Viewing Conditions in Diagnostic Imaging: A Survey of Selected Malaysian Hospitals

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Objectives: To assess the appropriateness of viewbox and display monitor luminance and radiology reading room illumination in selected Malaysian hospitals.

Materials and Methods: The luminance of viewboxes was measured in 4 hospitals, along with the display monitors in 1 of the hospitals, using a luminance level meter. The luminance uniformity of the viewboxes was also measured. Ambient room illumination of radiology reading rooms was measured using a photometer.

Results: Luminance was satisfactory in 7 of 10 mammography viewboxes (70%) and 64 of 177 (36%) conventional viewboxes. The light uniformity of all the viewboxes was poor, with only 3 of 187 (1.6%) found to be satisfactory. The luminance of the display monitors in the hospital surveyed showed that only 6 of 31 (20%) display monitors were satisfactory. The ambient room illumination in the reading rooms was generally higher than optimal. Only 1 of the 3 mammography rooms (33.3%) was found to be satisfactory. In the general film reading rooms, 6 of the 20 (30%) surveyed were satisfactory.

Conclusion: The majority of radiological facilities surveyed did not meet American College of Radiology and other international guidelines for radiographic viewing conditions. The survey highlights the need for improving this aspect of radiology practice, and introducing viewing condition as part of the quality assurance programme for diagnostic imaging is recommended. (J HK Coll Radiol 2001;4:264-267)

Key Words: Diagnostic imaging, Mammography, Quality control