Early identification of failure to act on radiological imaging reports

Patient safety incidents are being caused by a failure to acknowledge and act on radiological imaging reports. Radiology imaging tests are requested by a registered health professional who relies on a report and image usually generated by a radiologist or radiographer. The report and image are sent to the referring health professional, who then acts on the result. The system for requesting radiology imaging tests and sending reports to the referring health professional is unreliable and has been proven to fail.

Between November 2003 and May 2006, the National Patient Safety Agency (NPSA) received 22 reports where failing to follow up radiological imaging reports led to patient safety incidents, most of which involved fatalities or significant long-term harm. NHS Litigation Authority data for the 10 years up to May 2006 identified 69 cases logged on their database, some of which involved significant harm and monetary claims.

This safer practice notice advises healthcare organisations to make changes to ensure that radiology imaging results are communicated and acted on appropriately.

Action for the NHS and other healthcare organisations

The NPSA is recommending that all healthcare organisations providing or commissioning radiological imaging services should:

1. ensure that the radiological imaging reports of all patients are communicated to, and received by, the appropriate registered health professional and, where necessary, action is taken in a manner appropriate to their clinical urgency;

2. ensure registered health professionals design ‘safety net’ procedures for their specialty;

3. make it clear to patients how and when they should expect to receive the results of a diagnostic test;

4. review relevant policies and procedures in line with the safer practice recommendations outlined in this safer practice notice.

For response by:
- All NHS acute and foundation trusts and local health boards in England and Wales
- Commissioners of radiology services
- Independent sector providers of radiology services

For action by:
- Medical directors
- Nursing directors
- Radiology departments
- Clinical leads
- Registered health professionals

The NPSA recommends NHS organisations:
- Inform and involve:
  - Risk managers
  - Patient advice/filiation service staff in England and Wales
  - Clinical governance leads
  - Complaints and legal services managers
  - Radiology staff
  - Nursing and midwifery staff
  - Other healthcare staff that order or receive radiology reports
  - IT leads

The NPSA has informed:
- Chief executives of acute, primary care and foundation trusts
- Chief executives/regional directors and clinical governance leads of strategic health authorities (England) and regional offices (Wales)
- Healthcare Commission
- Healthcare Inspectorate Wales
- Medicines and Healthcare products Regulatory Agency
- Royal colleges and societies
- NHS Direct
- Relevant patient organisations and community health councils in Wales
- Independent healthcare advisory services
- Relevant education providers
- Health Protection Agency
- NHS Litigation Authority
- Quality Improvement Scotland and DHSSPS Northern Ireland
- NHS Connecting for Health
- Informing Healthcare (Wales)
- Relevant professional bodies
National Reporting and Learning System data

A review of data from the NPSA's National Reporting and Learning System (NRLS) between May 2006 and October 2006 indicated a significant rise in reporting rates, which may have been connected to publicity about this project. During this period, 31 incidents were reported of which the outcome for the patient was severe in eight cases and moderate in nine, with the remaining cases resulting in low or no harm.

Recommendations for action

Recommendations for action by referring registered health professionals

- Ensure your name and/or code is clearly identified on the request form along with an adequate clinical history and reason for the radiology image.

- Ensure systems are in place to provide assurance that requested images are performed, (or alternatively that the request has been assessed by the radiology department as unjustified) and the results of these are viewed, acted upon accordingly and recorded. It is the referring registered health professional’s responsibility to ensure this is followed.

- Ensure your specialty or disease group designs a ‘safety net’ procedure in case these systems fail. This is particularly important in accident and emergency departments and assessment areas.

- Always access electronic systems using your allocated log-on and, if acknowledgement functions for the receipt of results or reports exist, use them.

- In the absence of electronic tracking systems, adopt hard copy tracking systems such as ward books or results acknowledgement sheets.

- When using hard copies of reports, ensure they are reviewed, signed, timed and dated, and any clinical decision noted before filing in patients' records.

- Inform patients of all results, positive or negative, and document that this has been done. A standard letter to patients could be an additional safety mechanism.

- If a patient’s radiology imaging report is not available at the time of accident and emergency attendance, in-patient discharge or out-patient consultation, check the results as soon as possible and ensure the patient is informed of them. Patients may be informed through standard letters, phone calls or other appropriate means.

- Ensure patient information and contact details are correct and clear.

- Provide patients with details of when test results are expected and how they will be communicated, giving contact details for enquiring about any concerns or delays.

- Audit your communication tracking systems to ensure compliance with these recommendations.
Recommendations for action by radiology departments and reporting radiographers and radiologists

- Ensure systems are in place to assure your organisation that radiological imaging reports are accurately and effectively communicated to the responsible health professional. These should include:
  1. defining and developing a policy for radiological imaging reports which require particularly timely and reliable communication, for example, abnormal, unexpected and/or critical ranges;
  2. empowerment to reject inadequately completed requests for studies where appropriate;
  3. explicit timeframes for reporting results;
  4. regular audits of compliance with the above points.

- Consider providing standard letters to patients if an examination is abnormal. These could be generated at the same time as an alert is sent to the referring health professional.

- Introduce minimum data set requirements for requests, in line with the Royal College of Radiologists standards and Ionising Radiation (Medical Exposure) Regulations [IR(ME)R 2000], for example, clinical history and reason for test.

- Ensure the identity of the requesting health professional and their contact details are on all requests.

- Ensure processes are in place to provide assurance that all results are reported and that there are clear policies and/or service level agreements for the management of any results that will not be reported by a radiologist or appropriately trained radiographer.

- Radiology reports should ensure that critical findings are emphasised and obvious, and that the degree of urgency for action by the referring health professional is clear.

- Define and document ‘safety net’ procedures, for example, copy reports to the GP, cancer services multidisciplinary team or other identified health professional in consultation with the referring health professional.

- Where acknowledgement or audit functions exist on electronic systems, for example, Patient Administration System (PAS), Electronic Patient Record (EPR), Order Communications, Picture Archiving and Communications System (PACS) and work lists, use them where feasible.

- Audit compliance with these recommendations regularly.

Recommendations for action by medical and nursing directors

- Ensure existing policies, procedures and ‘safety net’ mechanisms for the management of radiological imaging reports are reviewed and developed, where necessary, to meet the requirements of this safer practice notice.

- Ensure timely and accurate data entry and tracking of patients and their information through PAS, Hospital Information System (HIS) or Radiology Information System (RIS) throughout the organisation, including the responsible clinical team.

- Ensure health professionals are adequately trained in the use of their organisation's software systems, for example, RIS, PACS and Order Communications.

- Enforce and audit the use of individual NHS email addresses and individual log-on by registered health professionals to ensure clear communication channels that are consistent throughout the organisation.

- Advise patients, through leaflets, posters and/or inserts in letters, to check how their test results will be communicated to them.
Reporting incidents

All healthcare staff should report incidents via their local risk management reporting system. This will enable both local and national monitoring of the incidence of failure to act on diagnostic test reports, and can inform future understanding of these issues.

Keeping patients informed

To assist in the early identification of failure to follow up on radiological imaging reports, it is recommended that patients are given the NPSA patient briefing (available at www.npsa.nhs.uk/health/alerts) and the following guidance:

- to ask when and how they will be informed of test results;
- to be aware of how to get their results;
- to have the relevant health professional's contact details and to speak to them if they are in doubt;
- to ensure that their, and their next of kin's, contact details are recorded correctly in their health records and that contact arrangements are clear;
- not to assume their results are okay if they do not hear anything.

Key information could be included in patient leaflets. The NPSA has produced a flyer to encourage patients to follow up results of their x-rays. This can be downloaded from www.npsa.nhs.uk/health/alerts and hard copies can be ordered from the NHS response line (08701 555 455) using stock code XRAYPF. A Welsh language version is also available, to order please use stock code XRAYPFWelsh.

Patient leaflets are also available from a variety of other sources including the Royal College of Radiologists (www.rcr.ac.uk/index.asp?PageID=323).

Cost implications of implementing the NPSA recommendations

Given the diversity of existing resources, systems and practices within healthcare organisations, it has not been possible to estimate the cost implications of these recommendations. However, the NPSA anticipates that all acute trusts will have PACS in place by the end of 2007 and that many will have Order Communications, both of which assist in achieving compliance with these recommendations.

Evaluation

It is the responsibility of healthcare organisations to evaluate the implementation of this safer practice notice locally. However, to analyse the effect of the recommendations nationally, the NPSA will:

- undertake, through the NRLS, routine monitoring of patient safety incidents involving failure to act on radiological imaging reports;
- liaise with selected trusts to audit the degree of implementation of these recommendations and their perceived outcome.

The impact will also be evaluated in England through the Safety Alert Broadcast System 12 months after issue, and in Wales through the Regional Offices of the Welsh Assembly Government. The Healthcare Commission and the Regional Office in Wales will also monitor the implementation of the recommendations in this safer practice notice.
Future action

In the long term, it is proposed that radiological imaging reports should be routinely provided in a comprehensive EPR system and that this should include functionality to acknowledge receipt of the information. An automatic alert through the system for early notification of unread reports/results should also be provided. The timescale of the electronic alert should be configured to appropriately match the clinical requirements. The NHS Connecting for Health and Informing Healthcare (Wales) programme recognises the need to include the functionality described above within its systems and it is recognised that this may present the programme with a major challenge in the development of different regional systems.

Further details

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Further background information, supporting documents and examples of best practice are available on the NPSA website at www.npsa.nhs.uk

Acknowledgements

The NPSA would like to thank the Royal College of Radiologists, and the many NHS acute trusts, staff and other organisations and individuals who have contributed to this safer practice notice.
A safer practice notice strongly advises implementing particular recommendations or solutions.

This safer practice notice was written in the following context:
It represents the view of the National Patient Safety Agency, which was arrived at after consideration of the evidence available. It is anticipated that healthcare staff will take it into account when designing services and delivering patient care. This does not, however, override the individual responsibility of healthcare staff to make decisions appropriate to local circumstances and the needs of patients and to take appropriate professional advice where necessary.

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