

CME Test Questions

MANAGEMENT OF OSTEOPOROSIS

1. In premenopausal women and in men below the age of 50 years, the diagnosis of osteoporosis should not be made based solely on _____.
 - a. T-scores
 - b. densitometry results
 - c. quantitative ultrasound (QUS) parameters
 - d. Z-scores

2. Peripheral bone mineral density (BMD) measurements are more useful in predicting the risk of fractures than spinal and hip dual energy x-ray absorptiometry (DXA) measurements.
 - a. True
 - b. False

3. The American College of Obstetricians and Gynecologists (ACOG) does not recommend routine use of quantitative computed tomography (QCT) due to _____.
 - a. increased radiation exposure
 - b. lower precision
 - c. Z-scores that have not been correlated with fracture risk
 - d. a and b
 - e. a and c

4. The National Osteoporosis Foundation (NOF) recommends BMD testing for postmenopausal women _____ years of age, as well as younger postmenopausal women with an additional risk factor or factors.
 - a. >55
 - b. >60
 - c. >65
 - d. >70

5. The Age, Body Size, No Estrogen (ABONE) risk assessment questionnaire is similar but simpler than what other assessment instrument, which also uses age, body weight, and estrogen use to quantify risk and need for bone densitometry testing?
 - a. Osteoporosis Risk Assessment Instrument (ORAI)
 - b. Osteoporosis Self-Assessment Tool (OST)
 - c. Simple Calculated Osteoporosis Risk Estimation (SCORE)
 - d. Osteoporosis Index of Risk (OSIRIS)

6. As measured by DXA, peak bone mass is the maximum BMD achieved by age _____ years.
 - a. 25
 - b. 30
 - c. 35
 - d. 40

7. Bone strength is dependent upon the normal functioning of 3 key bone cells: osteoclasts, osteoblasts, and osteocytes. Which 2 cells compose the bone multicenter unit (BMU), where bone remodeling and reconstruction occur?
 - a. Osteocytes and osteoblasts
 - b. Osteoclasts and osteocytes
 - c. Osteoblasts and osteoclasts

8. Estrogen deficiency is critical to the pathophysiology of both male and postmenopausal osteoporosis.
 - a. True
 - b. False

9. Clinical trials involving older individuals at high risk for calcium and vitamin D deficiency indicate that supplementation of both can _____.
 - a. increase bone mass
 - b. reverse secondary hyperparathyroidism
 - c. increase bone resorption
 - d. a and b
 - e. all of the above

10. The annual incidence of osteoporotic fractures exceeds _____ in the United States.
 - a. 1.0 million
 - b. 1.5 million
 - c. 2.0 million
 - d. 2.5 million

11. With age, there is increased loss of bone mineral due to _____.

- a. endocortical thinning
- b. decreasing porosity of cortical bone
- c. increased osteoclast-mediated bone resorption
- d. a and b
- e. a and c

12. One of the most frequent factors associated with osteoporosis in men are when they are aged _____ years.

- a. >65
- b. >70
- c. >75
- d. >80

13. The US Preventive Services Task Force recommends osteoporosis screening for all women ≥ 60 years of age as well as routine screening for women ≥ 55 to 59 years of age that are at high risk for osteoporosis.

- a. True
- b. False

14. Which are the only 3 pharmacologic therapies indicated for the prevention and/or treatment of postmenopausal osteoporosis, which are also indicated for the treatment of osteoporosis in men to increase bone density?

- a. raloxifene, nasal calcitonin, and teriparatide
- b. nasal calcitonin, teriparatide, and bisphosphonates
- c. alendronate, risedronate, and teriparatide

15. Due to the possible risk of osteosarcoma and lack of long-term safety data, use of the anabolic agent teriparatide for more than _____ years is not recommended.

- a. 1
- b. 2
- c. 3
- d. 4

16. Bone fractures due to osteoporosis occur most commonly in the _____.

- a. distal forearm, vertebrae, tibia
- b. vertebrae, tibia, proximal femur
- c. distal forearm, vertebrae, proximal femur
- d. All of the above

17. Guidelines generally suggest a daily intake of at least _____ mg of calcium for postmenopausal women >50 years of age.

- a. 1000
- b. 1200
- c. 1500
- d. 1800

18. Although BMD is an important measurement in clinical practice, it is of more limited value in assessing treatment efficacy.

- a. True
- b. False

19. The bisphosphonates reduce bone resorption by inhibiting the activity of _____ and shortening their life span.

- a. osteoblasts
- b. fibroblasts
- c. osteoclasts
- d. chondroblasts

20. In the placebo-controlled Women's Health Initiative, administration of estrogen alone to postmenopausal women who had undergone a hysterectomy was associated with a _____ reduction in risk of hip fracture.

- a. 20%
- b. 29%
- c. 35%
- d. 39%

21. Factors that may impact compliance and persistence with osteoporosis therapy include _____.

- a. dosing frequency
- b. adverse effects
- c. drug costs
- d. All of the above

CME Test Answer Sheet and Evaluation Form for MANAGEMENT OF OSTEOPOROSIS

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PRETEST ASSESSMENT: Please rate your current knowledge of osteoporosis management on a scale of 1 to 5, with 1 the lowest and 5 the highest. **1 2 3 4 5**

CME TEST

(Please circle correct answers.)

- | | | | | | | |
|--------------|------------|--------------|---------------|-------------|-------------|-------------|
| 1. a b c d | 4. a b c d | 7. a b c | 10. a b c d | 13. a b | 16. a b c d | 19. a b c d |
| 2. a b | 5. a b c d | 8. a b | 11. a b c d e | 14. a b c | 17. a b c d | 20. a b c d |
| 3. a b c d e | 6. a b c d | 9. a b c d e | 12. a b c d | 15. a b c d | 18. a b | 21. a b c d |

COURSE EVALUATION: Please evaluate the effectiveness of this activity by circling your choice on a scale of 1 to 5, with 1 being the lowest and 5 the highest.

1. Did the material adequately explain the basic mechanisms of bone physiology and pathophysiology? **1 2 3 4 5**
2. Did the material provide information on determining patients at risk of developing osteoporosis? **1 2 3 4 5**
3. Did the material discuss established guidelines on which patients should be screened for osteoporosis? **1 2 3 4 5**
4. How well did the material discuss pharmacologic options available for both men and women with osteoporosis? **1 2 3 4 5**



5. How do you rate the overall quality of the activity? **1 2 3 4 5**
6. How do you rate the educational content of the activity? **1 2 3 4 5**
7. Was the presented information fair, objective, balanced, and free of bias in the discussion of any commercial product or service? Yes No
If no, please comment: _____

8. Suggested topics for future activities:

9. Suggested authors for future activities:

10. After reading this publication, have you decided to change one or more aspects in the treatment of your patients? Yes No
If yes, what changes will you make? _____

If no, why not? _____

11. Would you be willing to participate in postactivity follow-up surveys? Yes No
12. Would you be willing to participate in a phone, e-mail, or in-person discussion exploring ways to improve our CME activities? Yes No

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