Weighing the Consequences: The Time Is Now for Tackling the Obesity Epidemic

November 13, 2013
Atlanta, Georgia

Educational Partner:
Session 2: Weighing the Consequences: The Time Is Now for Tackling the Obesity Epidemic

Learning Objectives

1. Identify and evaluate patients with obesity by using parameters such as body mass index, waist circumference, and risk factor assessment
2. Engage patients in open dialogues, highlighting the importance of lifestyle modification including decreased energy intake and exercise as part of a healthy lifestyle
3. Confidently utilize pharmacologic agents to reinforce lifestyle change for patients with obesity and obesity related comorbid conditions

Faculty

Robert F. Kushner, MD, MS
Professor of Medicine
Northwestern University Feinberg School of Medicine
Chicago, Illinois

Dr Robert Kushner is professor of medicine at Northwestern University Feinberg School of Medicine, clinical director of the Northwestern Comprehensive Center on Obesity, and medical director of the Center for Lifestyle Medicine in Chicago, Illinois. He earned his medical degree from the University of Illinois. After finishing a residency in internal medicine at Northwestern University, he completed a postgraduate fellowship in clinical nutrition and earned a master’s degree in clinical nutrition and nutritional biology from the University of Chicago. Dr Kushner is past president of The Obesity Society, past president of the American Society for Parenteral and Enteral Nutrition, and past president of the American Board of Physician Nutrition Specialists. He is currently the first chair of the new American Board of Obesity Medicine and a board member of the Obesity Action Coalition. He is on the editorial board for *Obesity* and the *Journal of the American Dietetic Association*.

In 2002, Dr Kushner was the recipient of the distinguished Dannon Institute award for excellence in medical/dental nutrition education, presented by the American Society for Clinical Nutrition. Dr Kushner has authored more than 160 original articles, reviews, books, and book chapters covering medical nutrition, medical nutrition education, and obesity and is an internationally recognized expert on the care of the overweight and obese patient. He is the author of Dr. Kushner's Personality Type Diet (St. Martin’s Griffin Press, 2003; iuniverse, 2008), Fitness Unleashed (Three Rivers Press, 2006), and editor of the American Medical Association’s *Assessment and Management of Adult Obesity: A Primer for Physicians* (2003) and *Treatment of the Obese Patient* (Humana Press, 2007). His most recent book, *Counseling Overweight Adults: The Lifestyle Patterns Approach and Tool Kit*, was published in August 2009 by the American Dietetic Association. For more information, visit www.counselingoverweightadults.com.

Timothy Church, MD, MPH, PhD
Professor and Director
Laboratory of Preventive Medicine
Pennington Biomedical Research Center
Baton Rouge, Louisiana

Dr Timothy Church is professor, the John S. McIlhennyEndowed chair, and director of the laboratory of preventive medicine at the Pennington Biomedical Research Center in Baton Rouge, Louisiana.

Dr Church earned his medical degree and structural and cellular biology doctorate degree from Tulane University School of Medicine in New Orleans, Louisiana. He completed a residency in preventive medicine at Tulane, during which time he earned a master’s degree in public health. He is a principal investigator, coprincipal investigator, or investigator on a number of National Institutes of Health and industry grants, most of which address issues related to exercise, weight, and health. His research areas of interest include diabetes, hypertension, quality of life issues, cancer survivorship, and maintenance of function in the elderly. He is an author of more than 150 peer reviewed publications and has received several awards for his research.
Faculty Financial Disclosure Statements
The presenting faculty reported the following:

Robert Kushner, MD, MS, is on the advisory board of Novo Nordisk and Vivus, Inc.

Timothy Church, MD, MPH, PhD, is a consultant for Vivus, Inc.; on the advisory board of Jenny Craig; and a board member at Catapult Health.

Education Partner Financial Disclosure Statement
The content collaborators at CME Incite have reported the following:

Priya Wanchoo, MBBS, Rose O’Connor, PhD, and Monique Pond, PhD, have no financial relationships to disclose.

Suggested Reading List


SESSION 2
9:45–11am

Weighing the Consequences: The Time Is Now for Tackling the Obesity Epidemic

SPEAKERS
Robert Kushner, MD
Timothy Church, MD, MPH, PhD

Presenter Disclosure Information

Off-Label/Investigational Discussion
► In accordance with pmiCME policy, faculty have been asked to disclose discussion of unlabeled or unapproved use(s) of drugs or devices during the course of their presentations.

Robert Kushner, MD
Professor of Medicine
Northwestern University Feinberg School of Medicine
Chicago, Illinois

Timothy Church, MD, MPH, PhD
Professor
Pennington Biomedical Research Center
Baton Rouge, Louisiana

Drug List

<table>
<thead>
<tr>
<th>Generic Name</th>
<th>Brand Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>liraglutide</td>
<td>NA</td>
</tr>
<tr>
<td>lorcaserin</td>
<td>Belviq</td>
</tr>
<tr>
<td>metformin</td>
<td>Fortamet, Glucophage, Glumetza, etc.</td>
</tr>
<tr>
<td>naltrexone/bupropion SR</td>
<td>Contrave</td>
</tr>
<tr>
<td>orlistat</td>
<td>Alli, Xenical</td>
</tr>
<tr>
<td>phentermine</td>
<td>Paxil</td>
</tr>
<tr>
<td>phentermine/topiramate ER</td>
<td>Qsymia</td>
</tr>
</tbody>
</table>

Learning Objectives

► Identify and evaluate patients with obesity using parameters such as body mass index (BMI), waist circumference, and risk-factor assessment
► Engage patients in open dialogues, highlighting the importance of lifestyle modification, including decreased energy intake and increased physical activity as part of a healthy lifestyle
► Confidently utilize pharmacologic agents to reinforce lifestyle change for patients with obesity and obesity-related comorbid conditions
Meet Sam

- 44-year-old white male
- Computer programmer
- Chief complaint: chronic back pain
  - Suffering from backache "it seems forever"
  - Has become worse over the past 2 to 3 months
- Visibly overweight
- BP 140/90 mm Hg
- Currently not taking any medication

Teaching Point

Instead of just writing a blood pressure prescription for Sam, we need to use this visit to pre-empt a path that is all too familiar: treating one weight-related comorbidity after another instead of treating the underlying cause — obesity.

This visit and every visit is an opportunity to talk with your overweight and obese patients about weight loss.

Assessment

- BMI and weight history
- Waist circumference
- Laboratory values
  - Fasting blood glucose
  - Lipid parameters
  - Role of 2-hour GTT and TSH?
- Lifestyle
  - Eats out frequently at restaurants with clients
  - Struggles with finding time to workout regularly
  - Sedentary

Meet Sam (cont.)

- Ht 5 ft 10 in, Wt 202 lb, BMI 29 kg/m²
- Waist circumference: 43 in
- BP 140/90 mm Hg
- Fasting glucose 102 mg/dL
- TC 191 mg/dL, LDL-C 125 mg/dL, HDL-C 32 mg/dL, TG 170 mg/dL
- No history of sleep apnea

Sam weighed 160 lb when he finished college. He lost 20 lb on 2 occasions in the past 10 years (Atkins™ Diet/Zone Diet®), but gained the weight back plus more

Diagnosis: Sam has multiple comorbidities, cardiometabolic syndrome, and borderline blood glucose for IFG

BMI = weight (kg)/height (m²)*

<table>
<thead>
<tr>
<th>BMI class</th>
<th>BMI range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal weight</td>
<td>BMI 18.5-24.9</td>
</tr>
<tr>
<td>Overweight</td>
<td>BMI 25.0-29.9</td>
</tr>
</tbody>
</table>

*The AMA and AACE now recognize obesity as a disease.

The AMA and AACE now recognize obesity as a disease.

| Obesity class 2    | BMI 25.0-29.9 |
| Obesity class 3    | BMI ≥40.0 |

Calculating BMI

At 5 ft 10 in, 202 lb, Sam’s calculated BMI is 29 kg/m², which is considered overweight.
**Personalizing Obesity Assessment in Clinical Practice**

*Waist circumference indicates high risk*
- Men >40 in
- Women >35 in
- Indirect measure of central adiposity, correlated with visceral fat
- Excess abdominal fat is an independent predictor of risk factors and morbidity

*World Health Organization waist circumference cutoff varies by race/ethnicity; Risk refers to the overall health complications of obesity.*

**Measuring Waist Circumference**
(Only necessary for BMI <35 kg/m²)
- Locate upper hip bone and top of right iliac crest
- Place measuring tape around abdomen at level of iliac crest, keeping it parallel to the floor
- Ensure tape is snug but not compressing the skin

**Tips for Long-Term Maintenance From the National Weight Control Registry**
- Watch <10 hours of TV per week
- Monitor calories
- Engage in 60 minutes of moderate exercise per day

**Sam’s Treatment Plan**
- Weight loss with diet and lifestyle modification for 3-6 months and then follow-up
- Show of hands: How many of you write out a prescription for lifestyle modification that includes exercise and change in diet?

5%-10% reduction in weight is clinically meaningful and will improve patient health

**Look AHEAD Weight-Loss Benefits: 1-Year Effects on Cardiovascular & Diabetes Measures**

<table>
<thead>
<tr>
<th>Metric</th>
<th>DSE n=2463 (5.7% Weight Loss)</th>
<th>ILI n=2496 (8.6% Weight Loss)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HbA1c (%)</td>
<td>-0.14</td>
<td>-0.64*</td>
</tr>
<tr>
<td>Glucose (mg/dL)</td>
<td>-7.2</td>
<td>-21.5*</td>
</tr>
<tr>
<td>% on diabetes medications</td>
<td>+2.2</td>
<td>-7.8*</td>
</tr>
<tr>
<td>Systolic BP (mm Hg)</td>
<td>-2.8</td>
<td>-6.8*</td>
</tr>
<tr>
<td>Diastolic BP (mm Hg)</td>
<td>-1.8</td>
<td>-3.0*</td>
</tr>
<tr>
<td>LDL-C (mg/dL)</td>
<td>-0.7</td>
<td>-5.2</td>
</tr>
<tr>
<td>HDL-C (mg/dL)</td>
<td>+1.4</td>
<td>+3.4*</td>
</tr>
<tr>
<td>TG (mg/dL)</td>
<td>-14.6</td>
<td>-30.3*</td>
</tr>
</tbody>
</table>

*P<0.001

**Percentage of Participants Meeting Different Weight Loss Criteria at 1 Year**

<table>
<thead>
<tr>
<th>Weight Loss Criteria</th>
<th>Participants (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;20%</td>
<td>92.7</td>
</tr>
<tr>
<td>15%–19%</td>
<td>55.6</td>
</tr>
<tr>
<td>10%–14%</td>
<td>68.0</td>
</tr>
<tr>
<td>5%–9%</td>
<td>13.6</td>
</tr>
<tr>
<td>&lt;5%</td>
<td>7.0</td>
</tr>
<tr>
<td>&lt;0%</td>
<td>37.7</td>
</tr>
</tbody>
</table>

**DSE, diabetes support and education; HbA1c, glycosylated hemoglobin; ILI, intensive lifestyle intervention.**


Incorporating lifestyle changes in the clinic

1. Keep a food diary to monitor caloric intake
2. Consider a commercial weight-loss program
   - One size does not fit all
   - Commercial weight loss programs each have evidence to support efficacy and safety
   - Programs “work” if participants remain committed
3. Visit with a dietitian
4. Increase intake of fruits and vegetables
5. Wear a pedometer to monitor daily steps

Meet Irene

- 42-year-old woman
- Chief complaint
  - Excessive tiredness
  - Falls asleep at her desk and during meetings
- Followed for 4 years
  - History of moderate depression and stress
  - Currently on a SSRI
  - Intolerant to CPAP

Meet Irene (cont.)

- Assessment
  - Ht 5 ft 0 in
  - Wt 179 lb
  - BMI 35 kg/m²
  - Waist circumference: 42 in
- Weight history
  - Moderate success with commercialweight loss program
  - Weight regain
- Lifestyle
  - Wants to play with her kids but feels too tired
  - Doesn’t enjoy going out with her friends because she’s too embarrassed about her weight

What Treatment Options are Available for Irene?

Obesity Treatment Guidelines

<table>
<thead>
<tr>
<th>BMI Category (kg/m²)</th>
<th>Treatment</th>
<th>25–26.9</th>
<th>27–29.9</th>
<th>30–34.9</th>
<th>35–39.9</th>
<th>≥40</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diet, physical activity, and behavior</td>
<td>Appropriate NHLBI Guidelines</td>
<td>Appropriate</td>
<td>Appropriate</td>
<td>Appropriate</td>
<td>Appropriate</td>
<td></td>
</tr>
<tr>
<td>Pharmacotherapy*</td>
<td>Not appropriate</td>
<td>With comorbidities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surgery**</td>
<td>Not appropriate</td>
<td>Not appropriate</td>
<td>With comorbidities</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Risk factors for considering pharmacotherapy at a BMI of 27–29.9 are hypertension, dyslipidemia, CHD, type 2 diabetes, and sleep apnea.
* Bariatric surgeries require lifestyle medical follow-up.
* FDA approved the laparoscopic adjustable gastric band surgery for patients with BMI ≥30 kg/m² and 1 weight-related medical condition (February 2011).

Complications-Centric Model for Patient Care

1. **EVALUATION FOR COMPLICATIONS AND STAGING**
   - **CARDIOVASCULAR DISEASE**
   - **BIOMECHANICAL COMPLICATIONS**
   - **BMI ≥27 WITH COMPLICATIONS**
   - **Stage Severity of Complications**
   - **BMI ≥27, or BMI ≥27**
   - **Stage Severity of Complications**

2. **SELECT**
   - Life-style Modification
     - MDI or Multidisciplinary treatment program
       - Medical Therapy
         - Pharmacotherapy (oral antidiabetic agents, insulin, and incretins)
       - Surgical Therapy (BMI ≥35)
         - Lap band; gastric sleeve; gastric bypass

3. If therapeutic targets for improvements in complications not met, intensify lifestyle and/or medical and/or surgical treatment modalities for greater weight loss.
Previously Available Pharmacotherapies

<table>
<thead>
<tr>
<th>Agent</th>
<th>Phentermine</th>
<th>Orlistat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mechanism</td>
<td>Central Noradrenergic</td>
<td>Peripheral Pancreatic lipase inhibitor</td>
</tr>
<tr>
<td>Approval</td>
<td>Short-term use Class IV</td>
<td>Long-term use Not scheduled Also available OTC</td>
</tr>
<tr>
<td>Cost</td>
<td>$</td>
<td>$555</td>
</tr>
<tr>
<td>Common adverse effects</td>
<td>Restlessness</td>
<td>Insomnia Increase in pulse Increase in BP GI symptoms including oily spotting, fatus with discharge, fecal urgency, fatty/oily stool, and others less frequently Increase in urinary oxalate</td>
</tr>
</tbody>
</table>


Recently Approved Pharmacotherapy

<table>
<thead>
<tr>
<th>Agent</th>
<th>Phentermine/topiramate Extended-Release1,2 (PHEN/TPM ER)</th>
<th>Lorcaserin3,4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approval status</td>
<td>Approved July 2012</td>
<td>Approved June 2012</td>
</tr>
<tr>
<td>Mechanism</td>
<td>Phentermine stimulates norepinephrine release from hypothalamic neurons: topiramate is an anticonvulsant</td>
<td>Selectively targets the 5-HT2C receptor</td>
</tr>
<tr>
<td>Follow-up duration</td>
<td>56 (108*) weeks</td>
<td>52 (104*) weeks</td>
</tr>
<tr>
<td>Common adverse Effects</td>
<td>• Dry mouth</td>
<td>• Headache</td>
</tr>
<tr>
<td></td>
<td>• Tingling</td>
<td>• Dizziness</td>
</tr>
<tr>
<td></td>
<td>• Constipation</td>
<td>• Constipation</td>
</tr>
<tr>
<td></td>
<td>• Altered taste sensation</td>
<td>• Altered taste sensation</td>
</tr>
<tr>
<td></td>
<td>• Upper respiratory infection</td>
<td>• Upper respiratory infection</td>
</tr>
</tbody>
</table>


5-HT2C, serotonin (5-hydroxytryptamine) 2C.

5-HT2C, serotonin (5-hydroxytryptamine) 2C.

Effect of Long-Term Treatment With Orlistat: XENDOS Study

Completers Data

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

Weight Change (kg)

Week

Orlistat + lifestyle

Placebo + lifestyle

P<0.001 vs placebo

Weight Loss Efficacy at 1 Year

<table>
<thead>
<tr>
<th>Drug, Study, Treatment</th>
<th>Mean Change in Body Weight (%)</th>
<th>Patients Losing ≥5% of Body Weight (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lorcaserin</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Studies 1 and 2 combined</td>
<td>-7.8</td>
<td>-52</td>
</tr>
<tr>
<td>Placebo</td>
<td>-2.5</td>
<td>27</td>
</tr>
<tr>
<td>Study 3</td>
<td>-7.8</td>
<td>36</td>
</tr>
<tr>
<td>Placebo</td>
<td>-1.2</td>
<td>21</td>
</tr>
<tr>
<td>PHEN/TPM ER</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Study 1</td>
<td>-10.9</td>
<td>61</td>
</tr>
<tr>
<td>Placebo</td>
<td>-1.6</td>
<td>18</td>
</tr>
<tr>
<td>Study 2</td>
<td>-9.4</td>
<td>52</td>
</tr>
<tr>
<td>Placebo</td>
<td>-1.2</td>
<td>21</td>
</tr>
</tbody>
</table>

Weight Change Over 2 Years With PHEN/TPM ER (Completers Population)

<table>
<thead>
<tr>
<th>Placebo</th>
<th>7.5 mg phentermine/46 mg topiramate (PHEN/TPM ER)</th>
<th>15 mg phentermine/92 mg topiramate (PHEN/TPM ER)</th>
</tr>
</thead>
<tbody>
<tr>
<td>n=994</td>
<td>15/92</td>
<td>15/92</td>
</tr>
<tr>
<td>Placebo</td>
<td>7.5 mg phentermine/46 mg topiramate (PHEN/TPM ER)</td>
<td>15 mg phentermine/92 mg topiramate (PHEN/TPM ER)</td>
</tr>
<tr>
<td>n=227</td>
<td>15/92</td>
<td>15/92</td>
</tr>
</tbody>
</table>

All subjects participated in a lifestyle modification program.

Effect of PHEN/TPM ER on BP and Lipid Levels After 56 Weeks

![Graph showing changes in systolic blood pressure (SBP) and diastolic blood pressure (DBP) with PHEN/TPM ER compared to placebo.]

Data are presented from the intention-to-treat analysis with last observation carried forward (LOCF). Least-squares means ± 95% confidence interval (CI). **P<0.01 vs placebo.


Effect of PHEN/TPM ER on Glycemic Parameters After 56 Weeks

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Placebo</th>
<th>PHEN/TPM ER 7.5/46</th>
<th>PHEN/TPM ER 15/92</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fasting Glucose (mg/dL)</td>
<td>-0.01</td>
<td>-0.07</td>
<td></td>
</tr>
<tr>
<td>Change (mmol/L)</td>
<td>-2.34</td>
<td>-1.26</td>
<td></td>
</tr>
<tr>
<td>HOMA-IR (hs)</td>
<td>1.80</td>
<td>4.16</td>
<td></td>
</tr>
<tr>
<td>Change (%)</td>
<td>-0.24</td>
<td>-0.99</td>
<td></td>
</tr>
<tr>
<td>Glycated Hemoglobin (%)</td>
<td>5.1</td>
<td>27.6</td>
<td></td>
</tr>
<tr>
<td>Change (%)</td>
<td>0.73</td>
<td>-3.97</td>
<td></td>
</tr>
<tr>
<td>Fasting Insulin (µU/mL)</td>
<td>5.1</td>
<td>27.6</td>
<td></td>
</tr>
<tr>
<td>Change (pmol/L)</td>
<td>-27.6</td>
<td>-24.0</td>
<td></td>
</tr>
<tr>
<td>HOMA-IR</td>
<td>1.80</td>
<td>4.16</td>
<td></td>
</tr>
<tr>
<td>Change (%)</td>
<td>-0.24</td>
<td>-0.99</td>
<td></td>
</tr>
</tbody>
</table>

**P<0.01 vs placebo.


Most Common Adverse Events: PHEN/TPM ER

<table>
<thead>
<tr>
<th>Adverse Events (%)</th>
<th>Placebo (n=993)</th>
<th>PHEN/TPM ER 7.5/46 (n=498)</th>
<th>PHEN/TPM ER 15/92 (n=994)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dry mouth</td>
<td>2</td>
<td>13</td>
<td>21</td>
</tr>
<tr>
<td>Paraesthesia</td>
<td>2</td>
<td>14</td>
<td>21</td>
</tr>
<tr>
<td>Constipation</td>
<td>6</td>
<td>15</td>
<td>17</td>
</tr>
<tr>
<td>Dysgeusia</td>
<td>1</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>Insomnia</td>
<td>5</td>
<td>6</td>
<td>10</td>
</tr>
<tr>
<td>Dizziness</td>
<td>3</td>
<td>7</td>
<td>10</td>
</tr>
</tbody>
</table>


52-Week Study Followed by 52-Week Extension (BLOOM)

- Placebo
- Lorcaserin 10 mg BID

Patients with BMI 27-40 kg/m² and ≥1 obesity-related comorbidities (N=3192)

All subjects participated in a lifestyle modification program.


Effect of Lorcaserin on Metabolic Measures in Obese Adults After 1 Year

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Placebo</th>
<th>Lorcaserin 10 mg BID</th>
</tr>
</thead>
<tbody>
<tr>
<td>SBP (mm Hg)</td>
<td>0</td>
<td>-3.8</td>
</tr>
<tr>
<td>DBP (mm Hg)</td>
<td>0</td>
<td>-6.0</td>
</tr>
<tr>
<td>LDL-C (mg/dL)</td>
<td>0</td>
<td>-2.6</td>
</tr>
<tr>
<td>HDL-C (mg/dL)</td>
<td>0</td>
<td>-3.3</td>
</tr>
<tr>
<td>Triglycerides (mg/dL)</td>
<td>0</td>
<td>-6.5</td>
</tr>
</tbody>
</table>

*P<0.05 vs placebo
**P<0.01 vs placebo.

Data are presented from the intention-to-treat analysis with LOCF imputation. Means ± SE.

Effect of Lorcaserin on Glycemic Parameters in Obese Adults After 1 Year

**P ≤ 0.001

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Placebo Lorcaserin 10 mg BID</th>
<th>Placebo Lorcaserin 10 mg BID n=1573, Years 1 and 2 n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycemic Hemoglobin (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HOMA-IR</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Data are presented from the intention-to-treat analysis with LOCF imputation. Means ± SE.

**Change (mg/dL)**

- Fasting Glucose
- Fasting Insulin

**Change (µU/mL)**

- Nausea

**Change (%)**

- Headache

**Adverse Events**

- Headache: 287 (18.0) 41 (7.2) 175 (11.0)
- Upper respiratory infection: 235 (14.8) 83 (14.5) 189 (11.9)
- Nasopharyngitis: 213 (13.4) 94 (16.4) 190 (12.0)
- Dizziness: 130 (8.2) 10 (1.7) 60 (3.8)
- Nausea: 119 (7.5) 20 (3.5) 85 (5.4)

Population includes all patients who received ≥1 dose of lorcaserin or placebo.

Use with extreme caution in patients who are taking SSRIs or SNRIs, TCAs, triptans, and tryptophan.

PHEN/TPM ER and Lorcaserin Dosing Information

- **PHEN/TPM ER**
  - 3.75 mg/23 mg (to start)
  - 7.5 mg/46 mg (at 2 weeks)
  - Assessment (at 12 weeks)
    - Continue therapy
    - Discontinue therapy
    - Increase dose to 15 mg/92 mg

- **Lorcaserin**
  - 10 mg BID

*Now available in retail pharmacies

**Emerging Pharmacotherapy**

<table>
<thead>
<tr>
<th>Agent</th>
<th>Naltrexone/ Bupropion SR1,2</th>
<th>Liraglutide3,4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approval status</td>
<td>FDA requested additional Phase 3 data</td>
<td>in Phase 3 clinical trials (for obesity)</td>
</tr>
<tr>
<td>Mechanism</td>
<td>Naltrexone, opioid receptor antagonist; Bupropion, noradrenaline-dopamine reuptake inhibitor</td>
<td>GLP-1 analog</td>
</tr>
<tr>
<td>Follow-up duration</td>
<td>56 weeks</td>
<td>56 weeks</td>
</tr>
<tr>
<td>Common adverse events</td>
<td>Nausea, Constipation, Dizziness, Vomiting, Dry mouth</td>
<td>Nausea, Vomiting, GI effects</td>
</tr>
</tbody>
</table>

*Therapies are not FDA approved for weight loss

GLP-1, glucagon-like peptide-1.

**Bariatric Surgery**

- **Indications**
  - BMI ≥ 40 kg/m²
  - BMI 35-39.9 kg/m² with at least 1 obesity-related comorbidity (diabetes, hypertension, hyperlipidemia, obstructive sleep apnea, lifestyle impairment, etc)
  - BMI 30-34.9 kg/m² with diabetes or metabolic syndrome

- **Contraindications**
  - Nonadherence
  - Certain psychiatric illnesses: personality disorder, uncontrolled depression, suicidal ideation, active substance abuse
  - Unlikely to survive surgery

Updated clinical practice guidelines for managing bariatric surgery patients released March 2013 by the AACE, TOS, and ASMBS.

Key Practice Takeaways

- In overweight and obese patients, weight loss can
  - Prevent diabetes
  - Improve risk-factor profiles
  - Reduce the need for diabetes and BP medications
  - Improve sleep apnea, urinary stress incontinence, mobility, and symptoms of depression

- 5%-10% reduction in weight is clinically meaningful and will improve patient health

Key Practice Takeaways

- Healthcare professionals must identify patients who would benefit from diet and exercise to address the root cause of many chronic health problems

- Medications used with lifestyle intervention may be considered for patients with a
  - BMI 27.0-29.9 with at least 1 comorbidity
  - BMI ≥30.0 with or without comorbidities

- Physicians may consider bariatric surgery for select patients

Question & Answer