Mobile radiography – critical mission for the critically ill patient

Wei Yu Min
Singapore General Hospital, Singapore

Statement of the Problem: The Inpatient Imaging Centre (IIC) provides 24 hours diagnostic radiology services to the inpatients at the Singapore General Hospital (SGH). The SGH diagnostic radiology workload statistics (2014) shows a total of 82,400 X-ray examinations performed at IIC, of which, 43% are mobile radiography. The increase in mobile radiography request has resulted in a prolonged turn-around time for mobile radiography services. The main aim of this study is to find out the root cause of the increase in demand for mobile radiography services. The secondary aim is to identify ways to manage the workload of the mobile radiography team to ensure efficiency and consistency in performance.

Methodology: A project group was formed and found that a high percentage of inappropriate requests resulted in the increase in mobile radiography services. Data was collected from X-ray request forms from the wards that requested for portable X-ray but patients who were fit to be sent to the main inpatient department for the procedure. These X-ray request forms were then marked for analysis to further determine the reason why they were requested as portable.

Findings: Four reasons were deduced from the analysis of data: Lack of proper education on requesting doctors and ward staffs regarding mobile radiography service; convenience of mobile radiography; lack of manpower to accompany patient to the inpatient services department and; no vetting on mobile radiography service.

Conclusion & Significance: The team introduced a vetting system to assess all mobile radiography requests. The doctors and nurses were also educated on the relevance of mobile radiography request. Upon the introduction of the above measures, mobile radiography requests from general wards were reduced by 23% within 14 months. The request ratio for ICU and HD wards to general wards also reduced from 1:3 to 1:2. These measures were sustained through on-going refinement of the clinical history criteria by radiologists in order to guide radiographers in assessing the patient condition to further improve vetting.

Biography
Wei Yu-Min has his expertise in radiographic imaging, working in general radiography for close to a decade. He is involved in the education and training of new graduates, continuously developing radiographers to consistently maintain high standards in medical imaging. His passion has led to a tremendous improvement in workflow efficiency, resource management and radiation safety. Furthermore, his contribution has significantly impacted and benefited both patients and hospital personnel. His experience and knowledge in radiography has allowed him to work with radiologists to develop a stringent criteria for the mobile radiography, paving the way for radiographers to critically evaluate imaging requests. Additionally, this has added value to the role of a radiographer within the institute.

wei.yu.min@sgh.com.sg