American Academy of Physician Associates

Addressing Obesity A Community of Practice:

Pharmacologic Options for the Treatment of Obesity

Sheila Hautbois, PA-C, MSPAS, MPH, CHES®
Karon Potter, PA-C, RD, CSOWM, CDE

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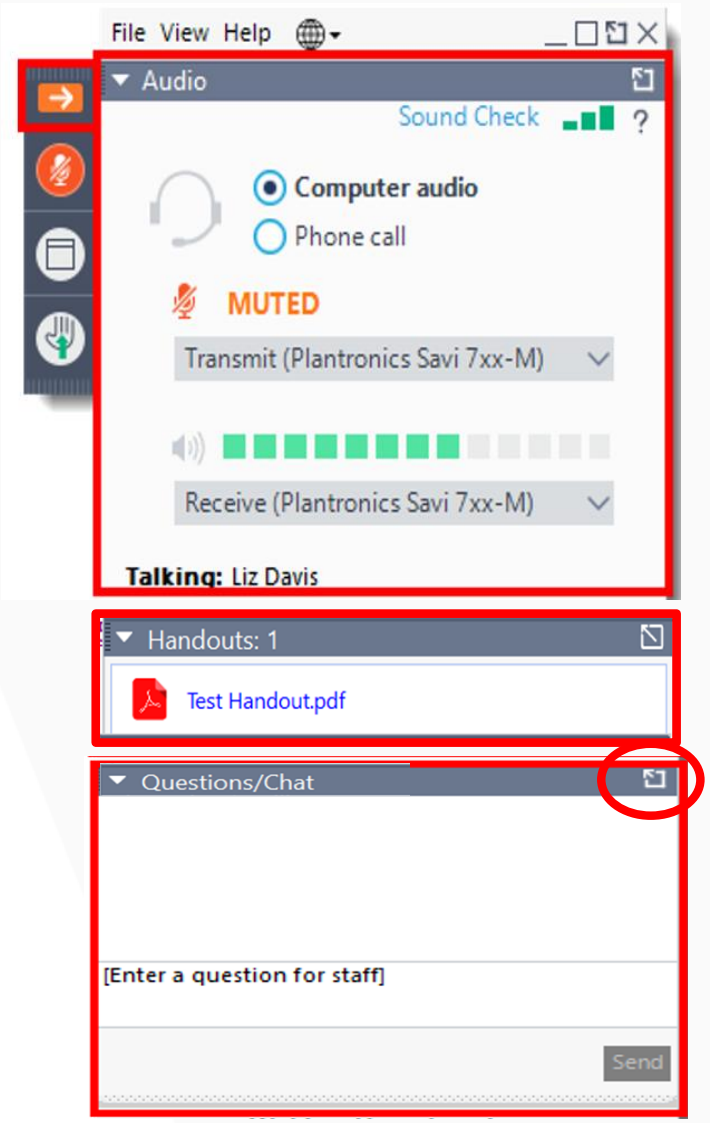

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Presenters

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Polling Questions

Polling Question 1

Sarah is 37 years old. Her height is 5’6” and weight is 222 lbs., making her BMI 35.8 kg/m$^{2.}$ Sarah’s waist circumference is 45” and neck circumference is 15.5”. Her BP is 142/93.

- Medical History: NAFLD, HTN, GERD, class II obesity
- Medications: metoprolol and hydrochlorothiazide 100mg/25mg; omeprazole, oral progesterone-based contraceptive
- A1C is 5.7, which indicates that Sarah has reached the threshold for prediabetes

Sarah lost 36 lbs. with lifestyle changes but has since gained back 12 lbs. and indicates she needs help because she never feels full.

Polling Question 1

You discuss naltrexone/bupropion with the patient. Which of the following is part of your discussion?

A. May slow absorption of other medications
B. Monitoring for signs of pancreatitis
C. Monitoring for cognitive impairment
D. Risk of seizure when taken with high-fat meals

Polling Question 2

Noah is 14 years old. He is 5’7” and weighs 182 lbs. This makes his BMI 28.5 (97th percentile). He was diagnosed with obesity at age 12 (BMI 27.6; 98th percentile). After 2 years of watchful waiting and modifications to Noah’s nutrition and physical activity, Noah and his family have decided that they would like to try an anti-obesity medication.

Polling Question 2

Which of the following options is on label for an individual Noah's age?

A. Semaglutide
B. Naltrexone/Bupropion
C. Nonsystemic Oral Hydrogel
D. None of the above

Polling Question 2

You decide to discuss GLP-1 receptor agonist such as liraglutide or semaglutide with Noah. Which of the following is part of your discussion?

A. Overcoming injection barriers
B. Close blood pressure monitoring
C. Decreases exercise intolerance
D. Genetic testing before prescribing

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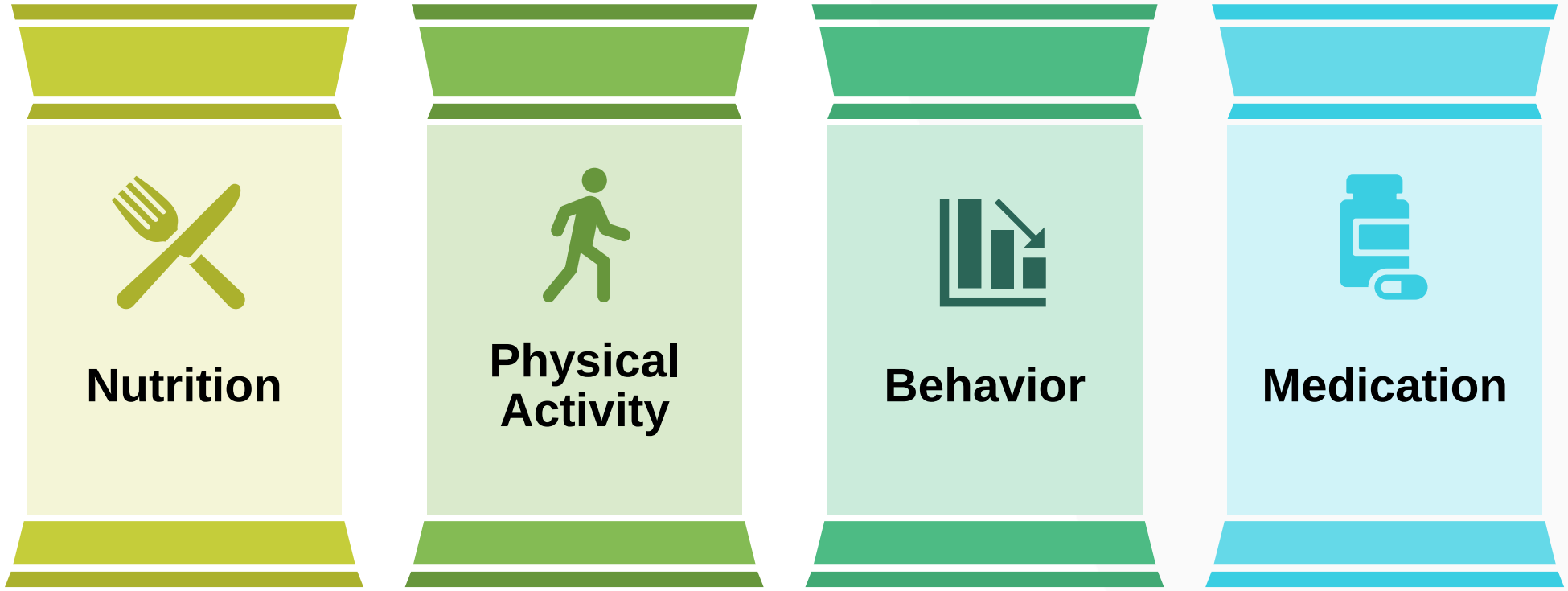
The Obesity Medicine Association's (OMA)

4 PILLARS OF CLINICAL OBESITY TREATMENT



Successful + Sustainable Weight Loss = A Comprehensive, Evidence-Based Approach

Obesity Medicine Association. Accessed July 24, 2023. https://obesitymedicine.org/omas-four-pillars-the-bedrock-of-obesity-management-and-treatment/

Check for Obesogenic Medications

- Diabetes (insulin, sulfonylureas, TZDs, meglitinides)
- Hormones
- Anti-inflammatory medications
- Anti-seizure medications
- Antidepressants (especially TCAs and mirtazapine)
- Antipsychotics & mood stabilizers
- CV (beta blocker, CCB)
- Migraine medications
- Hypnotics
- Antihistamines
- Steroids
- HIV medications
- Chemotherapy medications
- Organ transplant medications

TZD, thiazolidinediones; TCA, tricyclic antidepressant; CV, cardiovascular; CCB, calcium channel blocker.

Wharton S, et al. *Diabetes Metab Syndr Obes*. 2018;11:427-438.

Why Use AOMs as Part of Treatment

- Medications are adjunct with lifestyle
- Medications help people accomplish lifestyle changes and make them durable/sustainable
- Some patients are adamantly opposed to bariatric surgery but may consider medication
  - Some newer medications approach effectiveness of surgery

AOM, anti-obesity medication.

Why Use AOMs as Part of Treatment[1-3]

Initiate Lifestyle Intervention

Patients with overweight or obesity but no weight-related complications

Patients with overweight or obesity and mild to moderate weight-related complications when lifestyle therapy is anticipated to achieve sufficient weight loss to improve the complication (may also consider AOMs at this stage)

Initiate AOMs as an Adjunct to Lifestyle Intervention

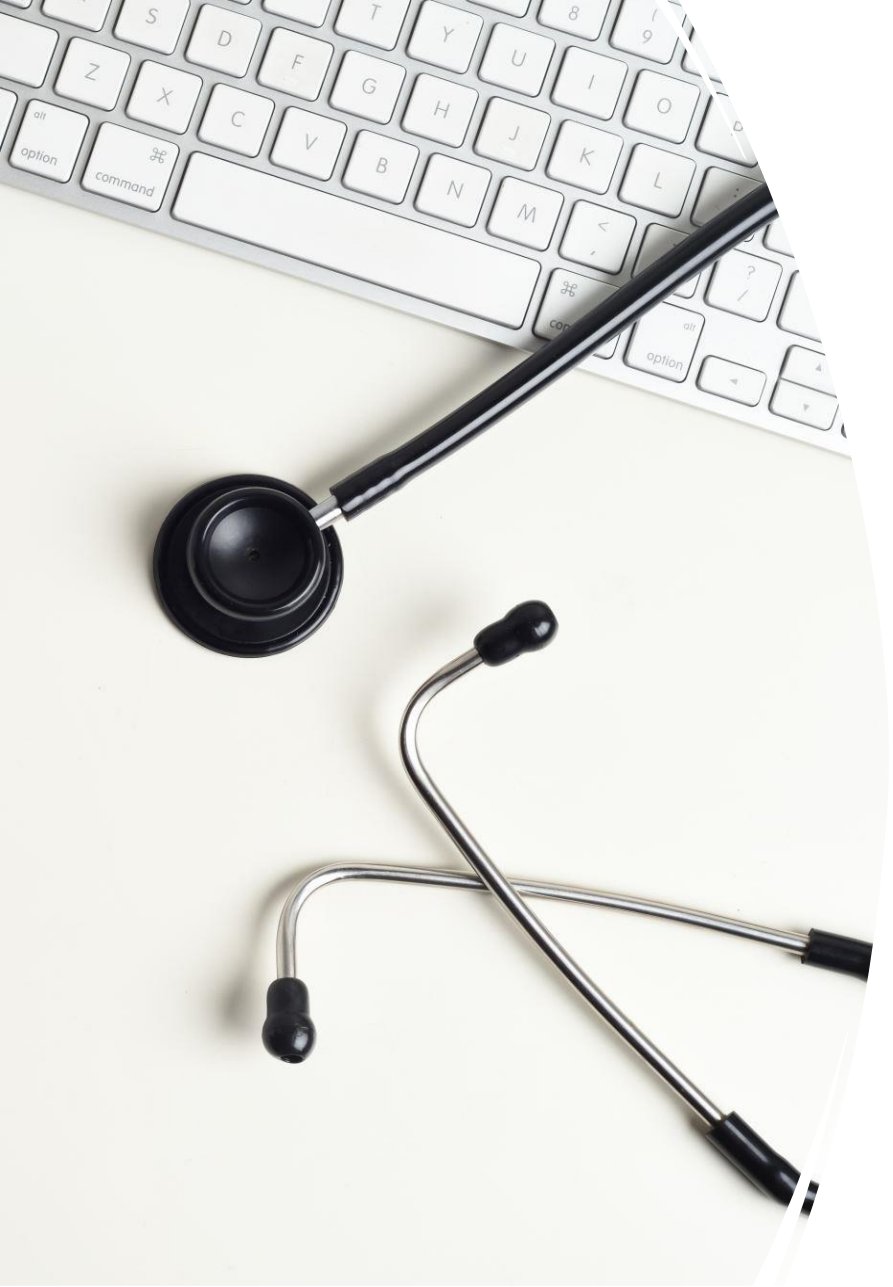
Inadequate response to lifestyle intervention

Weight regain after initial weight loss with lifestyle intervention alone

Presence of weight-related complications, particularly if severe, with the intent to achieve sufficient weight loss to ameliorate the complication

BMI, body mass index.

1. Garvey, et al. *Endocr Pract.* 2016;22:1-203. 2. Grunvald E, et al. *Gastroenterol*. 2022;163(5):1198-1225. 3. Apovian CM, et al. *JCEM*. 2015;100(2):342-362.



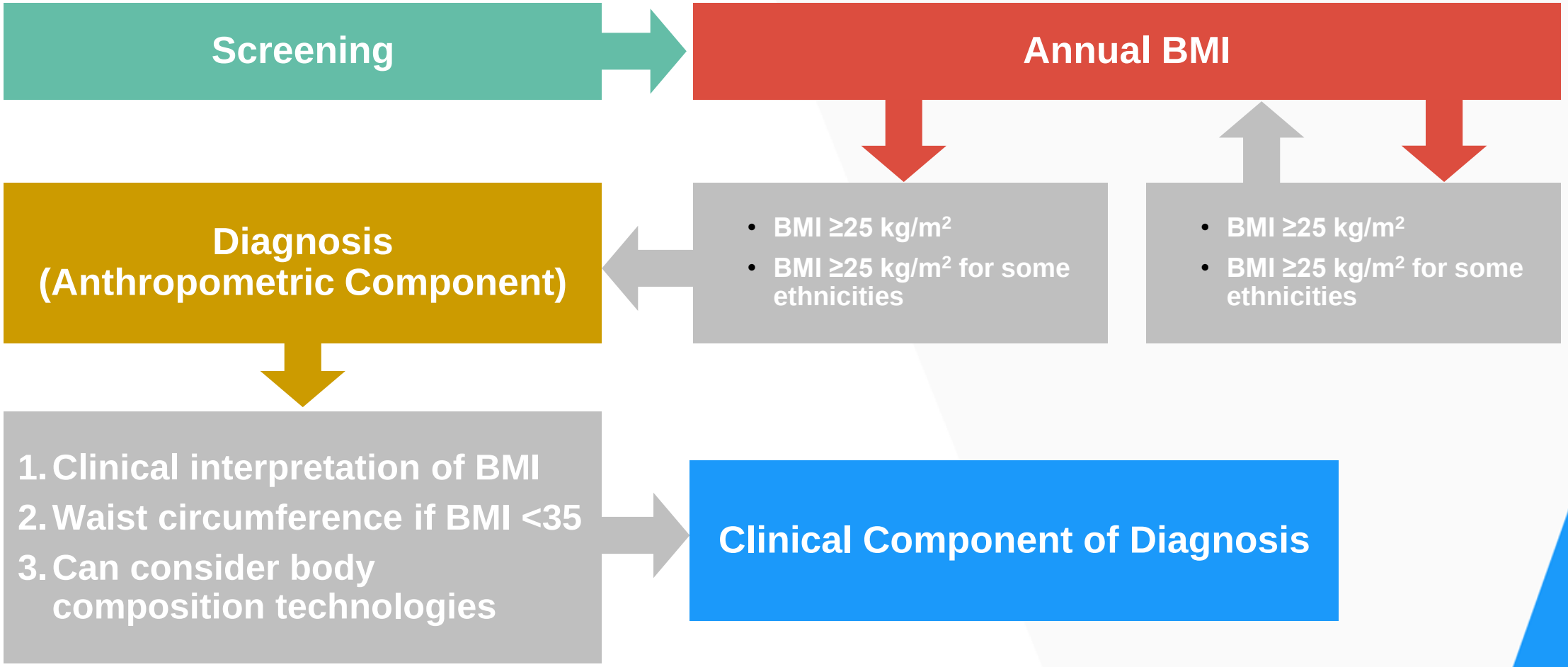
FDA-approved Anti-obesity Medication Indications

- Patients with obesity (e.g., BMI >30kg/m^2)
- Patients with overweight (e.g., BMI 27kg/m^2) with presence of a weight-related complication (e.g., type 2 diabetes mellitus, hypertension, dyslipidemia)
- Adjunct to reduced calorie diet and increased physical activity
- Contraindicated in patients hypersensitive to the drugs

BMI, body mass index.

Bays HE, et al. *Obesity Algorithm* eBook, presented by the Obesity Medicine Association. www.obesityalgorithm.org. 2023.

Anthropometric Component of the Medical Diagnosis of Obesity



Garvey, et al. *Endocr Pract.* 2016;22:1-203

FDA-approved Anti-obesity Pediatric Medication Indications

Pediatric patients aged 12 years and older with an initial BMI at the 95th percentile or greater for age and sex (obesity)

Bays HE, et al. *Obesity Algorithm* eBook, presented by the Obesity Medicine Association. www.obesityalgorithm.org. 2023.

Anti-Obesity Medications

Medications FDA Indicated for Short-term Use

- Sympathomimetic Amines
  - Phentermine (DEA Schedule IV); 15 mg, 30 mg, 37.5 mg (cap), 8 mg, 37.5 mg (tab)
  - Diethylpropion (DEA Schedule IV) 25 mg, 75 mg ER
  - Phendimetrazine (DEA Schedule III) 35 mg tab, 105 mg ER cap
  - Benzphetamine (DEA Schedule III) 25 mg, 50 mg
- Indication: Short-term use (a few weeks) as adjunct to a weight reduction regimen
- MOA: Norepinephrine-releasing agent; anorexic agent
- Weight Loss Efficacy: 3-8% in controlled clinical trials; 4-19% in retrospective medical chart reviews

MOA, mechanism of action.

Cornier, M. *Am J Manag Care*. 2022;28(Suppl 15):S288-S296.

Medications FDA Indicated for Short-term Use

Potential Adverse Reactions[1]

- Palpitation
- Tachycardia
- Increased blood pressure
- Overstimulation
- Tremor
- Dizziness
- Insomnia
- Dysphoria
- Headache
- Dryness of mouth
- Dysgeusia
- Diarrhea
- Constipation

Contraindications/Cautions[2]

- Hypersensitivity & pregnancy/breastfeeding
- History of cardiovascular disease (e.g., coronary artery disease, stroke, arrhythmias, congestive heart failure, uncontrolled hypertension)
- Administration during or within 14 days following the administration of monoamine oxidase inhibitors
- Hyperthyroidism
- Glaucoma
- Agitated states
- History of drug abuse

1. Cornier, M. *Am J Manag Care*. 2022;28(Suppl 15):S288-S296. 2. Bays HE, et al. *Obesity Algorithm* eBook, presented by the Obesity Medicine Association. www.obesityalgorithm.org. 2023.

Original Article
CLINICAL TRIALS AND INVESTIGATIONS

Obesity

Safety and Effectiveness of Longer-Term Phentermine Use: Clinical Outcomes from an Electronic Health Record Cohort

Kristina H. Lewis [1,2], Heidi Fischer[3], Jamy Ard [1], Lee Barton[3], Daniel H. Bessesen[4], Matthew F. Daley[5], Jay Desai[6], Stephanie L. Fitzpatrick[7], Michael Horberg[8], Corinna Koebnick[3], Caryn Oshiro[9], Ayae Yamamoto[3], Deborah R. Young[3], and David E. Arterburn[10]

Lewis KH, et al. *Obesity (Silver Spring).* 2019;27(4):591-602

Longer-term Phentermine Use

13,972 adults with phentermine use 2010-2015

- Short-term (reference group)
- Short-term intermittent
- Medium-term continuous
- Medium-term intermittent
- Long-term continuous

Effectiveness

- Percent change in weight from baseline at 6, 12, 24 months

Safety

- Change in blood pressure
- CV Risk-incidence of myocardial infarction, stroke, angina, CABG, carotid artery intervention, or death

CABG, coronary artery bypass graft.

Lewis KH, et al. *Obesity (Silver Spring).* 2019;27(4):591-602

Longer-term Phentermine Use: Key Results

Efficacy

- Longer duration of phentermine use associated with clinically significant greater weight loss up to 2 years
- Discontinuation consistently resulted in weight regain
- Early responders (3% weight loss by 3 months) more likely to reach clinically significant weight loss by 6 months and generally had more durable weight loss in all groups

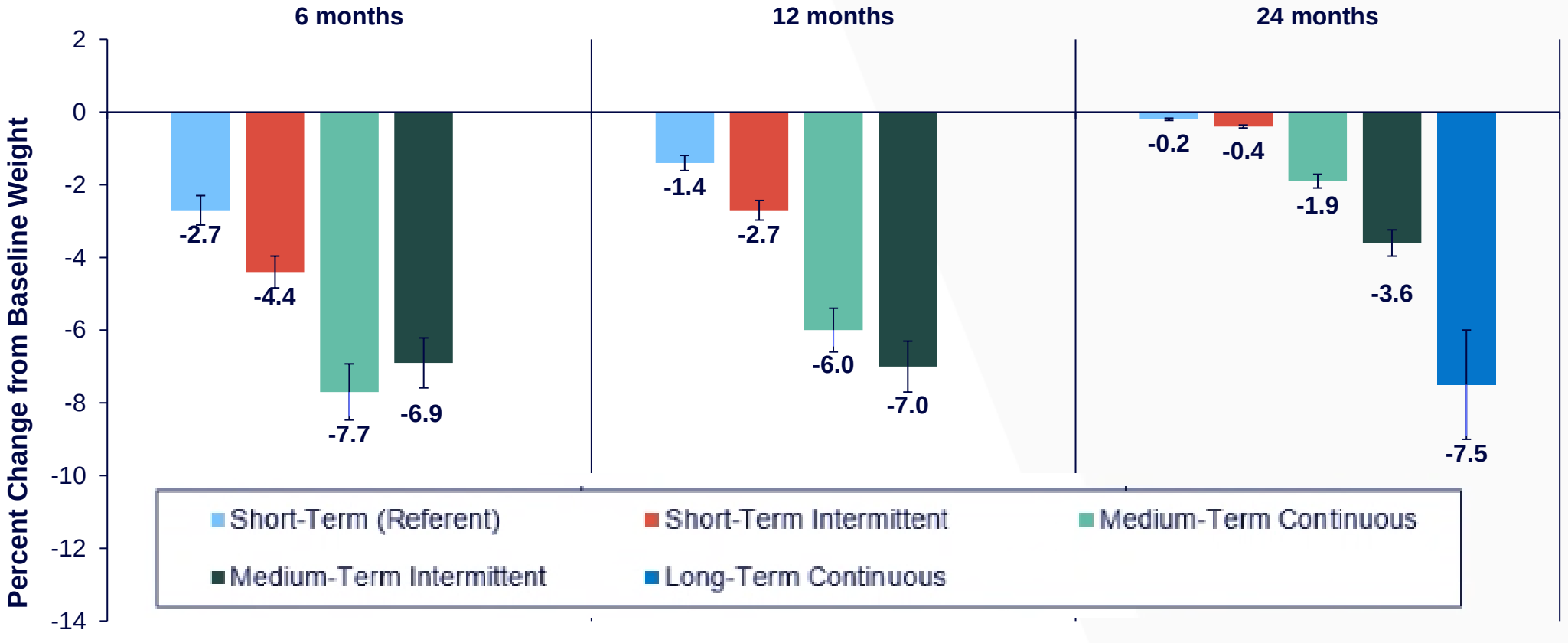
Safety

- Slight increase in average HR that normalized with drug discontinuation
- No blood pressure difference in groups at 6 months; lower blood pressure noted in comparison groups at 12 and 24 months
- No significant difference in risk of incidence of CVD or death between groups related to duration of phentermine treatment (3-year follow-up)

HR, heart rate; CVD, cardiovascular disease.

Lewis KH, et al. *Obesity (Silver Spring).* 2019;27(4):591-602

Estimated Percent Weight Loss with Long-term Phentermine



Lewis KH, et al. *Obesity (Silver Spring).* 2019;27(4):591-602

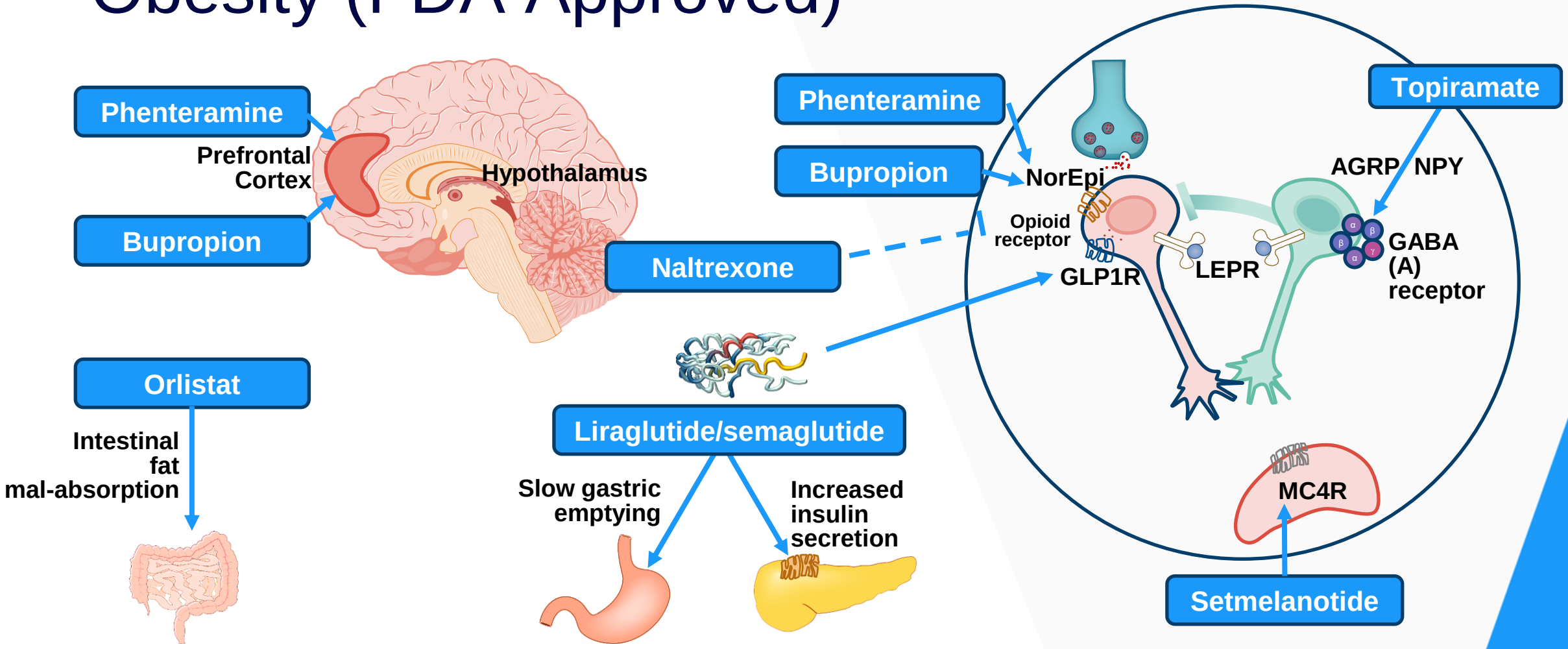
Long-term Pharmaceutical Treatments for Obesity (FDA Approved)

Drug Name	Indication	Mechanism of Action	Route
Phentermine/ topiramate ER	Age 12 years and up	Sympathomimetic, anorectic, reduces appetite	Oral
Orlistat	Age 12 years and up (Rx) Age 18 years and up (OTC)	GI lipase inhibitor to decrease fat absorption	Oral
Naltrexone/ bupropion	Age 18 years and up	Reduces appetite (NDRI) and cravings (opioid antagonist)	Oral
Liraglutide	Age 12 years and up, with or without T2DM	GLP-1 receptor agonist, reduces appetite and food intake	Injection (daily)
Semaglutide	Age 12 years and up, with or without T2DM	GLP-1 receptor agonist, reduces appetite and food intake	Injection (weekly)
Setmelanotide	Age 6 years and up with monogenic or syndromic obesity due to POMC, PCSK1, or LEPR variants	Melanocortin 4 receptor agonist, reduces appetite	Injection (daily)
Nonsystemic Oral Hydrogel	Age 18 years and up	Cellulose/citric acid hydrogel, promotes fullness in stomach (device)	Oral

Rx, prescription; OTC, over-the-counter; NDRI, norepinephrine–dopamine reuptake inhibitor; T2DM, type 2 diabetes mellitus; GLP-1, glucagon-like peptide 1.

1. Mauer Y, et al. *Cleve Clin J Med*. 2021;88(8):440-448. 2. Therapeutic Research Center. Accessed July 25, 2023. https://prescriber.therapeuticresearch.com/Content/Segments/PRL/2017/Jan/Weight-Loss-Products-1057 3. Bays HE, et al. *Obesity Algorithm* eBook, presented by the Obesity Medicine Association. www.obesityalgorithm.org. 2023.

Long-term Pharmaceutical Treatments for Obesity (FDA Approved)



Rosenbaum M and Vidhu MD. In: Feingold KR, Anawalt B, Blackman MR, et al., editors. Endotext [Internet]. South Dartmouth (MA): MDText.com, Inc.; 2000-. Available from: https://www.ncbi.nlm.nih.gov/books/NBK279060/

Phentermine/topiramate ER[1-5]

Adult dosing	• Initiate treatment at 3.75 mg/23 mg for 2 weeks • Increase to 7.5 mg/46 mg • Escalate to 11.25 mg/69 mg for 2 weeks then to max 15 mg/92 mg
Efficacy	• 10% mean weight loss with treatment vs 2% placebo • Improved cardiometabolic markers • Reduced progression to T2DM
Contraindications/ precautions/warnings	• Monitor for reduced sweating/increased body temp • Pregnancy test (baseline & monthly) due to birth defect risk • Worsening depression/suicidal thoughts • Increased BP and HR • Do not use: pregnancy, glaucoma, hyperthyroid
Side effects	• Paraesthesia, dizziness, dysgeusia, insomnia, constipation, dry mouth • 1/14 discontinuation rate
Clinical considerations	• Must be discontinued gradually to avoid increased seizure risk • Monitor kidney function • Taper doses if necessary to discontinue
Cost	• $200/month for brand name

BP, blood pressure; HR, heart rate.

1 . Therapeutic Research Center. Accessed July 25, 2023. https://prescriber.therapeuticresearch.com/Content/Segments/PRL/2017/Jan/Weight-Loss-Products-1057 2. Bays HE, et al. *Obesity Algorithm* eBook, presented by the Obesity Medicine Association. www.obesityalgorithm.org. 2023. 3. Qsymia Prescribing Information. Vivus LLC. 4. Bragg R, et al. *J Am Assoc Nurse Pract* 2016;28:107-15. 5. Kahan S. *Am J Manag Care*. 2016;22:S186-S196

Orlistat[1-5]

Adult dosing	• 120 mg TID within 1 hour of fat-containing meal
Efficacy	• Mean weight loss ranged from 3.9%-10.2% at year 1 in 17 RCTs (120 mg TID) • Decreased BP, TC, LDL-C, fasting glucose at 1 year • Slows risk of progression to T2DM
Contraindications/ precautions/warnings	• Contraindicated for those with chronic malabsorption syndrome or cholestasis • Do not use in pregnancy, or when breastfeeding • Drug interactions
Side effects	• Oily spotting, flatus with discharge, fecal urgency, fatty/oily stool, oily evacuation, increased defecation, fecal incontinence • 1/26 discontinuation rate
Clinical considerations	• May interfere w/absorption of fat-soluble vitamins/medications/OCPs, especially if diarrhea • Need vitamins A/D/E/K/beta-carotene >2 hours separated from medication and levothyroxine 4 hours from medication
Cost	• $600/month RX; $40/month OTC (different dosing)

BP, blood pressure; OTC, over the counter; OCP, oral contraceptive pill; TC, total cholesterol; TID, three times a day.

1. Therapeutic Research Center. Accessed July 25, 2023. https://prescriber.therapeuticresearch.com/Content/Segments/PRL/2017/Jan/Weight-Loss-Products-10572 2. Bays HE, et al. *Obesity Algorithm* eBook, presented by the Obesity Medicine Association. www.obesityalgorithm.org. 2023. 3. Bragg R, et al. J Am Assoc Nurse Pract 2016;28:107-15. 4. Kahan S. Am J Manag Care. 2016;22:S186-S196. 5. Xenical Prescribing Information. Roche Pharmaceuticals.

Naltrexone/bupropion[1-5]

Adult dosing	• Initiate 8 mg/90 mg x 1 week • Weekly escalation to target dose of 32 mg/360 mg (2 tablets BID)
Efficacy	• Mean weight loss of 8.2% vs 1.4% (placebo) • Improved cardiometabolic parameters • Fewer cravings • Lowered HbA1c in patients with T2DM
Contraindications/ precautions/warnings	• Contraindications: uncontrolled hypertension, seizure disorders, anorexia or bulimia, opioid use, monoamine oxidase inhibitors • Do not use in pregnancy
Side effects	• Nausea, constipation, headache, vomiting, dizziness, insomnia, dry mouth, diarrhea • 1/9 discontinuation rate
Clinical considerations	• Avoid taking with high-fat meal to minimize seizure risk • Monitor for increased suicidal ideation • Monitor BP and HR • Avoid taking with high-fat meal to minimize seizure risk.
Cost	• $500/month at full dose (2 tabs BID)

NDRI, norepinephrine–dopamine reuptake inhibitor; CYP, cytochrome p450 inhibitors, BID, twice daily.

1. Therapeutic Research Center. Accessed July 25, 2023. https://prescriber.therapeuticresearch.com/Content/Segments/PRL/2017/Jan/Weight-Loss-Products-10572 2. Bays HE, et al. *Obesity Algorithm* eBook, presented by the Obesity Medicine Association. www.obesityalgorithm.org. 2023. 3. Bragg R, et al. J Am Assoc Nurse Pract 2016;28:107-15. 4. Kahan S. Am J Manag Care. 2016;22:S186-S196. 5. Contrave Prescribing Information. Currax Pharmaceuticals LLC.

Liraglutide[1-5]

Adult dosing	• Weekly titration by 0.6 mg over 5 weeks to target dose of 3.0 mg
Efficacy	• Mean weight loss 9% at 1 year • Reduced progression to T2DM in patients with prediabetes • Reduced risk of weight regain at 1 year
Contraindications/ precautions/warnings	• Contraindication: personal or family history of medullary thyroid carcinoma or multiple endocrine neoplasia syndrome type 2 • Do not use in pregnancy or when breastfeeding
Side effects	• Nausea, diarrhea, constipation, vomiting, injection site reactions, headache, hypoglycemia, dyspepsia, fatigue, dizziness, abdominal pain, increased lipase, upper abdominal pain, pyrexia, gastroenteritis • 1/18 discontinuation rate
Clinical considerations	• Monitor for signs and symptoms of pancreatitis, cholelithiasis • Discontinue DPP4 (gliptin) • May increase HR and SI • Must stay hydrated to avoid AKI • May slow absorption of other medications
Cost	• $1300/month

T2DM, type 2 diabetes mellitus; MTC, medullary thyroid cancer; MEN2, multiple endocrine neoplasia type 2; AKI, acute kidney injury.

1. Therapeutic Research Center. Accessed July 25, 2023. https://prescriber.therapeuticresearch.com/Content/Segments/PRL/2017/Jan/Weight-Loss-Products-10572 2. Bays HE, et al. *Obesity Algorithm* eBook, presented by the Obesity Medicine Association. www.obesityalgorithm.org. 2023. 3. Bragg R, et al. J Am Assoc Nurse Pract 2016;28:107-15. 4. Kahan S. Am J Manag Care. 2016;22:S186-S196. 5. Saxenda Prescribing Information. Novo Nordisk.

Semaglutide[1-4]

Adult dosing	• Initiate at 0.25 mg QW for 4 weeks • Increase dose in 4-week intervals until reaching 2.4 mg
Efficacy	• Mean weight loss 10-16% % at 68 weeks • Reduced HbA1c • Reduced risk of major adverse CV events by 20%
Contraindications/ precautions/warnings	• Contraindication: personal or family history of medullary thyroid carcinoma or multiple endocrine neoplasia syndrome type 2 • Do not use in pregnancy
Side effects	• Nausea, diarrhea, vomiting, constipation, abdominal pain, headache, dyspepsia, fatigue, dizziness, abdominal distension, eructation, hypoglycemia (in those with T2DM), flatulence, gastroenteritis, gastroesophageal reflux disease, nasopharyngitis • 1/28 discontinuation rate
Clinical considerations	• Monitor for signs and symptoms of pancreatitis, cholelithiasis • May increase HR and SI • Must stay hydrated to avoid AKI • May slow absorption of other medications
Cost	• $1300/month

1. Therapeutic Research Center. Accessed July 25, 2023. https://prescriber.therapeuticresearch.com/Content/Segments/PRL/2017/Jan/Weight-Loss-Products-10572 2. Bays HE, et al. *Obesity Algorithm* eBook, presented by the Obesity Medicine Association. www.obesityalgorithm.org. 2023. 3. Wegovy Prescribing Information. Novo Nordisk. 4. Company Announcement. Aug 8, 2023. Accessed 8/9/23. https://www.novonordisk.com/news-and-media/news-and-ir-materials/news-details.html?id=166301

Setmelanotide[1-3]

Adult dosing	• Age 6+: Initiate at 2 mg daily for 2 weeks • Titrate to 3 mg once daily
Efficacy	• 80% of patients with POMC or PCSK1 deficiency and 46% with LEPR deficiency had ≥10% weight loss at 1 year (small trials)
Contraindications/ precautions/warnings	• Disturbance in sexual arousal • Increased depression and SI • Do not use in pregnancy or when breastfeeding
Side effects	• Injection site reaction, skin hyperpigmentation, nausea, headache, diarrhea, abdominal pain, back pain, fatigue, vomiting, depression, upper respiratory tract infection, spontaneous penile erection
Clinical considerations	• Only appropriate for those with obesity due to genetic testing confirmed deficiency of POMC, PCSK1, or LEPR (Bardet-Biedl syndrome)
Cost	• $1000/vial

POMC, pro-opiomelanocortin; PCSK1, proprotein convertase subtilisin/kexin-type 1; LEPR, leptin receptor; GFR, glomerular filtration rate.

1. Therapeutic Research Center. Accessed July 25, 2023. https://prescriber.therapeuticresearch.com/Content/Segments/PRL/2017/Jan/Weight-Loss-Products-10572 2. Bays HE, et al. *Obesity Algorithm* eBook, presented by the Obesity Medicine Association. www.obesityalgorithm.org. 2023. 3. Imcivree Prescribing Information. Rhythm Pharmaceuticals, Inc.

Nonsystemic Oral Hydrogel[1-2]

Adult dosing	• 3 capsules 20-30 minutes before lunch and dinner with 16-20 oz. water
Efficacy	• Mean weight loss 6.4% % at 24 weeks • 58.6% of patients were body weight responders
Contraindications/ precautions/warnings	• Contraindications: history of allergic reaction to cellulose, citric acid, sodium stearyl fumarate, gelatin, or titanium dioxide • Do not use during pregnancy
Side effects	• Abdominal distension, abdominal pain, constipation, diarrhea, flatulence, infrequent bowel movements, nasopharyngitis, headache, gastrointestinal disorders • 1/4 discontinuation
Clinical considerations	• Technically a device since it is not absorbed or metabolized
Cost	• $99 per month

1. Therapeutic Research Center. Accessed July 25, 2023. https://prescriber.therapeuticresearch.com/Content/Segments/PRL/2017/Jan/Weight-Loss-Products-10572 2. Plenity®. Accessed July 25, 2023. https://www.myplenity.com/

Practical Applications

Clinical Guidelines

2014

Guideline for the Management of Obesity in Adults

American Heart Association.

AMERICAN COLLEGE of CARDIOLOGY.

THE OBESITY SOCIETY

2015

Guideline for the Management of Obesity in Adults

ENDOCRINE SOCIETY

2016

Comprehensive Clinical Practice Guidelines for Medical Care of Patients with Obesity

AACE®

AMERICAN COLLEGE OF ENDOCRINOLOGY 1993 ACE

2022

Clinical Practice Guideline on Pharmacological Interventions for Adults with Obesity

aga American Gastroenterological Association

Key Pharmacological Guidance

- Add AOM if inadequate response to lifestyle interventions alone
- Early weight loss helps predict sustained weight loss
  - 2.5% weight loss within 1 month for all patients
  - 5-10% within 6 months
- Medication selection is individualized based on treatment goals, weight-related complications, drug cautions and warnings

Medication should be used chronically; short-term treatment is not recommended

Cornier, M. *Am J Manag Care*. 2022;28(Suppl 15):S288-S296.

Specific Medication Guidance

Prioritize semaglutide 2.4 mg due to magnitude of net benefit

- Most current AOM FDA indicated for long-term use have a balance of weight loss over harm that favor their use
- Orlistat – AGA suggests against use; endorsed in older guidelines
- Phentermine
  - AACE/ACE recommend against off-label AND short-term use
  - Endocrine Society and AGA provide conditional endorsement for off-label use

Avoid off-label use of drugs approved for other disease states for the sole purpose of weight loss

AGA, American Gastroenterological Association; AACE, American Association of Clinical Endocrinologists; ACE, American College of Endocrinology.
Cornier, M. *Am J Manag Care*. 2022;28(Suppl 15):S288-S296.

Pediatric Guidelines: American Academy of Pediatrics

1998 & 2007

Expert Committee Recommendations

2016

Algorithm for the Assessment and Management of Childhood Obesity

2023

Clinical Practice Guideline for the Evaluation and Treatment of Children and Adolescents with Obesity

- Immediate intensive treatment
- Intensive health behavior and lifestyle treatment (IHBLT)
- Insufficient response → intensify treatment with pharmacotherapy/surgery
- <12 years insufficient evidence for use of pharmacotherapy for sole indication of obesity
- Ages 8-11 offer pharmacotherapy for specific conditions according to indications, risks and benefits

Pediatric Medication Guidance

Obesity Indication 12+ years

- Orlistat
- Liraglutide 3.0
- Phentermine/topiramate
- Phentermine (16+ yrs)
- Setmelanotide (6+ yrs)

*semaglutide

Other Medical Condition Indication

- Metformin: 10+ T2DM
- Exenatide, dulaglutide, liraglutide 1.8: 10+ T2DM
- Topiramate: 2+ seizure, 12+ headache prevention
- Lisdexamfetamine: 6+ ADHD

ADHD, attention deficit hyperactivity disorder.

Hampl SE, et al. *Pediatrics*. 2023;151(2).

Shared Decision-Making for Choosing AOMs

- Involves choosing treatment based on both evidence and patient preferences
- Consider health literacy: information, drawings

Discuss:

- Comorbid conditions
- Desire for childbearing
- Route of medication
- Availability/supply
- Expected length of time to be on medication
- Risks & benefits of each option
- Cost/coverage
- Expectation of lifestyle as adjunct to medications for best success

Acosta A, et al. *Obesity (Silver Spring)*. 2021;29(4):662-671

Choosing an AOM: Cost/Insurance Factors

Cost affected by:

- Brand name vs generic available
- Insurance coverage
  - Employer based
- Coupon cards
- Pharmaceutical company patient assistance programs

Mauer Y, et al. *Cleve Clin J Med*. 2021;88(8):440-448.

Choosing an AOM: Additional Factors

- **Patient preferences**
- **Birth control**
- **Co-occurring medical conditions**
- **Cravings**

Let's Get Real, photograph © Obesity Action Coalition / OAC Image Gallery

Mauer Y, et al. *Cleve Clin J Med*. 2021;88(8):440-448.

Original Article
CLINICAL TRIALS AND INVESTIGATIONS

Obesity

Selection of Antiobesity Medications Based on Phenotypes Enhances Weight Loss: A Pragmatic Trial in an Obesity Clinic

Andres Acosta [1], *Michael Camilleri* [1], *Barham Abu Dayyeh*[1], *Gerardo Calderon*[1], *Daniel Gonzalez*[1], *Alison McRae*[1], *William Rossini*[1], *Sneha Singh*[1], *Duane Burton*[1], *and Matthew M. Clark*[2]

Acosta A, et al. *Obesity (Silver Spring)*. 2021;29(4):662-671

Phenotypes

Hungry Brain

Abnormal satiation

Phentermine/ topiramate, lorcaserin

Emotional Hunger

Hedonic eating

Naltrexone/bupropion sustained release

Hungry Gut

Abnormal satiety

Liraglutide

Slow Burn

Decreased metabolic rate

Phentermine (15 mg) + increased resistance training

Acosta A, et al. *Obesity (Silver Spring)*. 2021;29(4):662-671

Additional Considerations

Anti-obesity Medication: Additional Considerations

- Medications promote variable weight reduction over variable duration
- If no clinical improvement (3-5% loss of baseline body weight) after 12-16 weeks with one anti-obesity medication, consider alternative medication or increase anti-obesity medication dose (if applicable)
- While BMI is the only measure listed in the prescribing information for anti-obesity medications, BMI has limitations

Bays HE, et al. *Obesity Algorithm* eBook, presented by the Obesity Medicine Association. www.obesityalgorithm.org. 2023.

FDA-approved Anti-obesity Medication: Additional Considerations

The decision to continue/discontinue medications without a prescribing information time limitation for use should be based on

- Individual patient response
- Clinical judgment regarding the risk of further/recurrent weight gain

Bays HE, et al. *Obesity Algorithm* eBook, presented by the Obesity Medicine Association. www.obesityalgorithm.org. 2023.

Medications in Phase 3 Trials[1]

GLP-1/GIP dual agonists

Example:
tirzepatide

Amylin receptor agonist

Example:
cagrilintide with semaglutide

SGLT-2 inhibitors

Example:
dapagliflozin with metformin

Acetylcholine blockers

Example:
botulinum toxin type A

Dopamine reuptake inhibitor

Example:
methylphenidate

1. Chaktoura M, et al. *Lancet*. 2023;58:101882.

Summary

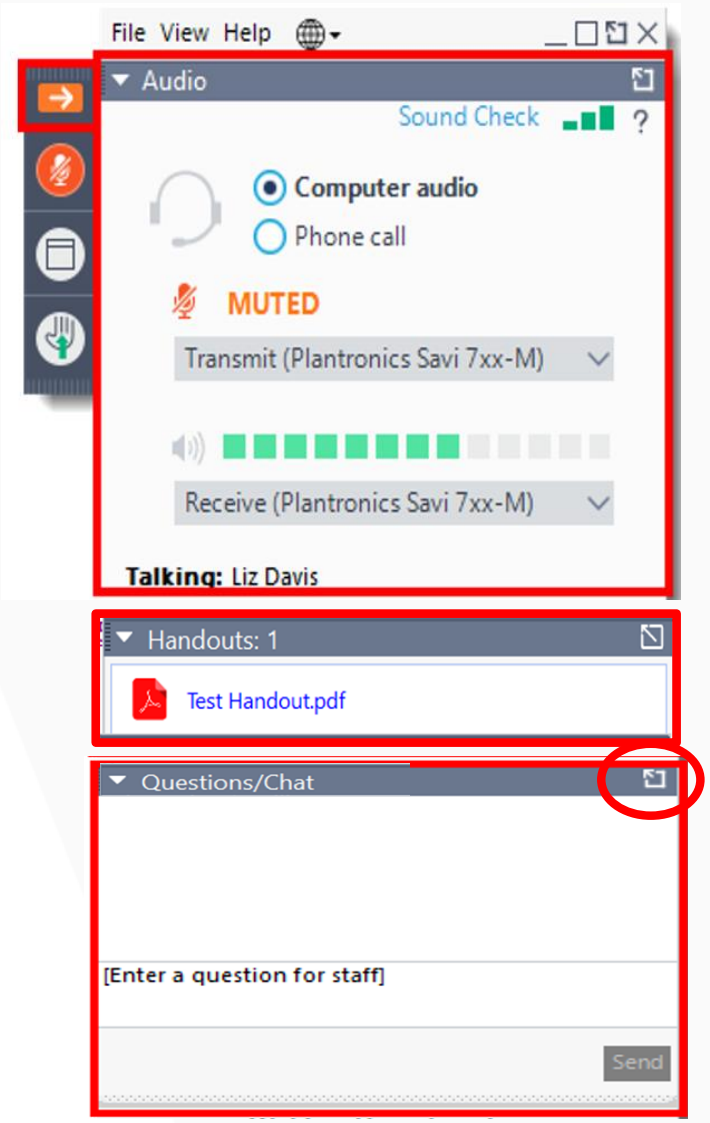
- Pharmacotherapy is adjunct to lifestyle as part of a treatment plan
- All AOMs are contraindicated for use during pregnancy or breastfeeding
- Obesity is a chronic disease; guidelines help providers decide why, when, and how to use short- and/or long-term medications
- Patients may be non-responders, early responders, and/or hyper-responders
- AOM choice is multi-factorial and should be done with patient input and the considerations discussed
- Research is rapidly evolving, so we will need to keep an eye on the future of AOMs

Questions

Time for Q&A

Your Participation

Please continue to submit your questions and comments using the Questions/Chat tab.



THANK YOU