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| Body System: Endocrine | | |
| Session Topic: Obesity Management | | |
| Educational Format | | Faculty Expertise Required |
| REQUIRED | Interactive Lecture | Expertise in the field of study. Experience teaching in the field of study is desired. Preferred experience with audience response systems (ARS). Utilizing polling questions and engaging the learners in Q&A during the final 15 minutes of the session are required. |
| OPTIONAL | Problem-Based Learning (PBL) | Expertise teaching highly interactive, small group learning environments. Case-based, with experience developing and teaching case scenarios for simulation labs preferred. Other workshop-oriented designs may be accommodated. A typical PBL room is set for 50-100 participants, with 7-8 each per round table. <u>Please describe your interest and plan for teaching a PBL on your proposal form.</u> |
| Professional Practice Gap | Learning Objective(s) that will close the gap and meet the need | Outcome Being Measured |
| <ul style="list-style-type: none"> • Knowledge and practice gaps exist with regard to developing collaborative long-term weight loss programs for overweight and/or obese patients. • Less than 1% of eligible patients receive pharmacotherapy for their obesity. • Physicians may not adequately educate overweight and/or obese patients on the health benefits of physical activity, resulting in patients not understanding the importance of disease prevention and risk reduction that adherence to exercise may bring. • Adolescents frequently do not understand the link between obesity and lifestyle choices or the connection to future morbidities • Obese patients frequently do not receive an obesity | <ol style="list-style-type: none"> 1. Use effective physician–patient communication strategies to overcome barriers in the management of overweight/obese patients in your practice. 2. Develop a customized weight loss plan for overweight and/or obese patients that balance the advantages and disadvantages of all dietary, exercise, pharmacologic, surgical, and behavioral modification options. 3. Establish a multidisciplinary patient-centered strategy to manage bariatric treatment options for obese patients; including patient education, evaluation, coordination of care, and follow-up support. 4. Establish coding practices for appropriate billing for diet and preventive care counseling. | Learners will submit written commitment to change statements on the session evaluation, indicating how they plan to implement presented practice recommendations. |



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| <p>diagnosis or weight-related counseling.</p> <ul style="list-style-type: none"> • Physicians have significant barriers to providing obesity care, including lack of time, inadequate training in weight counseling, and the need to place greater priority on comorbid conditions; including several studies that have also documented negative physician attitudes (e.g., weight stigma), doubt that counseling will have an effect on patient behavior, and feeling that obesity is the responsibility of the patient. | | |
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ACGME Core Competencies Addressed (select all that apply)

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| X | Medical Knowledge | Patient Care |
| X | Interpersonal and Communication Skills | Practice-Based Learning and Improvement |
| | Professionalism | Systems-Based Practice |

Faculty Instructional Goals

Faculty play a vital role in assisting the AAFP to achieve its mission by providing high-quality, innovative education for physicians, residents and medical students that will encompass the art, science, evidence and socio-economics of family medicine and to support the pursuit of lifelong learning. By achieving the instructional goals provided, faculty will facilitate the application of new knowledge and skills gained by learners to practice, so that they may optimize care provided to their patients.

- Provide up to 3 evidence-based recommended practice changes that can be immediately implemented, at the conclusion of the session; including SORT taxonomy & reference citations
- Facilitate learner engagement during the session
- Address related practice barriers to foster optimal patient management
- Provide recommended journal resources and tools, during the session, from the American Family Physician (AFP), Family Practice Management (FPM), and Familydoctor.org patient resources; those listed in the References section below are a good place to start
 - Visit <http://www.aafp.org/journals> for additional resources
 - Visit <http://familydoctor.org> for patient education and resources
- Provide strategies for consistently including body mass index (BMI) and waist circumference as routine vital signs for identifying patients who are overweight or obese.
- Provide recommendations for implementing a systematic and practical approach to the management of overweight and obese patients.
- Provide strategies and resources for developing a customized weight loss plan for



overweight and/or obese patients that balance the advantages and disadvantages of all dietary, exercise, pharmacologic, surgical, and behavioral modification options.

- Provide recommendations for establishing a multidisciplinary patient-centered strategy to manage bariatric treatment options for obese patients; including patient education, evaluation, coordination of care, and follow-up support.
- Provide an overview of evidence-based recommendations for treatment, including a comparison between new and current medications, surgical options, dietary, exercise, surgical, and behavioral modification options.
- Provide recommendations regarding guidelines for Medicare reimbursement.
- Provide recommendations to maximize office efficiency and guideline adherence to the diagnosis and management of obesity.
- Provide an overview of newly available treatments, including efficacy, safety, contraindications, and cost/benefit relative to existing treatments.
- Provide instructions regarding the incorporation and use of the PCMH/ACO/Primary Care Core Measure Set into practice.

Needs Assessment:

The growing rates of obesity in the U.S. have been well documented and continue to be at unacceptable levels for both children and adults. According to the Centers for Disease Control and Prevention (CDC), approximately 69% of adults and almost 17% of youth were obese or overweight in 2009-2010, with overweight defined as BMI between 25 to 30; and obesity defined as BMI greater or equal to 30 in adults and a BMI greater than or equal to the age-and-specific 95th percentiles of the 2000 CDC growth charts.^{1,2} The prevalence of obesity in US adults is 35.7% or more than 78 million people over the age of 20 years.³ Moreover, 68.5% of US adults are overweight, or a BMI between 25 and 30 kg/m².⁴ Data estimate that nearly half a billion adults worldwide are obese, while overweight and obesity constitute the fifth-most common cause of death globally.⁵ Recent data forecast that the prevalence of obesity in the US will increase by 33% over the next 20 years and that the prevalence of a BMI of ≥ 40 kg/m² or morbidly obese, will increase by 130%.⁶

Data from a recent American Academy of Family Physicians (AAFP) CME Needs Assessment Survey indicate that family physicians have practice gaps related to managing obesity generally, pediatric obesity specifically, health promotion and disease prevention counseling, providing patient education, and fostering patient adherence through shared decision making.⁷ More specifically, CME outcomes data from 2012-2015 AAFP FMX (formerly Assembly): *Obesity* sessions suggest that physicians have knowledge and practice gaps with regard to approaching patients about their weight; effective use of dietary recall; helping patients identify weight loss goals; effectively using motivational interviewing (e.g. OARS); counseling patients about effective lifestyle modifications for diet and exercise; helping patients establish weight loss goals; developing collaborative treatment plans, including efficacious use of pharmacotherapy, lifestyle modification, and referral for bariatric surgery; effective use of follow-ups for monitoring and support; having an awareness of patient education materials, tools, and resources, including structured programs such as AAFP AIM-HI; utilizing a health and nutrition specialist; and appropriate coding and billing to optimize reimbursement.⁸⁻¹¹



As with adults, poor nutrition, a sedentary lifestyle and socioeconomic factors are cited as contributing factors to the growing rates of obesity in youth, which is now considered a serious public health concern. However, it also indicates an opportunity for early intervention by family physicians to promote behavior change, such as dietary modifications and physical activity, in younger patient populations. Interventions for obesity (for children and adults) should target modifiable health behaviors, such as nutrition and physical activity, although patients are most successful when they have population-based strategies to help them implement such changes. The elimination of barriers to access to healthy food and environments conducive to physical activity – which often involves public health and policy initiatives – can serve as an effective complement to the clinical interventions patients receive in a family physician’s office.¹²

Family physicians are uniquely positioned to help patients recognize when their health is being impacted by their weight and to work with patients to develop a health improvement plan. However, physicians often lack the competence to collaboratively develop long-term weight loss programs for overweight and/or obese patients.⁷ There are a variety of weight loss strategies available, and the formula for weight loss at its most basic elements is that one must consistently expend more energy than one consumes.¹³ Interventions include lifestyle modifications, physical activity and/or exercise, psychological/behavioral therapies, pharmacotherapy and bariatric surgery. A 10% reduction in body weight is a generally accepted initial goal of intervention. The guidelines on the management advocate lifestyle interventions augmented with obesity pharmacotherapy, as needed, to achieve target weight loss and improvement in comorbidities and disease biomarkers for hypertension, pre-diabetes and diabetes, and dyslipidemia.¹⁴

A scientific review of concluded that caloric balance, rather than macronutrient composition is the major determinant of weight loss, and data support the contention that those individuals consuming low-fat, low-calorie diets are most successful in maintaining weight loss.¹⁵ With intensive lifestyle treatments, the majority of patients can lose 7-10% of their initial weight at 1 year.¹⁶ However, longer-term weight maintenance is difficult; weight regain can be ameliorated but not eliminated.¹⁷

The health benefits of physical activity have been well documented over the past several years, especially with the dramatic rise in overweight and obesity now a public health concern. Weight control, risk reduction of numerous diseases (cardiovascular disease, type 2 diabetes and metabolic syndrome) and some cancers have all been cited as positive outcomes of regular physical activity. In fact, recent studies have found that higher body mass index (BMI) during late adolescence is associated with cardiovascular mortality in mid-adulthood.¹⁸ Indeed, fitness is the treatment of choice for preventing and managing overweight, obesity and chronic comorbidities. Ideally, patients are encouraged to start or maintain an exercise routine at every encounter, encouragement from a family physician can serve as a motivational factor for some patients. However, other patients need exercise prescriptions in order to recognize or comply with physical activity guidelines and risk reduction strategies.¹⁹

Many patients do not benefit fully from exercise prescriptions because the instructions are vague and unconstructive. Patients may not be encouraged to limit sedentary activities or given strategies to incorporate smaller, more manageable “bursts” of activity into their everyday lives. While family physicians are aware of the health benefits of physical activity, they may not be



able to adequately convey the importance of disease prevention and risk reduction to their patients.⁷ Effective exercise prescriptions, therefore, should be succinct, measurable, patient-appropriate and include recommendations on such factors as frequency, intensity, type, time and progression of exercise that follow disease-specific guidelines, with a gradual approach to physical activity.^{9,10}

While exercise prescriptions should be continually evaluated for patient compliance and health maintenance, family physicians should also be cognizant of barriers to implementation that may prevent some patients from engaging in exercise. This may include physical access to an exercise facility or walking trails, community or family support, health literacy and cultural competency. Not all barriers may be eliminated, but family physicians can help patients address each limitation through effective communication strategies and counseling.²⁰ Moreover, family physicians should receive continuing education that provides guidance for integrating evidence-based recommendations and guidelines for exercise prescriptions into practice.

For many obese individuals, diet and behavioral modification need to be supplemented by pharmacotherapy.²¹ However, data show that of those obese patients eligible for treatment, only 0.6% were receiving pharmacotherapy for their obesity.²² Barriers to the initiation or sustained use of obesity pharmacotherapy include costs, safety concerns, perception of limited efficacy and reluctance to view obesity as a disease requiring medical treatment.^{23,24} Physicians should receive education providing an overview on safety and efficacy of current pharmacotherapy options, including evidence-based recommendations regarding existing and newly approved FDA drugs for obesity; such as:²⁵⁻²⁸

- *Contrave (naltrexone HCl and bupropion HCl) ; Takeda Pharmaceuticals U.S.A.; For chronic weight management , Approved September 2014
- Saxenda (liraglutide [rDNA origin] injection); Novo Nordisk; For chronic weight management, Approved December 2014
- Belviq (lorcaserin hydrochloride); Arena Pharmaceuticals; For the chronic management of weight loss, Approved June 2012
- Qsymia (phentermine + topiramate extended-release); Vivus; For the treatment of chronic weight management, Approved July 2012
- phentermine, diethylpropion, phendimetrazine, Orlistat (approved in 2010);
- MERIDIA; Knoll Pharmaceutical; Treatment for obesity, Approved November 1997

*Note – learners will need to be provided an update on the research regarding the cardiovascular (CV) safety of Bupropion-naltrexone.²⁹

Bariatric surgery may be used in patients with a BMI ≥ 40 kg/m² or patients with a BMI of ≥ 35 kg/m² who have an obesity-related comorbidity. Bariatric surgery has become more common and more diverse in its modalities, comprising techniques such as Roux-en-Y gastric bypass, sleeve gastrectomy and adjustable gastric banding.³⁰ However, the decision to undertake bariatric surgery must involve a balanced view of the medical risks associated with obesity versus the short- and long-term risks of complications related to surgical intervention. While family physicians would not likely perform such procedures, they are uniquely positioned to orchestrate patient care with sub-specialists and/or counsel patients on appropriate options. Many patients may inquire about the risks and benefits associated with certain bariatric procedures, and family



physicians should be prepared to provide them with accurate information, resources and, when appropriate, referrals.^{31,32}

Bariatric surgery is particularly effective in patients with type 2 diabetes. Recent data indicate that bariatric surgery is associated with a 67% reduction in the hazard of all-cause mortality among severely obese patients with type 2 diabetes and a 60-75% reduction in end-stage vascular complications of diabetes.³³ Recent research indicates that the Remission of diabetes mellitus occurs in 60% to 80% of patients 1 to 2 years after Roux-en-Y gastric bypass surgery, and remission is retained in approximately 30% of patients at 15 years.³⁴ In multiple cohort studies, bariatric surgery is associated with relative reductions in all-cause mortality of 30% to 50% after 7 to 15 years. Despite favorable mortality and weight loss outcomes, there is growing evidence of long-term complications following gastric banding, which are often not identified in short-term clinical studies. Approximately 50% of patients require reoperation, including 25% who experience major late complications.³² Physicians need to be able to identify common postoperative problems and evaluate the need for further intervention.

Despite recent advances in pharmacotherapy, obesity continues to have significant physical and psychological adverse effects on an overwhelming majority of patients who are overweight and/or obese. For physicians to effectively use all treatment options for obesity, physicians must be extensively knowledgeable about their safety, tolerability and efficacy profiles, their relative risk-benefit ratios, limitations, precautions and contraindications and management of potential adverse effects that may be associated with treatment. This knowledge will allow physicians to improve outcomes in patients who are overweight and/or obese in whom weight loss management is recommended. Physicians need continuing medical education that provides updates on the safe and efficacious use of pharmacotherapy and emerging therapies for obesity. Pharmacologic treatment may be considered as to adjunct to lifestyle changes in patients who have not lost at least 1.11 lb. (0.5 kg) per week after three to six months of implementing lifestyle changes alone.³⁵

Physicians may improve their care of patients with obesity by engaging in continuing medical education that provides practical integration of current evidence-based guidelines and recommendations into their standards of care, including, but not limited to the following:^{32,34,36,37}

- The AAFP *recommends* screening all adults for obesity. Clinicians should offer or refer patients with a body mass index (BMI) of 30 kg/m² or higher to intensive, multicomponent behavioral interventions. (2012)
- Intensive, multicomponent behavioral interventions include behavioral management activities (12 to 26 sessions in the first year) such as setting weight loss goals, improving diet/nutrition and increasing physical activity, addressing barriers to change, self-monitoring, and strategizing how to maintain lifestyle changes. (See Clinical Considerations section for more information)
- The AAFP *recommends* that clinicians screen children aged 6 years and older for obesity and offer them or refer them to comprehensive, intensive behavioral interventions to promote improvement in weight status. (2010)
- Overweight is defined as body mass index (BMI) of 25-29.9 kg/m² or greater, and obesity is defined as BMI of 30 kg/m² or greater.



- Overweight and obese individuals should be advised that the greater their BMI, the greater the risk of cardiovascular disease (CVD), type 2 diabetes and all-cause mortality.
- Overweight and obese adults with CVD risk factors (high blood pressure, hyperlipidemia and hyperglycemia) should be counseled that lifestyle changes that produce even modest sustained weight loss of 3 percent to 5 percent produce clinically meaningful health benefits, and greater weight loss produces greater benefits.
- Overweight and obese adults should be prescribed a diet to achieve reduced calorie intake.
- Overweight and obese individuals who would benefit from weight loss should be advised to participate for six months or more in a comprehensive lifestyle program that assists participants in adhering to a lower-calorie diet and in increasing physical activity through use of behavioral strategies.
- Overweight and obese individuals who have lost weight should be advised to participate long-term (one year or more) in a comprehensive weight loss maintenance program.
- Adults with BMI of 40 kg/m² or greater or BMI of 35 kg/m² or greater with obesity-related comorbid conditions who are motivated to lose weight but have not had a sufficient response to behavioral treatment with or without pharmacotherapy should be informed about bariatric surgery and offered a referral for consultation and evaluation.
- Laparoscopic adjustable gastric banding surgery is effective in reducing weight and improving comorbid conditions in patients with obesity.
- Assessing the port system integrity and performing upper gastrointestinal imaging are the best initial steps to assess abdominal pain, vomiting, or dysphagia after laparoscopic adjustable gastric banding.
- Repair of hiatal hernia at the time of laparoscopic adjustable gastric banding surgery reduces the need for subsequent reoperation.
- Bariatric surgery results in greater weight loss than nonsurgical weight loss interventions.
- Bariatric surgery is highly effective in treating obesity-related comorbidities, particularly diabetes mellitus.
- Bariatric surgery reduces obesity-related mortality.

These recommendations are provided only as assistance for physicians making clinical decisions regarding the care of their patients. As such, they cannot substitute for the individual judgment brought to each clinical situation by the patient's family physician. As with all clinical reference resources, they reflect the best understanding of the science of medicine at the time of publication, but they should be used with the clear understanding that continued research may result in new knowledge and recommendations. These recommendations are only one element in the complex process of improving the health of America. To be effective, the recommendations must be implemented. As such, physicians require continuing medical education to assist them with making decisions about specific clinical considerations.

Additionally, physicians should consider the *Linking Primary Care Patients to Local Resources for Better Management of Obesity Toolkit*, developed by the AAFP National Research Network (NRN) in collaboration with the State Networks of Colorado Ambulatory Practices and Partners (SNOCAP-USA) and the YMCA.³⁸ The management of obesity toolkit is intended to offer broad ideas based in actual practice experience. It is the hope that clinicians and staff at every level of a



practice should review the toolkit, as each member contributes to patient care, and customize the concepts for their own specific needs.

The American Academy of Family Physicians Academy has participated in the Core Measures Collaborative (the Collaborative) convened by America's Health Insurance Plans (AHIP) since August 2014. The Collaborative is a multi-stakeholder effort working to define core measure sets of various specialties promoting alignment and harmonization of measure use and collection across both public and private payers.

Participants in the Collaborative included Centers for Medicare and Medicaid Services (CMS), the National Quality Forum (NQF), private payers, provider organizations, employers, and patient and consumer groups. This effort exists to decrease physician burden by reducing variability in measure selection, specifications and implementation—making quality measurement more useful and meaningful for consumers, employers, as well as public and private clinicians.

With significant AAFP input, a PCMH/ACO/Primary Care Core Measure Set has been developed for primary care. The goal of this set is to decrease burden and allow for more congruence between payer reporting programs.³⁹

Resources: Evidence-Based Practice Recommendations/Guidelines/Performance Measures

- Screening for and management of obesity in adults⁴⁰
- Diagnosis and Management of Obesity⁴¹
- AHA/ACC/TOS guideline for the management of overweight and obesity in adults³⁷
- AAFP Obesity. Clinical Preventive Service Recommendation³⁶
- Weight loss maintenance³⁵
- AACE Clinical practice guidelines for the perioperative nutritional, metabolic, and nonsurgical support of the bariatric surgery patient³⁰
- Treatment of adult obesity with bariatric surgery^{31,34}
- ACOG Committee opinion no. 549: obesity in pregnancy⁴²
- Complications of adjustable gastric banding surgery for obesity³²
- Exercise and older patients: prescribing guidelines¹⁹
- Improve the chances of your Medicare claims for obesity counseling⁴³
- Documenting and coding preventive visits: a physician's perspective⁴⁴
- Adding health education specialists to your practice⁴⁵
- Envisioning new roles for medical assistants: strategies from patient-centered medical homes⁴⁶
- The benefits of using care coordinators in primary care: a case study⁴⁷
- Engaging Patients in Collaborative Care Plans⁴⁸
- The Use of Symptom Diaries in Outpatient Care⁴⁹
- Health Coaching: Teaching Patients to Fish⁵⁰
- Health coaching for patients with chronic illness⁵¹
- Medication adherence: we didn't ask and they didn't tell⁵²
- Encouraging patients to change unhealthy behaviors with motivational interviewing⁵³



- Integrating a behavioral health specialist into your practice⁵⁴
- Simple tools to increase patient satisfaction with the referral process⁵⁵
- FamilyDoctor.org. Childhood Obesity (patient education)⁵⁶
- FamilyDoctor.org. Obesity Overview (patient education)⁵⁷
- FamilyDoctor.org. Obesity | Surgical Treatment for Obesity (patient education)⁵⁸

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