**Indications for Plain Abdominal films from the Emergency Department**

**Descriptor:**

To ensure that requests for plain abdominal radiographs from the Emergency department are performed appropriately as advised by Royal College of Radiologists (RCR) iRefer guidelines.

**Background:**

This audit may be worth carrying out if it is observed that many of the requests for plain abdominal radiographs (AXR) are not indicated as per RCR iRefer guidelines. The intended outcome would be a decrease in inappropriate requests as a result of offering education to the referring clinicians and advice as to whether other imaging may be more appropriate or specific in reaching a diagnosis. Benefits to patient care include reducing dose and faster access to more appropriate imaging.

## The Cycle

**The standard:**

**RCR iRefer guidelines for plain abdominal radiography:**

**•**Clinical suspicion of obstruction

• Acute exacerbation of inflammatory bowel disease

• Palpable mass (specific circumstances)

• Constipation (specific circumstances)

• Acute and chronic pancreatitis (specific circumstances)

• Sharp/poisonous foreign body

• Smooth and small foreign body, e.g., coin, battery (specific circumstances)

• Blunt or stab abdominal injury (specific circumstances)

**Target:**

100% of AXR requests to meet iRefer guidelines

## Assess local practice

**Indicators:**

Number of abdominal radiographs performed with request cards which meet the criteria as defined by RCR iRefer guidelines

**Data items to be collected:**

• Request card information for abdominal radiographs performed in the emergency department over a period of 4 weeks

• Record

   - Number of images

   - Indication given

   - Whether indication given meets iRefer guidelines

If not 100% compliant then the audit could be extended to try to understand why by collecting the following data:

• Whether image is reported as normal or abnormal

• Final diagnosis

• Whether final diagnosis was reached on the initial image

• Whether further follow up image were obtained

• Whether further follow up imaging  of another kind was performed (e.g. CT)

**Suggested number:**

4 week period or 50 patients' abdominal x-rays

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

Circulation of educational posters throughout the hospital and Emergency department with examples of appropriate and inappropriate indications (Poster uploaded)

Education of Radiographers to discuss abdominal radiographs if not indicated according to the guidelines with backup from the Duty Radiologist (or equivalent)

**Resources:**

Analysis of paper or electronic requests via Patient information system - Radiologist/ trainee 4 hours

Presentation of data and implementation of education - Radiologist/ trainee 3 hours

[**new\_axr\_poster\_2.doc**](https://www.rcr.ac.uk/sites/default/files/audit_template/new_axr_poster_2.doc)WORD - 196 KB

**References:**

1. J E Smith and E J Hall. The use of plain abdominal x rays in the emergency department. Emerg Med J 2009 26: 160-163
2. iRefer Guidelines, RCR Version 8.0.1 May 2017  <https://www.irefer.org.uk/guidelines>

**Submitted by:**

Susanne Soin. Updated by K Duncan 2018

**Co-authors:**

Catriona Reid

Akkib Rafique

Cheng Fang

**Published Date:**

Sunday 7 February 2016

**Last Reviewed:**

Monday 25 July 2022