Interpretation and documentation of chest X-rays in the acute medical unit

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Table 1. Audit conducted over 5 days and the time from chest X-ray to documentation of results review

Total number of patients	Number of patients who had CXR within 24 hours	Number of patients who did not have CXR documented within 24 hours	Number of patients who had CXR documented within 24 hours	Average gap from CXR performed to documentation among the 69%	Number of CXR reviewed and results documented within an hour	Average gap between CXR and radiologist report
97	67% (65/97)	31% (20/65)	69% (45/65)	8 hours	31% (14/45)	22 hours

CXR = chest X-ray.

Introduction

The chest X-ray (CXR) is considered a simple investigation that is carried on most medical admissions. The ionising radiation medical exposure regulations (IRMER) 2000 guidance states: 'The employer shall ensure that a clinical evaluation of the outcome of each medical exposure is carried out and recorded'. The Care Quality Commission wrote to all acute trust chief executives in July 2011 requiring them to audit the recording of radiological reports and to develop an improvement plan.

Aims

To review the medical records of patients admitted directly to our acute medical unit who underwent a CXR, to identify whether timely and correct interpretation was performed and to identify potential issues.

Methods

We carried out a prospective audit conducted over 5 days and looked at the time from CXR to documentation of results in the medical notes, and whether the interpretation of the CXR was accurate compared with the later radiologist's report. We also looked at how long it took for a radiology report to be available.

The standard used was that 100% of CXRs should have a result recorded in the notes by a clinician at a time when the result will influence the management of the patient (based on the Royal College of Radiology standards). Data were collected from all admissions from primary care during the audit period (n=97).

Results

See Table 1. Only 4% (3/65) of patients had a radiologist's report available within 4 hours. In 18% (8/45) of the cases with a clinician's report, the clinician's report and the radiologist's report was significantly different (for example, clear lungs instead of consolidation).

Conclusions

Timely and correct interpretation of CXRs can help guide correct treatment of patients. Delay in review or non-review of CXRs can lead to potential problems including incorrect treatment, delay in discharge, missed diagnoses, and added financial costs. ■

Conflicts of interest

None declared.

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