Chesterfield Royal Hospital NHS Foundation Trust

Division of Clinical Specialist Services

IMAGING

EMPLOYER'S PROCEDURES IN LINE WITH THE IONISING RADIATION (MEDICAL EXPOSURE) REGULATIONS

Table of Contents

Chesterfield Royal Hospital NHS Foundation Trust

Division of Clinical Specialist Services

IMAGING

EMPLOYER'S PROCEDURES IN LINE WITH THE IONISING RADIATION (MEDICAL EXPOSURE) REGULATIONS

1. INTRODUCTION

1.1 The Ionising Radiation (Medical Exposure) Regulations 2000 and 2006 amendment (IR(ME)R, or 'The Regulations') contain for the United Kingdom the majority of the provisions of the European Directive 97/43/Euratom (The Medical Exposures Directive), which concern the protection of persons undergoing medical exposures to ionising radiation.

1.2 This policy sets out the employer's procedures in relation to IR(ME)R for Chesterfield Royal Hospital NHS Foundation Trust (CRHFT), as required by the Regulations.

2. POLICY STATEMENT

2.1 The Imaging department will provide a service that meets the requirements of IR(ME)R, in order to protect persons undergoing exposures to ionising radiation within the hospital.

3. SCOPE OF POLICY

3.1 In line with IR(ME)R, this policy shall apply to the following categories of medical exposure:

- The exposure of patients as part of their own medical diagnosis or treatment.
- The exposure of individuals as part of health screening programmes.
- The exposure of individuals as part of occupational health surveillance.
- The exposure of patients or other persons voluntarily participating in medical or biomedical research programmes.
- The exposure of individuals as part of medico-legal procedures.

3.1.1 At CRHFT the first two are the most common types of exposure.

3.1.2 For the purpose of this policy the term 'patient' may be used throughout, to describe a person undergoing medical exposure to ionising radiation for any of the purposes listed under 3.1.

3.2 This policy does not apply to exposures of staff during their work duties, which is the remit of the Ionising Radiation Regulations (IRR) 1999, and is documented in the department's 'Local Rules.'

3.3 A set of Employer's Procedures and associated Departmental Procedures cover the IR(ME)R requirements pertinent to Medical Physics. These have been developed and are maintained separately, and are therefore outside the scope of this policy.

4. ENTITLEMENT TO ACT AS A PRACTITIONER, OPERATOR OR REFERRER

4.1 General points regarding Competence of Practitioners & Operators

4.1.1 Practitioners and operators will have successfully completed the training as described in Schedule 2, Regulation 2(1) of IR(ME)R.

4.1.2 Attainment of such competence is part of the core education of all staff members who will be entitled to act as Practitioners or Operators, and thus is checked as part of the recruitment process.

4.1.3 Staff will receive adequate training (often known as credentialisation) to permit safe, effective use of all equipment they are required to operate as part of their duties.

4.1.4 Where staff are required as part of their role to use new clinical techniques or equipment, the Imaging management team will ensure access to training, sufficient to enable staff to fulfil their duties safely and competently. Records of this training will be held on each employee's personal file.

4.1.5 Post-qualification all staff will be expected to maintain their fitness to practise, and undertake CPD to enable them to fulfil their duties and maintain registration with their professional body.

4.1.6 Complete records of training for all Practitioners and Operators will be maintained within the personal file and/or on the iTrent learner management system. This does not apply to training undertaken for the purpose of applying minor adaptations to technique.

4.1.7 In order to ensure that the above-mentioned competence requirements are met by all staff employed on a temporary basis by an agency, the Employer will only employ such staff via agencies that have been approved within the current government procurement framework. The contract the Employer holds with the agency provides assurance that the agency will undertake all relevant checks of qualifications and professional registration.

4.2 Practitioners

4.2.1 A practitioner is a registered medical or dental practitioner, or other professionally registered healthcare professional, who is responsible (professionally and legally) for the justification and authorisation of a medical exposure.[1]

4.2.1.1 A medical exposure will only be carried out if it is 'justified' i.e. it shows a sufficient net benefit for the patient bearing in mind the potential risks of exposure and the alternatives available.

4.2.2 In order to act as a Practitioner, an individual member of staff must possess the appropriate skills, knowledge and experience to enable them to justify an individual medical exposure. This will include the necessary understanding and knowledge to interpret and apply:

- The clinical information supplied by the referrer
- The specific objectives of the requested procedure and its relevance to the individual involved
- The potential benefit and detriment associated with the requested procedure and
- The efficacy, benefits and risks of suitable available alternative techniques involving less medical exposure [to ionising radiation].[2]

4.2.3 The Practitioner shall liaise with other specialists and staff involved in a medical exposure, as appropriate.

4.2.4 Any qualified radiologist employed by or contracted to CRHFT who possesses current registration with the General Medical Council and who has undertaken all relevant undergraduate and postgraduate training to enable adequate discharge of the duties for which they have been employed, will be entitled to act as a Practitioner.

[1] Royal College of Radiologists, 'A Guide to Justification for Clinical Radiologists', 2000
[2] Institute of Physics & Engineering in Medicine, 'Medical and Dental Guidance Notes – A Good Practice Guide on All Aspects of Ionising Radiation Protection in the Clinical Environment', 2002

4.2.5 Advanced Radiography Practitioners specialising in barium enema and videofluoroscopy will act as Practitioners for these examinations respectively.

4.2.6 In other cases the Operator who performs the medical exposure will be responsible for authorising it i.e. confirming that justification has taken place. This will entail the Operator applying pre-arranged procedures for justification provided by the Practitioner (see 4.2.7) against the medical data included in the referral for an individual patient, and recording the authorisation on the computerised radiology information system (CRIS).

4.2.7 Pre-arranged procedures for justification

4.2.7.1 All radiography practitioners are deemed competent to assess the quality of a referral and decide whether the examination requested is suited to the clinical question being asked, within their own modality/specialty.

4.2.7.2 All radiography practitioners are deemed competent to make decisions that a different or modified examination within their own modality/specialty will answer the clinical question more effectively than the examination requested. This change will be recorded by the radiography practitioner on CRIS, along with the rationale for the decision.

4.2.7.3 The parts of the process described in sections 4.2.7.1 and 4.2.7.2 are commonly described as vetting.

4.2.7.4 The other key part of the justification process is in determining that there is an overall net benefit of the exposure to the patient, bearing in mind their medical condition, prognosis etc. The Practitioners at CRHFT have agreed that for all low dose examinations, any request that has been successfully vetted as per sections 4.2.7.1 and 4.2.7.2, will be justified. In the case of high dose examinations the request will be passed to a Radiologist for justification.

4.2.7.5 Where approved care pathways, referral criteria or imaging protocols exist (e.g. CRHFT Clinical Practice Policy 2.73, 'Assessment, Investigation and Management of Head Injury in Adults Policy' for head CTs) any request that meets the criteria will be justified.

4.2.7.6 Supplementary views identified and undertaken in accordance with accepted imaging protocols by a suitably qualified and experienced operator for the purpose of producing images to aid the final diagnosis, will be justified.

4.2.7.7 All breast screening procedures carried out in line with the National Breast Screening Programme guidelines, are deemed to be justified automatically on the basis of the research of benefits versus harms that underpins the national screening programme. Mammograms for symptomatic patients are justified by the Consultant Radiologist in Breast.

4.2.7.8 Use of imaging in the operating theatre as part of accepted surgical / orthopaedic / pain relief procedures will be justified.

4.2.7.9 For anything that falls outside of these pre-arranged procedures for justification, or where the radiography practitioner has any concerns or queries, the request will be passed to a Radiologist for justification.

4.3 Operators

4.3.1 Under IR(ME)R the operator is any person who carries out any practical aspect of the medical exposure. The primary responsibility of the operator is to optimise those practical aspects of

the exposure for which they are responsible. All Lead Radiography Practitioners will maintain a list of operator tasks for their modality. Records will be kept to demonstrate the competency of all operators to perform these tasks.

4.3.2 The operator will be responsible for ensuring that the patient is correctly identified, that the exposure has been authorised according to pre-arranged procedures and that the status of female patients with regard to possible pregnancy, has been checked in accordance with the 'Policy for establishing whether a Patient is or might be Pregnant.'

4.3.3 All operators exposing patients to ionising radiation have the responsibility to ensure that the patient dose is the minimum compatible with the diagnostic intention, and that attention is given to the relevant diagnostic reference level (DRL).

4.3.4 Operators will be adequately trained for their scope of practice as detailed in Schedule 2 of the Regulations.

4.3.5 The Operator shall liaise with other specialists and staff involved in a medical exposure, as appropriate.

4.3.6 Any practising radiography practitioner employed by or contracted to the Trust who possesses current registration with the Health Professions Council and who is competent in the use of the equipment to be used, will be entitled to act as an Operator.

4.3.7 Assistant Practitioners will be entitled to act as Operators for a limited range of examinations, in accordance with their Scope of Practice Protocol. Entitlement will be granted on completion of the relevant training, as set out in the Scope of Practice Protocol.

4.3.8 Operators within the breast unit are identified in the breast screening local policy 'Identified Operators for the Breast Unit.'

4.3.9 Undergraduate radiography students will be entitled to act as Operators only under supervision.

4.4 Referrers

4.4.1 No individual will act as a Referrer without having been adequately trained.

4.4.2 For medically qualified referrers adequate training will usually have been attained as part of the studies that enable them to fulfil their job role.

4.4.3 For Non-Medical Referrers (NMRs), adequate training is defined in the Trust's 'Protocol for Non-Medical Staff to Apply to Refer Patients for Imaging Examinations.'

4.4.4 The Referrer is responsible for providing the Practitioner with sufficient medical data (e.g. previous diagnostic information or medical records) relevant to the medical exposure being requested, to enable the Practitioner to decide whether there is sufficient net benefit to the patient to justify the exposure.

4.4.5 In all cases, the Practitioner or Operator vetting the referral will feed back to the Referrer about any referrals that they deem inappropriate and potentially indicative of training needs on the part of the Referrer. It is the Referrer's responsibility as a registered healthcare professional to take appropriate follow-up action such as arranging remedial training.

4.4.5.1 Where the Practitioner or Operator deems the inappropriate referral to be significant (e.g. indicating a major training need, or being a repeat occurrence for the Referrer) they will raise the matter with a member of the Imaging management team, who will consider the need for further action such as liaison with the Referrer's line manager.

4.4.6 At CRHFT our referrers are:

- All CRHFT-employed medical staff, as defined in the current medical staffing list.
- GPs, as defined in the current GP list.
- Other General Medical Council (GMC) registered medical staff e.g. locums / out-of-area hospital doctors as authorised on the Computerised Radiology Information System (CRIS)
- Non-Medical Referrers (NMRs) who have been approved under the Trust's 'Protocol for Non-Medical Staff to Apply to Refer Patients for Imaging Examinations', and who are listed as active referrers on the NMRs database.

4.4.7 For the breast unit the referrers are:

- For women attending for screening from the invited population, there is no need for additional referral information. Confirmation that the woman is on the invited list is sufficient.
- For women invited for screening outside the age range, the radiographer must confirm that the woman meets the referral criteria and indicate her eligibility or otherwise for screening.
- For women attending for assessment the consultant radiologist or film reader who reported the screening mammograms acts as referrer.
- For women at a high risk of developing breast cancer i.e. due to family history or previous breast disease, breast surgeons, oncologists and the breast care nurse practitioner may refer women for mammography, according to the referral criteria established by the consultant breast radiologists.

4.4.8 The Referrer shall liaise with other specialists and staff involved in a medical exposure as appropriate.

4.4.9 The Trust's 'Referral Policy for Imaging Diagnostic Examinations and Interventional Procedures' will be followed in all cases.

5. PROCEDURES TO BE OBSERVED IN THE CASE OF MEDICO-LEGAL EXPOSURES

5.1 Medico-legal exposures are those taken for insurance or legal purposes without a medical indication.

5.2 When justifying the procedure the practitioner must take any non-medical benefits to the patient into account. The procedure is only justified if it is not possible to use alternative techniques which have less or no ionising radiation. The practitioner must be a Radiologist in these cases.

5.3 The nature of the exposure must be explained to the patient, and his/her consent obtained before proceeding.

5.4 Only standard radiographic procedures will be undertaken in line with departmental protocol.

5.5 In examining a patient for medico-legal reasons the reference dose assigned must not be exceeded.

6. REFERRAL CRITERIA FOR MEDICAL EXPOSURES

6.1 All referrals will be made in accordance with the Trust's Clinical Practice Policy 2.58, 'Referral Policy for Imaging Diagnostic Examinations and Interventional Procedures.'

6.2 Further information on referral criteria and examination dose can be obtained from the Royal College of Radiologist's 'Making Best Use of Clinical Radiology' ('iRefer').

6.3 Additional local referral protocols and clinical pathways are in existence for a range of examinations, and are accessible via the CRHFT intranet and the NHS Derbyshire County Prescribing, Clinical & Referral Guidelines & Care Pathways web pages.

7. PROCEDURES TO IDENTIFY CORRECTLY THE INDIVIDUAL TO BE EXPOSED TO IONISING RADIATION

7.1 Please refer to Imaging Local Policy 054, 'Procedure and Protocol to identify correctly the individual to be exposed to ionising radiation.'

8. PREGNANCY CHECKING PRIOR TO MEDICAL EXPOSURE

8.1 Please refer to Imaging Local Policy 044, 'Policy for Establishing whether a Patient is or might be Pregnant'.

9. WRITTEN PROTOCOLS

9.1 Written protocols will be developed locally and kept up-to-date for every type of standard radiological practice for each piece of equipment.

9.2 Within the breast unit the protocols followed are set by the National Breast Screening Programme, the National Institute for Health & Clinical Excellence (NICE) and the Royal College of Radiologists (RCR.)

10. CLINICAL AUDIT

10.1 An annual audit of actual patient dose against DRLs will be undertaken by the Trust's Radiation Protection Advisor (RPA) to ensure that they are not being exceeded on a frequent basis. The results will be reported to the annual Radiation Protection Committee. The Clinical Service Manager will lead on any follow-up work suggested by the results of the audit. For example, investigating the reasons for any DRLs that are consistently exceeded and implementing any remedial action.

11. QUALITY ASSURANCE OF IR(ME)R PROCEDURES

11.1 All IR(ME)R policies will be reviewed and approved in line with the Trust's organisational policy 4.1, 'Formation, Maintenance, Distribution and Archiving of Trust Policies' to ensure that they are effective and appropriate, and to identify any necessary amendments. Guidance will be sought from the Medical Physics Expert or Radiation Protection Advisor (as appropriate) during policy development.

11.2 In addition, a policy will be reviewed promptly in the light of any relevant new or revised guidance, or if an incident occurs relating to the topic covered.

11.3 Where specified in individual IR(ME)R procedures, monitoring of compliance will take place as described.

11.4 In addition, every year the Imaging Clinical Governance Group will consider the need for any specific additional audits to assess the effectiveness of IR(ME)R procedures and add these to the Imaging audit plan as required. The decision will take into account any clinical incidents that may have occurred or any anecdotal concerns raised by staff regarding the operation of IR(ME)R procedures, and the level of risk involved in any potential non-compliance.

12. ASSESSMENT OF PATIENT DOSE & RECORDED ACTIVITY

12.1 For each medical exposure the dose of ionising radiation to the individual undergoing the exposure is to be kept as low as reasonably practicable (ALARP) and consistent with the intended diagnostic purpose.

12.2 Dose Recording

12.2.1 Routinely only factors relevant to patient dose shall be recorded. For standard examinations with written procedures the patient dose shall evaluated from:

- Direct measurements with dose area product meters where these are fitted. A dose area product calculation is made by the equipment based on actual factors and field sizes.
- Calculated entrance skin dose using known factors kV, mAs and distance plus calibration data for the output of the x-ray tube and standard backscatter factors.
- Calculated mean glandular dose for mammography examinations using known factors kV, mAs and distance plus calibration data for the output of the x-ray tube and standard conversion factors.
- Calculated Dose Length Product for CT examinations using set factors plus calibration data on a phantom.
- Calculated Dose Width Product for panoramic dental examinations using set factors and calibration data.

12.2.2 The patient dose recorded from diamentors will be recorded on CRIS unless it is recorded or derivable from data automatically recorded elsewhere.

12.2.3 Where DAP meter readings are not available, exposure factors kV, mAs, focus to skin entrance distance, for each exposure (including rejected radiographs), and the number of exposures shall be recorded on CRIS.

12.3 Dose calculation and equipment calibration

12.3.1 Medical physics experts will be contracted to undertake x-ray equipment calibration and perform dose calculations that are beyond the expertise of the imaging department's own personnel.

12.3.2 Calibration must be carried out after installation of new equipment.

12.3.3 Calibration must be checked bi-annually by the contracted Medical Physics Experts.

12.3.4 Re-calibration will be required following major repairs or replacements of equipment e.g. fitting of a new x-ray tube.

12.3.5 In all cases the calibration data for the x-ray tube or calibration of the DAP meters will be made available following a survey of the radiological equipment by the contracted medical physics experts.

12.3.6 More detailed calculations of patient dose e.g. to evaluate organ doses or doses to a foetus where a pregnant patient has been examined will be referred to the contracted medical physics experts.

12.3.7 Any dose calculations required for legal reasons or contentious issues will be referred to the contracted medical physics experts.

12.4 Information on the process within the breast unit is documented separately in the 'Assessing and Monitoring Patient Radiation Dose' policy.

13. DIAGNOSTIC REFERENCE LEVELS

13.1 Diagnostic reference levels (DRLs) are 'dose levels in medical radiodiagnostic practices (or, in the case of radioactive medicinal products, levels of activity) for typical examinations for groups of standard-sized patients or standard phantoms for broadly defined types of equipment.'[3] It is expected that DRLs will not be exceeded for standard procedures when good and normal practice regarding diagnostic and technical performance is applied.

13.2 The Clinical Services Manager (CSM) will co-ordinate the process for establishing local DRLs with the support of the Quality Assurance (QA) leads / Radiation Protection Supervisors in each relevant modality.

13.3 DRLs will be set specific to the examinations and equipment at the Trust's radiology sites.

13.4 The setting of DRLs will be based on statistical analysis of representative samples with due regard to regional, national or European data. Levels will be reviewed annually or when changes are made to equipment or procedures.

13.5 The dose data collection procedure is part of the Imaging equipment QA programme. Data will be analysed, with the help of the Medical Physics Expert (MPE) as necessary, to determine the mean and distribution. As a general rule the reference level will be set at a level mathematically two times the standard deviation of the distribution above the mean level.

13.6 Direct measurements are impossible in certain circumstances, such as when the image intensifier does not have a DAP meter (dose area product). Where this is the case the MPE will be consulted to advise on alternative measurement methods, which will be documented in the relevant QA programme/s.

13.7 The CSM will co-ordinate the collection and provision of local DRL reference information as required for inclusion in national DRLs.

13.8 Information on the process within the breast unit is documented separately in the 'Assessing and Monitoring Patient Radiation Dose' policy.

14. EXPOSURES AS PART OF A RESEARCH PROGRAMME

14.1 The Trust's 'Research Policy' will be followed in all cases.

14.2 Any proposed research studies involving the exposure of subjects to ionising radiation will entail consultation with the RPA as part of the approval process.

14.3 The RPA will make an assessment of the required dose constraint on a case-by-case basis as part of this process. These dose constraints must not be exceeded in practice.

14.4 Guidance from the Medical and Dental Guidance notes will be taken into account in all cases.

14.5 Potential subjects must participate voluntarily in the research programme, having been fully informed about the risks of exposure, in line with the Trust Research Policy and the Medical and Dental Guidance notes. Valid consent must be documented.

14.6 The Operator who performs the exposure must always be aware that the patient is taking part in a research project.

14.7 Letters or forms on a named patient basis from the researcher must accompany the patient or be made available to the Operator describing the programme and stating the dose constraint.

[3] The Ionising Radiation (Medical Exposure) Regulations 2000 and 2006 amendment

14.8 Prior to performing the exposure the Operator must check that the patient has given their consent to the research exposure. This is in addition to any other consent that may be required.

15. RADIOACTIVE MEDICINAL PRODUCTS

15.1 In cases where radioactive medicinal products are administered, appropriate written instructions and information will be provided to the patient to support a valid consent process. The written information will include:

- How doses resulting from the patient's exposure can be restricted so as to protect persons in contact with the patient.
- The risks associated with ionising radiation.

16. RECORDING THE OUTCOME OF MEDICAL EXPOSURES

16.1 A clinical evaluation of the outcome will be recorded for each medical exposure.

16.2 The usual method will be in the form of a written report containing an interpretation of the images by a Radiologist who is employed by or contracted to CRHFT. Appropriately trained Radiography Practitioners, operating under agreed adjustments to the scope of their practice, will also write reports.

16.3 Reports will be produced and issued in line with the Trust's 'Communication of Imaging Results' policy.

16.4 In some cases the report will be produced by the referrer or a member of the referring team. This will only be permitted in line with the 'Policy for Imaging Examinations Unreported by Agreement.'

16.5 If the practitioner or operator knows that no clinical evaluation will be recorded, then the exposure cannot be justified and the request must not be authorised.

17. ACCIDENTAL OR UNINTENDED DOSES

17.1 In order to reduce the likelihood of an unintended dose, a number of automatic exposure devices (AEDs) i.e. pre-programmed exposures for certain procedures are in place. In addition the operator will check the settings before carrying out the exposure. The equipment quality assurance (QA) process will include checks of the AEDs.

17.2 Patients who undergo an examination/treatment that was not intended due to mistaken identity or other procedural failure and were consequently exposed to radiation, will be considered as having received an unintended dose of radiation. The Trust's incident reporting procedure will be followed, and appropriate investigation and follow-up action will take place to minimise the risk of recurrence.

17.3 The dose received by the patient due to any over-exposure incident must be recorded. It is good practice to inform the patient of the incident unless there is good reason to not do so. The reason for any decision not to inform the patient must be recorded.

17.4 Advice must be sought in all cases from the Medical Physics Expert.

17.5 In cases where a dose much greater than intended (occurring otherwise than as a result of equipment failure) has been delivered to the patient the incident must be reported to the appropriate authority (currently the Care Quality Commission) in line with current national guidance. Such incidents are classified as notifiable IR(ME)R incidents.

17.6 In cases where the patient over-exposure was solely the result of equipment malfunction the Health and Safety Executive (HSE) must be notified under the Ionising Radiation Regulations 1999.

17.7 'Near misses', where imminent potential for an unintended dose to be given to a patient is identified, will be reported as such.

18. THE ROLE OF THE MEDICAL PHYSICS EXPERT (MPE)

18.1 There is a service level agreement in place with Sheffield Teaching Hospitals NHS Foundation Trust, which allows the Trust to have access to an appropriately qualified and experienced Medical Physics Expert (MPE.) For mammography a similar arrangement is in place with Northampton General Hospital NHS Trust.

18.2 As defined in the Health & Safety Policy Code of Practice No. 6, 'Radiation Protection', the MPE will provide advice as needed on relevant issues such as patient dosimetry, dose optimisation, quality assurance relating to the development and use of techniques and equipment for medical exposures.

19. EQUIPMENT INVENTORY

19.1 Details of all equipment will be supplied to the Medical Engineering department, so that it may be logged on the Trust's proprietary inventory database E-MAT.

19.2 In this way an inventory of equipment at each radiological installation will be maintained, including the following information:

- Name of manufacturer
- Model number
- Serial number or other unique identifier
- Year of manufacture
- Year of installation

19.3 The need for disposal of equipment will be agreed and arranged by the Imaging Clinical Services Manager.

19.4 Equipment no longer in use will be disposed of in a safe and timely manner, and whilst awaiting disposal will be labelled clearly as 'not in use.'

20. REFERENCES

The Stationery Office Ltd, Statutory Instrument 2000 No. 1059, 'The Ionising Radiation (Medical Exposures) Regulations', 2000, and Amendments, 2006

Institute of Physics & Engineering in Medicine, 'Medical and Dental Guidance Notes – A Good Practice Guide on All Aspects of Ionising Radiation Protection in the Clinical Environment', 2002

Royal College of Radiologists, 'Making Best Use of Clinical Radiology Services' http://mbur.nhs.uk

The Society & College of Radiographers, 'The Ionising Radiation (Medical Exposure) Regulations 2000 and The Ionising Radiation (Medical Exposure) (Amendment) Regulations 2006 - Guidance Booklet'

The General Medical Council, 'Good Medical Practice – Guidance for Doctors', 2006

NHS Shetland Implementation of the Ionising Radiation (Medical Exposure) Regulations 2000 Policy, 2009

NICE Clinical Guideline 41, 'Familial breast cancer', 2006

NICE Guidance on Cancer Services, 'Improving Outcomes in Breast Cancer, 2002

21. RELATED DOCUMENTS/POLICIES

Chesterfield Royal Hospital NHS Foundation Trust, Health & Safety Policy Code of Practice 006, 'Radiation Protection'
(Date reviewed: November 2014)

Chesterfield Royal Hospital NHS Foundation Trust, Clinical Practice Policy 2.44, 'Protocol for Non-Medical Staff to Apply to Refer Patients for Imaging Examinations'
(Date reviewed: May 2013)

Chesterfield Royal Hospital NHS Foundation Trust, Clinical Practice Policy 2.58, 'Referral Policy for Imaging Diagnostic Examinations and Interventional Procedures.'
(Date reviewed: June 2014)

Imaging Local Policy 034, 'Assistant Practitioner in Radiography – Scope of Practice'
(Date reviewed: April 2014)

Imaging Local Policy 090 'Employer's IRMER Procedures - Medical Physics'
(Date reviewed: January 2014)

Imaging Local Policy 039, 'Local Rules'
(Date reviewed: May 2014)

Imaging Local Policy 044, 'Policy for Establishing whether a Patient is or might be Pregnant'
(Date reviewed: September 2014)

Imaging Local Policy 052, 'Policy for Imaging Examinations Unreported by Agreement'
(Date reviewed: November 2013)

Imaging Local Policy 054, 'Procedure and Protocol to identify correctly the individual to be exposed to ionising radiation.'
(Date reviewed: December 2013)

Imaging Local Policy 072, 'Vetting Procedure for Imaging Requests'
(Date reviewed: September 2014)

Imaging Local Policy 074, 'The Management of Risk in Relation to the Use of Ionising Radiation in Community Hospitals'
(Date reviewed: November 2014)

Imaging Local Policy 091, 'Departmental Procedures - Medical Physics'
(Date reviewed: September 2013)

First issued:	November 2011
Version no:	1
Date issued:	December 2014
Review date:	December 2016
For review by:	Clinical Services Manager
Responsible:	Imaging Quality Governance Group

Operators and Practitioners at Chesterfield, Buxton and Whitworth hospitals

Name		Role	Operator/Practitioner	Equipment
Emma	Andrew	Radiography Practitioner	Operator	X-ray rooms 1,2,3, 9, 10 and 11
Dale	Baggaley	Assistant Practitioner	Operator	X-ray rooms 1,2,3, 9, 10 and 11
Claire	Barnes	Senior Radiography Practitioner	Practitioner (orbit x-ray for foreign bodies only)	N/A
Andrea	Beardshall	Assistant Practitioner	Operator	X-ray rooms 1,2,3, 9, 10 and 11
Christopher	Bee	Radiography Practitioner	Operator	All x-ray and CT
Emily	Blakeley	Radiography Practitioner	Operator	X-ray (Buxton)
Andrea	Booth	Lead Radiography Practitioner-Mammography	Operator	Mammography
Ellie	Bowater	Radiography Practitioner	Operator	All x-ray and CT
Sally	Brailsford	Senior Radiography Practitioner	Operator	Mammography and CT
Sharon	Brooks	Radiography Practitioner	Operator	All x-ray and CT
Steven	Cullen	Radiography Practitioner	Operator	All x-ray and CT
Abigail	Damms	Radiography Practitioner	Operator	All x-ray and CT
Elizabeth	Dee	Senior Radiography Practitioner	Operator	All x-ray and CT
Amelia	Drake	Radiography Practitioner	Operator	All x-ray
Saadia	Eshaque Zay	Radiography Practitioner	Operator	All x-ray and CT
Louise	Evill	Radiography Practitioner	Operator	All x-ray and CT
Gill	Fisher	Senior Radiography Practitioner	Practitioner (orbit x-ray for foreign bodies only)	N/A
Julie	Floyd	Advanced Radiography Practitioner	Operator	Mammography
Joanne	Foster	Radiography Practitioner	Operator	CT
Karen	Gibbons	Assistant Practitioner	Operator	Mammography
Jill	Hancock	Radiography Practitioner	Operator	All x-ray and CT

Melanie	Hancock	Senior Radiography Practitioner	Operator	Mammography
Sarah	Harrington-Pollock	Radiography Practitioner	Operator	All x-ray and CT
Robyn	Harrison	Radiography Practitioner	Operator	All x-ray and CT
Ben	Hassall	Radiography Practitioner	Operator	All x-ray and CT
Susan	Heath	Radiography Practitioner	Operator	Dexa and all x-ray
Timothy	Heath	Senior Radiography Practitioner	Practitioner (orbits for foreign bodies only)	N/A
Natalie	Horne-Wild	Radiography Practitioner	Operator	All x-ray and CT
June	Hudson	Lead Radiography Practitioner – MRI	Practitioner (orbit x-ray for foreign bodies only)	N/A
Sarah	Illsley	Radiography Practitioner	Operator	All x-ray and CT
Neil	Inns	Advanced Radiography Practitioner	Operator Practitioner (MSK plain x-ray)	All x-ray N/A
Sophie	Jackson	Radiography Practitioner	Operator	All x-ray and CT
Robert	Jones	Radiography Practitioner	Operator	All x-ray and CT
Alexandra	Lee	Radiography Practitioner	Operator	All x-ray and CT
Rachael	Mahoney	Senior Radiography Practitioner	Operator	Mammography
Caroline	Marwood	Senior Radiography Practitioner	Operator	CT
Shaun	McArthur	Senior Radiography Practitioner	Operator Practitioner (orbits for foreign bodies only)	All x-ray N/A
Penelope	McCoy	Senior Radiography Practitioner	Operator	All x-ray and CT
Emily	McManus	Radiography Practitioner	Operator	All x-ray and CT
Karen	Moxham	Clinical Services Manager	Operator	All x-ray and mammography
Andrew	Neil	Radiography Practitioner	Operator	All x-ray and CT
Gill	Norman	Senior Radiography Practitioner	Operator	Mammography
Sarah	Oughtred	Senior Radiography Practitioner	Operator	CT
Alan	Parker	Lead Radiography Practitioner - Buxton	Operator	X-ray (Buxton)

Julie	Peel	Radiography Practitioner	Operator	X-ray (Buxton)
Victoria	Powell	Radiography Practitioner	Operator	Dexa and all x-ray
Susan	Pratt	Senior Radiography Practitioner	Operator	CT
Susan	Reedman	Radiography Practitioner	Operator	X-ray (Whitworth)
Roberta	Robinson	Senior Radiography Practitioner	Operator	Mammography
Alison	Ross	Clinical Services Manager	Operator	All x-ray and CT
Kenneth	Russon	Radiography Practitioner - Bank	Operator	All x-ray
Claire	Sawyer	Senior Radiography Practitioner	Operator	All x-ray and CT
Patricia	Scott	Senior Radiography Practitioner	Operator	Mammography
Margaret	Shearstone-Walker	Senior Radiography Practitioner	Operator	All x-ray and CT
Clare	Smith	Assistant Practitioner	Operator	All x-ray and CT
Ruth	Spriggs	Senior Radiography Practitioner	Operator	CT
Heather	Strong	Assistant Practitioner	Operator	X-ray rooms 1,2,3, 9, 10 and 11
Jill	Taylor	Assistant Practitioner	Operator	Mammography
Deborah	Thompson	Assistant Practitioner	Operator	Mammography
Helen	Turner	Lead Radiography Practitioner - CT	Operator	CT
Paul	Turner	Senior Radiography Practitioner	Operator	All x-ray and CT
Julie	Vickers	Lead Radiography Practitioner – X-ray	Operator	All x-ray and CT
Gill	Walton	Senior Radiography Practitioner	Operator	All x-ray and CT
Peter	Watson	Senior Radiography Practitioner	Operator	All x-ray and CT
Laima	Wilson	Senior Radiography Practitioner	Practitioner (orbits for foreign bodies only)	N/A
Unnikrishnan	Anoop	Consultant Radiologist	Practitioner	

Suman	Bandhu	Consultant Radiologist	Practitioner	
Kit	Chow	Consultant Radiologist	Practitioner Operator	Screening rooms 5, 6 and 7
Philippa	Claydon	Consultant Radiologist	Practitioner	
Anna	Ford	Consultant Radiologist	Practitioner and Operator	Screening rooms 5, 6 and 7
Ashleigh	Genever	Consultant Radiologist	Practitioner and Operator	Screening rooms 5, 6 and 7
Heather	Harris	Consultant Radiologist	Practitioner and Operator	Screening rooms 5, 6 and 7
Rajiv	Karia	Consultant Radiologist	Practitioner and Operator	Screening rooms 5, 6 and 7
Pieter	Meiring	Consultant Radiologist	Practitioner and Operator ARSAC certificate holde for Imaging.	Screening rooms 5, 6 and 7
Prateek	Sharma	Consultant Radiologist	Practitioner and Operator	Screening rooms 5, 6 and 7
Christopher	Squirrell	Consultant Radiologist	Practitioner and Operator	Screening rooms 5, 6 and 7
Hartley	Euinton	Consultant Radiologist	Practitioner and Operator	Screening rooms 5, 6 and 7
Justin	Cook	Consultant Cardiologist	Operator	Cath Lab
Gillian	Aspinall	Orthopaedic Surgeon	Operator	Mini c-arm
Jose	Garcia	Orthopaedic Surgeon	Operator	Mini c-arm
Matthew	Morris	Orthopaedic Surgeon	Operator	Mini c-arm
Jim	Parry	Orthopaedic Surgeon	Operator	Mini c-arm
Apurv	Sinha	Orthopaedic Surgeon	Operator	Mini c-arm
John	Wright	Orthopaedic Surgeon	Operator	Mini c-arm

Medical Physics Department – IR(ME)R Practitioners and Operators

List A: Chief Clinical Technologists (or equivalent):
Matthew Beardshall

List B: Senior Clinical Technologists (or equivalent):
Gill Cullumbine
Sally Allsop

List C: Clinical Technologist

List D: Radiopharmacy workers:

List E: Registered Clinical Scientists entitled to act as Medical Physics Experts
Phil Hillel
Pete Metherall

List F: Radiation Protection Advisers:
Mark Singleton (unsealed sources)
Tracey Soanes (unsealed sources)

List G: ARSAC Certificate Holders (Imaging):
Pieter de Vos Meiring

List H: ARSAC Certificate Holders (Radioiodine Therapy and thyroid imaging):
Robert Robinson

List I: Consultant Radiologists and selected Specialist Registrars at CRHFT
Pieter de Vos Meiring
Hartley (Sam) Euington
Suman Bandhu
Kit Chow
Unnikrishnan Anoop
Ashleigh Genever
Heather Harris
Anna Ford
Phillipa Claydon
Prateek Sharma
Rajiv Karia
Chris Squirrel
Manu Shastry (SpR)

List J: Senior Chief Clinical Technologists
Barry Parker
List K: Registered Clinical Scientists
Michael Hanney

List L: Assistant Clinical Technologists
Dawn London

List of Operators

1. **Radiopharmaceutical preparation and blood cell labelling:**
   Lists A,B,C,D,J

2. **Administration of radiopharmaceuticals by intravenous administration:**
   Lists B,I,J

3. **Administration of radiopharmaceuticals by oral administration or inhalation:**
   Lists B,C,J

4. **Nuclear medicine equipment quality control:**
   Lists A**,B,C,E,J L*
   *Daily gamma camera and dose calibrator checks only
   ** Dose calibrator and Radiopharmacy checks only

5. **Nuclear medicine clinical diagnostic procedures:**
   Lists B,C,E,J

6. **Radionuclide therapy:**
   Lists B,E,J

7. **Authorisation of exposure under written guidelines (diagnostic):**
   List I

8. **Report diagnostic nuclear medicine tests:**
   List I

9. **Request plane x-rays under written guidelines following certain diagnostic nuclear medicine tests**
   List J,B

List of Practitioners

Consultant medical staff holding a current ARSAC certificate for:-

1. The site at which the exposure is to be undertaken (CRH)
2. The radiopharmaceutical which is to be administered
3. The purpose of diagnosis, therapy or research as appropriate to the exposure being undertaken

Only staff in Lists G and H can act as Practitioners for nuclear medicine.

Date Issued:	**July 2015**
Date Reviewed:	**N/A**
Date to be Reviewed:	**July 2016**
To be Reviewed by:	**Clinical Services Manager**
Responsible:	**Imaging Quality Governance Group**