The Unspoken Chronic Disease: Obesity

SUSANNA STORENG, DMSC,
PA-C, DFAAPA, CPAAPA

MAY 20, 2024

AAPA 2024

Disclosures

Non-Declaration Statement: **I have no relevant relationships with ineligible companies to disclose within the past 24 months.**

This is an **introduction** to weight management and obesity treatment!

I am a person/patient living with/suffering from obesity in partial remission

Objectives

1

Define obesity as a disease

2

Describe the elements of weight management

3

Apply pharmacological therapies for the use of weight management in diverse patient populations

Basics

Obesity is a disease, a chronic illness

Treatment is NOT just Eat Less, Move More

Complex disease with significant consequences, requiring individualized disease management

Affects persons of all ages, gender, and races

Definition of Obesity

Less factual

- WHO: “abnormal or excessive fat accumulation that presents a risk to health.”

  Obesity (who.int)

- CDC: uses body mass index (BMI)to measure obesity. Individuals with a BMI of 30 or higher are considered to have obesity.

  Defining Adult Overweight & Obesity | Overweight & Obesity | CDC

BMI can be used as an initial tool to screen for obesity. Limited!

WHO recognizes limitations, BMI is only “a crude population measure of obesity.”

Definition of Obesity

More Accurate:

- Obesity Medicine Association (OMA) as stated in the Obesity Algorithm®: Obesity is a "chronic, relapsing, multi-factorial, neurobehavioral disease, wherein an increase in body fat promotes adipose tissue dysfunction and abnormal fat mass physical forces, resulting in adverse metabolic, biomechanical, and psychosocial health consequences."

What Is Obesity? | Obesity Medicine Association

Approach

ASK

History

Physical

Assessment

- Comorbidities

Plan

- Four (Five) Pillars of Obesity Management (*credit OMA*)

ASK

Clinicians often approach obesity with bias or with kid-gloves

Patients want to talk about this

Be respectful

“Can we talk about your weight?”

PLAN

FOUR (FIVE) PILLARS (*credit OMA*)

- Nutrition (not a diet)
- Activity (not exercise)
- **Pharmacotherapeutics**
- Behavior change

- Surgical intervention

Pharmacotherapy

Barriers to Treatment

- Perception that obesity is NOT a disease
- Fear of causing side effects/causing dependance
- Perception the Anti-Obesity Medications are NOT effective

THESE ARE ALL FALSE PERCEPTIONS

Obesity remains stigmatized

Patients want to talk about this but do NOT want to be criticized

Avoid bias

Use people-first language

Pharmacotherapy

Indications *(GOING BACK TO THE DREADED BMI...)*

- Patients with a BMI of 30 kg/m^2 or higher
- Patients 27 kg/m^2 or higher with obesity-associated complications in whom a healthy low-calorie diet and regular physical activity have failed to achieve a healthy weight.

- Obesity Associated Complications Examples
  - Hypertension
  - Gastroesophageal Reflux
  - Hyperlipidemia
  - Coronary Artery Disease
  - Osteoarthritis
  - Obstructive Sleep Apnea
  - Non-Alcoholic Fatty Liver Disease/Non-Alcoholic Steatoreic Hepatitis

Pharmacotherapy

Obesogenic meds

Short term (three months or less)
- Phentermine

Long term
- Phentermine/Topiramate ER
- Naltrexone HCL/Bupropion HCL ER
- Orlistat
- Liraglutide
- Semaglutide
- Tirzepatide
- Hydrogel Matrix
- (Metformin)

Phentermine (expect 3-8% body weight loss in 3 months)

MOA: Sympathomimetic amine anorectic. Stimulates nor-epinephrine release

Dosing:

- 15, 30, 37.5 mg daily capsule
- 37.5 mg daily tablet (can be cut in half)
- 8 mg three times daily (trade name Lomaira)

Adverse Reactions

- Dry Mouth
- Difficulty sleeping
- Constipation
- Dizziness
- Irritability/Anxiety
- Nausea/Vomiting
- Diarrhea

Contraindications/Caution

- Uncontrolled hypertension
- Uncontrolled hyperthyroidism
- Agitation
- Alcohol Abuse/overuse
- Glaucoma
- History CVD
- Pregnancy/Nursing
- History Drug Abuse/Use

AGE: 16 yo and up

Dosing at least 30 minutes before meal or 1-2 hours after a meal

Other similar stimulants

Benzphetamine (17 yo and up)

Diethylpropion (IR or ER) (16 yo and up)

Phendimetrazine (IR or ER) (17 yo and up)

Phentermine/Topiramate ER (expect approx. 5-10% body weight loss)

MOA: sympathomimetic appetite suppression, augments GABA activity, antagonizes glutamate receptors, inhibits carbonic anhydrase

Dosing daily in am, titrated ever 2 weeks as tolerated

- 3.75/23 mg
- 7.5/46 mg
- 11/25.69 mg
- 15/92 mg

REMS

- www.QsymiaREMS.com

Adverse Reactions

- Dry Mouth
- Insomnia
- Constipation
- Dizziness
- Taste change
- Paresthesia

Contraindications

- Uncontrolled hyperthyroidism
- Glaucoma
- Pregnancy/Nursing
- MAOi use

- Caution with history of kidney stones

Age: 12 yo and up

Naltrexone/Bupropion HCL ER (expect approx. 5% body wt. loss)

MOA: Antagonizes various opioid receptors, inhibits neuronal uptake of norepinephrine and dopamine

Dosing:

- 8/90 mg
- Start 1 tab twice daily AM and PM
- Titrate to 2 tabs AM and PM after one week
- Continue to titrate by one tab each week to max of 4 tabs twice daily (32/360mg BID)
- Wean if 5% wt. loss at 12 wks. not achieved.

Adverse Reactions

- Constipation
- Nausea/Vomiting
- Dry Mouth
- Headache
- Dizziness
- Insomnia
- Diarrhea

Contraindications

- Anorexia/Bulimia
- History of Seizure
- History of Suicidal Behavior
- Pregnancy/Nursing
- Uncontrolled HTN

BLACK BOX WARNING: monitor for depression and suicidal ideation

AGE: 18 and above only

Liraglutide (expect approx. 5-10% body weight loss)

MOA: GLP-1 receptor agonist- in the brain and gut, regulating appetite and calorie intaking

Dosing:

- 0.6mg SC injection daily
- Need to prescribe with pen needles (not included)
- Titrate each week to a dose of 3mg as tolerated
- D/C if 4% wt. loss is not met at 16 weeks treatment

Adverse reactions

- Abdominal pain
- Constipation
- Diarrhea
- Nausea/Vomiting
- Dyspepsia
- Fatigue
- Decreased Appetite

Contraindications

- Personal history of Pancreatitis
- Family or personal history of Medullary thyroid Cancer
- FH or PMH of MEN2

Age: 12 and up (>60 kg)

Semaglutide (expect about 15% body weight loss)

MOA: GLP-1 receptor agonist- in the brain and gut, regulating appetite and calorie intaking

Dosing:

- 0.25 mg SC inj weekly x 4 weeks
- Includes pen needles
- Titrate to 0.5 mg SC weekly x 4 weeks
- Then 1mg SC weekly x 4 weeks
- Then 1.7 mg weekly x 4 weeks
- Then 2.4 mg weekly (maintenance dose)

- MUST re-titrate from 0.25mg if interrupted dosing for more than 2 weeks

Adverse reactions

- Abdominal pain
- Constipation
- Diarrhea
- Nausea/Vomiting
- Dyspepsia
- Fatigue
- Decreased Appetite

Contraindications

- Personal history of Pancreatitis
- Family or personal history of Medullary thyroid Cancer
- FH or PMH of MEN2

AGE: 12 and up

Tirzepatide (GLP-1/GIPR agonist) (expect about 20% weight loss)

MOA: combined GLP-1 and glucose insulinotropic polypeptide receptors, increasing insulin secretion, decreasing glucose secretion, increasing insulin sensitivity and delaying gastric emptying

Dosing:

- 2.5 mg SC weekly for 4 weeks
- 5 mg SC weekly x 4 weeks
- 7.5 mg weekly x 4 weeks
- 10 mg weekly x 4 weeks
- 12.5 mg weekly x 4 weeks
- 15 mg weekly x 4 weeks

- Titrate to tolerance and glucose control

Adverse Reactions

- GI most commonly
  - Nausea
  - Diarrhea
  - Appetite change
  - Vomiting
  - Constipation
  - GERD
  - Pancreatitis
- Tachycardia
- Weight Loss

- Age: 18 yo and up, not approved for Peds

- Contraindications
  - Personal history of Pancreatitis
  - Family or personal history of Medullary thyroid Cancer
  - FH or PMH of MEN2

Behavior Change

Understanding the behaviors that lead to weight gain can help patients correct those unhealthy behaviors

Motivational interviewing can help with this

Regular follow-up has been shown to help with accountability and achieving goals

- Monthly for the first three months and then every three months (proposed by the Endocrine Society in 2016 and still considered the standard of care)

Pharmacological Management of Obesity Guideline Resources | Endocrine Society

Behavior Change

National Weight Loss Registry Behaviors

- 90% exercise, on average, about 1 hour per day.
- 78% eat breakfast every day.
- 75% weigh themselves at least once a week.
- 62% watch less than 10 hours of TV per week.

Research Findings (nwcr.ws)

Metabolic Adaptation

Weight loss can result in up to 15% reduction in resting metabolic rate, decreasing total energy expenditure making weight loss overtime (and weight maintenance) difficult

Recommendations to combat this are an increase in exercise overall and addition of strength training to minimize these effects on energy expenditure and mass loss.

Increased protein consumption can also provide some added protection from Metabolic adaptation.

Maintenance

Maintenance

- *"chronic, relapsing, multi-factorial, neurobehavioral disease, wherein an increase in body fat promotes adipose tissue dysfunction and abnormal fat mass physical forces, resulting in adverse metabolic, biomechanical, and psychosocial health consequences."*
  - Lifelong
  - **Likely a need for regular lifelong medication maintenance (Do we stop BP meds if the HTN improves?)**

Exercise maintenance

- *"To prevent Weight Regain after Loss*
  - *150 minutes/week moderate aerobic x 2-3 (i.e. 300-450 minutes) (or ½ of above times for vigorous aerobic)"*
  - Lifelong
  - Need to regularly reeducate patients of the importance

Advocacy

Many insurance do not cover AOM nationwide

Medicaid formulary DOES cover AOM with prior authorization

Medicare DOES NOT cover AOM

Many commercial insurances adjusting formularies to remove GLP-1 for the treatment of obesity

Controlling weight with AOM can prevent obesity related disease like CAD, OSA, and OA which leads to total joint replacement.

"An ounce of prevention is worth a pound of cure"

Important Points

Obesity is a Chronic disease that needs to be treated as such

Patients want to talk about weight management

- Ask patients if you can discuss weight

There are many safe and effective medications available for patients of all ages

Management of obesity includes pharmacological therapy, behavior change and sometimes surgical intervention, as well as nutrition and activity

References

Hendricks, E., Srisurapanont, M., Schmidt, S. *et al.* Addiction potential of phentermine prescribed during long-term treatment of obesity. *Int J Obes* **38**, 292–298 (2014). https://doi.org/10.1038/ijo.2013.74

Tak, Y.J., Lee, S.Y. Long-Term Efficacy and Safety of Anti-Obesity Treatment: Where Do We Stand?. *Curr Obes Rep* **10**, 14–30 (2021). https://doi.org/10.1007/s13679-020-00422-w

Bays, H., Fitch, A., Christensen, S., Burridge, K., Tondt, J. (2022). Anti-Obesity Medications and Investigational Agents: An Obesity Medicine Association (OMA) Clinical Practice Statement (CPS) 2022. Obesity Pillars. 2. 100018. 10.1016/j.obpill.2022.100018.

Weghuber D, Barrett T, Barrientos-Pérez M, et al. Once-Weekly Semaglutide in Adolescents with Obesity. *N Engl J Med*. 2022;387(24):2245-2257. doi:10.1056/NEJMoa2208601

Frías JP, Davies MJ, Rosenstock J, et al. Tirzepatide versus Semaglutide Once Weekly in Patients with Type 2 Diabetes. *N Engl J Med*. 2021;385(6):503-515. doi:10.1056/NEJMoa2107519

Wilding JPH, Batterham RL, Calanna S, et al. Once-Weekly Semaglutide in Adults with Overweight or Obesity. *N Engl J Med*. 2021;384(11):989-1002. doi:10.1056/NEJMoa2032183

References

Villela R, Correa R. Semaglutide 2.4 mg: the latest GLP-1RA approved for obesity. *J Investig Med*. 2022;70(1):3-4. doi:10.1136/jim-2021-002227

Jung HN, Jung CH. The Upcoming Weekly Tides (Semaglutide vs. Tirzepatide) against Obesity: STEP or SURPASS?. *J Obes Metab Syndr*. 2022;31(1):28-36. doi:10.7570/jomes22012

Jastreboff AM, Aronne LJ, Ahmad NN, et al. Tirzepatide Once Weekly for the Treatment of Obesity. *N Engl J Med*. 2022;387(3):205-216. doi:10.1056/NEJMoa2206038

Lu D, Yuan Z, Guo X, et al. Efficacy and safety of intragastric expandable oral capsules in adults with overweight or obesity: A randomized, double-blind, placebo-controlled trial. *Diabetes Obes Metab*. 2024; 1-10. doi:10.1111/dom.15418

Physical Activity Guidelines for Americans, 2nd Edition. Available at health.gov/PA Guidelines

Donnelly JE, Blair SN, Jakicic JM, et al. American College of Sports Medicine Position Stand. Appropriate physical activity intervention strategies for weight loss and prevention of weight regain for adults [published correction appears in Med Sci Sports Exerc. 2009 Jul;41(7):1532]. *Med Sci Sports Exerc*. 2009;41(2):459-471. doi:10.1249/MSS.0b013e3181949333

Martínez-Gómez, Mario G.1; Roberts, Brandon M.2. Metabolic Adaptations to Weight Loss: A Brief Review. Journal of Strength and Conditioning Research 36(10):p 2970-2981, October 2022. | DOI: 10.1519/JSC.0000000000003991

THANK YOU!

Questions ????

SUSANNA STORENG, DMSc, PA-C, DFAAPA, CPAAPA

sthomaspac@hotmail.com