CANP Annual Conference 2014

Rx for Obesity: Evidence for Current Treatment Options

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Rx for Obesity: Evidence for Current Treatment Options

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Faculty Disclosure

- Karen Deck, Beth Haney and Susan Tiso: No disclosures
Learning Objectives

• Characterize the population of patients who are overweight and obese, with specific attention to the association of overweight/obesity with comorbid conditions

• Discuss the pathobiologic basis of obesity

• Design management strategies for patients who are overweight or obese that may include behavioral, pharmacologic, and surgical interventions

• Describe the risks:benefits of weight-loss medications in treating overweight, obesity, and comorbid conditions
Which of the following strategies for maintaining successful weight loss is included in the National Weight Control Registry (NWCR)?

1. Eating breakfast, self monitoring, regular exercise
2. Eating several small meals every day, strength training, eliminating alcohol
3. Low-carbohydrate diet, eliminating caffeine, not eating after 6 PM
4. No snacking, only nonfat dairy products, maximum of 1 fruit serving per day
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Which of the following agents is approved for long-term treatment of obesity?

1. Bupropion/naltrexone
2. Liraglutide
3. Lorcaserin
4. Phentermine
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2. Liraglutide
3. Lorcaserin
4. Phentermine
The Centers for Medicare & Medicaid Services (CMS) will reimburse for weight-loss counseling:

1. By primary care providers only
2. Only for patients with a body mass index (BMI) >35
3. Only if it includes an exercise program
4. For no more than 3 months
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Genetic Component

- Genetic predisposition involved in increased ad-lib food intake, particularly fat consumption and impaired satiety
- Increased exposure to high fat diet leads to up-regulation of the fat mass and obesity-associated gene (FTO)
- Leads to more fat intake
- Variant on FTO gene predisposes to DM2 through the effect on BMI
- This variant is though to cause 22% of common obesity

Genetic Component

- FTO regulates ghrelin, a hormone secreted in the gut that alters appetite and food intake.
- Surprisingly, FTO also affects human responses to food images.
- In a study by Karra, et al., high calorie food images were rated significantly more appealing in post-prandial subjects with higher ghrelin levels.

Medical Complications of Obesity

**RESPIRATORY**
- Hypoventilation (Pickwickian) syndrome, obstructive sleep apnea, asthma, respiratory failure

**CANCERS**
- Breast, uterus, cervix, colon, esophagus, pancreas, kidney, prostate

**CARDIOVASCULAR**
- Congestive heart failure, hypertension, myocardial infarction, dyslipidemia

**GASTROINTESTINAL**
- GERD, NAFLD, NASH, gastroparesis, gallstones, biliary tract disease, pancreatitis, hernias

**ENDOCRINE**
- T2DM, metabolic syndrome, polycystic ovarian syndrome, hypothyroidism, infertility, male hypogonadism

**NEUROLOGIC/PSYCHOLOGIC**
- Stroke, depression, idiopathic intracranial hypertension, disordered eating

**HEMATOLOGIC**
- Deep vein thrombosis, hypercoagulable state, chronic venous stasis

**MUSCULOSKELETAL**
- Degenerative joint disease, chronic back pain

**ACTION ITEM:**
Consider the impact of obesity on comorbidities; treat the underlying cause: obesity

GERD = gastroesophageal reflux disease; NAFLD = nonalcoholic fatty liver disease; NASH = nonalcoholic steatohepatitis.
### BMI Classifications

<table>
<thead>
<tr>
<th>BMI Classifications</th>
<th>BMI (kg/m²)</th>
<th>Obesity Class</th>
<th>Disease Risk&lt;sup&gt;a&lt;/sup&gt; Relative to Normal Weight and Waist Circumference&lt;sup&gt;b&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Underweight</td>
<td>&lt;18.5</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Normal</td>
<td>18.5-24.9</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Overweight</td>
<td>25.0-29.9</td>
<td>-</td>
<td>Increased High</td>
</tr>
<tr>
<td>Obesity</td>
<td>30.0-34.9</td>
<td>I</td>
<td>High</td>
</tr>
<tr>
<td>Obesity</td>
<td>35.0-39.9</td>
<td>I</td>
<td>Very High</td>
</tr>
<tr>
<td>Obesity</td>
<td>40.0+</td>
<td>III</td>
<td>Extremely High Extremely High</td>
</tr>
</tbody>
</table>

<sup>a</sup>Disease risk for T2DM, hypertension, and CVD.

<sup>b</sup>Increased waist circumference also can be a marker for increased risk, even in persons of normal weight.

BMI = body mass index.


**ACTION ITEM:**

Measure BMI at every routine checkup; measure waist circumference in patients with a BMI of 25 to <35 kg/m² to further refine risk.
Case: Meet Joan, a Postmenopausal Woman With Hypertension and a History of Depression: ANNUAL VISIT

- 55-year-old woman, history of depression and anxiety
- Gained 50 lb over the last 10 years
- Took paroxetine for depression during time of her divorce 5 years ago but stopped 1 year ago; augmented this therapy with a second-generation antipsychotic during an exacerbation of depression 3 years ago (risperidone)
  - Currently not taking an SSRI or antipsychotic
- Takes losartan for hypertension
Case (cont’d): Workup

• Physical findings
  – Well-dressed woman in no apparent distress
  – Symptoms of depression are well-controlled; no symptoms of sleep apnea
  – Height: 5 ft 6 in; weight 210 lb
  – BMI: 33.9 kg/m² (obese)
  – Waist circumference: 40 in
  – BP: 132/82 mm Hg (treated); pulse: 72 bpm

• Laboratory findings
  – Normal, except TGs: 280 mg/dL; FBS 122 mg/dL
  – All other findings normal

BP = blood pressure; bpm = beats per minute; FBS = fasting blood sugar; TGs = triglycerides.
Case (cont’d): Weight, Lifestyle History

• Weight history
  – Both parents obese and father has T2DM
  – Weighed 150 lb when she finished college
  – Kept about 5 lb extra with each of 2 pregnancies
  – She draws a graph of her weight history, and it is clear that antidepressants and antipsychotics contributed to weight gain
  – Lost 20 lb at Weight Watchers 4 years ago and 15 lb at TOPS 1 year ago, but her appetite did not diminish and she regained weight
  – She did not try over-the-counter or prescription medications for weight loss

• Lifestyle history
  – University professor of French literature; divorced, 2 grown children
  – Lives alone; eats out frequently; snacking in the evening a problem; no night eating or binging

TOPS = Taking Off Pounds Sensibly.
What is the first step in helping Joan lose weight?

1. Advise a comprehensive weight-loss attempt
2. Prescribe a sulfonylurea
3. Refer to a dietitian for the Dietary Approaches to Stop Hypertension (DASH) diet
4. Write a prescription for a weight-loss medication
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2. Prescribe a sulfonylurea
3. Refer to a dietitian for the Dietary Approaches to Stop Hypertension (DASH) diet
4. Write a prescription for a weight-loss medication
Obesity Treatment Pyramid

BMI and Health Risk

High

Surgery

Medication

Low

Behavioral Intervention
US Preventive Services Task Force 2011: Adult Obesity Recommendations

- USPSTF issued draft recommendations for treatment of adult obesity
- CMS decision memo: “The evidence is adequate to conclude that intensive behavioral therapy for obesity, defined as a BMI ≥30 kg/m², is reasonable and necessary for the prevention or early detection of illness or disability and is appropriate for individuals entitled to benefits under Part A or enrolled under Part B and is recommended with a grade of A or B by the USPSTF.”

USPSTF = U.S. Preventive Services Task Force.
CMS Will Reimburse

CMS will cover:

• Screening for obesity in adults using measurement of BMI (obese defined as BMI $\geq 30$ kg/m$^2$)
• Dietary (nutritional) assessment
• 1 face-to-face visit every week for the first month
• 1 face-to-face visit every other week for months 2-6
• 1 face-to-face visit every month for months 7-12 if the beneficiary loses 3 kg at month 6

Total: 20 visits over 1 year

• Service must be administered by “qualified primary care physician or other primary care practitioner and in a primary care setting”

Role of the Clinician

• Primary care
  - Communicating health risks of weight status
  - Guiding patients to appropriate weight loss resources
  - Prescribing medications for weight loss, managing medications to prevent weight gain, and adjusting medications during weight loss

• ACTION ITEM:
  Counsel obese patients on the risk of excess weight and the benefits of weight loss
  - As part of team: pre-op and post-op management of patients before and after bariatric surgery
Challenges to Effective Weight-Loss Management: Patient Factors

- Motivation
- Confidence
- Lack of knowledge
- Social and emotional support
- Comorbidities
- Time: intervening life commitments
- Money
Challenges to Effective Weight-Loss Management: Clinician Factors

- Lack of confidence
  - Lack of prior success
- Lack of knowledge
  - Confusion from a barrage of messages
- Lack of reimbursement
  - May change with approval of new agents and CMS ruling
- Bias of other professionals
- Support from office staff
- Time
  - Competing interests
The DPP Experience: On Average, 7% Weight Reduction Reduced Progression to T2DM by 58%
Improvement begins with >2% weight loss

Change in A1C (%) by Weight-Loss Category

- Gained >2%
- Gained ≤2% - Lost <2%
- Lost ≥2% - Lost <5%
- Lost ≥5% - Lost <10%
- Lost ≥10% - Lost <15%
- Lost ≥15%

A1C = glycated hemoglobin.
How Much Weight Loss Is Needed to Improve BP?

Effect of amount of weight loss on SBP and DBP: direct and linear

Change in BP by Weight-Loss Category

- SBP: $P < .0001$
- DBP: $P < .0001$

DBP = diastolic blood pressure; SBP = systolic blood pressure.

Effect of amount of weight loss on HDL-C and TGs is direct and linear; effect on LDL-C is less pronounced

<table>
<thead>
<tr>
<th>Weight-Loss Category</th>
<th>Change in HDL-C/LDL-C (mg/dL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gained &gt;2%</td>
<td>-12</td>
</tr>
<tr>
<td>≤2%</td>
<td>-8</td>
</tr>
<tr>
<td>Lost ≥2%</td>
<td>-4</td>
</tr>
<tr>
<td>Lost &gt;5%</td>
<td>0</td>
</tr>
<tr>
<td>Lost &lt;10%</td>
<td>4</td>
</tr>
<tr>
<td>Lost &gt;15%</td>
<td>8</td>
</tr>
</tbody>
</table>

HDL-C: P < .0001
LDL-C: P = .3614

HDL-C = high-density lipoprotein cholesterol; LDL-C = low-density lipoprotein cholesterol.


How Much Weight Loss Is Needed to Improve Lipids?
Modest Weight Loss (5%-10%) Also...

- Improves symptoms of sleep apnea$^1$
- Improves symptoms of depression$^3$
- Improves mobility$^3$
- Improves symptoms of stress urinary incontinence in women$^4$

Given Joan’s hypertension, history of depression, and family history of T2DM, what consideration should be given to medications for comorbidities?

1. Diuretic preferred over losartan for hypertension
2. If antidepressant is needed, SNRI preferred over TCA
3. If antidiabetic agent is needed, insulin preferred over sulfonylurea
4. If antidiabetic agent is needed, sulfonylurea preferred over metformin

SNRI = selective serotonin-norepinephrine reuptake inhibitor; SSRI = selective serotonin reuptake inhibitor; TCA = tricyclic antidepressant.
Given Joan’s hypertension, history of depression, and family history of T2DM, what consideration should be given to medications for comorbidities?

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### Medications With Weight Effects

<table>
<thead>
<tr>
<th>Disease</th>
<th>Weight Gain</th>
<th>Weight Loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetes</td>
<td>Insulin</td>
<td>Metformin</td>
</tr>
<tr>
<td></td>
<td>Sulfonylureas</td>
<td>GLP-1 analogs SGLT-2 inhibitors</td>
</tr>
<tr>
<td>Depression</td>
<td>SSRIs</td>
<td>Bupropion</td>
</tr>
<tr>
<td></td>
<td>Many others</td>
<td>Venlafaxine, desvenlafaxine</td>
</tr>
<tr>
<td>Antipsychotics</td>
<td>All</td>
<td></td>
</tr>
</tbody>
</table>

Joan says, “I don’t want to end up like my father, a diabetic on dialysis. I’m ready to get my weight and health under control. I am going to lose 60 lb. (28%).” You offer to help her and suggest discussing treatments that can help her lose weight.

Which treatment plan is most likely to produce a 28% weight loss?

1. Referral to a human chorionic gonadotropin (HCG) clinic
2. Prescribe metformin and bupropion
3. Structured diet, weight-loss medication, intensive lifestyle intervention
4. Gastric bypass or gastric sleeve
Joan says, “I don’t want to end up like my father, a diabetic on dialysis. I’m ready to get my weight and health under control. I am going to lose 60 lb. (28%).” You offer to help her and suggest discussing treatments that can help her lose weight.

Which treatment plan is most likely to produce a 28% weight loss?

1. Referral to a human chorionic gonadotropin (HCG) clinic
2. Prescribe metformin and bupropion
3. Structured diet, weight-loss medication, intensive lifestyle intervention
4. Gastric bypass or gastric sleeve
Orlistat

- Prescription orlistat 120 mg 3 times daily approved for long-term weight management in 1999; over-the-counter orlistat (60 mg 3 times daily) approved in 2007
- Mechanism: gastrointestinal lipase inhibitor; decreases intestinal energy absorption
- Most common AEs: oily rectal discharge, fecal urgency, fatty/oily stool
- Rare postmarketing reports of severe liver injury
- Notes
  - May decrease cyclosporine and levothyroxine levels
  - May decrease fat-soluble vitamin absorption; users should take daily multivitamin containing vitamins A, D, E, K, and beta-carotene
  - May enhance warfarin effect if vitamin K absorption is diminished
  - Pregnancy category X

AEs = adverse events.
Xenical [prescribing information]. South San Francisco, CA: Genentech USA, Inc; 2012.
Effect of Long-Term Treatment With Orlistat: XENDOS Study

Completers Data

- Placebo + lifestyle (n = 564)
- Orlistat + lifestyle (n = 850)

Weight Change (kg)

0 0.5 1 1.5 2 2.5 3 3.5 4 4.5 5

Week

0 52 104 156 208

$P < .001$ vs placebo.
Phentermine

- Phentermine resin (15-30 mg/d) approved in 1959 for short-term (12 wk) weight management
- Phentermine HCl developed in 1970s with doses of 8-37.5 mg (generally equivalent to 6.4-30 mg of phentermine resin)
- Mechanism: noradrenergic, sympathomimetic amine: decreases appetite
- Most common AEs: tachycardia, increase in BP, tremor, overstimulation of CNS, dry mouth, constipation
- Notes
  - Generic; most commonly prescribed/least expensive option
  - Phentermine HCl salt easily dissociates in gastrointestinal tract, resulting in immediate release of phentermine drug; absorbed ~3× faster than resin
  - DEA Schedule IV drug
  - Pregnancy category X

CNS = central nervous system; DEA = Drug Enforcement Administration; HCl = hydrochloride.
Lorcaserin

- Approved in 2012 (10 mg twice daily) for long-term weight management
- Mechanism: selective 5-HT2C receptor agonist: increases satiety
- Most common AEs: headache, nausea, dizziness, fatigue, dry mouth, constipation
- Notes
  - Discontinue if 5% weight loss is not achieved by week 12
  - Discontinue for evaluation if signs or symptoms of valvular heart disease occur
  - DEA Schedule IV
  - Pregnancy category X

BLOOM Study: Body Weight Over Years 1 and 2

BLOOM = Behavioral Modification and Lorcaserin for Overweight and Obesity Management.
### BLOOM Study: Key Secondary End Points

<table>
<thead>
<tr>
<th>End Point</th>
<th>Lorcaserin</th>
<th>Placebo</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waist circumference (cm)</td>
<td>-6.8</td>
<td>-3.9</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>BP (mm Hg)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Systolic</td>
<td>-1.4</td>
<td>-0.8</td>
<td>.04</td>
</tr>
<tr>
<td>Diastolic</td>
<td>-1.1</td>
<td>-0.6</td>
<td>.01</td>
</tr>
<tr>
<td>Total cholesterol (% Δ)</td>
<td>-0.90</td>
<td>0.57</td>
<td>.001</td>
</tr>
<tr>
<td>TGs (% Δ)</td>
<td>-6.15</td>
<td>-0.14</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Safety</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heart rate (bpm)</td>
<td>-2.0</td>
<td>-1.6</td>
<td>.0499</td>
</tr>
<tr>
<td>PASP (mm Hg)</td>
<td>-0.92</td>
<td>-0.23</td>
<td>.14</td>
</tr>
<tr>
<td>Beck depression II score</td>
<td>-1.1</td>
<td>-0.9</td>
<td>.26</td>
</tr>
</tbody>
</table>

PASP = pulmonary artery systolic pressure.

Lorcaserin: No Increase in Rate of Valvulopathy

BLOOM-DM:
Change in Glycemic Parameters

*P < .001; †P < .05; LS mean change ± standard error of the mean.
BLOOM-DM = BLOOM in Diabetes Mellitus; LS = least squares.
Phentermine/Topiramate

- Immediate-release phentermine HCl/controlled-release topiramate approved for weight management in 2012 (titrated in AM up to 7.5/46 mg/d; max 15/92 mg/d)
- Mechanism: phentermine—decreases short-term appetite; topiramate—decreases longer-term appetite and may have glycemic effects
- Most common AEs: paresthesia, dizziness, cognitive dysfunction, dysgeusia, insomnia, constipation, dry mouth, metabolic acidosis, elevated creatinine
- Notes
  - Schedule IV drug
  - May contribute to secondary angle-closure glaucoma
  - If full/max dose discontinued, it should be done gradually to prevent seizures
  - Pregnancy category X (cleft palate)

CONQUER: Weight Loss Over Time

 Patients                                      Placebo       Mid          Full
 Completers (% of randomized)  557 (57%)     338 (69%)     625 (64%)

*Weight change for either dose vs placebo, \( P < .0001 \).
LOCF = last observation carried forward; MI = multiple imputation.
Change in Weight, A1C, and SBP From Baseline to Week 56 (T2DM Sample; ITT-LOCF)

*P < .0001 vs placebo; †P = .0288 vs placebo; ‡P = .0043 vs placebo; §1 subject in the 15/92 mg group was missing an SBP measurement at week 56 and is not included in SBP analysis.

ITT = intent-to-treat; PHEN/TPM ER = phentermine/topiramate extended release.

REMS for Phentermine/Topiramate ER

Risk Evaluation and Mitigation Strategy (REMS)
A Risk Evaluation and Mitigation Strategy (REMS) is a strategy to manage known or potential serious risks associated with a drug product and is required by the Food and Drug Administration (FDA) to ensure that the benefits of a drug outweigh its risks. The FDA has required a REMS for Qsymia.

The purpose of the Qsymia REMS is to inform prescribers and females of reproductive potential about:
- increased risk of congenital malformation, specifically orofacial clefts, in infants exposed to Qsymia during the first trimester of pregnancy
- Importance of pregnancy prevention for females of reproductive potential receiving Qsymia
- Need to discontinue Qsymia immediately if pregnancy occurs

Healthcare Provider Training Program
The Qsymia REMS includes a healthcare provider training program.

Complete the Qsymia Healthcare Provider Training Program

Counseling Females on Risk of Birth Defects with Qsymia
- Counsel females of reproductive potential at initial and all follow-up visits on the increased risk of orofacial clefts in infants exposed to Qsymia during the first trimester of pregnancy
- Counsel females of reproductive potential to have a pregnancy test before starting Qsymia and monthly thereafter during therapy
- Discuss the need for consistent use of effective contraception during therapy
- Make use of the REMS tools supporting patient education that are available on this Web site

Dispensed to Patients Through Certified Pharmacies
Qsymia is available only through certified pharmacies. Click Here to learn more.

- Addresses risk of teratogenicity
- Modified REMS approved April 2013: may be dispensed through certified retail pharmacies in addition to network of certified mail-order pharmacies

Bottom Line: All Medications Will Do the Job in Responsive Patients if Coupled With Effective Lifestyle Programs

- Lorcaserin
- Liraglutide (not approved for obesity)
- Phentermine (for short-term use only)
- Phentermine/topiramate ER
- Pregnancy/contemplating pregnancy is contraindication
- All drugs could work if used appropriately
- Lowest potential AE profile: lorcaserin
- Consider comorbidities, risks:benefits, and patient preferences when considering pharmacotherapy for obesity

ACTION ITEM:
Consider comorbidities, risks:benefits, and patient preferences when considering pharmacotherapy for obesity.
Case (cont’d): Weight-Loss Strategy

- Joan embarks on a highly structured diet with 2 meal replacements (nutrition bar or drink), 2 snacks, and 1 sensible meal a day (1400 kcal/day)
- She works with a CDE with certification in weight loss and has 14 visits in the first 6 months, transitioning from the structured diet after 3 months to a low glycemic diet
- She intensifies her gym routine, working up to at least 30 minutes of cardiovascular and 30 minutes of weight training 6 days a week
- You discuss medication options with her; she is concerned about side effects but agrees to lorcaserin 10 mg twice daily for 1 year

CDE = certified diabetes educator.
Weight loss efficacy at 6 months: lorcaserin

Based on average weight loss in an intensive lifestyle intervention like Look AHEAD and additive weight loss seen with lorcaserin, how much weight loss would you expect at 6 months with this strategy?

>13 kg (~29 lb)
If Joan were to take phentermine/topiramate instead of lorcaserin, how much more weight loss would you expect at 6 months, based on clinical studies with the recommended dose of this combination drug?

4 kg (~9 lb)
Matching the Patient to the Weight-Loss Medication: Individualizing Care

- Are there contraindications to a drug?
  - Concomitant medications
  - CVD (phentermine)
  - Kidney stones, glaucoma (phentermine/topiramate ER)
- Talk to the patient: is appetite a problem? Is adherence to a low-fat diet a problem?
- Explain how medications work, potential efficacy, potential tolerability issues, and potential safety issues
- **Bottom line**: it is a joint decision between patient and prescriber
Among the following strategies, which is **best** to help Joan sustain her weight loss?

1. Consume a low-fat diet
2. Exercise enough to expend ~400 kcal/d
3. Stop strength training
4. Weigh herself only once per month
Among the following strategies, which is **best** to help Joan sustain her weight loss?

1. Consume a low-fat diet
2. **Exercise enough to expend ~400 kcal/d**
3. Stop strength training
4. Weigh herself only once per month
Successful Losers!
Strategies From the NWCR

National Weight Control Registry
1-800-606-NWCR

- More than 4000 registrants (80% are women)
- Consume low-fat diets (24% of kcal)
- 50% reduce *quantity* of food consumed
- Expend 400 physical activity kcal/d
  - Walking most frequently cited
- 4% used weight-loss medication

Average NWCR Registrant

- Keeping off 66 lb weight loss for 5.5 years
- 66% were overweight children
- 60% had family history of obesity
- 50% lost weight on their own

**NWCR: Weight-Loss and Maintenance Strategies**

<table>
<thead>
<tr>
<th>Weight Loss</th>
<th>Weight-Loss Maintenance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diverse strategies for successful weight loss</td>
<td>Good eating habits (breakfast)</td>
</tr>
<tr>
<td></td>
<td>Watching total calories</td>
</tr>
<tr>
<td></td>
<td>High levels of daily physical activity (most often walking)</td>
</tr>
<tr>
<td></td>
<td>Frequent self-monitoring</td>
</tr>
</tbody>
</table>

**ACTION ITEM:**
Help patients maintain weight loss by encouraging diet habits, daily exercise, and regular weighing

Case (cont’d): Joan’s Strategy for Weight-Loss Maintenance

- Continue taking lorcaserin; lorcaserin and phentermine/topiramate approved for chronic use
- Lessons from successful losers: stick with the gym 6 days a week, continue healthy eating habits, watch calorie intake, weigh frequently
- One meal replacement a day is also associated with good weight-loss maintenance
- If weight increases by 2%, go back on meal replacements and consider restarting medications; beware of medication-associated weight regain. If Joan changes to an SSRI or adds an antipsychotic, a structured diet is advisable concomitantly

Updated Clinical Practice Guidelines: 2013

AACE/TOS/ASMBS Guidelines

<table>
<thead>
<tr>
<th></th>
<th>Gastric Band</th>
<th>Gastric Sleeve</th>
<th>Gastric Bypass</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cost</strong></td>
<td>+++</td>
<td>++++</td>
<td>++++</td>
</tr>
<tr>
<td><strong>Reversible?</strong></td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td><strong>Weight loss</strong></td>
<td>+++</td>
<td>++++</td>
<td>++++</td>
</tr>
<tr>
<td><strong>Safety</strong></td>
<td>++++</td>
<td>+++</td>
<td>+++</td>
</tr>
<tr>
<td><strong>Other issues</strong></td>
<td>Requires adherence for greatest efficacy</td>
<td>No long-term outcome</td>
<td>Requires lifelong vitamin and mineral supplementation</td>
</tr>
</tbody>
</table>
Comparing Common Bariatric Surgical Procedures

Which of the following strategies for maintaining successful weight loss is included in the National Weight Control Registry (NWCR)?

1. Eating breakfast, self monitoring, regular exercise
2. Eating several small meals every day, strength training, eliminating alcohol
3. Low-carbohydrate diet, eliminating caffeine, not eating after 6 PM
4. No snacking, only nonfat dairy products, maximum of 1 fruit serving per day
The Centers for Medicare & Medicaid Services (CMS) will reimburse for weight-loss counseling:

1. By primary care providers only
2. Only for patients with a body mass index (BMI) >35
3. Only if it includes an exercise program
4. For no more than 3 months
What is the first step in helping Joan lose weight?

1. Advise a comprehensive weight-loss attempt
2. Prescribe a sulfonylurea
3. Refer to a dietitian for the Dietary Approaches to Stop Hypertension (DASH) diet
4. Write a prescription for a weight-loss medication
What is the first step in helping Joan lose weight?

1. Advise a comprehensive weight-loss attempt
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4. Write a prescription for a weight-loss medication
Given Joan’s hypertension, history of depression, and family history of T2DM, what consideration should be given to medications for comorbidities?

1. Diuretic preferred over losartan for hypertension
2. If antidepressant is needed, SNRI preferred over TCA
3. If antidiabetic agent is needed, insulin preferred over sulfonylurea
4. If antidiabetic agent is needed, sulfonylurea preferred over metformin

SNRI = selective serotonin-norepinephrine reuptake inhibitor; SSRI = selective serotonin reuptake inhibitor; TCA = tricyclic antidepressant.
Among the following strategies, which is best to help Joan sustain her weight loss?

1. Consume a low-fat diet
2. Exercise enough to expend ~400 kcal/d
3. Stop strength training
4. Weigh herself only once per month
Take Home Messages

- Consider the impact of obesity on comorbidities; treat the underlying cause: obesity
- Measure BMI at every routine checkup; measure waist circumference in patients with a BMI of 25 to <35 kg/m² to further refine risk
- Counsel obese patients on the risk of excess weight and the benefits of weight loss
- Consider comorbidities, risks:benefits, and patient preferences when considering pharmacotherapy for obesity
- Help patients maintain weight loss by encouraging diet habits, daily exercise, and regular weighing
- Consider bariatric surgery for carefully selected patients.