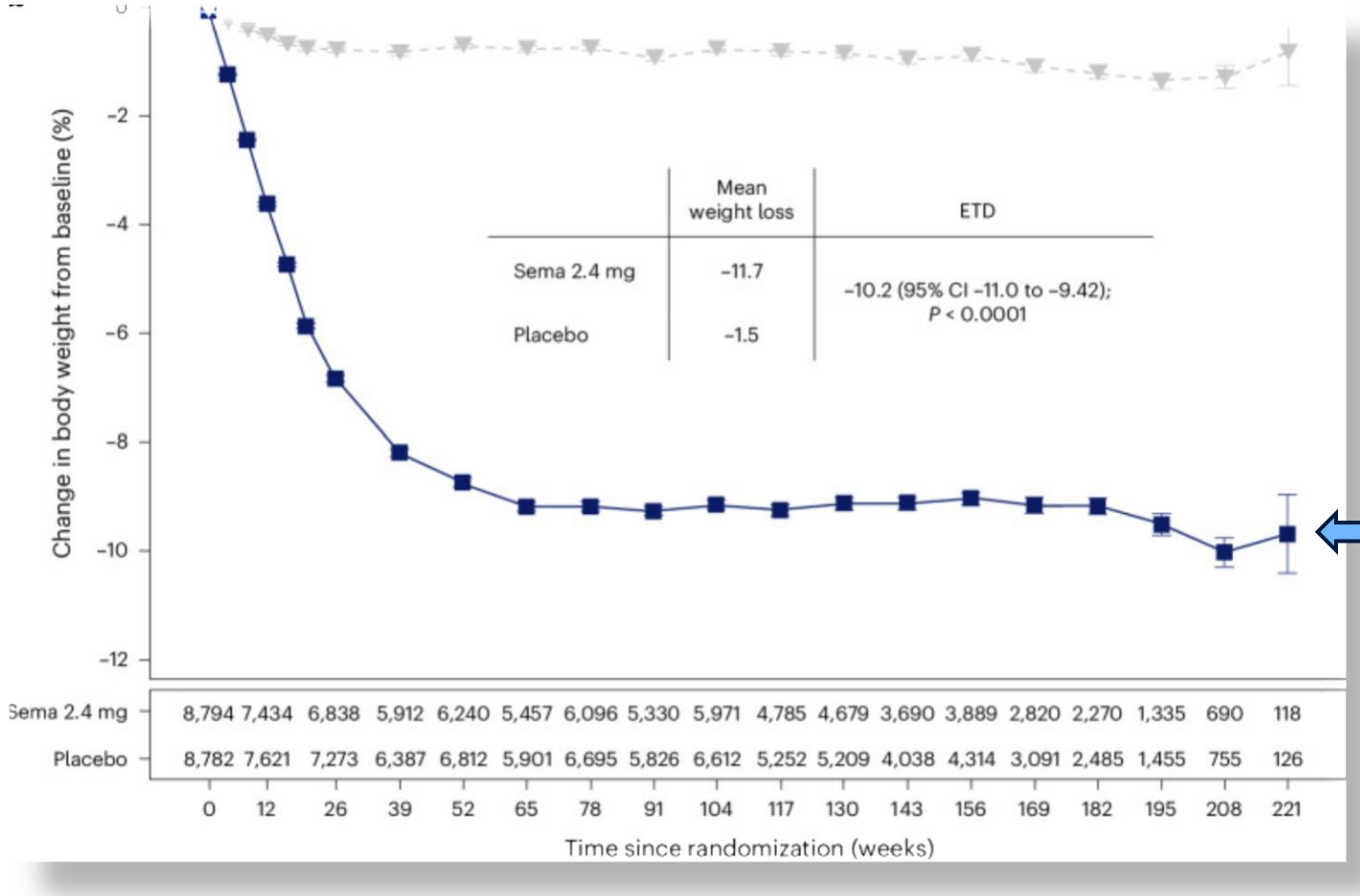


Arterburn D et al. Ann int Med 2018;169(11): 741

Are OMMs more durable?



SELECT: durable weight loss up to 4 yrs



4.2 years

First on treatment data.

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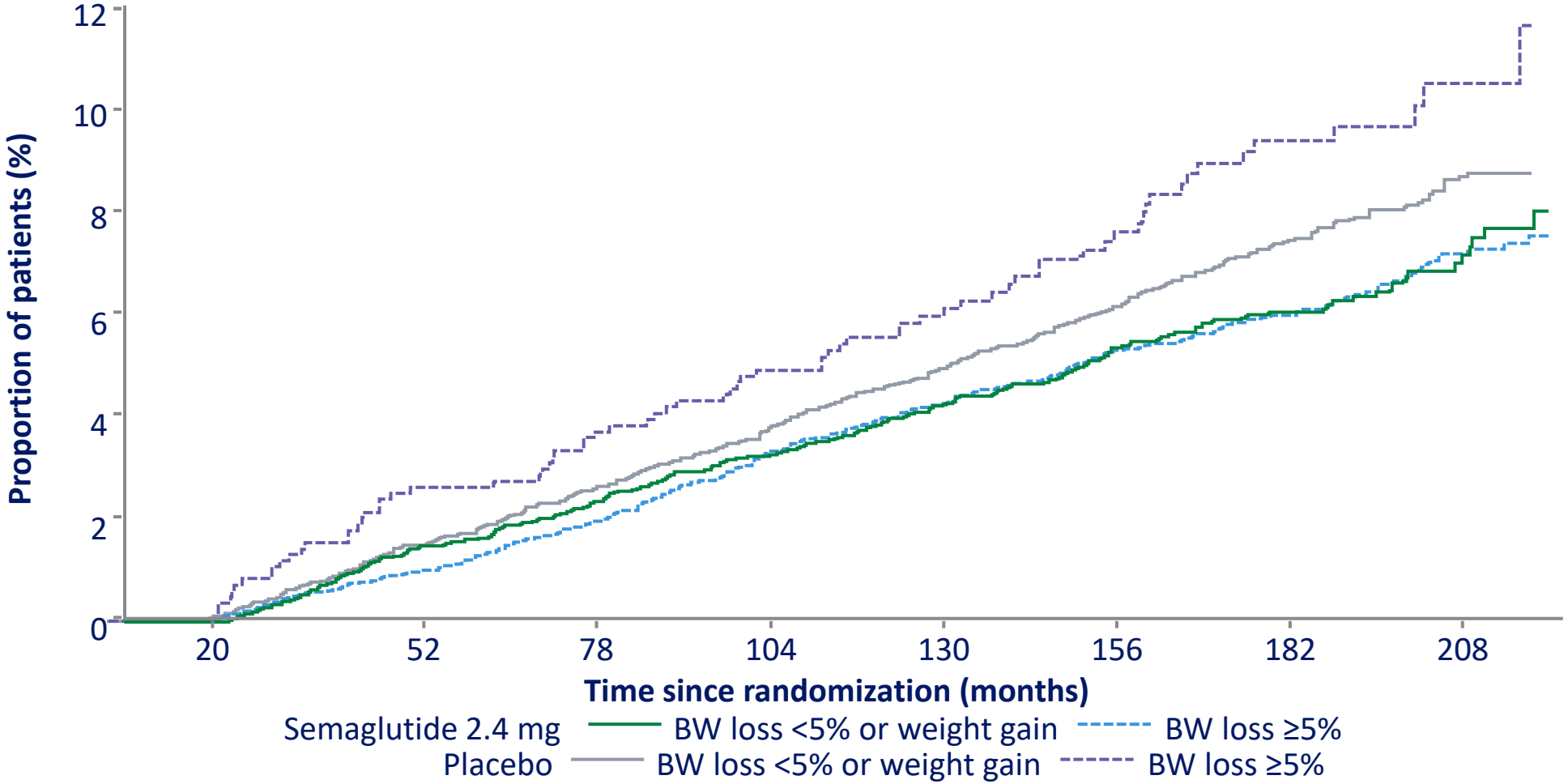
3. Some OMMs have CKM benefits beyond weight loss

- GLP-1 RAs:
  - MACE (and MALE) and glycemic benefits beyond weight loss
  - Other benefits are more dependent on weight loss (HFpEF, OSA, OA, etc)

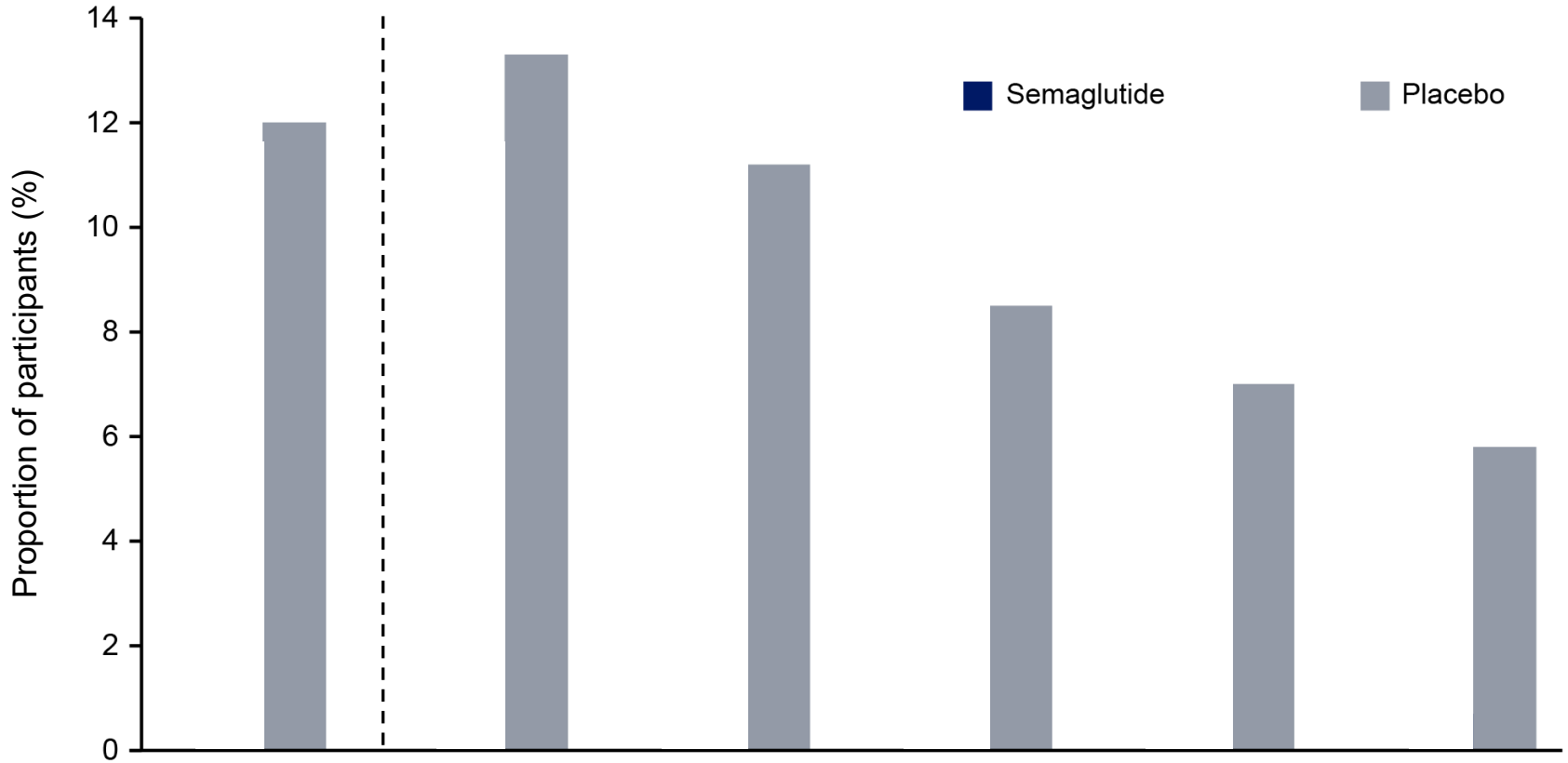
Time to first MACE after week 20 by change in body weight (baseline to week 20)*



*In-trial period.

Deanfield J et al. Presented at ECO 2024, Venice, Italy, May 12–15, 2024.

Progression to Diabetes at 156 Weeks by Degree of Weight Loss



Semaglutide, n	8799	1402	1173	2423	2002	1799
Placebo, n	8795	5687	1659	1060	286	103

Presented by Steven Kahn at ADA 2024; Kahn S et al. Diab Care 2024

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1.

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2. OMMs may have additional benefits

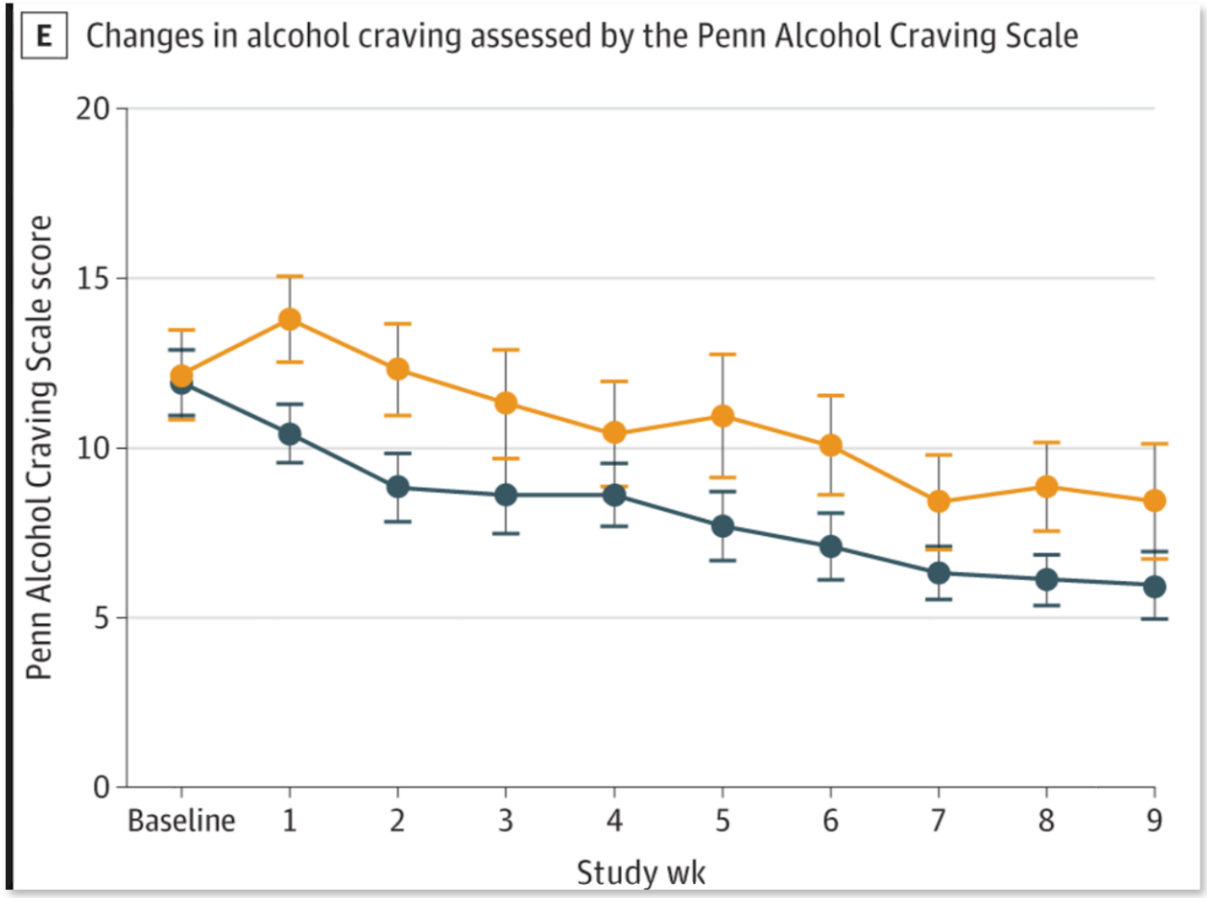
- **GLP-1 RA control cravings:**
  - ✓Food
  - ✓Alcohol
  - ✓Drugs
  - ✓Nicotine
  - ✓Sex
  - ✓Gambling
  - ✓Shopping

How?

- ✓ GLP-1 RAs bind to receptors in the brain in areas tied to the reward system: the ventral tegmental area, nucleus accumbens, prefrontal cortex
- ✓ Blunt dopamine release and reduce reward signaling
- ✓ Lower drive to seek out food, alcohol or drugs

Semaglutide and alcohol craving

- N=24 per group



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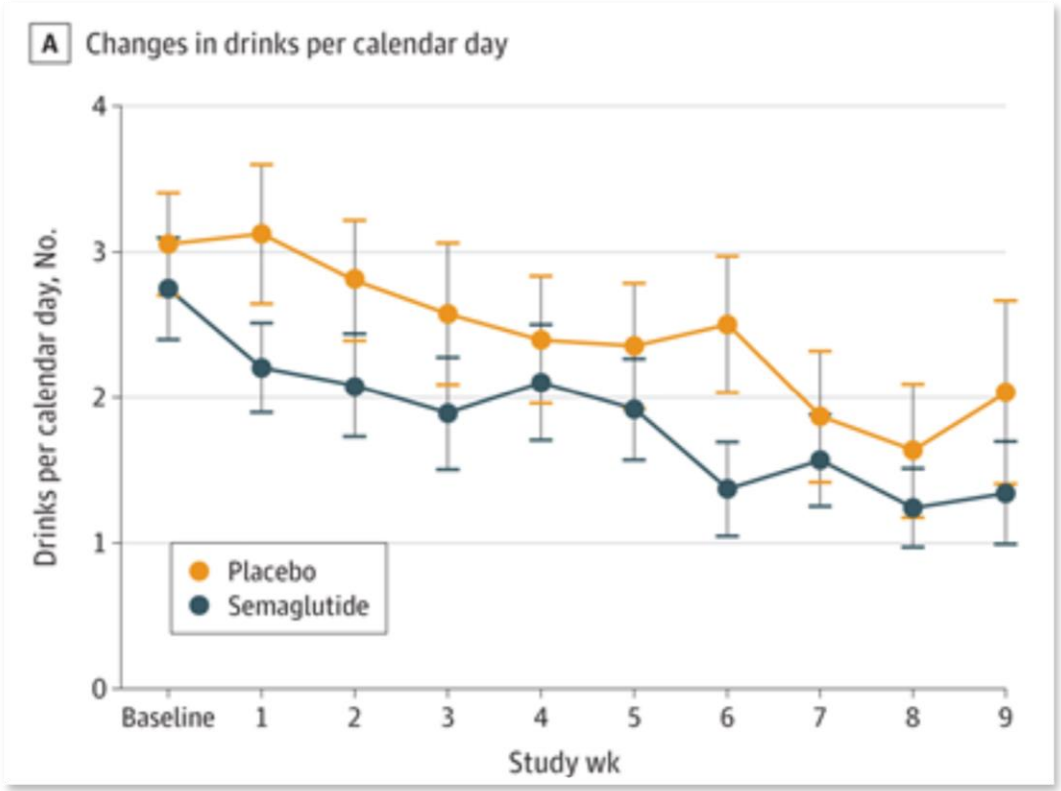

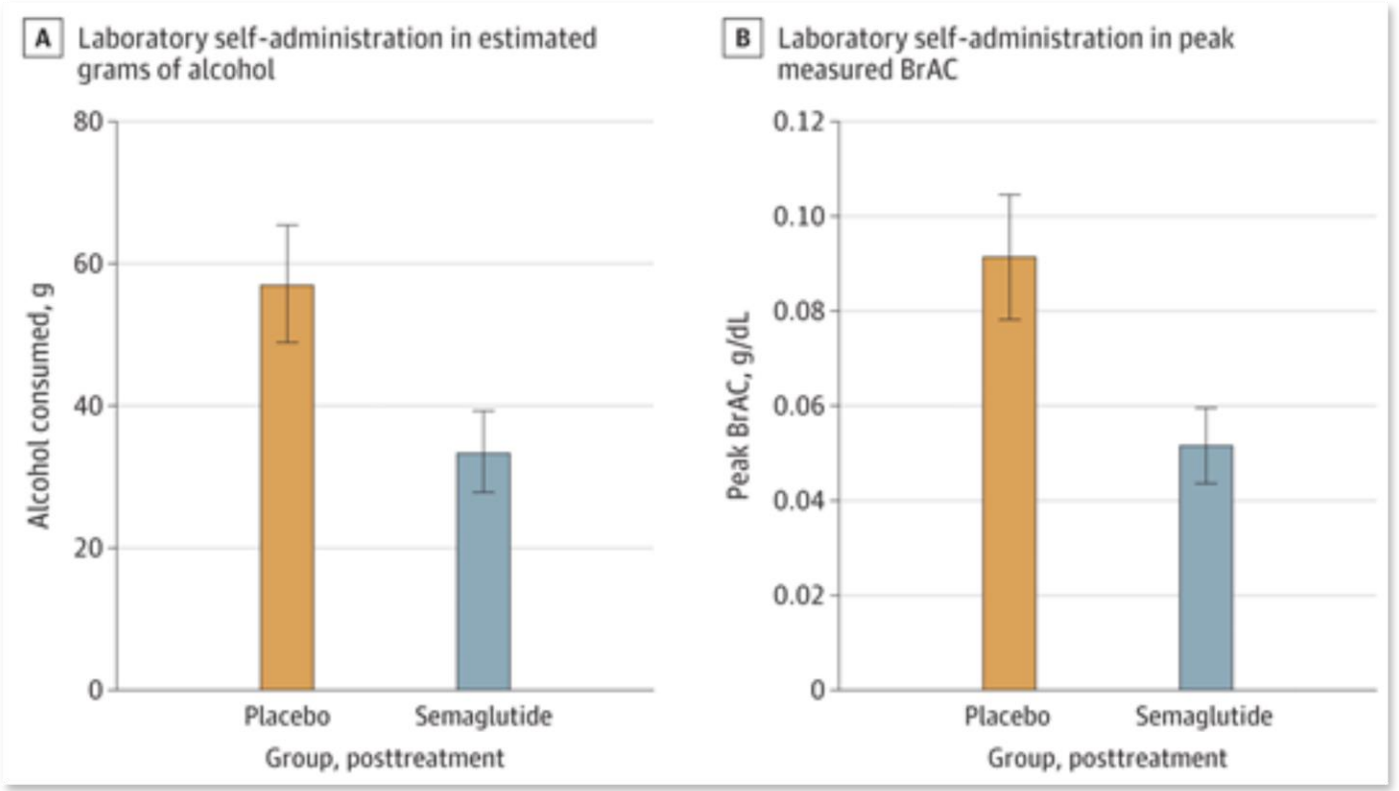

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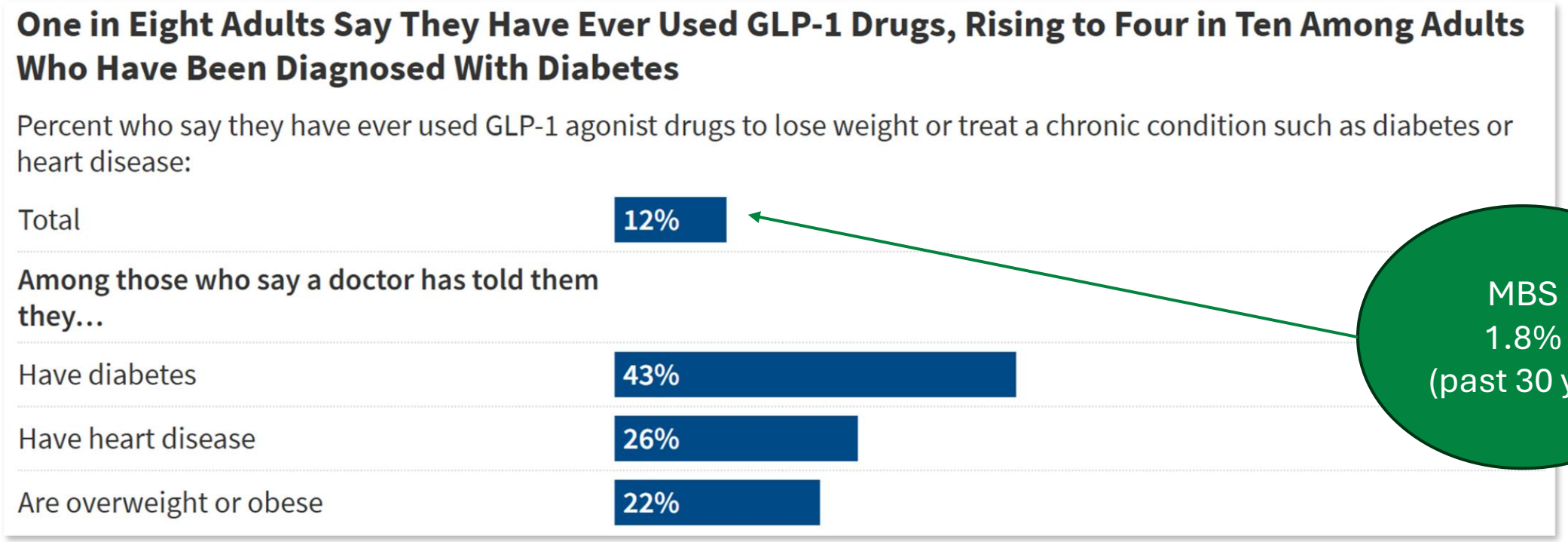
1. OMMs: Peoples choice!



Estimated that 6% of the population is CURRENTLY using a GLP-1 RA

Source: KFF Health Tracking Poll (April 23 – May 1, 2024)

Bonus Round: WHO's choice!

World Health Organization

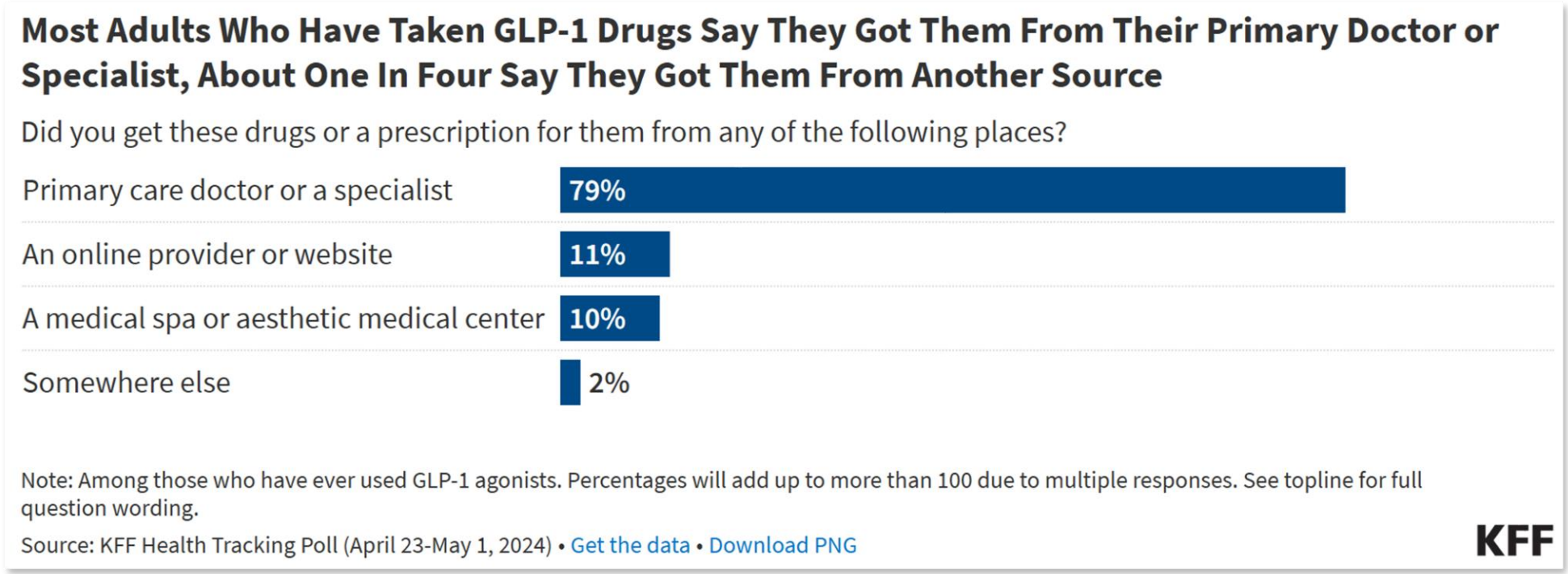
WHO updates list of essential medicines to

GLP-1 receptor agonists – semaglutide, dulaglutide and liraglutide – and the GLP-1/glucose-dependent insulinotropic polypeptide (GIP) dual receptor agonist (tirzepatide) have been added to the EML.

Model Lists of Essential Medicines (EML) and Essential Medicines for Children (EMLc), adding new treatments for various types of cancer and for diabetes with associated comorbidities such as obesity. Medicines for cystic fibrosis, psoriasis, haemophilia and blood-related disorders are among the other additions.

Bonus Round #2: Scalability of OMMs

- Can be prescribed by any provider, any specialty
- No scalability issues



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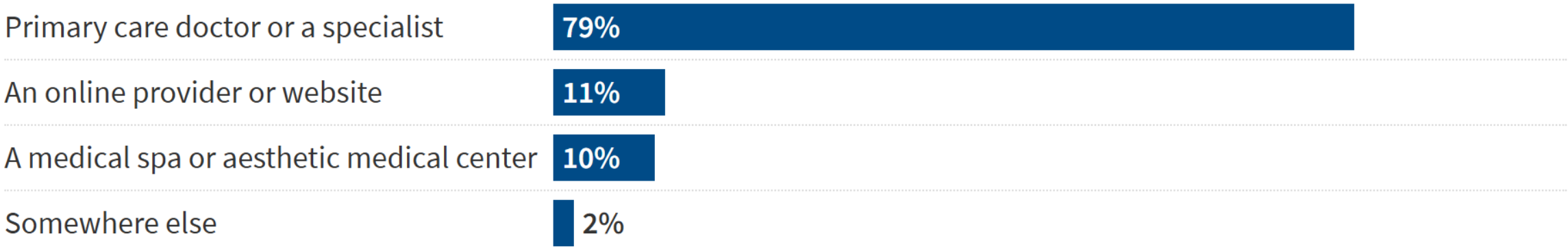
Most Adults Who Have Taken GLP-1 Drugs Say They Got Them From Their Primary Doctor or Specialist, About One In Four Say They Got Them From Another Source

Did you get these drugs or a prescription for them from any of the following places?



Note: Among those who have ever used GLP-1 agonists. Percentages will add up to more than 100 due to multiple responses. See topline for full question wording.

Source: KFF Health Tracking Poll (April 23-May 1, 2024) • Get the data • Download PNG

KFF

Here are **10 reasons why weight loss medications may be considered better than bariatric surgery** for some patients:

- **Non-invasive** – Medications don't require surgery, anesthesia, or incisions, reducing risk of surgical complications.
- **Reversible** – If side effects occur, medications can be stopped; surgery causes permanent anatomic changes.
- **Lower upfront risk** – Surgery carries perioperative risks (bleeding, infection, leaks, pulmonary embolism), while medications generally have lower short-term risks.
- **No recovery time** – Patients on medications can usually continue daily activities, unlike surgery which requires hospitalization and recovery.
- **Adjustable and personalized** – Medications can be titrated or switched depending on response and tolerability; surgery is fixed once performed.
- **Avoids nutritional deficiencies** – Bariatric surgery often leads to lifelong vitamin/mineral deficiencies (B12, iron, calcium, vitamin D), while medications typically don't.
- **Less disruption to digestion** – No malabsorption, dumping syndrome, or altered gut anatomy with medications.
- **Accessibility and cost spread out** – Medications (if covered) can be more accessible and allow costs to be spread over time, whereas surgery requires a large upfront cost.
- **Option for broader patient groups** – Patients with high surgical risk (older age, comorbidities) can still use medications safely.
- **Compatibility with future therapies** – Medical therapy can be adjusted or combined with future drugs, whereas surgery limits some later options and complicates anatomy for future procedures.