**Chest radiographs performed despite a recent prior examination**

**Descriptor:**

An audit of unjustified chest radiographs which have been repeated after an inappropriately short time.

**Background:**

Where chest radiographs (CXR) are requested without reference to previous images or reports, there is a risk of an unnecessary, unjustified medical exposure being performed. Failure to check imaging history (has it been done already?) breaches IR(ME)R and is highlighted in the annual CQC report of IR(ME)R regulatory activity [1,2].

## The Cycle

**The standard:**

All chest radiographs should have only been performed after taking into account the imaging history where a recent prior study would have answered the clinical question.

**Target:**

90% compliance with this standard allowing for emergency situations.

## Assess local practice

**Indicators:**

Percentage of studies which meet the standard – i.e. the clinical question could not be answered by referral to the first examination and its report.

**Data items to be collected:**

For examinations where there has been a recent previous study:

1. Date and time of chest radiograph

2. Date and time of most recent prior radiograph

3. Time elapsed between 1 and 2

4. Clinical question from request form for second examination

5. Report from initial examination.

6. Was a report for the first examination provided by the radiology department and therefore available to all referrers?

7. Who justified second /repeat examination?

8. From reviewing information gathered - was this repeat radiograph required or was clinical question answered by previous report? Review of Clinical notes may be required

**Suggested number:**

100 consecutive CXR examinations.

**Suggestions for change if target not met:**

- Awareness of staff performing IR(ME)R practitioner justification

- Awareness of referring clinical staff

- If examinations are being repeated due to lack of available report for initial examination, is this because the report is not available?

- Does a mechanism need to be put in place to address this, eg. timely reporting of CXR?

**Resources:**

- Excel or similar spreadsheet to tabulate responses and analyse statistics

- Five hours work

**References:**

1. Ionising Radiation (Medical Exposure) Regulations 2000 <http://www.legislation.gov.uk/uksi/2000/1059/pdfs/uksi_20001059_en.pdf>
2. iRefer: making the best use of clinical radiology. London. RCR 2012. <http://guidelines.irefer.org.uk/about/#Abt10>

**Editor's comments:**

Template also suitable for other regularly repeated examinations. Useful also to apply to high dose examinations such as CT if there is perceived issue with repeat examinations.

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