PEER-TO-PEER EDUCATIONAL TOOLKIT

Challenges and Advances in Long-Term Obesity Management:

Interpreting and Applying the Evidence to Patient Care

Content adapted from a primetime symposium at 2021 CMHC Annual

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OBESITY:

Impacts, Pathophysiology, and Assessment

Classifying Obesity

NIH and the World Health Organization (WHO) for White, Hispanic, and Black individuals:

- Overweight (pre-obesity) – BMI ≥25 to 29.9 kg/m²
- Obesity – BMI ≥ 30 kg/m²
- Waist circumference ≥35 inches women
- Waist Circumference ≥ 40 inches men

Asian and South Asian population

- Overweight (pre-obesity) - BMI ≥23 - 24.9 kg/m²
- Obesity - BMI ≥ 25 kg/m²
- Waist Circumference ≥31.5 inches women
- Waist Circumference ≥35 inches men

Weir CB, Jan A. BMI Classification Percentile And Cut Off Points. [Updated 2021 Jun 29]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2021 Jan-. Available from:https://www.ncbi.nlm.nih.gov/books/NBK541070/

Worldwide Statistics

Obesity rates have tripled worldwide since 1976

2016:

- 39% adults with pre-obesity (overweight)- 1.9 billion adults
- 13% obesity- 650 million adults

2020:

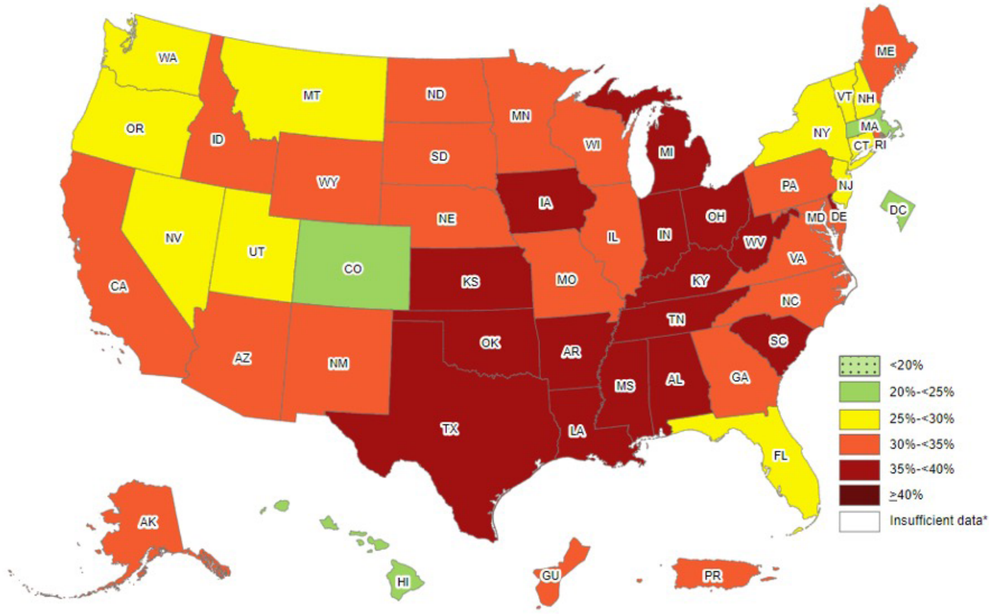
- 39 million children under the age of 5 with pre-obesity or obesity
- Over 340 million children and adolescents (5-19) with pre-obesity or obesity
- Obesity rates children have increased from 4% in 1975 to over 18% in 2016

Obesity kills more people than underweight
Undernutrition and obesity often co-exist in many low-and middle-income countries (“double burden” of malnutrition).

World Health Organization: https://www.who.int/health-topics/obesity#tab=tab_1 (Accessed 12/07/2021)

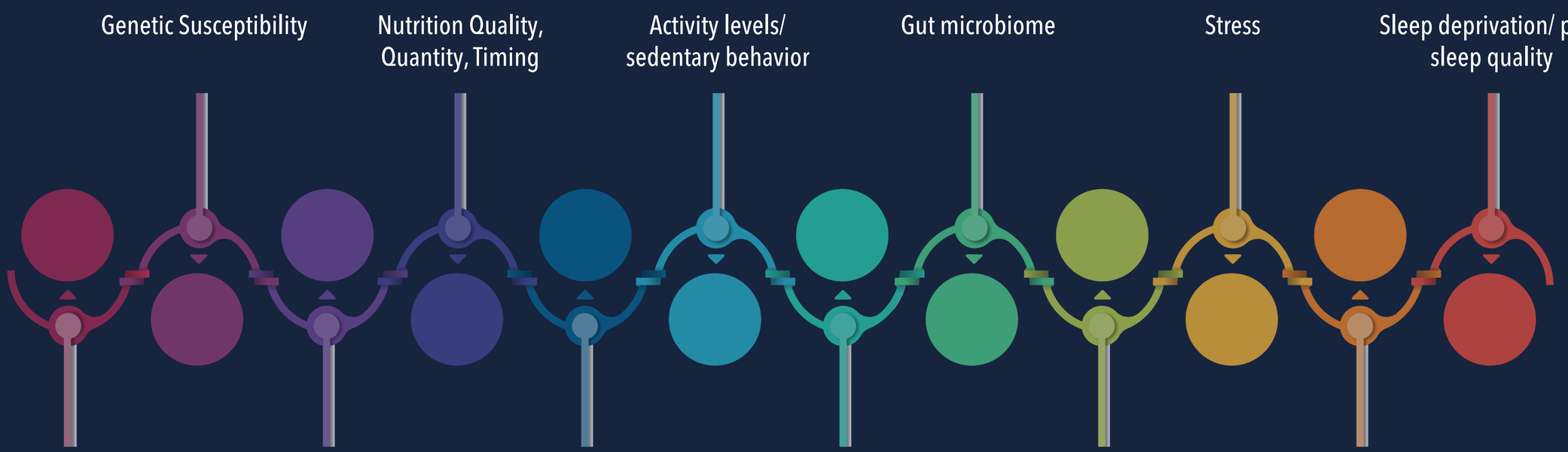
United States: 2020

- All states and territories had more than 20% of adults with obesity.
- 16 states had 35% or more adults with obesity (Alabama, Arkansas, Delaware, Indiana, Iowa, Kansas, Kentucky, Louisiana, Michigan, Mississippi, Ohio, Oklahoma, South Carolina, Tennessee, Texas, and West Virginia).



CDC: https://www.cdc.gov/obesity/data/prevalence-maps.html#overall (accessed 12/07/2021)

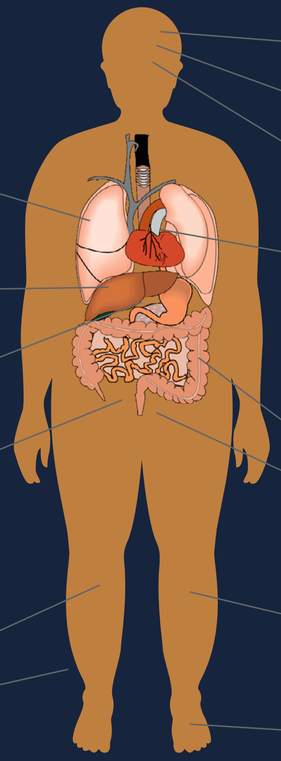
Factors That Can Contribute to the Development of Obesity



There are Many Forms of Obesity

- Some individuals with obesity have abnormal appetite hormone signaling which can result in hunger that is out of proportion to actual energy needs
- Some individuals with obesity have an overactive reward center
- Some individuals with obesity have inflammation or damage to the energy regulatory center in the brain (hypothalamus)
- Some people with obesity have a lower-than-expected metabolism
- There are MANY subtypes of obesity and MANY factors that can contribute to the development of obesity

Comorbidities Associated with Obesity



Pulmonary disease
Abnormal function
Obstructive sleep apnea
Hypoventilation syndrome

Nonalcoholic fatty liver disease
Steatosis
Steatohepatitis
Cirrhosis

Gall bladder disease

Gynecologic abnormalities
Abnormal menses
Infertility
Polycystic ovarian syndrome
Urinary incontinence

Osteoarthritis

Skin

Idiopathic intracranial hypertension

Stroke

Cataracts

Coronary heart disease
Diabetes
Dyslipidemia
Hypertension

Cancer
Breast, uterus, cervix, colon, esophagus, pancreas, kidney, prostate

Phlebitis
Venous stasis

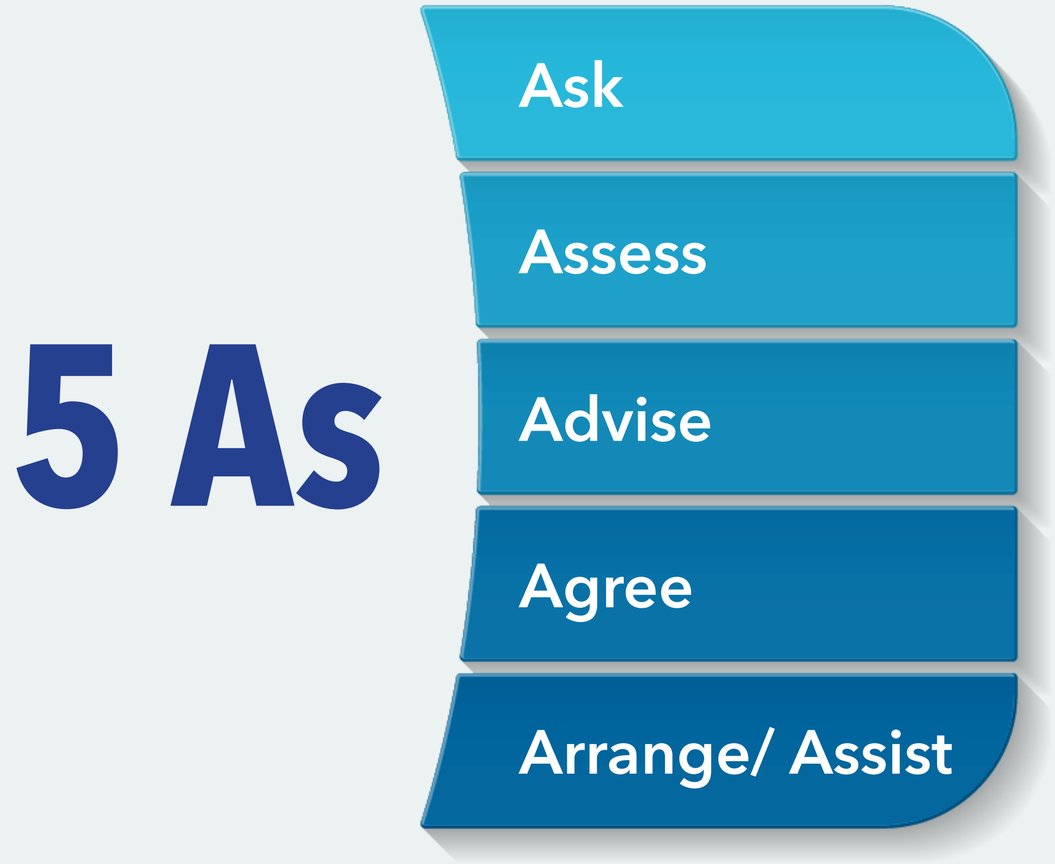
Gout

Adapted from European Practical and Patient-Centred Guidelines for Adult Obesity Management in Primary Care. January 2019.Obesity Facts 12(1):40-66

PRACTICAL APPROACHES TO OBESITY MANAGEMENT


Nutrition
Physical Activity
Intensive Lifestyle Management
Sleep
Stress Management

5 As: Framework for Teaching and Practicing the Art of Behavior Change



Initiating the Conversation: ASK permission

"Is now a good time to discuss how your weight and health may be affecting each other and how we can work together on it?"

"Is there a health-related behavior you would like to discuss today?"

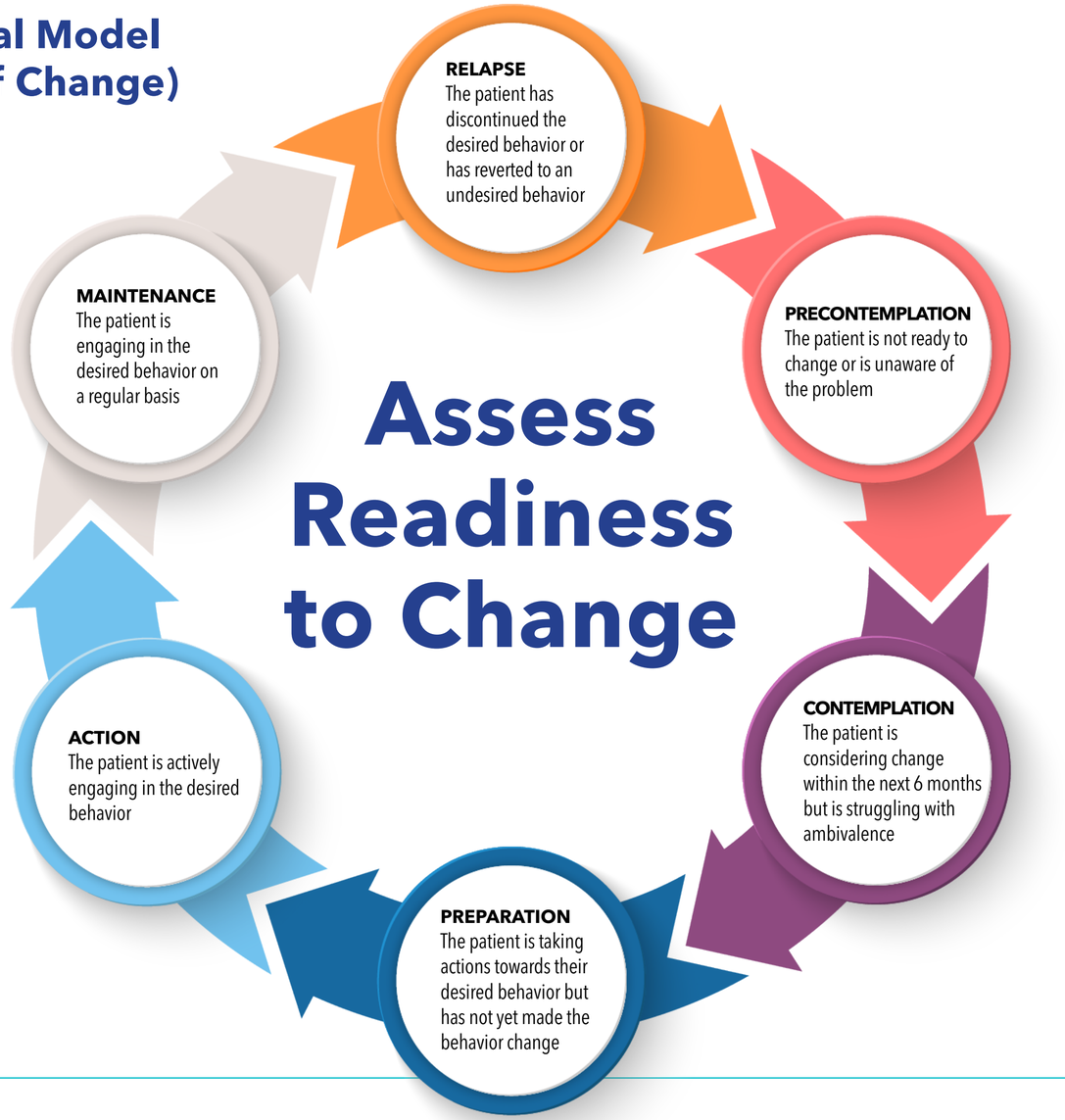
"Weight is a complex issue that many people struggle with, and it can impact your health and wellbeing.

How would you feel about working on this together?"

Vallis M, Piccinini-Vallis H, Sharma AM, Freedhoff Y. Modified 5 As. Minimal intervention for obesity counseling in primary care. Can Fam Physician. 2013;59:27–31.

Stage of Change will determine behavioral approach

Transtheoretical Model (AKA Stages of Change)



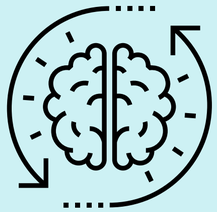
Adapted from Prochaska and DiClemente (1983)

Behavioral Approaches for Obesity Treatment

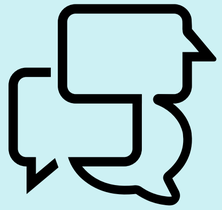
Contemplation/ Preparation/ Relapse Stage (AMBIVALENCE): Motivational Interviewing

Preparation/ action/ maintenance stage: Cognitive Behavioral Therapy

Motivational Interviewing



"Motivational interviewing is a collaborative conversation style to strengthen a person's own motivation and commitment to change"
~ Miller and Rollnick



Powerful communication style for people experiencing ambivalence

Move a patient from ambivalence towards action by strengthening the patient's OWN motivation and commitment to change

Everything the patient needs is already inside of them. Your job is to get it out!

WR, Rollnick S. Motivational Interviewing: Helping People Change. 3rd ed. Guilford Press; 2013.

The Spirit of MI: CAPE

Compassion:
The desire to see the other free from suffering. Putting their needs before your own

Acceptance:
supporting patient autonomy and accepting their right to change or not to change

Partnership:
the collaborative relationship between two experts

- Avoid the "righting reflex". Avoid "let me fix this".

Evocation:
Evoke "change talk" and **have the patient argue for change**

MillerWR, Rollnick S. Motivational Interviewing: Helping People Change. 3rd ed. Guilford Press; 2013.

Evoking Change Talk

"Why is increasing your activity important to you right now?"

"You say you want to weigh X again. How was your life different at that weight?"

"What needs to happen for you to make this change?"

"How do you think your life would look 5 years from now if you made this change, and how do you think it might look if you didn't make this change?"

CHANGE METRICS

"On a scale of 1-10, how important is this to you right now?"

"On a scale of 1-10, how confident are you that you can make this change right now?"

Follow up Question
to Change Metric Questions

Why are you at a 5 and not at a 3 or 4 (**LOWER** number)?

What would it take for you to get from a 5 to a 6 or 7 (**HIGHER** number)?

Core Communication Skills of MI: OARS

Open-ended questions:
allows the patient to explore how they feel, which is important in resolving ambivalence

Affirmations:
recognizing a good quality in another person and using this to build their confidence in changing their behavior.

Reflections:
can be simple or complex

Summaries:
selectively summarize the change talk and turn this into an actionable plan

Miller WR, Rollnick S. Motivational Interviewing: Helping People Change. 3rd ed. Guilford Press; 2013.

Cognitive Behavioral Therapy

Self-monitoring	• Food logging • Activity logging • Regular self-weighing
Stimulus control	• Reduce triggers or cues that lead to undesired behaviors • Increase triggers that promote the desired behaviors
Problem solving	• Identifying problems or barriers and developing solutions and strategies to overcome them • Allow the patient to determine most of the solutions, unless they specifically ask you for your advice. In that case, provide a list of 2-4 options for the patient to choose from
Goal setting	• Set SMART goals
Contingency management	• Develop strategies to overcome setbacks • Encourage patients to plan for lapses and relapses
Enlisting social support	• Encourage an "accountability partner," such as a friend, coworker, or family member
Stress management	• Assist your patient in finding healthful coping strategies to manage stress

Miller WR, Rollnick S. Motivational Interviewing: Helping People Change. 3rd ed. Guilford Press; 2013.

Remember...

"Obesity is defined as a chronic, progressive, relapsing, multi-factorial, NEUROBEHAVIORAL disease…"

~ Obesity Medicine Association

- *Dysfunction* of the **Energy Regulatory System**, including appetite, thus affecting the patient's ability to adhere to a nutrition plan

Citation: Bays HE, et al. 2020 Obesity Algorithm® presented by the Obesity Medicine Association. www.obesityalgorithm.org. 2020. https://obesitymedicine.org/obesity-algorithm-powerpoint/ (Accessed = 9/20/20)

Take-Aways

HOW we communicate with patients is just as important as WHAT we communicate

Health behavior change is complex and works best when lead by the patient with the provider as the navigator

Catch your patients doing something RIGHT and celebrate their success (Affirmations)!

"People will forget what you said, people will forget what you did, but people will never forget how you made them feel."

~ Maya Angelou

OBESITY PHARMACOTHERAPY: CHALLENGES AND ADVANCES

Indications for Pharmacotherapy and/ or Metabolic and Bariatric Surgery

Indications for pharmacotherapy:

- **BMI ≥ 27** with obesity-related comorbidity
- Or **BMI ≥ 30**

Indications for Metabolic and Bariatric surgery:

- **BMI ≥ 35** with obesity-related comorbidity
- Or **BMI ≥ 40**

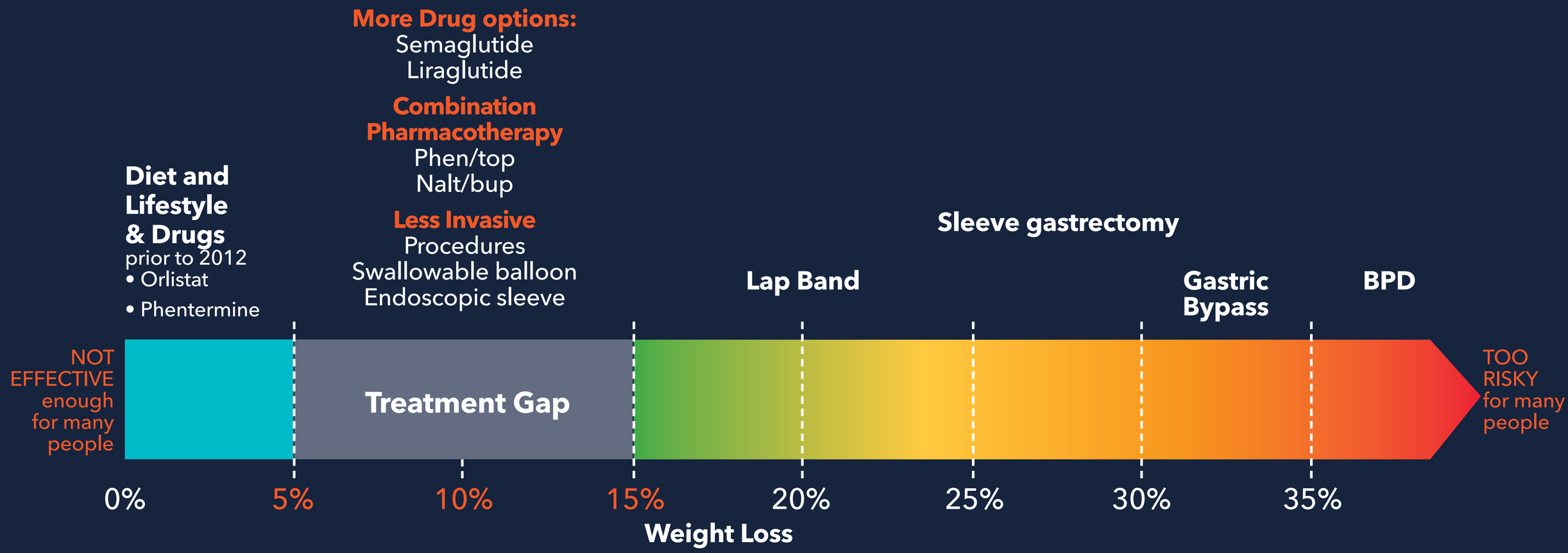
Rationale for Obesity Pharmacotherapy

- Obesity causes more than 200 other medical disorders that affect entire organ systems
- Accounts for ~4 million deaths worldwide and a high cardiovascular disease burden
- Prevalence is rapidly increasing

Highlights the immediate need for **early recognition and treatment** in the context of the existing available therapeutic armature

Treatment Gap in Mid-BMI Range

New drugs and devices can reduce weight and weight-related comorbidities



The gap is being filled with new agents, devices

After Aronne L. FDA VI-0521 EMDAC 2010.

Indication for Medication in Weight Management

(from the label of all FDA-approved medications)

- As an adjunct to diet and physical activity for chronic weight management in adults with initial
- BMI >30 kg/m2 or
- BMI >27kg/m2 with one or more obesity associated comorbidities

Guidelines and professional societies add that patients should have been unsuccessful at lifestyle efforts to lose weight or maintain weight loss.

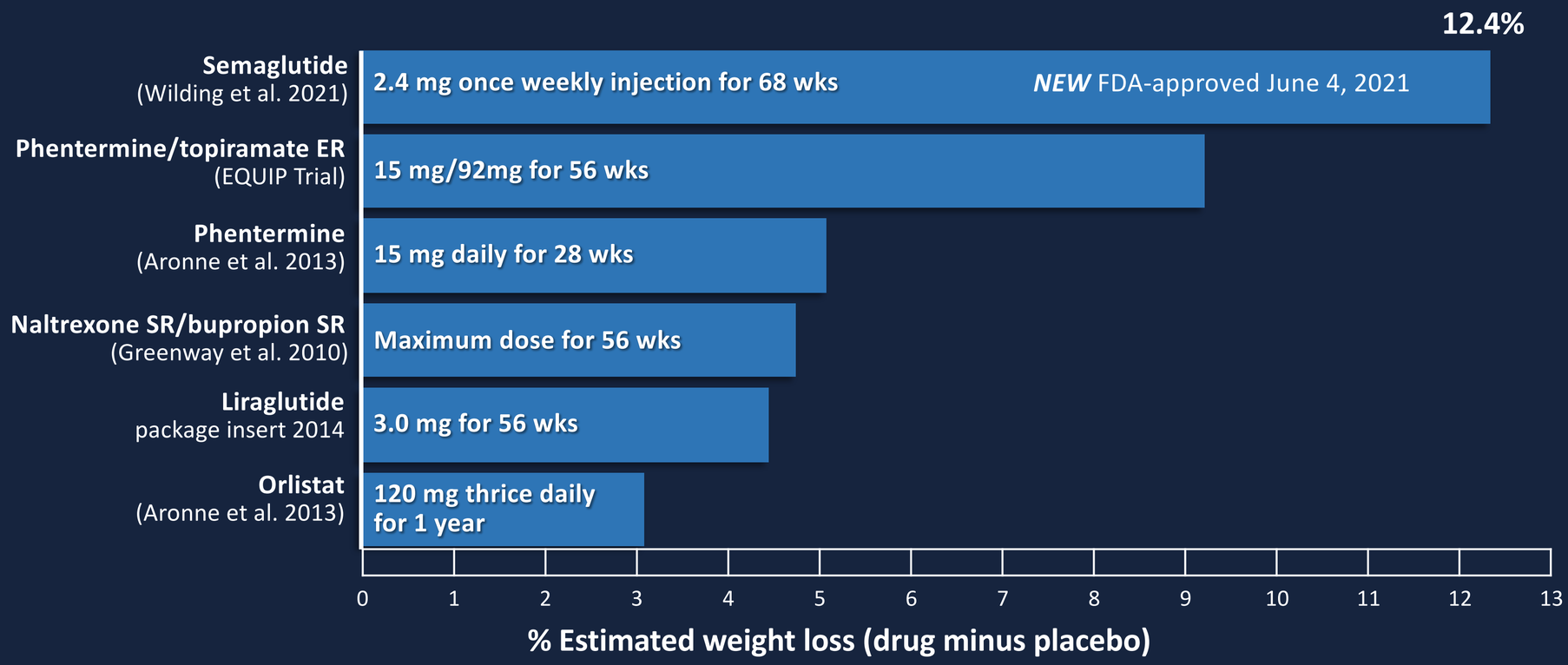
Jensen MD, et al. 2013 AHA/ACC/TOS guideline… Circulation. 2014;129(25 SUPPL. 1):102-138.
Garvey WT, et al. AACE /ACE Guidelines. Endocrine 2016;22 Suppl 3:1-203.
Apovian CM, et al. Endocrine guideline. J Clin Endocrinol Metab. 2015;100(2):342-362.

Principles in Prescribing Antiobesity Medications

- Medications work through biology to help patients lose more weight than they would with lifestyle efforts alone.
- Medications improve health through weight loss and, sometimes, through additional benefits on obesity comorbidities. Choose with this in mind.
- There is heterogeneity in treatment response for any type of obesity intervention, including medication.
- As with other chronic diseases, continued therapy is needed to sustain weight loss. Lifelong treatment is needed.

https://www.endotext.org/chapter/pharmacologic-treatment-of-obesity/

Efficacy of Current Anti-obesity Drugs



Indicated to be used as adjuncts to a reduced-calorie diet and increased physical activity for chronic weight management in adults with a BMI ≥30 kg/m2 or those with a BMI ≥27 kg/m2 who have at least one weight-related comorbid condition such as diabetes mellitus, hypertension, hyperlipidemia or sleep apnea

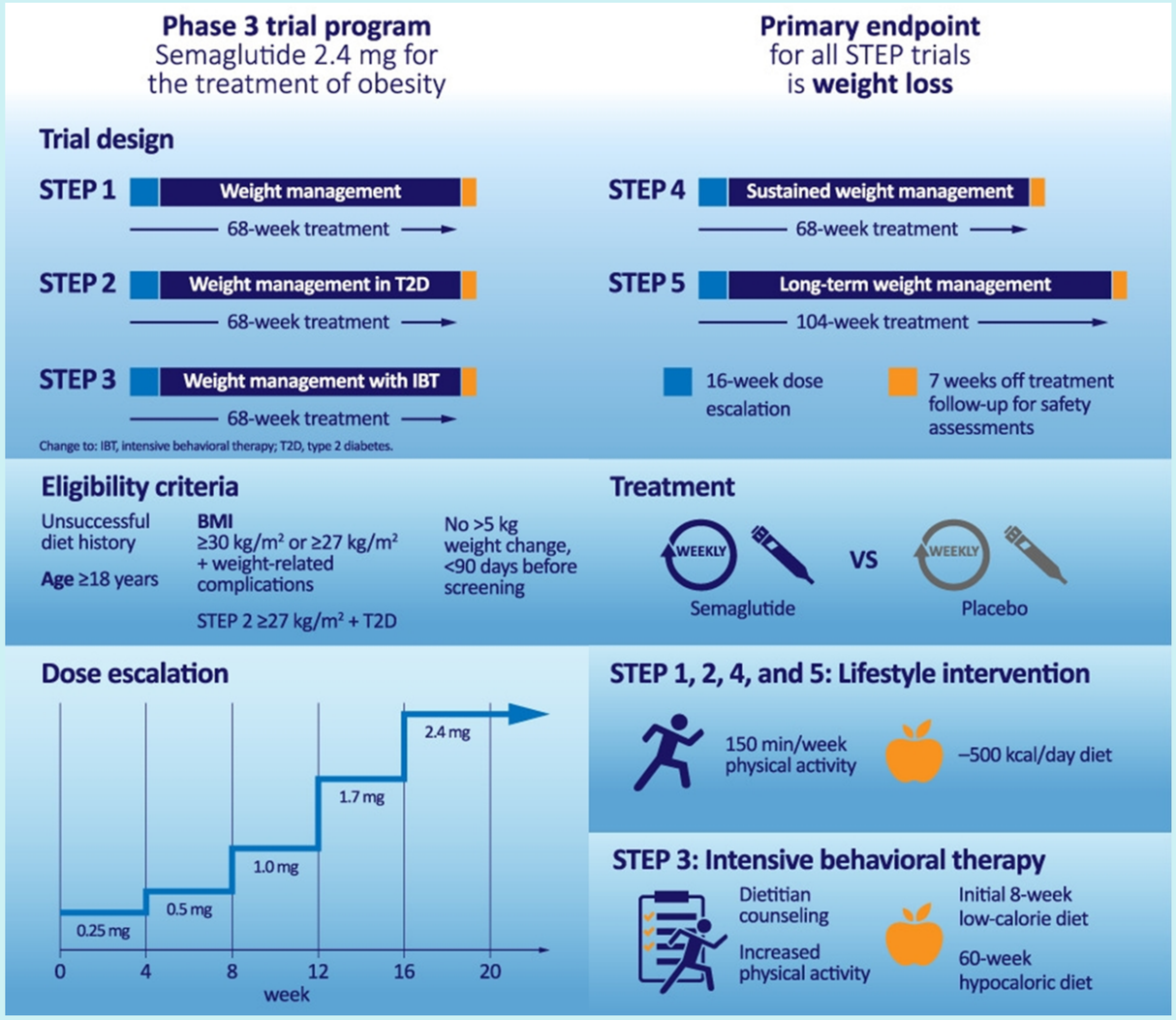
Srivastava G and Apovian CM. Nat Rev Endocrinol. 2018 Jan;14(1):12-24.
Wilding JPH, et al. N Engl J Med. 2021 Mar 18;384(11):989.

What's in the Anti-Obesity Drug Pipeline?

Compound	Status
Gelesis 100 - oral bid	Approved
Semaglutide SC qw	Approved
Cagrilintide (AM 833) SCqw	Phase 2
Cagrilintide + Semaglutide	Phase 2
Tirzepatide SC qw	Phase 3
Bimagrumab IV	Phase 2
Danuglipron - oral	Phase 2
Semaglutide – oral	Phase 2

Adapted from ClinicalTrials.gov, accessed January 27, 2022.

Semaglutide Treatment Effect in People with Obesity (STEP) Clinical Trial Program 1-5



Kushner R, et al. Obesity (Silver Spring). 2020 Jun; 28(6): 1050–1061. Published online 2020 May 22. doi: 10.1002/oby.22794

Key Publications on the STEP Trial Program

STEP-1 Trial: Once-weekly semaglutide in adults with overweight or obesity

STEP-2 Trial: Semaglutide 2.4 mg once a week in adults with overweight or obesity, and type 2 diabetes (STEP 2): a randomised, double-blind, double-dummy, placebo-controlled, phase 3 trial

STEP-3 Trial: Effect of subcutaneous semaglutide vs placebo as an adjunct to intensive behavioral therapy on body weight in adults with overweight or obesity: The STEP 3 randomized clinical trial

STEP-4 Trial: Effect of continued weekly subcutaneous semaglutide vs placebo on weight loss maintenance in adults with overweight or obesity: The STEP 4 randomized clinical trial

STEP-8 Trial: Effect of Weekly Subcutaneous Semaglutide vs Daily Liraglutide on Body Weight in Adults With Overweight or Obesity Without Diabetes: The STEP 8 Randomized Clinical Trial

Key Publications on Other Emerging Agents

Tirzepatide

- Efficacy and safety of a novel dual GIP and GLP-1 receptor agonist tirzepatide in patients with type 2 diabetes (SURPASS-1): a double-blind, randomised, phase 3 trial
- Tirzepatide versus Semaglutide Once Weekly in Patients with Type 2 Diabetes
- Once-weekly tirzepatide versus once-daily insulin degludec as add-on to metformin with or without SGLT2 inhibitors in patients with type 2 diabetes (SURPASS-3): a randomised, open-label, parallel-group, phase 3 trial
- Tirzepatide versus insulin glargine in type 2 diabetes and increased cardiovascular risk (SURPASS-4): a randomised, open-label, parallel-group, multicentre, phase 3 trial

Danuglipron

Danuglipron (PF-06882961) in type 2 diabetes: a randomized, placebo-controlled, multiple ascending-dose phase 1 trial

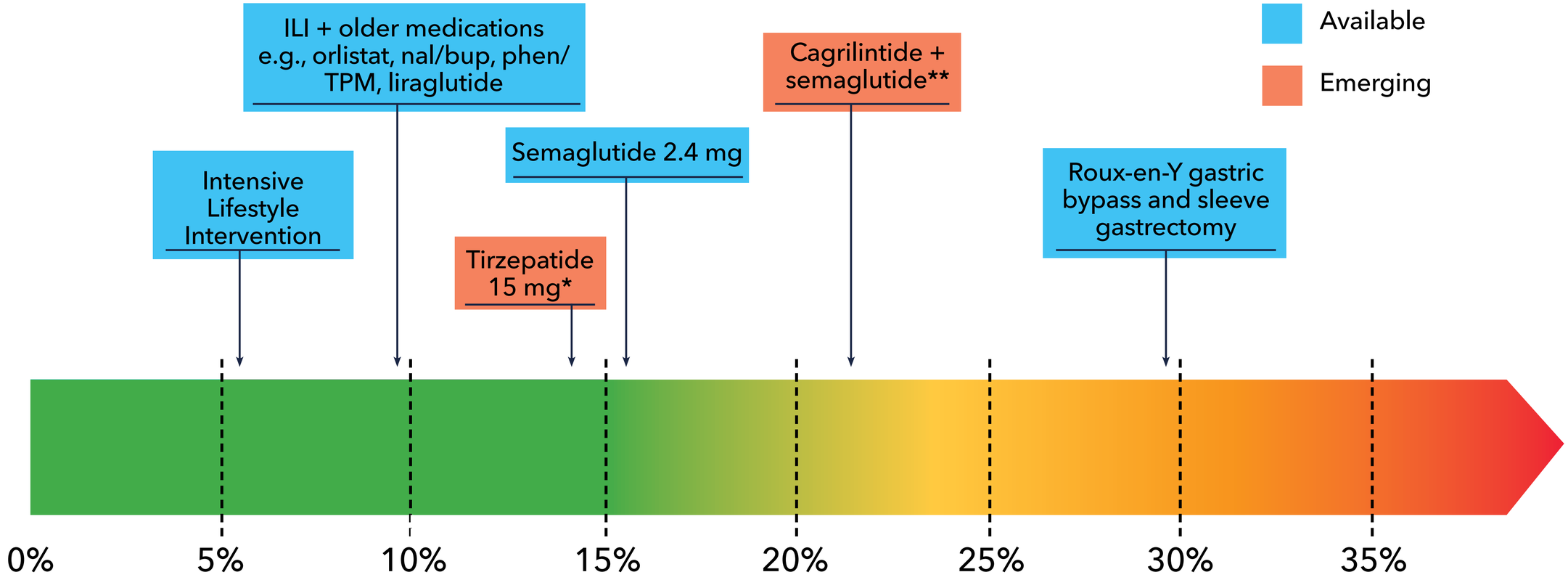
Cagrilintide

- Once-weekly cagrilintide for weight management in people with overweight and obesity: a multicentre, randomised, double-blind, placebo-controlled and active-controlled, dose-finding phase 2 trial
- Cagrinlintide plus semaglutide for obesity management

Bimagrumab

Effect of Bimagrumab vs Placebo on Body Fat Mass Among Adults With Type 2 Diabetes and Obesity: A Phase 2 Randomized Clinical Trial

Available and Emerging Treatments for Obesity



- Not all agents are available in all regions; always consult local prescribing information. Direct comparisons between data cannot be made due to differences in trial designs.*40-week study duration; **20-week study duration. ILI, Intensive Lifestyle Intervention; nal/bup, naltrexone/bupropion; phen/TPM, phentermine/topiramate

Allison DB, et al. Obesity. 2012;20(2):330-342. [EQUIP]; Gadde KM , et al. Lancet. 2011;37:1341-1352. [CONQER]; Greenway FL, et al. Lancet. 2010;376:595-605. [COR-I]; Apovian CM, et al. Obesity. 2013;21:935-943 [COR-II]; Wadden TA, et al. Obesity. 2011;19(1):110-120. [COR-BMOD]; Pi-Sunyer X, et al. N Engl J Med. 2015;373(1):11-22. [SCALE]; Wadden TA, et al. In J Obes. 2013;37:1443-1451. [SCALE MAIN]; Enebo LB, et al. Lancet. 2021;397(10286):1736-1748. [Cag + Sema]; Wilding JPH, et al. N Engl J Med. 2021;384(11):989. [STEP 1]; Wadden TA, et al. JAMA. 2021;325(14):1403-1413. [STEP 3]; Rubino D, et al. JAMA. 2021;325(14):1414-1425. [STEP 4]; Ryan D. Lancet Diabetes Endocrinol. 2021;9(5):252-254. [STEP]; Sjöström L, et al. N Engl J Med. 2007;357:741-52. [Surgery]; Frias JP, et al. Lancet. 2021 [SURPASS-2].