MRAD 302 Specialized Imaging 2 Reflection #1 – forms part of quiz #1 (5%)

Reflection: Bone Mineral Densitometry and Osteoporosis

Reflections are designed to encourage you to think critically about your experiences, apply theoretical knowledge to practical situations, and develop your professional identity as a medical imaging technologist.

Topic: Reflecting on Bone Mineral Densitometry and Osteoporosis

1. Why is Bone Mineral Densitometry important in diagnosing and monitoring osteoporosis?

2. How might understanding osteoporosis affect the way a medical imaging technologist interacts with and positions patients during a medical imaging procedure?

   Bone mineral densitometry is important in diagnosing osteoporosis because it provides measurement of bone mineral density and helps diagnose patients who may be at high risk of fractures. A DXA scan compares a patient's bone density with reference values of the average using T-scores and Z-scores. By comparing the score to the average, it allows osteoporosis and/or low bone density to be detected before a serious fracture occurs. BMD can also be used to monitor and record changes in bone density over time and see if treatment or lifestyle changes are helping to slow further bone loss. This shows how medical imaging can play an important prevention role rather than only identifying problems after an injury has occurred. Understanding osteoporosis would affect how I approach a patient as a technologist. Patients with osteoporosis have weaker and more fragile bones, needing more cautious care while caring, transferring, and moving patients. I would communicate clearly before starting any movement, ask about their mobility and if there's any pain, and avoid sudden movements. I would also use positioning aids when needed and provide assistance when needed.

Word count: 200-250 words

Reflective Writing Rubric

Criteria	1 Point	2 Points	3 Points
Critical Reflection	Basic understanding of topic	Some reflection, with basic analysis	Deep reflection with thoughtful analysis
Application to Practice	Limited connection to medical imaging practice	Clear connections to medical imaging practice	Insightful application to medical imaging practice

Writing Quality	Basic writing with some clarity issues	Clear writing with minor errors	Well-written, clear, and concise