MRAD 281 Computed Tomography Theory 2 Reflection #2 – forms part of assignment #2 (15%)

Reflection: Reflection on CT Scanning of the Neck and Chest

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 CT Scanning of the Neck and Chest

As you learn about CT scanning of the neck and chest, reflect on your understanding of these important diagnostic procedures. Consider the following questions:

1. When you first learned about CT scanning of the neck and chest, what surprised you the most from what you expected, and why did this stand out to you?
2. Reflect on the use of contrast media in neck and chest CT scans. When is contrast typically used and why?

When I first learned about CT scanning of the neck and chest, one thing that surprised me the most was learning how the heart functions and how its structures are positioned in relation to each other. Before learning CT anatomy, I understood the basic function of the heart, but I had a hard time imagining where each structure was located. I learned that the atriam receive blood while the ventricles pump blood out of the heart. Blood enters the right side of the heart and is pumped through the pulmonary arteries to the lungs. It then returns through four pulmonary veins to the left side of the heart, where it is pumped through the aorta to the rest of the body. One way CT anatomy helped me understand this was by creating my own way of visualizing the heart. I like to imagine holding both of my hands closed together, with my right hand positioned slightly posterior to my left hand. I imagine my thumbs representing the atriams and my fingers representing the ventricles. This gives me a simple three-dimensional picture of how the chambers are positioned. Before learning CT anatomy, I had difficulty visualizing the heart structures and their relationships, but seeing them on axial CT images made the anatomy much easier for me to understand. Contrast media is important in CT imaging of the neck and chest because it is used when blood vessels, soft tissues, masses, or infections need better visualization. In the neck, contrast helps differentiate vessels such as the carotid arteries and jugular veins from the surrounding structures. In the chest, contrast timing depends on what the CT scan is being used for. For example, when looking for a pulmonary embolism, contrast is timed to enhance the pulmonary arteries. Contrast can also be used to better visualize the aorta, heart, and other vessels within the chest. Learning about the different uses of contrast has helped me understand why timing is important and why CT protocols change depending on the anatomy or pathology being examined.

Word count: 350-450 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