**Assessing effectiveness of radiology alerts [QSI Ref: XR-510]**

**Descriptor:**

This audit assesses clinical response to radiology alerts within an institution. It aims to identify whether appropriate clinical action was taken in light of the radiological investigation based on the finding as ‘unexpected significant’, ‘critical’ or ‘urgent’.

**Background:**

Radiology alerts were introduced to highlight abnormal studies in the hope that appropriate clinical action will be taken regarding the abnormal finding. This audit incorporates whether the radiological report was read and whether it was acted upon. In February 2007, National Patient Safety Agency published Safer Practice notice 16 in response to incidents in which patients were harmed following failure to respond to radiological imaging findings. In May 2016, the RCR published a document, Standards for the communication of Radiological reports and fail-safe alert notification which incorporates the National Patient Safety Agency safer practice notice 16 requiring radiology departments to alert referring clinicians to abnormalities. These documents demand that radiology departments in conjunction with clinicians develop robust systems for communicating abnormal or unexpected findings and that compliance should be audited. There are 10 standards that have to be met in the RCR document.

This audit measures compliance with the first standard assuming that the institutional IT infrastructure meets the other 8 standards and the radiologists comply with the third standard.

There are further recommendations by the Healthcare Safety Investigation Branch in 2019 that include that findings are marked as ‘unexpected significant’, ‘critical’ and ‘urgent’ as well as a list of conditions where an alert should be triggered, where appropriate and feasible to do so (Recommendation 2019/039). They also recommend that providers are aware of their safety recommendations and act to implement the key findings regarding risk controls such as a monitored acknowledgement system for critical, urgent and unexpected significant findings (Recommendation 2019/040) and digital notification systems to inform patients of results after an agreed time frame (Recommendation 2019/041), which may be assessed in this audit where possible.

## The Cycle

**The standard:**

• 100% of radiology reports with alerts should be read and 100% appropriately acted upon

• If no clinical action is deemed necessary this should be documented in the patient notes

**Target:**

100%

## Assess local practice

**Indicators:**

1. Assess whether radiology reports have been read

2. Assess whether appropriate action has been taken

**Data items to be collected:**

• Radiology alerts are not standardised and different departments will use different alerts types

• Broad categories of alert are generally the same

• Alert types:

   - Unexpected significant: a finding which is unexpected and the radiologist thinks may be significant for the patient e.g. apical lung cancer on a shoulder radiograph

   - Critical: a finding requiring immediate emergency action e.g. tension pneumothorax

   - Urgent: a findings requiring medical or surgical evaluation within 24 hours of receiving the radiology report e.g. pulmonary embolism

• For each of the alert types audit all alerts issued in a 1 week period

• Review the patient notes to find acknowledgement of the radiology report and action taken

**Suggested number:**

• All alerts issued in a 1 week period

• Extend the period if necessary to give a minimum of 25 patients

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

• Advice to clinicians regarding reading the report and clear documentation in the patient notes

• PACS or Patient Information System could incorporate a ‘read’ notification checkbox when a report is read by a clinician. A similar checkbox could be created where clinicians are asked to confirm that appropriate clinical action has been taken. This may be deemed necessary for some alert types (e.g. A&E) but not others depending on the audit findings

• Some PACS systems automatically record when a report has been read and by whom. PACS could also generate a further alert when reports are not read or when a recommended follow-up investigation has not been ordered

• If a further radiological investigation is suggested this could be ordered by the reporting radiologist

• Repeat audit at 12 months

**Resources:**

- PACS team support to supply lists of patients for whom alerts were generated

- Access to patient notes. For GP referrals this will require communication with the GP practice if no apparent response in terms of referral to hospital for further imaging or to specialist clinician

- Radiologist/clinician to review cases (10 hours)

**References:**

1. AoMRC, October 2022. Recommendations on alerts and notification of imaging reports. [https://www.rcr.ac.uk/publication/recommendations-alerts-and-notification-imaging-reports](https://www.rcr.ac.uk/publication/standards-communication-radiological-reports-and-fail-safe-alert-notification)
2. National Patient Safety Agency. Safer practice notice 16. Early identification of failure to act on radiological imaging reports. NPSA/2007/16
3. Failures in communication or follow-up of unexpected significant radiological findings I2018/015

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**Submitted by:**

Dr C Farrell, Dr T Furniss, Dr P Chattington, Dr K Gopal. Updated by J Illes and N Parvizi

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