

Pharmacy Technician Questions

1. Which of the following statements is the best recommendation for an individual?
 - a. Calcium citrate will be best absorbed if taken with food.
 - b. Calcium citrate contains 40% elemental calcium.
 - c. Calcium carbonate will be best absorbed if taken with food.
 - d. Calcium carbonate contains 21% elemental calcium.
2. Which of the following is false?
 - a. Osteoporosis is generally asymptomatic
 - b. Osteoporosis is characterized by high bone mass
 - c. Osteoporosis involves deterioration of bone tissue
 - d. Fractures from osteoporosis can result in limited mobility and the potential need for nursing home care
3. Which of the following is considered a risk factor for osteoporosis?
 - a. Male sex
 - b. Low body weight
 - c. Physically active
 - d. Adequate calcium consumption
4. Which of the following is a modifiable risk factor for osteoporosis?
 - a. Hereditary factors
 - b. Age
 - c. Menopausal status
 - d. Calcium consumption
5. Which of the following T-scores is indicative of osteoporosis?
 - a. 0.6
 - b. -0.6
 - c. -1.6
 - d. -2.6
6. Which of the following medications interacts with calcium-containing foods and supplements?
 - a. Levothyroxine
 - b. Estrogen
 - c. Teriparatide
 - d. Denosumab
7. Choose the drug class that is closely associated with development of drug -induced osteoporosis when used for more than three months?
 - a. Levothyroxine
 - b. NSAIDs

- c. Oral glucocorticoids
 - d. Denosumab
8. Which of the following is an example of a vitamin D containing food?
- a. Cheese
 - b. Salmon
 - c. Broccoli
 - d. Lettuce
9. How long before food, drink and other meds should oral bisphosphonates (except risedronate delayed release) be taken?
- a. At least 15 minutes
 - b. At least 30-60 minutes
 - c. At least 60-120 minutes
 - d. At least 4 hours
10. Which medication must be administered by a health professional?
- a. Estrogen replacement therapy
 - b. Teriparatide
 - c. Ibandronate
 - d. Denosumab
11. Which medication class requires patients to remain upright for 30 to 60 minutes after taking their doses?
- a. Estrogen replacement therapy
 - b. Parathyroid hormone analogs
 - c. RANKL antagonists
 - d. Bisphosphonates
12. You are filling a patient's refill for alendronate 70 mg weekly and notice that the prescription is two months past its refill due date. What should you do?
- a. Not mention anything to the patient because resuming the prescription today is sufficient
 - b. Alert the pharmacist to explore reasons for sub-optimal adherence when the patient picks up the prescription
 - c. Suggest the patient to switch to a different medication
 - d. Call the doctor
13. A patient who is picking up a refill for ibandronate mentions that she has had heartburn every day since she started taking this medication. She reports that she takes it with her orange juice and oatmeal, and remains upright for 30 minutes or more after taking it. What action can she take that might reduce her heartburn?
- a. She should substitute milk for orange juice because it has plenty of calcium in it.
 - b. She should take the drug at least 30 minutes before breakfast, and remain upright for 60 minutes.

- c. She should remain upright after breakfast for at least an hour and then take the ibandronate.
 - d. She should take her ibandronate with 2 tablespoons of milk of magnesia.
14. A 60 year old female patient with osteoporosis asks a pharmacy technician about Vitamin D intake and exercise. What should you do?
- a. Inform the patient that Vitamin D supplementation and exercise are not needed
 - b. Inform the patient that Vitamin D should only be acquired through food, and that physical activity should be avoided due to fall risk
 - c. Inform the patient that adhering to her osteoporosis medications supercedes Vitamin D intake and exercise.
 - d. Alert the pharmacist to educate the patient on recommended sources and intake of Vitamin D, and weight-bearing activities to strengthen the muscles and improve balance
15. Which of the following bisphosphonates should be taken with water right after breakfast?
- a. Alendronate
 - b. Risedronate delayed-release
 - c. Ibandronate
 - d. Zoledronic acid
16. Mr. Jones is a prostate cancer survivor who is taking a bisphosphonate. His T score is -2.65 and he has had one fracture. Choose the statement that is true:
- a. Mr. Jones is eligible for a "drug holiday" after 3 to 5 years of bisphosphonate therapy.
 - b. Mr. Jones is eligible for a "drug holiday" after 5 to 10 years of bisphosphonate therapy.
 - c. Mr. Jones is eligible for a "drug holiday" after 10 years of bisphosphonate therapy.
 - d. Mr. Jones is ineligible for a "drug holiday" and needs to take bisphosphonates for the rest of his life.
17. Which of the following drugs is a selective estrogen receptor modulator (SERM)?
- a. Alendronate
 - b. Denosumab
 - c. Abaloparatide
 - d. Raloxifene
18. Which of the following must be stored under refrigeration and disposed after 28 days of use?
- a. Teriparatide
 - b. Raloxifene
 - c. Zoledronic acid
 - d. Risedronate
19. Which of the following patients should you refer to the pharmacist for consultation?
- a. A patient who asks you how much water to drink with her alendronate

- b. A male patient who has a prescription for the transdermal estrogen patch
 - c. A 22-year-old patient who states his doctor stopped his proton pump inhibitor as it may contribute to the development of osteoporosis
 - d. A patient who asks you about dietary sources of calcium
20. The following are things this patients might say at the register when they are picking up prescriptions for osteoporosis. Select the statement that indicates a patient may need counseling from the pharmacist.
- a. "I'm so glad to be on this bisphosphonate so I don't have to take calcium anymore."
 - b. "The nurse practitioner who prescribed this told me to increase my calcium and vitamin D doses."
 - c. "I use sunscreen routinely, so I need to take supplemental vitamin D. Where are your supplements?"
 - d. "I'm purchasing this calcium citrate so that I don't have to worry about taking my calcium with food."