Overview

Introduction

Both CR and DR systems create digital images using an image acquisition system which obtains data in the form of an electronic signal. This electronic image is displayed on an electronic display device such as a computer monitor. Producing x-ray images in this way has replaced the film/screen method of radiography in most facilities. A quality assurance program must take into consideration the many different types of electronic systems and the technologist must often rely on manufacturer's guidelines.

Learning Outcomes

Evaluate the performance of a computer radiographic (CR) system According to Safety Code 35 requirements. Evaluate the performance of a direct radiography (DR) system according to Safety Code 35 requirements.

Learning Activities

1. Complete the assigned readings (refer to the course schedule)

2. Complete the guided reading activity
    - Check your answers with the answer key

3. Review the Example QC Procedures from the Elsevier Evolve Textbook Resource site and compare with the Canadian resources from the Diagnostic Accreditation Program site (www.dap.org).

Elsevier Evolve Textbook Resources	**Diagnostic Accreditation Program of BC**
Computerized Radiography CR Quality Control Test	Y27 http://dap.org/CmsFiles/File/Safety%20Code%20HC35/Test%20Protocol%20Files/Y27.pdf
Digital Image Display Monitor Test	M6 http://dap.org/CmsFiles/File/Safety%20Code%20HC35/Test%20Protocol%20Files/M6.pdf
Dark Noise and Image Uniformity Test	W5 http://dap.org/CmsFiles/File/Safety%20Code%20HC35/Test%20Protocol%20Files/W5.pdf W6 http://dap.org/CmsFiles/File/Safety%20Code%20HC35/Test%20Protocol%20Files/W6.pdf
Laser Printer Quality Control Test	W3 http://dap.org/CmsFiles/File/Safety%20Code%20HC35/Test%20Protocol%20Files/W3%20July%2015.pdf

4. Compare the acceptance criteria between the textbook resource and Canadian standards outlined in the Diagnostic Accreditation Program Education Resource site (www.dap.org).

5. Participate in the online discussion:
    - CR and DR Equipment

Resources

Diagnostic Accreditation Program. (2016). *Education: HC safety code 35*. Retrieved from http://dap.org/Default.aspx?p=156

Health Canada. (2008). *Safety code 35: Safety procedures for the installation, use and control of x-ray equipment in large medical radiological facilities*. Retrieved from http://www.hc-sc.gc.ca/ewh-semt/pubs/radiation/safety-code_35-securite/index-eng.php

Papp, Jeffrey. (2015). *Quality management in the imaging sciences* (5th ed.). St. Louis, MO: Mosby Elsevier.