

VIEWPOINT

New Obesity Guidelines Promise and Potential

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Obesity is a major contributor to many chronic diseases and, because more than 1 in 3 US adults are obese,¹ a public health challenge. The goal of new obesity guidelines is to help primary care clinicians manage obesity more effectively. Obesity 2 (published as "2013 ACCF/AHA/TOS Guidelines for the Management of Overweight and Obesity in Adults"²) has been long awaited. The expert panel for Obesity 2 was first convened in September 2008 by the National Heart, Lung, and Blood Institute (NHLBI) and tasked with updating Obesity 1 (published in 1998 as "Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults—The Evidence Report"³). In 2013, the NHLBI elected to partner with the American Heart Association and the American College of Cardiology to promote and publish the guidelines.⁴

The approach to guideline development followed the Institute of Medicine reports "Clinical Practice Guidelines We Can Trust"⁵ and "Finding What Works in Health Care—Standards for Systematic Reviews."⁶ The aim of this stringent methodology was to limit bias and produce trustworthy recommendations. Because of time and cost, the use of this stringent methodology limited both the scope of literature review under consideration (1999-2011) and the number of critical questions.

From 23 critical questions suggested, the chosen 5 dealt with risks of overweight and obesity and the benefits of weight loss and evaluated 3 treatment areas—diet, behavioral therapies, and surgery. Questions 1 and 2 were chosen to help clinicians determine the appropriate criteria to guide a weight loss recommendation. Question 1 addressed the degree to which weight loss produces health benefits. Question 2 addressed the health risks of overweight and obesity and sought to determine if the current waist circumference and body mass index (BMI) cutpoints defining persons as overweight (BMI 25-29.9) and obese (BMI \geq 30) are appropriate. Question 3 asked which dietary strategies are acceptable for weight loss efforts. Question 4 sought to determine the efficacy of a comprehensive lifestyle intervention approach (diet, physical activity, and behavior therapy) to achieve weight loss and weight loss maintenance. Question 5 addressed the efficacy and safety of various bariatric surgical procedures, including benefits and risks. To conserve resources for questions 3 through 5, questions 1 and 2 used primarily meta-analyses and systematic reviews.

Because the questions were limited in number and scope, the recommendations are supplemented with an algorithm ("Chronic Disease Management Model for Primary Care of Patients With Overweight and Obesity") that incorporates recommendations and expert opinion to provide a roadmap for primary care clinicians.

Recommendation 1—Identifying Patients Who Need to Lose Weight

Obesity 2 endorses using BMI as a first step, not the sole criterion, to judge potential health risk. Waist circumference is treated as a risk factor. Recommendation 1 emphasizes that the greater the BMI and waist circumference, the greater the risk of cardiovascular disease, type 2 diabetes, and all-cause mortality. The panel had only meta-analyses and systematic reviews to evaluate cutpoints for BMI and waist circumference and, because this literature did not provide evidence for alternative cutpoints, the panel endorsed the commonly used cutpoints for both parameters. The algorithm provides additional information on measurement frequency and defines criteria for instituting a weight loss effort—obese adults or overweight adults with 1 or more indicators of increased disease risk or obesity-associated comorbidity (eg, hypertension, glucose intolerance/type 2 diabetes, dyslipidemia, sleep apnea, or nonalcoholic fatty liver disease).

Recommendation 2—Counseling About the Benefits of Weight Loss

Obesity 2 advises primary care clinicians to counsel patients who need to lose weight that lifestyle changes that produce even modest, sustained weight loss produce clinically meaningful health benefits and that greater weight losses produce greater benefits. Sustained weight loss of as little as 3% to 5% is likely to result in clinically meaningful reductions in levels of triglycerides, blood glucose, and glycated hemoglobin and in the risk of developing type 2 diabetes. Greater amounts of weight loss will reduce blood pressure, improve levels of low-density and high-density lipoprotein cholesterol, and reduce the need for medications to control blood pressure, blood glucose levels, and lipid levels as well as further reduce levels of triglycerides and blood glucose.

Recommendations 1 and 2 enable clinicians to match intensity of obesity treatment with health risk profiles of patients. In Obesity 1, weight loss was not recommended unless patients were obese or were overweight with 2 or more risk factors. Obesity 2 suggests that weight loss can provide benefit for obese patients and for overweight patients with only 1 risk factor. In Obesity 2, an increased waist circumference is considered a risk factor.

Recommendation 3—Dietary Therapy for Weight Loss

These recommendations emphasize that there is no ideal diet for weight loss; the panel found no evidence of superiority for any of the myriad diets reviewed. The primary recommendation is strong: Prescribe a diet to achieve reduced calorie intake for obese or overweight individuals who would benefit from weight loss, as part

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of a comprehensive lifestyle intervention. There are several pathways to achieving negative energy balance with diet, and these are described in the recommendation, but the content of the diet should be determined based on the patient's preferences and health status; successful weight loss can be achieved with a variety of dietary approaches.

Recommendation 4—Lifestyle Intervention and Counseling

The recommendations incorporated in this component of Obesity 2, if implemented, will likely have the most far-reaching effects. There is a strong endorsement that obese or overweight patients enrolled in comprehensive lifestyle interventions for weight loss should attend programs delivered for 6 months or longer. The gold standard of therapy is on-site, high-intensity (ie, ≥ 14 sessions in 6 months) comprehensive weight loss interventions provided in individual or group sessions by a trained interventionist. Further, therapy should continue for a year or more. The expert panel hopes that payers will recognize the value of well-run programs that use this approach. Lesser-intensity approaches (delivered electronically, including by telephone) are secondary approaches because the amount of weight loss, and thus health benefit, is less.

Recommendation 5—Bariatric Surgery

Obesity 2 is direct in guiding primary care practitioners to advise their adult patients who meet criteria (BMI ≥ 40 or BMI ≥ 35 with obesity-related comorbid conditions) that bariatric surgery may be an appropriate option to improve health and advises clinicians to refer these patients to experienced bariatric surgeons. The evidence statements addressing bariatric surgery address efficacy, safety, and predictors of success for laparoscopic gastric banding, Roux-en-Y gastric bypass, biliopancreatic diversion, and gastric sleeve procedures. Despite enthusiasm among some surgeons to "relax" BMI cutpoints for patients with diabetes, there was insufficient evidence to advise surgical referral for patients with a lower BMI cutpoint (≤ 35).⁷ The a priori criteria for literature inclusion mandated a high follow-up rate for at least 2 years and prospective collection of complications data.

This approach was intended to exclude reports that might bias these conclusions but also restricted the literature available.

Gaps in the Report

The largest gap is the lack of a question addressing pharmacotherapy for obesity. When the questions were formulated, only sibutramine and orlistat were approved for long-term use; sibutramine was removed from the market in 2009. A similar process could be initiated to develop evidence-informed guidelines for obesity pharmacotherapy, given that new medications are being approved. The algorithm of Obesity 2 provides guidance based on expert opinion about when and how to consider medications for chronic weight management, but future guidelines must supplement this guidance with trustworthy recommendations on the use of specific agents.

Conclusions

Obesity 2 indicates that good treatments are available for patients needing to lose weight. However, for patients to achieve health benefit from weight loss, they must have knowledgeable primary care clinicians and access to these treatments. A major educational gap exists—few US clinicians have been trained in the etiology, pathophysiology, and management of obesity. Further, weight management treatments are not universally reimbursed, and electronic health records may not allow clinicians to document successful results of obesity treatments. Thus, Obesity 2 could provide information to help change the way primary care clinicians engage patients in managing weight to achieve health benefits. Implementation of Obesity 2 will require not only clinician education as well as support. Physicians and other practitioners need to know the success rates of comprehensive lifestyle and surgery programs with which they interact. They also should be reimbursed for providing high-quality care for patients with obesity and be allotted the office support tools to make this a reality in a busy office practice. The public health effects of obesity demand that these barriers to implementation be addressed and that weight management within primary care practices be made a foundation of prevention and management of chronic disease.

ARTICLE INFORMATION

Conflict of Interest Disclosures: The authors have completed and submitted the ICMJE Form for Disclosure of Potential Conflicts of Interest. Dr Jensen reported serving as a consultant for Vivus, Novo Nordisk, and Eisai. Dr Ryan reported serving as a consultant for Vivus, Eisai, Takeda, and Novo Nordisk; providing expert testimony for Servier; receiving payment for development of educational presentations from Vindico, CME Incite, CEA Alliance, the Minimally Invasive Surgery Symposium, the Cardiometabolic Risk Symposium, the Cleveland Clinic, Medscape, and WebMD; and holding stock or stock options in Scientific Intake.

Disclaimer: Dr Jensen served as a co-chair of the Obesity 2 expert panel.

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REFERENCES

1. Ogden CL, Carroll MD, Kit BK, Flegal KM. Prevalence of obesity in the United States, 2009-2010. *NCHS Data Brief*. 2012;(82):1-8.
2. National Institutes of Health. Clinical guidelines on the identification, evaluation, and treatment of overweight and obesity in adults—the evidence report. *Obes Res*. 1998;6(suppl 2):51S-209S.
3. Jensen MD, Ryan DH, Apovian CM, et al. 2013 AHA/ACC/TOS Guideline for the Management of Overweight and Obesity in Adults: a report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines and

The Obesity Society [published online November 27, 2013]. *J Am Coll Cardiol*. doi: 10.1016/j.jacc.2013.11.004.

4. Gibbons GH, Harold JG, Jessup M, Robertson RM, Oetgen W. Next steps in developing clinical practice guidelines for prevention [published online August 8, 2013]. *Circulation*. 2013;128(15):1716-1717.

5. Institute of Medicine (IOM). Clinical Practice Guidelines We Can Trust. IOM website. <http://www.iom.edu/Reports/2011/Clinical-Practice-Guidelines-We-Can-Trust.aspx>. March 23, 2011. Accessed March 30, 2013.

6. Institute of Medicine (IOM). Finding What Works in Health Care: Standards for Systematic Reviews. IOM website. <http://www.iom.edu/Reports/2011/Finding-What-Works-in-Health-Care-Standards-for-Systematic-Reviews.aspx>. March 23, 2011. Accessed March 30, 2013.

7. Maggard-Gibbons M, Maglione M, Livhits M, et al. Bariatric surgery for weight loss and glycemic control in nonmorbidly obese adults with diabetes. *JAMA*. 2013;309(21):2250-2261.