How do I know if my patients are sick with obesity?

Using the AAP algorithm to guide assessment and management of patients with overweight and obesity.

MAAP 2017 Spring Conference
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Disclosure Statement

Victoria W. Rogers, MD, FAAP

• I have no relevant financial relationships with the manufacturers(s) of any commercial product(s) and/or provider of commercial services discussed in this CME activity.

• I do not intend to discuss an unapproved/investigative use of a commercial product/device in my presentation.

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Why a new Algorithm?

- Children with overweight and obesity may be sick
- PCPs need to screen for comorbidities
- To the extent possible, patients should be cared for in their medical home
- Providers have asked for guidance

How did we develop the algorithm?

- Engaged a small group of experts
- Relied on existing guidelines
- Utilized new research and new consensus statements

Take Home Messages

- Assessment is a critical piece of the puzzle
- This assessment is doable in the primary care setting
- Children who have a BMI > 85% may be sick and may need:
  - Special consideration to determine if they are ill
  - Laboratory tests
  - Additional work-up for comorbidities as determined by positive signs and symptoms and family history
Healthy Habits Questionnaire

- Gets conversation started between parent and child
- Keeps conversation going throughout appointment
- Can be used as a HEDIS measure
Provide prevention counseling

A Simple Framework

5210
Every Day!

For more information about 5-2-1-0 visit www.letsgo.org
Expectations in Primary Care: Growth

- Accurately measure and chart growth
  - Birth to 23 months – weight-for-length
  - 2 years and older – weight, height, BMI, BMI% and weight classification
- Identify and note concerns

Words

What words do you use when referring to the patient’s BMI?
- Be sensitive and direct
- Share why you, as the provider, care
- Avoid colloquialisms
- Use the “O” word carefully

You Are Here
Pausing for a Moment

- These kids could be sick
- Children at greater than 85th percentile are at a higher risk for comorbidities
- We are going to look at 3 ways to fine-tune/augment your assessment:
  - Family History
  - Review of Systems
  - Physical Exam
Augmented Obesity-specific Family History

- Obesity
- Type 2 Diabetes
- Hypertension
- Lipid level abnormalities
- Heart disease


Augmented Obesity-specific Review of Systems

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Probable causes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Snoring/sleep disturbances</td>
<td>Obstructive sleep apnea</td>
</tr>
<tr>
<td>Abdominal pain</td>
<td>GERD, constipation, gall bladder disease, NAFLD</td>
</tr>
<tr>
<td>Palpable abdominal masses</td>
<td>Polycystic ovarian syndrome/Prader-Willi syndrome</td>
</tr>
<tr>
<td>Dysuria</td>
<td>SCI</td>
</tr>
<tr>
<td>Fat Pain</td>
<td>Macroadenoidal stress front weight</td>
</tr>
<tr>
<td>Headaches, school avoidance, social isolation</td>
<td>Depression</td>
</tr>
<tr>
<td>Gastrointestinal symptoms</td>
<td>Pseudotumor cerebi</td>
</tr>
<tr>
<td>Breathlessness</td>
<td>Asthma</td>
</tr>
</tbody>
</table>

Augmented Obesity-specific Physical Exam

<table>
<thead>
<tr>
<th>Findings</th>
<th>Probable causes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elevated Blood Pressure (correct cuff)</td>
<td>Hypertension on 3 or more occasions</td>
</tr>
<tr>
<td>Short Stature</td>
<td>Underlying endocrine conditions</td>
</tr>
<tr>
<td>Acanthosis nigricans</td>
<td>Increased risk of insulin resistance</td>
</tr>
<tr>
<td>Acne, Hirsutism</td>
<td>Polycystic ovary syndrome</td>
</tr>
<tr>
<td>Skin irritation</td>
<td>Intertrigo</td>
</tr>
<tr>
<td>Pseudotumor cerebi</td>
<td>Pseudotumor cerebi</td>
</tr>
<tr>
<td>Tonsillar hypertrophy</td>
<td>Obstructive sleep apnea</td>
</tr>
<tr>
<td>Goiter</td>
<td>Hypothyroidism</td>
</tr>
<tr>
<td>Wheezing</td>
<td>Asthma</td>
</tr>
<tr>
<td>Abdominal pain</td>
<td>GERD, gall bladder disease, NAFLD</td>
</tr>
<tr>
<td>Breathing</td>
<td>Asthma</td>
</tr>
<tr>
<td>Bowel sounds, not seen separately</td>
<td>Late onset of puberty, normal anogenital size, Prader-Willi syndrome</td>
</tr>
</tbody>
</table>

Health Risk Factors: Overweight

- Healthy eating and active living behaviors
- Family history
- Review of systems
- Physical exam

Overweight: Absent risk factors
Overweight: Risk factors present

These children have increased risk for obesity related conditions and need to move to the right side of the algorithm.

Obesity (BMI > 95%)

Augmented (obesity-specific)
- Family History
- Review of Systems
- Physical Exam

Lab Screening
- The 2005 Expert Committee recommendations state that a fasting glucose and fasting lipid profile along with a/B and LDL should be obtained.
- Additionally, guidelines from the AHA and American Diabetes Association recommend using preeclampsia as a potential cause to be looked for in children. The American Academy of Pediatrics recommends that children with a BMI > 95th percentile should undergo a comprehensive metabolic panel including fasting glucose, insulin, and lipid profile.
- Exercise and nutrition should be encouraged to help prevent the development of type 2 diabetes and cardiovascular disease.
- Currently, there is no evidence to support the need for patients with obesity, based on the patient's age and BMI, to undergo fasting glucose and lipid screening.
Laboratory Summary Slide

The recommended tests:

• Fasting Glucose
• Fasting Lipid Panel
• ALT
• AST

Additional laboratory test should be obtained as indicated
The consensus statements presented in this article may help keep the management of these children in their medical home and provide guidance to those sites that may not have subspecialists available.

Management and Treatment

Key Points:
- Not every patient is ready
- Fear tactics don’t work
- There are no quick fixes
- Frequent visits over time work
- Small behavior changes can have profound effects
- Motivational interviewing works
- The stages are a guide
- The Next Steps guide and approach can be useful
Management and Treatment Stages for Patients with Overweight or Obesity

• Patients should start at the least intensive stage and advance through the stages based upon the response to treatment, age, BMI, health risks and motivation.

• An empathetic and empowering counseling style, such as motivational interviewing, should be employed to support patient and family behavior change.  

• Children age 2 – 5 who have obesity should not lose more than 1 pound/month; older children and adolescents with obesity should not lose more than an average of 2 pounds/week.

Stage 1: Prevention Plus

Where/By Whom: Primary Care Office/Primary Care Provider

What: Planned follow-up visits (25-30 min) focusing on behaviors that resonate with the patient, family and provider. Consider partnering with a dietitian, social worker, athletic trainer or physical therapist for added support and counseling.

Goals: Positive behavior change regardless of change in BMI. Weight maintenance or a decrease in BMI is better.

Follow-up: Tailor to the patient and family motivation. Many experts recommend at least monthly follow-up visits. After 5 – 6 months, if the BMI/weight status has not improved consider advancing to Stage 2.
Stage 2 Structured Weight Management

Where/By Whom: Primary Care Office/Primary Care Provider with appropriate training.

What: Same intervention as Stage 1 while including more intense support and structure to achieve healthy behavior change.

Goals: Positive behavior change. Weight maintenance or a decrease in BMI velocity.

Follow-up: Every 2-4 weeks as determined by the patient, family and physician. After 3-6 months, if the BMI/weight status has not improved consider advancing to Stage 3.

Stage 3 Comprehensive Multi-disciplinary Intervention

Where/By Whom: Adolescent Weight Management Clinic/Multi-disciplinary Team.

What: Increased intensity of behavior changes, frequency of visits, and specialists involved. Structured behavioral modification program, including food and activity monitoring, and development of short-term diet and physical activity goals.

Goals: Positive behavior change. Weight maintenance or a decrease in BMI velocity.

Follow-up: Weekly or at least every 2-4 weeks as determined by the patient, family, and physician. After 3-6 months, if the BMI/weight status has not improved consider advancing to Stage 4.

Stage 4 Tertiary Care Intervention

Where/By Whom: Tertiary Care Weight Management Centers/Providers with expertise in treating childhood obesity.

What: Recommended for children with BMI > 25% and significant comorbidities if unsuccessful with Stage 3. Not recommended for children with BMI who have shown no improvement under Stage 3. Intensive diet and activity counseling with consideration of the use of medications and surgery.

Goals: Positive behavior change. Decrease in BMI.

Follow-up: Determine based upon patient’s motivation and medical status.
What can be done in a well-child visit?

- Assessment: Is the patient at risk for complications due to his/her weight status?
- Begin the conversation (tailored to family and risk)
- Set the stage
- Gauge patient and family interest in continuing the conversation
- Arrange for follow-up:
  - Are labs necessary?
  - Is a referral necessary?
  - Does the patient and family want to keep talking about what to do to get healthy?

Take Home Messages

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References:
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5. Expert panel on integrated guidelines for cardiovascula...
7. Expert panel on integrated guidelines for cardiovascula...
10. Expert panel on integrated guidelines for cardiovascula...