

PharmaCE™

a continuing education program for *JPT* readers

November/December CE Questions

Educational Consultants

David A Riley EdD, Chairman, PharmaCE Panel, School of Pharmacy, West Virginia University, Morgantown, WV; Michael C Shannon PhD, Vice-Chairman, PharmaCE Panel, Nicholasville, KY; Ginger G Scott PhD, School of Pharmacy, West Virginia University, Morgantown, WV; Robert B Supernaw PharmD, School of Pharmacy, Wingate University, Wingate, NC.



ACCREDITATION

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TREATMENT OF OBESITY

(see page 319)

Goal

To present the currently available pharmacologic agents for obesity, as well as past and future agents, and to assist pharmacists in discerning the proper pharmacologic management of the epidemic of obesity.

Objectives

After reviewing this article, the reader should be able to:

1. describe the epidemiology and prevalence of obesity;
2. describe the appropriate assessment of obesity;
3. list and describe pharmacologic agents formerly used for treatment of obesity and select reasons for these agents no longer being used;
4. select appropriate currently available pharmacologic therapy for obesity in each case;
5. project the rationale of future pharmacologic agents and obesity pathways given a list of possible choices.

Test Questions

1. Which of the following percentages represents the current prevalence of obesity in the US?
 - (a) 23%
 - (b) 31%
 - (c) 54%
 - (d) 64%
 - (e) 72%
2. Which of these methods is considered the most practical measure for assessing obesity?
 - (a) skinfold measures
 - (b) waist-to-hip ratios
 - (c) BMI with waist circumference
 - (d) magnetic resonance imaging
 - (e) bioelectrical impedance

3. How many calories per day should be consumed by an average person who wishes to lose approximately 1–2 pounds per week?
 - (a) 400–750 kcal/day
 - (b) 800–1,500 kcal/day
 - (c) 1,600–2,000 kcal/day
 - (d) 2,100–2,500 kcal/day
 - (e) 2,600–3,000 kcal/day
4. Antiobesity agents should be considered in patients who meet all the following criteria *except*:
 - (a) BMI \geq 25 with concomitant risk for CVD.
 - (b) BMI \geq 27 in patient with known coronary artery disease.
 - (c) BMI \geq 27 with diabetes and hyperlipidemia.
 - (d) BMI \geq 30.
 - (e) BMI \geq 35.
5. Which of the following reasons led to the removal of several pharmacologic agents during the 1990s?
 - (a) hyperthyroidism
 - (b) pulmonary embolism
 - (c) myocardial infarction
 - (d) QT prolongation on electrocardiogram
 - (e) valvular heart disease
6. A 43-year-old female is being treated with phentermine for weight loss. An appropriate duration of therapy for this patient would be:
 - (a) 10 weeks.
 - (b) 24 weeks.
 - (c) 48 weeks.
 - (d) until 20% of total body weight is lost.
 - (e) until goal weight is reached.
7. Patients who are prescribed noradrenergic agents should be counseled that these agents may cause:
 - (a) drowsiness.
 - (b) diarrhea.
 - (c) hyperglycemia.
 - (d) palpitations.
 - (e) rhinorrhea.
8. Orlistat leads to weight reduction by:
 - (a) increasing insulin sensitivity.
 - (b) inhibiting pancreatic lipases.
 - (c) increasing thermogenesis.
 - (d) inhibiting norepinephrine uptake.
 - (e) inhibiting serotonin uptake.
9. A 32-year-old woman is given an orlistat prescription for obesity. An appropriate starting dose of orlistat in this patient would be:
 - (a) 60 mg once daily with highest fatty meal.
 - (b) 60 mg 3 times daily with each meal.
 - (c) 120 mg once daily with highest fatty meal.
 - (d) 120 mg 3 times daily with each meal.
 - (e) 240 mg 3 times daily with each meal.
10. Which of the currently available antiobesity agents may enhance the effects of warfarin?
 - (a) benzphetamine
 - (b) diethylpropion
 - (c) orlistat

Answer sheet appears on facing page.

- (d) phentermine
- (e) sibutramine

11. Sibutramine leads to weight reduction by:
- (a) inhibition of pancreatic lipase.
 - (b) stimulation of norepinephrine release.
 - (c) inhibition of serotonin, dopamine, and norepinephrine reuptake.
 - (d) inhibition of γ -aminobutyric acid.
 - (e) antagonism of the glutamate receptor.
12. A 45-year-old male with hypertension and a history of myocardial infarction presents to a retail pharmacy with a prescription for sibutramine 10 mg once daily to lose weight. What would be the appropriate action by the pharmacist?
- (a) Fill the prescription as is with weekly monitoring of blood pressure.
 - (b) Fill the prescription as is and monitor the patient's blood pressure daily during sibutramine therapy.
 - (c) Call the prescriber and request the dose of sibutramine be reduced to 5 mg daily, which will lessen the chance of adverse effects.
 - (d) Call the prescriber to determine whether patient's blood pressure has been adequately controlled in the past and discuss monitoring plans.
 - (e) Call the prescriber and recommend an alternative therapy in this patient since sibutramine is contraindicated.
13. Which of the following agents with potential effectiveness in obesity has been disappointing due to the development of resistance?
- (a) axokine
 - (b) leptin
 - (c) metformin
 - (d) rimonabant
 - (e) topiramate
14. Which of the following agents may be effective in treating both obesity and smoking cessation?
- (a) axokine
 - (b) leptin
 - (c) metformin
 - (d) rimonabant
 - (e) topiramate
15. Topiramate may cause weight loss by:
- (a) inhibition of pancreatic lipase.
 - (b) stimulation of norepinephrine release.
 - (c) inhibition of serotonin, dopamine, and norepinephrine reuptake.
 - (d) inhibition of γ -aminobutyric acid.
 - (e) antagonism of the glutamate receptor.

► THIS TEST PROVIDES 0.75 CREDIT HOUR ◀

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BENIGN PROSTATIC HYPERPLASIA

(see page 330)

Goal

To present current information on the management of BPH based on the pathophysiology of the disease and available

pharmacotherapeutic options to adequately treat patients with a regimen involving the least possible adverse effects.

Objectives

After reviewing this article, the reader should be able to:

1. describe the pathophysiology and diagnosis of BPH;
2. identify the clinical presentation of BPH;
3. list the therapeutic goals for the management of BPH;
4. identify the available pharmacologic treatment options used in the management of the condition;
5. describe the role of the pharmacist in the management of BPH.

Test Questions

1. Which of the following statements regarding the pathophysiology of BPH is *true*?
 - (a) Estrogen is the only hormone involved in the growth of the prostate.
 - (b) Irritative symptoms include urinary retention, straining to void, and prolonged dribbling post micturation.
 - (c) DHT is a potent androgen and has a greater affinity for androgen receptors than testosterone.
 - (d) BPH is defined by the AUA as a cancerous growth of the prostate.
 - (e) BPH presents in only 5% of men over the age of 65.
2. Which of the following is the therapeutic dose of dutasteride in the management of BPH?
 - (a) 0.5 mg
 - (b) 1 mg
 - (c) 10 mg
 - (d) 20 mg
 - (e) 25 mg
3. A 64-year-old male with an AUA score of 15 develops worsening symptoms of urinary urgency and nocturia. His physician recommends an α -adrenergic antagonist in the management of his symptoms. Which of the following regimens is best for immediate relief of his symptoms?
 - (a) dutasteride 0.5 mg/day
 - (b) doxazosin 0.5 mg/day
 - (c) doxazosin 16 mg at bedtime
 - (d) terazosin 1 mg at bedtime
 - (e) terazosin 10 mg at bedtime
4. Which of the following statements regarding finasteride is *true*?
 - (a) It is associated with first-dose syncope.
 - (b) It needs to be titrated every 2 weeks.
 - (c) It has a rapid onset of action.
 - (d) It is associated with ejaculation disorders and decreased libido.
 - (e) It treats hirsutism.
5. Which of the following is an alternative preparation approved by the German Commission E for the treatment of BPH?
 - (a) ginkgo biloba
 - (b) ma-huang
 - (c) saw palmetto
 - (d) ginseng
 - (e) kava kava
6. Which of the following regimens would be the best to recommend for a 78-year-old man currently taking alfuzosin 10 mg po qd for the management of BPH symptoms who has rhinorrhea associated with seasonal allergies?

- (a) loratadine 10 mg/day
 - (b) pseudoephedrine 120 mg/day
 - (c) diphenhydramine 25 mg/day
 - (d) loratadine 10 mg/pseudoephedrine 240 mg/day
 - (e) oxymetolazone nasal spray
7. What is the most common adverse effect associated with the use of doxazosin?
- (a) sweating
 - (b) dry mouth
 - (c) hypertension
 - (d) glaucoma
 - (e) dizziness
8. Finasteride tablets are not teratogenic and can be safely handled by pregnant women.
- (a) true
 - (b) false
9. Which of the following is the mechanism of action of tamsulosin?
- (a) calcium-channel antagonist
 - (b) serotonin-reuptake inhibitor
 - (c) α_1 -adrenergic antagonist
 - (d) α_2 -adrenergic agonist
 - (e) β_2 -adrenergic antagonist
10. Which of the following statements regarding alfuzosin is *true*?
- (a) decreased incidence of orthostatic hypotension
 - (b) uroselective α_1 -adrenergic agent
 - (c) available in an extended-release preparation
 - (d) more effective than placebo
 - (e) all of the above
11. All of the following statements regarding the prostate are true *except*:
- (a) The first growth period occurs between the ages of 10 and 20.
 - (b) It is located at the base of the bladder.
 - (c) Its natural size at birth is approximately one gram.
 - (d) The gland contains glandular, smooth, and fibrous tissue.
 - (e) It contains α_1 -adrenergic receptors.
12. According to the AUA-SI as a tool to distinguish the different severities of BPH, which of the following is correct?
- (a) AUA-SI <5 is mild.
 - (b) AUA-SI <7 is moderate.
 - (c) AUA-SI 8–19 is mild.
 - (d) AUA-SI >15 is severe.
 - (e) AUA-SI >20 is severe.