

ABSTRACT

Optimization of Radiation Protection During Non-Special Radiographic Procedures, for Patients 16 years and Above, at the University Hospital of the West Indies

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Medical x-ray for diagnostic purposes is the largest source of artificial radiation². This survey was done to determine if the UHWI radiographers consistently practiced certain recommended basic measures for the optimization of patients' radiation protection.

Quantitative and the qualitative research methods were used to collect data. In the quantitative method, 150 patients, selected by systematic random sampling, were interviewed between February and March 2003. The qualitative research method used a key informant interview and two observations to collect data. SPSS software was used to analyze the data.

Of the 150 patients interviewed, 80.7% said the radiographer did not verify their identities, 60.7% said no explanation of the x-ray examinations were given and 84.7% said no immobilizing devices were used ($p < 0.05$).

Gonadal shield were used on only 16 patients: 13 females and 3 males ($\chi^2=5.66$; $p=0.017$). Of the 81 females in the total sample, 61 were of childbearing age and of this amount 8% indicated they might be pregnant and 75.4% said the radiographer did not enquire if they were pregnant. Only 14 (23%) of the female, between 16–45 years old, reported seeing signs in the department requiring them to declare their pregnancy status ($p=0.03$).

The key informant interview schedule revealed that there was no radiographer with full responsibility for radiation safety; no quality assurance/control programme in place; no written administrative policy governing the use of x-rays and continue education in radiation protection was nil.

This study revealed that certain recommended basic practices to reduce radiation dose to patients undergoing non-special x-ray procedures and their offspring were not consistently performed at the UHWI.