

**ATUHE INNOCENT (2012-M191-10005)**

**Quality of Diagnostic Imaging and Its Determinants in Hospitals of Ankole Region, South-Western Uganda**

The practice of modern medicine cannot be undertaken without certain investigative facilities such as diagnostic imaging. Medical imaging provides important diagnostic support to most hospital departments, which otherwise cannot practice effectively without it. Poor imaging services can lead to misdiagnosis and treatment, prolonged hospital stays, increase in waiting times, reduced client satisfaction and poor patient treatment outcomes. Understanding factors affecting quality imaging in hospitals is vital in improving imaging services.

A descriptive cross sectional study of 14 hospitals was done using Donabedian's model of quality of care analysis. Both qualitative and quantitative data was collected using semi-structured questionnaires administered to 98 clinicians, and 14 radiographers. Exit interviews with 184 clients were conducted to determine their satisfaction with imaging services. Inspection of imaging 18 premises and equipment was done using a checklist and 28 key informants were interviewed about inputs, processes and outputs of quality imaging. The quality of imaging services in Ankole hospitals was found to be poor. Imaging premises were found to be substandard. Radiation shielding was inadequate. Filled staff positions were 33.3% of the approved norms. Ten of the 14 hospitals provided imaging services for only 8 hours a day denying clients services at night and during weekends. Average waiting times before procedures ranged from 30 minutes to 1 hour. Average report turn around times for x-ray and ultra sound procedures were 28.3 to 17.1 minutes respectively. Clinicians and radiographers were found not knowledgeable of aspects of quality diagnostic imaging. Imaging units lacked basic PPE and both patients and staff were at risk of radiation exposure. No staff had attended training in basic radiation safety. There was no radiation exposure monitoring in all imaging units. Rating of provider and client satisfaction with imaging services was at 69% and 81% respectively. The quality of diagnostic imaging in Ankole hospitals was poor. It is affected by substandard imaging premises, inadequate radiation protection, understaffing, limited access at night and weekend and lack of radiation monitoring. Enforcement of adherence to recommended standards for premises and radiation protection, recruitment of additional radiology staff, and training staff in aspects of quality imaging could improve the services.

**Key Words: Quality, Diagnostic Imaging, Determinants, Hospitals, Ankole Region.**