MRAD 254 Fluoroscopic Imaging Reflection – forms part of all the 3 quizzes (5%)

Reflection: Minimizing Radiation Dose to Patients

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: Minimizing Radiation Dose to Patients

1. What is radiation dose, and why is it important to minimize it in medical imaging?

2. What are practical ways to reduce radiation exposure to patients during x-ray procedures?

Word count: 250-350 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

Radiation dose is a measurement of the amount of energy from ionizing radiation that is deposited in or is absorbed typically by the patient tissue. It is a valuable form of way to get a diagnosis of a patient. It is important to minimize radiation dose in medical imaging since radiation can cause damage to living cells in the body. Being exposed to long periods of radiation can cause severe issues to someone's body. Such as damage to DNA causing cancer risks. Very high dose of radiation can cause immediate effects like hair loss and redness (erythema). Genetic effects that can cause mutations in reproductive cells that may be passed to future generations. ways to reduce a patients radiation dose during a x-ray is to apply ALARA. Ensure the patient is at 100 SID away from the x-ray beam. Provide patient with lead or lead-equivalent aprons to cover their torso and groin area. Record all exposures to Medi-tech for future techs to see the amount the patient has had in the past xrays.