



Service Priorities and Programmes Electronic Presentations

Convention ID: 977

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“Does it really matter? Yes!” – A Quality Improvement Programme to Reduce Inappropriate Radiology Request Forms for Better Patient Care

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Keywords:

Radiology Request Form

Radiology

Quality Improvement

Introduction

Radiology request form (RRF) is an important communication tool between referring doctors, radiologists and radiographers. It is also essential to justify radiation exposures in the context of radiation protection. Proper clinical information will allow radiologists and radiographers to ensure that an appropriate examination is performed. Inappropriate RRF can result in repeated examinations, unnecessary radiation exposures, delay or error in diagnosis and ineffective use of resources.

Objectives

To reduce our number of inappropriate RRFs in plain film radiography.

Methodology

A two-phase audit was performed. In the first phase, all RRFs for plain film radiography in our Department in the one-month period from 15-September-2015 to 15-October-2015 were prospectively reviewed by in-charge radiographers for their appropriateness. All inappropriate RRFs were analysed with their underlying reasons categorized as (1) incorrect/insufficient clinical information, (2) incorrect examination region/laterality, or (3) incorrect patient. Further analysis was performed by comparing patients from different locations and referring departments. Result of first phase audit was presented at the HKEC Medical Committee and clinical department representatives were alerted about the issue. Second phase audit with same methodology was then performed from 16-November-2015 to 16-December-2015 for re-evaluation. P-values were calculated by Fisher's exact test using a significance level of 0.05.

Result

In first phase audit, 75 inappropriate RRFs were identified among a total of 14,769 RRFs. Incorrect/insufficient clinical information was the commonest reason (n=59) followed by incorrect examination region/laterality (n=14) and incorrect patient (n=2). 15,357 RRFs were reviewed in second phase audit. Statistically significant reduction was observed for the total number of inappropriate RRFs (n=35, p<0.001) and RRFs with incorrect/insufficient clinical information (n=22, p<0.001). RRFs with incorrect

examination region/laterality (n=11) and incorrect patient (n=2) showed no significant changes. In-patients had higher frequency of inappropriate RRFs (first phase=0.88%, second phase=0.43%, $p<0.01$) as compared with out-patients (first phase=0.39%, second phase=0.16%, $p=0.07$) and A&E patients (first phase=0.26%, second phase=0.10%, $p=0.03$). Comparable improvements in second phase audit were observed for all patient locations. Higher frequency of inappropriate RRFs were seen in medical (first phase=0.90%, second phase=0.39%, $p=0.02$) and surgical patients (first phase=0.97%, second phase=0.22%, $p=0.01$), which both had statistically significant improvement in second phase audit. Conclusion: Significant reduction in inappropriate RRFs can be achieved, which can improve patient care and allow better use of resources.