Let’s Go!
Childhood Obesity Project ECHO®

Dr. Tory Rogers
Dr. Carrie Gordon
Meg Nadeau

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This session will be recorded for educational and quality improvement purposes.

Please do not provide any protected health information (PHI) during any ECHO session.

Zoom trouble? Chat to Meg Nadeau

Please turn on your video!
Please enter your name, organization, and email address (needed for CME) in the chat.
If you are watching as a group, please put everybody’s information in the chat.

Introduce Yourself

Microphones

Welcome and Introductions (5 min)
Lecture & Q&A (25 min)
Case/Discussion (25 min)
Close (5 min)
Evaluation and CMEs

If you haven’t already done so, please enter your name and email address in the Chat.

- After each ECHO session, you will receive an email with a link to a brief evaluation survey and Post-Test.
  - Please complete within 1 week.

- Upon completion, a link to the CME credit will be sent to you.
BMI as a Measure of Health & Disease

Carrie Gordon, MD | MMC Weight and Wellness Program
Val O’Hara, DO | WOW 4 Wellness Clinic
Why BMI is used

• BMI, when elevated into the range of having obesity, has been found to be associated with metabolic disease, some cancers, shorter life expectancy and other negative impacts to our health

• This measure is easy to calculate and easy to track over time

• 5-10% drop in BMI has been found to improve health in those with metabolic disease

• It uses measures we are already obtaining

• Clinical setting limitations to do this work in other ways
  - Would require new tools, screeners, new workflows and approach
BMI

- Vital Sign
  - Not a diagnosis
  - Based on weight

- Measuring fat mass and lean mass
  - DEXA gold standard
  - Bioimpedance
    - Improving as a clinical tool; 97-98% correlation with DEXA
  - Bod Pod
  - Skin Calipers
  - Hydrostatic weighing
BMI Measurement

- Specificity 0.93
  - 7% of children with increased BMI have normal adiposity

- Sensitivity 0.73
  - 27% of children with a normal BMI have excess adiposity
Severe Obesity

- BMI
  - 1.2 x 95th percentile for age and sex or BMI 35+
- Affects 4% of children and 9% of adolescents
- Unremitting chronic condition
- Associated with significant morbidity and premature mortality
Obesity:
BMI 100-120% of the 95th percentile and BMI < 35 whichever is lower

Severe Obesity Class 2:
BMI 121-140% of the 95th percentile or BMI = 35-39, whichever is lower

Severe Obesity Class 3:
BMI > 140% of the 95th percentile or BMI > 40 kg/m2, whichever is lower
Limitations around the use of BMI

- Many individuals with an elevated BMI are healthy
- We are using BMI as a marker of adiposity and this is not a direct measure
- Individuals with normal range BMI may have elevated amounts of adiposity and metabolic disease
- Weight and BMI are sensitive topics, associated with bias and stigma, shame and blame
- BMI “normals” vary between different cultures
Concerns about adopting a “Healthy at Any Size- Approach”

- We cannot ignore unhealthy excessive growth just as we cannot ignore unhealthy patterns of weight loss given the role of a health care provider in treating disease and maintaining health.
- It feels unethical to ignore elevated BMI given the known associated health risk.
- Treating obesity as a disease doesn’t mean that we are judging individuals for having obesity.
- We need to acknowledge and accept the limitations of BMI while working towards better markers.
- Maintaining awareness of bias and stigma, acknowledging our intrinsic bias and trying to optimize our office to offer a comfortable and accepting place for individuals of all size.
- There are many individuals with obesity, without internalize weight bias or eating disorders that could benefit from and would like to lose weight.
Potential Adjuncts to BMI Focused Care

- Body composition scales
- Waist circumference
- Nutrition quality scores
- FI screening and supports
- Sleep hygiene screening
- Screening for hyperphagia and unhealth food relationships (Binge Eating Disorder, SRED, Night Eating Syndrome)
  - Genetic screening and mental health screening
- Physical literacy
- Treatment of set point pathophysiology, as excessive adiposity (adiposopathy) is causing illness
- Internalized weight bias screening
- Comorbid illness lab and exam screening
• A 16 year old (female) patient with a BMI of 119% of the 95%ile/ Class 1 comes to your office. She used to be a dancer, her %ile has climbed in the last 3 years, but have leveled off over the last year. No concerning labs or exam findings, other than irregular menses. Mom would like you to prescribe the patient phentermine.

• A 14 year old (male) patient comes to the office. He has hypertension, acanthosis nigricans, elevated liver enzymes and has recently had a sleep study consistent with sleep apnea. His BMI is at the 180% of the 95%ile/ Class3, and has been there for 5-6 years. He comes asking about his candidacy for bariatric surgery.
Patient Questions

• An 18 year old patient of yours has a BMI at the 115% of the 95%ile/Class1. He has congenital limb anomalies and has challenges with balance and movement, the extra weight he carries has worsened over the last 4 years and has negatively impacted his mobility. He drinks 4 cans of soda/day and eats fast foods. He describes hyperphagia. He isn’t sure how much he can change his diet and wants medications to help him lose weight. He has hypertension and one functioning kidney. Otherwise normal labs.

• A 7 year old patient of yours, with a new diagnosis of autism and ADHD has constant hunger. She gets very emotional when food limits are set, she helps herself to any food that is around the home. You have watched her BMI climb from the 85%ile to the 150% of the 95%ile/Class3 over the last 4 years, despite many conversations about visual schedules, activity and the home food environment. Mom is worried about her ability to connect with peers. Her dad, who has ADHD, hated taking stimulants when he was younger, and doesn’t want his daughter on them. Her labs are normal.
FIGURE 1  Possible interactions between adolescent obesity and the dual pathway model for the development of eating disorders.22,23 The dual pathway model is shaded and has been adapted from Stice 200122; arrows represent associations; dotted lines represent suggested associations. BED, binge eating disorder

ADHD/ADD and Obesity

- ADHD NOT treated with stimulants
  - Higher BMIs both as children and adults

- ADHD treated with stimulants
  - Slower BMI growth in childhood
  - BMI rebound in adolescence

- On treatment, 42% of children improve one obesity class
  - Obesity to overweight
  - Overweight to normal
Obesity with ADHD

Screen for Co-occurring & Associated Disorders

Obesity without ADHD

Sleep Disorders
- Sleep History:
  - snoring, nocturnal enuresis, daytime fatigue
  - Sleep screening tools: ESS CHAD
- Sleep Study

Disordered eating patterns
- LOC-ED: Screen & Evaluation
- BED Scale (Age appropriate) or detailed hx of symptoms
- R/O NES, SRED, other sleep disorders

Mental Health Concerns
- Anxiety
- Depression
- Others

Referral(s) as indicated
- Sleep: Positive screen: sleep consult/sleep study
- LOC-ED/BED: CBT, consider pharmacotherapy
- Anxiety: CBT/counseling/consider pharmacotherapy

Interventions

Standard Care PLUS:
- Comprehensive ADHD management
- Short term goals, frequent touch points
- Structure & consistency
- Decrease environmental triggers
- Cognitive Behavioral Therapy
- Evaluate pharmacotherapy
- Consider Vyvanse to address both diseases

Standard Care:
- Intensive Lifestyle interventions
  - Comprehensive team
- Advanced obesity management therapies

Fig. 1  Decision algorithm for management of patients with obesity with and without ADHD

Some possible next steps for you....

1. Are there a few key take aways you can put into practice next week?

2. View the supplemental learning options - LetsGo.org/ECHO

3. Think about any bias you have that might get in the way with your patients
   - Bias screening test - https://implicit.harvard.edu/implicit/takeatest.html

4. Do you have a Team to help you?
   - Internal team
   - Community partners
   - Referring physicians

5. Do you need to develop new Workflows for Well Visits and Follow Up Visits?

6. Think about taking an MI course
Thank you

- Feel free to reach out to us at:
  - ObesityECHO@mainehealth.org
  or
  - Tory - victoria.rogers@mainehealth.org
  - Carrie - carrie.gordon@mainehealth.org