Introduction of Digital Radiology to Improve the Timeliness in Availability of Radiological Diagnostic Images for Trauma Care

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Abstract : In an emergency department 'where every second count for patient's management' timely availability of X- rays play a vital role in early diagnosis and management of patients. Trauma care centers rely heavily on timely radiologic imaging for patient care and radiology plays a crucial role in the emergency department (ED) operations. A research study was carried out to assess timeliness of availability of X-rays and total turnaround time at the Accident Service of National Hospital of Sri Lanka which is the premier trauma center in the country. Digital Radiology system was implemented as an intervention to improve the timeliness of availability of X-rays. Post-implementation assessment was carried out to assess the effectiveness of the intervention. Reduction in all three aspects of waiting times namely waiting for initial examination by doctors, waiting until X –ray is performed and waiting for image availability was observed after implementation of the intervention. However, the most significant improvement was seen in waiting time for image availability and reduction in time for image availability had indirect impact on reducing waiting time for initial examination by doctors and waiting until X –ray is performed. The most significant reduction in time for image availability was observed when performing 4-5 X rays with DR system. The least improvement in timeliness was seen in patients who are categorized as critical.

Keywords : emergency department, digital radilogy, timeliness, trauma care
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