

**UTILIZATION, SAFETY MEASURES AND  
CHALLENGES AT RADIOLOGY DEPARTMENT  
IN MYINGYAN GENERAL HOSPITAL**

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## ABSTRACT

In the practice of modern health care, the radiology department plays an essential role within hospitals, directly impacting patient care. Understanding the utilization patterns, implementing safety measures for radiation hazards, and exploring challenges in the provision and utilization of imaging services at radiology department are essential for enhancing the quality of care in the Myanmar health setting. This cross-sectional descriptive study using mixed methods was conducted to assess the utilization of imaging services, to identify the safety measures and to explore the challenges on provision and utilization of imaging services at radiology department in Myingyan General Hospital. For quantitative data, all recorded data on medical imaging services from 2018 to 2022 (yearly data) and 2022 (monthly data) were collected. For radiation safety measures, the modified checklist from the University of Memphis, USA, was used as an observational checklist. For the qualitative study, a total of eleven respondents (one medical superintendent, one radiologist, one technician, and eight patients) were involved. In terms of utilization, it was found that 68.9% of X-ray services and 31.1% of USG services were provided for both inpatients and outpatients throughout the year 2022. In the assessment of safety measures, “Notice to Employees” posters were displayed and appropriate radiation warnings signs were posted at entrances. “State Regulations for Protection Against Radiation” policy and “Radiation Safety Manual” were available. Every employee has documented training of the appropriate type. However, the rooms for the USG and X-ray at MGH did not post emergency procedures and phone numbers and healthcare providers had not been provided with dosimeters at the moment. Moreover, weaknesses were identified especially in the maintenance of safety measures for radiation-producing devices. The challenges encountering by healthcare providers are scarcity of human resources, electricity shortage and difficulties with film supply. Most of the patients were satisfied with the imaging services. However, two patients suggested ensuring a consistent supply of electricity for better provision of imaging services. Upgrading to a digital X-ray system and providing training on radiation safety for healthcare providers to enhance their professional skills should be done to achieve more accurate diagnosis and improve quality of care.