Purpose of the Guideline

The interpretation of diagnostic test/investigation results, in a timely manner is key to the delivery of safe and efficient treatment. Nationally and locally there have been adverse events where test results have been misinterpreted or delayed, resulting in inconvenience to patients, serious harm or in some circumstances, fatalities.

This policy has been developed to provide clinicians (i.e. any doctor, nurse, allied health professional who is competent to request tests or investigations or receive results) with clear direction on required action to:

1. Ensure that diagnostic test/investigation 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 professional design “safety net” procedures for their speciality.
3. Communicate to patients how and when they should expect to receive the results of a diagnostic test or investigation requested in Outpatients or A&E.

The policy is in addition to local Standard Operational Procedures (SOPs) used in departments providing diagnostic tests and investigations (e.g. radiology, pathology, microbiology, cardiac investigations).

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1. Requesting diagnostic tests and investigations

Diagnostic tests or investigations (such as: X-rays, scans and blood tests), must only be carried out by staff that are deemed competent, understand the implications of the tests, and are able to carry them out in a timely manner.

It is the responsibility of the person requesting any diagnostic test or investigation to ensure that the results are received or followed up. Requestors must review their message centre in e-Care or ICE (Primary Care only).

1.1 Responsibilities of referring health professional

- When requesting any test or investigation ensure this is carried out or that you respond to any information from the diagnostic department.
- Ensure that the patient information is correct and clear, along with any contact details. Referrals of incorrect patients can lead to significant harm.
- When filling in a referral form, ensure your name and/or code is clearly identified on the request form along with an adequate clinical history and reason for the request. Non-medical referrers for radiology examinations will have been issued with a code, in the form ‘NMR/XX/nnn’. If you are not a doctor or a dentist, and you do not have such a code, you may not refer for radiology examinations. Please contact the radiology department for assistance.
- 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.
- Labelling of any sample of blood, other body fluid or tissue, must be carried out at the patient’s bedside, taking details from the patient’s wristband. (See Trust policy on Samples - Collection and Identification PP158)
- When using hard copies of reports, ensure they are reviewed, signed, timed and dated, and any clinical decision noted before filing in patients' records.
- 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 systems use the agreed “Safety Net” procedure for your specialty/consultant.
- Document when the patient has been informed of the results.

1.2 Responsibility for specialty/consultant

Ensure your specialty or disease group designs a ‘safety net’ procedure in case the systems set out in 1.1 fail. This is particularly important in accident and emergency departments and assessment areas. This “Safety net” must:

- Provide assurance that requested tests are performed, (or alternatively that the request has been assessed by the radiology department as unjustified). The referrer should ensure the results are viewed, acted upon accordingly and recorded. It is the responsibility of the Health Care Professional to ensure that this process is followed.
- To check whether the request has been received and the procedure has taken place. e.g. keeping a copy of the referral form and matching up when the results are returned.
- To ensure the patients are informed 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 result/report is not available at the time of patient attendance. e.g. an 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 by an appropriate person. Patients may be informed through standard letters, phone calls or other appropriate means.
All areas must audit their tracking system in place to ensure compliance with these recommendations.

1.3 Areas providing diagnostic tests or investigations

Each service providing diagnostic tests or investigations will provide information on how requests are made. This information will be provided to all new doctors at induction. Any staff requesting tests or investigations must be made aware of the requesting process during their induction to a new ward or department.

2. Appropriateness of tests

A useful investigation is one in which the result - positive or negative - will alter management or add confidence to the clinician's diagnosis. A significant number of investigations do not fulfil these aims. Unnecessary investigations increase waiting times, waste limited resources, lower standards and may add unnecessarily to patient irradiation and phlebotomy episodes. Some pointers are given below as to when a test is appropriate:

2.1 Investigate when results are likely to affect patient management: some anticipated 'positive' finding may be irrelevant, e.g. degenerative spinal disease (as 'normal' as grey hairs from early middle age), or a positive finding may be very unlikely.

2.2 Do not investigate too often: i.e. before the disease could have progressed or resolved or before the results could influence treatment.

2.3 Do not repeat investigations which have already been done: e.g. at another hospital, in an Outpatient Department, in Accident & Emergency, EAU or by the GP. Every attempt should be made to get previous images and results. Transfer of digital data through electronic links may assist in this respect.

2.4 Provide appropriate clinical information and questions that the investigation should answer. Deficiencies here may lead to the wrong technique being used (e.g. the omission of an essential view or the incorrect pathology test being undertaken).

2.5 Request the correct investigation. Diagnostic techniques are developing rapidly. It is often helpful to discuss an investigation with a clinician from the relevant department (e.g. a radiologist, pathologist or cardiologist technician) before it is requested.

2.6 Do not over investigate. Some clinicians tend to rely on investigations more than others. Some patients take comfort in being investigated.

The investigating department will ensure that the test is suitable and complies with all necessary regulations. In the case of radiation protection this would be the IR(ME)R regulations. The examination will need to be justified by a suitably qualified practitioner.

3. Specialist Departments Processing Tests and Investigations

3.1 Processing in Laboratory

Each department within pathology (i.e. haematology, biochemistry microbiology, histopathology) will be accredited to the Clinical Pathology Accreditation Scheme. This ensures that appropriate quality systems and processes are in place to provide quality assurances through Standard Operating Procedures (SOP's), policies and training.

Tests performed at the bedside must satisfy the trust standards on Point of Care Testing - see Trust Policy PP67.
3.2 Processing in Radiology

The radiological departments are accredited to Imaging Services Accreditation Scheme standards to ensure appropriate quality systems and processes are in place to provide quality assurances through operational procedures, policies and training. See radiology procedures for reporting.

3.3 Processing in other Departments

Where tests/investigations are carried out in other departments, such as ward areas or clinics, there must be clear local guidance on the processes to follow, how to action results and the quality assurances in place.

This includes specialist departments such as cardiology, Endoscopy, therapy services, sexual health clinic and others.

It also includes near patient testing e.g. blood glucose monitoring, bladder scanning, blood gas analysis, electrocardiograph, or other diagnostic tests, which may be carried out in general wards or departments.

Any staff carrying out the tests in other departments/wards/clinics must be adequately trained and assessed as competent to use the diagnostic devices in compliance with the Management of Medical Devices Policy.

There will be occasions when a patient presents with a life threatening condition that requires rapid diagnosis and treatment. In such cases the form requesting a diagnostic test or accompanying a specimen for diagnosis is marked as urgent by the referring clinician. A telephone call is also required for all urgent Microbiology, Histopathology and Blood Bank requests. Out of routine hours, such a request is preceded by a telephone call to make the diagnostic department aware of the need for that request and indicating the need for an urgent result. A telephone call is NOT required for Biochemistry or Haematology requests. The subsequent result will be produced within pre agreed timescales.

4. Results

Depending upon the test type, skilled interpretation of results may occur within the diagnostic department or via the clinician requesting the test. Skilled interpretation and diagnosis must be made by suitably qualified and experienced staff. Procedures will be in place to support any staff in training to report tests. Patients should not be informed of results other than by the referrer, it will be left to referrers to collate results from the various tests being undertaken and to feed those back to patients as appropriate.

During the normal working day (i.e. 0900 – 1700 hours) on any non-bank holiday weekday, a full service is provided by the diagnostic services. Urgent results will be faxed back to referrers who are external to the trust. Out of such hours there is a service in place to provide interpretation and advice for certain diagnostic tests by Consultant staff. Pathology reports are available on the HISS and Apex computer systems once a result has been authorised in the department. Likewise, diagnostic imaging results / reports are available on the hospital intranet and the Picture Archiving and Communication System (PACS).

In both departments there are daytime contacts to give advice on results and on-call services for out of hours enquiries. Both disciplines have paper backup systems in case of IT failure (for example) and to allow business continuity.

The Breast screening programme requires data to be held separately. Therefore nobody has access to this information apart from authorised breast care staff in normal clinical hours.

In the Diagnostic Imaging Department (out of hours / on-call) a report for Ultrasound and CT scans is placed in the patient’s record on the Radiology Information System, which automatically transfers to e-care and the requestor’s message centre.
Results can be received in a number of different formats and need to be actioned appropriately (see table 1 below).

<table>
<thead>
<tr>
<th>Result received</th>
<th>Reason</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pathology</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Telephoned results</td>
<td>Out of hours - Microbiology only</td>
<td>- Document the result in patient records</td>
</tr>
<tr>
<td></td>
<td>Urgent request - Microbiology only</td>
<td>- Document the date and time received</td>
</tr>
<tr>
<td></td>
<td>Grossly abnormal result</td>
<td>- Ensure the relevant doctor is informed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Take the appropriate action in response to the result</td>
</tr>
<tr>
<td>Results taken directly from Pathology System</td>
<td>Out of hours</td>
<td>- Document the result in patient records</td>
</tr>
<tr>
<td></td>
<td>Require results urgently</td>
<td>- Document the date and time results taken from computer</td>
</tr>
<tr>
<td></td>
<td>Accident and emergency results</td>
<td>- Ensure the relevant doctor is informed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Take the appropriate action in response to the result</td>
</tr>
<tr>
<td>Final hard copy</td>
<td>All results (excl. A&amp;E)</td>
<td>- Check results have not already been actioned (if previously received as above)</td>
</tr>
<tr>
<td></td>
<td>Out-patients</td>
<td>- Doctor responsible for patient must sign final hard copy</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Once signed, hard copy can be filed in patient records</td>
</tr>
<tr>
<td><strong>Radiology</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unreported images</td>
<td>Out of hours</td>
<td>- Document the opinion given in patient records</td>
</tr>
<tr>
<td></td>
<td>Emergency</td>
<td>- Document opinion (the date and time given).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Ensure the relevant clinician is informed</td>
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<tr>
<td></td>
<td></td>
<td>- Take the appropriate action in response to the opinion given</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- For A&amp;E images the radiographer may mark the image ‘RED DOT’ if they perceive an abnormality. They comment on any abnormal appearances on the radiology progress note on Firstnet. These comments are not a legal result and it is up to individual clinicians to decide whether or not they are helpful. Inform the patient of the opinion given.</td>
</tr>
<tr>
<td>Results taken directly from radiology PACS System</td>
<td>Out of hours</td>
<td>- Ensure the relevant doctor is informed</td>
</tr>
<tr>
<td></td>
<td>Require results urgently</td>
<td>- Take the appropriate action in response to the result</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Inform the patient of the result</td>
</tr>
<tr>
<td>Final images plus report</td>
<td>All results</td>
<td>- Check results have not already been actioned (if previously received as above)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- In some cases, such as previously undiagnosed cancer, a code word will be added to the report to ensure that the cases are referred to the appropriate MDT.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Inform the patient of the result</td>
</tr>
<tr>
<td><strong>Other Departments</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Final report</td>
<td>All results</td>
<td>- Check results have not already been actioned (if previously received as above)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Inform the patient of the result</td>
</tr>
</tbody>
</table>

5. Informing patients of results

Patients should be informed, by the requesting clinician, of their test results when reasonably possible and implications for their treatment or care explained. This should be recorded in the patient’s records.

In circumstances where the results are of a serious nature, consideration should be given to what support may be required e.g. cancer nurse specialist follow up or counselling.

Where the patient is no longer in the hospital it is appropriate to contact the patients’ GP in writing or in emergency situations contact the patient directly to arrange re-admission if indicated.
6. Monitoring effectiveness of the Policy

Pathology, Radiology and Microbiology Departments should carry out:

Annual audits on the requests received by each service (i.e. pathology, radiology, microbiology). Findings will be reported to the Clinical Support Directorate Governance meeting.

The Radiology service is investigating the possibility, efficacy, and practicality of monitoring reports where there is no evidence of the result having been read in the message centre.

Each Directorate or Clinical Department should carry out:

The results of individual Specialty/Consultant audit of “Safety net” systems which should be registered on the Trust’s audit database and the findings reported to the relevant Directorate Governance Steering Groups.

Any adverse events relating to test/investigation requests and results will be reported through the Trust Datix incident reporting system (see policy PP105 Incident reporting and management) with individual events discussed locally and action plans instigated in response.

Each speciality should have health records audited at least bi-annually. This will include auditing compliance with the process for checking test results and appropriate filing as per the Audit template in PP136 Health Records Policy

7. Development of strategy and policy

First version reviewed by CNST Oct 2006
Reviewed in light of NPSA SPN 16: May 2007
Reviewed November 2014
Reviewed May 2017

8. Other relevant documents

PP105 Incident reporting and management
PP136 Health Records Policy
PP67 Point of Care Testing
NPSA SP16 Early Identification of failure to act on radiological imaging reports.

9. Document configuration information

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| Other relevant policies/documents & references: | PP105 Incident reporting and management, PP136 Health Records Policy, PP67 Point of Care Testing  

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