AbstractID: 5959 Title: Quality Assurance Procedures for Digital Radiography

The use of digital radiography is becoming the normal form of image capture replacing film. With film there are numerous Quality Assurance (QA) procedures that have been developed that cover the film processor, retake analysis, patient dose and overall system image quality. The QA procedures for digital systems are just now being developed. Since the digital detector technologies vary and with variations in image processing methods it may seem difficult to develop standardized QA procedures. Yet the endpoints of optimized image quality and minimized patient dose need to be obtained. Therefore the Physicist needs to use the knowledge of the detector characteristics and processing methods as tools to maintain QA on digital systems. These procedures need to be rigorous enough to provide QA, yet they must be flexible enough to work for different detectors, processing methods and system applications. This lecture will provide an overview of the testing procedures for digital radiographic systems and suggest procedures that can be used to provide QA in digital radiography.

Objectives

1. Review detector testing procedures used to assess digital systems
2. Review QA procedures used in radiography and relate these to digital technologies
3. Suggest QA procedures that can be used to evaluate digital systems