

ISCD Certification Practice Questions

Technologists

1. Which of the following statements about precision error is most correct?
 - a. This is the value that represents the smallest change in BMD that is clinically significant.
 - b. This value is supplied by the DXA manufacturer for direct application to comparison of serial DXAs in patients.
 - c. The precision error must be calculated by measuring BMD in a series of patients according to standard methods.
 - d. Precision error and least significant change are the same.

2. A technologist's review of the autoanalysis is necessary:
 - a. never.
 - b. all the time.
 - c. forearm only.
 - d. part of the time.

3. Regions of interest are designed to:
 - a. standardize DXA analysis.
 - b. define areas to be analyzed.
 - c. provide an estimate of bone age.
 - d. are the same for all equipment manufacturers.

4. The DXA machine needs to be checked for proper function:
 - a. never.
 - b. once a week.
 - c. once a year.
 - d. every day it is used for studies.

5. When performing a follow-up BMD examination, which of the following are least likely to affect the validity of the comparison?
 - a. Different software versions used for the two scans on the same scanner

- b. Differences in the positioning of the anatomy within the x-ray beam but identical regions of interest placement and sizes
 - c. Different scanner manufacturers but similar scanner types (pencil-beam to pencil beam, or fan-beam to fan-beam for example)
 - d. Differences in region of interest sizes or placements but identical patient positioning
6. Which of the following statements is true:
- a. Fracture risk is determined solely by BMD.
 - b. Vitamin D supplements should be stopped in the summer months.
 - c. Integrating BMD with clinical risk factors for fracture enables estimation of fracture risk.
 - d. In patients with osteoporosis, calcium and vitamin D are sufficient for fracture prevention.
7. A 70 year old woman slips and falls on grass and fractures her hip after having completed her BMD assessment. Which of the following regarding her diagnosis is true?
- a. She has osteoporosis regardless of the results of her BMD.
 - b. She has osteoporosis if the T-score at the femoral neck or total hip site is less than or equal to -2.5.
 - c. She has osteoporosis if the T-score at either the hip, spine or forearm is less than or equal to -2.5.
 - d. She has osteoporosis if the Z-score at either the hip, spine or forearm is less than or equal to -2.5.

See next page for answer sheet.



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Technologist Practice Answer Sheet

1. C
2. B
3. B
4. D
5. A
6. C
7. A