ABSTRACT

Computed Tomography (CT) use is one of the most widely used imaging technologies in the tertiary Hospital because of its superior diagnostic ability and widespread accessibility. Although there is a study on utilization of CT scan in tertiary hospital, it was failed to explore whether utilization is effective or not. This study aims to assess the utilization and safety practice of computed tomography in radiology department of Yangon General Hospital during October 2017. Secondary data analysis on report of radiological department was done after permission from Medical superintendent and head of radiological department. Ethical clearance was taken from Institutional review board of university of Public Health. Total of 2750 patient's record during October 2017 was reviewed. Among them, CT abnormal finding was detected in 20135 (79.2%) of patients. Age distribution was very wide ranged in which youngest age was 3 months and oldest age was 99 years old age and male female ratio was 2:1. Up to 50 years of age, 75 % of CT scan results showed abnormal findings. But over the 50 years of age detection of disease was increased according to increased age. Average utilization of CT scan per holidays was 69.9 patients and 91.2 patients for office days. Among the CT scan done in holiday, 76.0% detected abnormalities and during office day 80.7 % detected abnormalities. These findings are significantly different from p value 0.006. Medical wards and emergency department were most utilized wards which account the CT scan and commonest body parts for CT scan were head and neck region. Nearly 80% of the CT scan finding from emergency department showed abnormality detected. Regarding to safety measure in Yangon General Hospital, the buildings are built for radiation safety with the consultation of engineers and technicians. There are rules and warning signs in CT and control rooms. There are lead aprons in changing rooms for workers and technicians and dosimeter and coordinate with DAE (Department of Atomic Energy) every one month. Although they received training and education for radiation safety measure, there should be more training and continuous monitoring. In conclusion, utilization is optimal and effective. Because of radiation hazards and increased

hospital cost, CT ordering in hospital should be prescribed by clinicians and physicians.