Doncaster and Bassetlaw Teaching Hospitals
NHS Foundation Trust

IONISING AND NON-IONISING RADIATIONS SAFETY POLICY

This procedural document supersedes: CORP/HSFS 21 v.4 – Ionising And Non-Ionising Radiations Safety Policy

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Date written/revised:	9th January 2018
Approved by:	Radiation Safety Committee
Date Approved:	19th March 2018
Date issued:	27th April 2018
Next review date:	January 2020
Target audience:	Trust-wide

Amendment Form

Version	Date Issued	Brief Summary of Changes	Author
Version 5	27th April 2018	Section 2 - "Purpose", Medico-legal exposures removed and replaced with Non-Medical imaging exposure. Definition included. Section 3 – "Duties and Responsibilities" 3.3 changed to Assistant Care Group Director. Changed to include – "authorize and approve the Ionising and Non-Ionising Radiations Safety Policy". 3.4 changed to Clinical Governance and Education Manager. 3.6 changed to IRR 2017 and reporting to the Chief Executive included. 3.8 changed to include requirement for MPE under IRMER 2017 regulation 14. 3.12 changed to IRR17 Reg. 35. Section 4 – Changed and updated to allow for specific requirements and new terminology under regulation 17 of IRMER 2017. Section 4.4 created to allow for IRR 2017 regulation 15 and the requirement for refresher training to be scheduled at regular intervals. Section 5 – Changed to reflect the new requirements under IRMER 2017 regulation 15. i.e. see new sub-section 5.2 Section 6 – Risk assessments changed to reflect IRR 2017 regulation 8. Section 7- Health Surveillance and Medical Examination changed to reflect IRR 2017 regulation 25 and the requirement for Medical Surveillance for classified workers. Appendix 1) - Changed to reflect update new regulations. Appendix 2) - Changed to reflect update new regulations. Appendix 3) - Changed to reflect changes in LPA role, now a purely advisory role, not responsible for implementation. Appendix 4) - Inserted for statement of MPE duties. Other Appendices numbers altered to allow for insertion Appendix 5) - Changed to reflect updated EPR 2016 regulations Appendix 6) - Changed to reflect updated IRR and IRMER 2017 regulations Appendices 7) to 8) - Changed to reflect new management structure within Medical Imaging, including appointment of a new Chair and Vice Chair. Appendix 9) - Changed to reflect changes in LPA role, now a purely advisory role, not responsible for ORSC meetings and implementation of policy. Appendix 10) -New Management Framework within Medical imaging Appendix 11) -Updated Equality and Impact Assessment.	Peter Thompson

Version 4	8 December 2015	Updated policy with some changes and additions – New style and Trust format - Section 1, Updated and condensed 'Introduction' - Section 2, 'Purpose' added - All paragraphs in Section 3 changed with new roles and titles defined to allow for the new Care Group management system and an additional paragraph added to allow for incident reporting using DATIX. - Section 4 expanded with more detail with the addition of paragraphs 4.1 to 4.3 - Section 5, Incident Reporting, removed. - New Sections 5 to 7, added - Section 8, replacing Section 7 'Monitoring and audit', much more detail and a table included as required by Trust's new template. - Section 9, 'Definitions' added - Section 10, 'Accountability framework' - CGQ committee added and amendments made to reflect Care Group structure. - Section 11, 'Equality and Diversity' - Sections 12 and 13 reformatted and references updated where required. - Appendix 9 added	Peter Thompson
Version 3	September 2012	4. Individual Responsibilities 4.7 Changed to RWA from QE under new EPR10. 4.10 Laser Protection Supervisor added. 4.13 Optical Radiation Health & Safety Committee added. Appendix 4. List of duties of an RWA under EPR10 replaces list of duties of QE under RS93. Appendix 7 altered Terms of Reference - Radiation Safety Committee Description of the Chair and the Vice Chair of the Committee Circulation of minutes and RPA reports Accountability framework amended to show the Trust's Board of Directors. Appendix 8 added. Term of Reference Optical Radiation Health & Safety Committee.	Peter Thompson

Contents

1. INTRODUCTION

The Trust uses ionising and non-ionising radiations in the forms of X-rays, γ-rays, ionising particles, visible light, Infrared, ultraviolet, ultrasound and radiofrequency. It does so in order to benefit patients directly through the provision of diagnostic and therapeutic services, and indirectly in the maintenance and calibration of associated equipment, and research and development.

The IRN-ISP sets out the general principles and processes that will be adopted by the Trust in order to comply with current legislation and best practice. It is supported by a number of subsidiary procedures, which give detailed instruction on the means whereby compliance with specific practices will be achieved.

For staff and members of the public the risk from the Trust's application of ionising and non-ionising radiations in its work activities should not exceed that from other relatively low risk industrial practices.

2. PURPOSE

This document is a platform for the delivery advice on Ionising and Non – Ionising Radiations and is used as a vehicle for the implementation and response to new legislation and standards within the Trust. It also provides further information on education, training and matters of legislative compliance and is intended to encourage professional and practice development.

The Trust Board is committed to minimising risks to patients, staff, visitors and contractors from any of the Trust's uses of ionising and non-ionising radiations.

There is a potential hazard from exposure to ionising radiation which must be balanced against the benefit which accrues either to the individual or to society. To this end the Board will ensure that procedures and processes are in place, and regularly reviewed, in order that:

- only justified practices involving ionising and non-ionising radiations are undertaken;
- radiation doses to staff, contractors and members of the public arising out of work activities are restricted to As Low As is Reasonably Practicable, (ALARP), and within dose limits;
- medical exposures are individually justified and optimised, i.e. that a medical exposure will be of net benefit to the individual or society, as appropriate, and the dose will be the minimum required to achieve the intended outcome.

Where appropriate in this document, the word 'patient' also refers to any other person undergoing an imaging exposure, which includes "non-medical imaging" exposures. Non-medical imaging is defined as "any deliberate exposure of humans for imaging purposes where the primary intention of the exposure is not to bring a health benefit to the individual being exposed", and an example might be radiological imaging for the purpose of preparing legal reports.

3. DUTIES AND RESPONSIBILITIES

The responsibility for the supervision of the use of radiation lies with the Trust as the **Employing Authority**. The processes for managing radiation risks are defined within the Trust's Risk Identification, Assessment and Management Policy – CORP/**RISK 30**.

Care Groups charged with the management of risk will take responsibility for the clinical and non-clinical risks posed by the use of ionising and non-ionising radiations within their areas, as appropriate.

3.1 Diagnostics and Pharmacy Care Group

The implementation of the policy will be the responsibility of the management team working within the Diagnostics and Pharmacy Care Group who will liaise with the Radiation Protection Advisers, (RPA) regarding policy and procedures.

The following sections summarise the structure for the delivery of ionising and non-ionising radiations safety.

3.2 The Chief Executive

Although the Chief Executive retains overall responsibility for ensuring that systems are in place to manage risks arising out of the use of ionising and non-ionising radiations, he discharges this responsibility through designated individuals.

3.3 The Assistant Care Group Director - Diagnostics and Pharmacy Care Group.

Within this framework, the Assistant Care Group Director has executive responsibility for the preparation and implementation of the Ionising and Non-Ionising Radiations Safety Policy and the associated procedures, structures and processes. The Assistant Care Group Director will authorise and approve the Ionising and Non-Ionising Radiations Safety Policy

The Assistant Care Group Director will ensure that specialist advisers are involved as detailed below:

3.4 The Clinical Governance and Education Manager – Medical Imaging

Radiation Safety Committee meetings are held every six months and the group is now chaired by the Clinical Governance and Education Manager as part of the Diagnostics and Pharmacy Care management structure. The Clinical Governance and Education Manager will approve all radiation protection procedures, structures and processes.

3.5 The Head of Risk and Legal Services

The Head of Risk and Legal Services will be invited to be a member of the Trust Radiation Safety Committee (RSC). He/she will advise on general aspects of the risk management process.

3.6 Radiation Protection Advisers (RPA)

The RPA will undertake duties that are defined within the scope of the Ionising Radiation Regulations 2017, (IRR17). The relevant RPA will advise, as appropriate, on compliance with all legislation, which relates to the safe use of ionising radiations in relation to the Trust's activities. Radiation Protection Advisers are accountable to the Assistant Care Group Director and report to the Chief Executive. The RPA will be appointed in writing by the Assistant Care Group Director.

See statement of duties of the RPA in Appendix 2.

3.7 Laser Protection Adviser (LPA)

The LPA is responsible for advising the Trust on compliance with the policy and health and safety matters related to Non Ionising Radiations. *A separate document is available that provides specific health and safety policy information for the safe use of optical radiation, (CORP/ HSFS 9).*

See statement of duties of the LPA in Appendix 3.

3.8 Medical Physics Experts (MPE)

Medical Physics Experts will advise, as appropriate, on all aspects of the justification and optimisation of medical exposures (i.e. the achievement of the desired outcome with the minimum patient dose), in both diagnostic radiology and nuclear medicine.

IRMER 2017 regulation 14 requires the Trust to appoint a suitable Medical Physics Expert in relation to every type of exposure to which the Regulations apply.

A Medical Physics Expert must—

(a) meet such criteria of competence as may from time to time be specified in guidance;

(b) be closely involved in every radiotherapeutic practice other than standardised therapeutic nuclear medicine practices;

(c) be involved in practices including standardised therapeutic nuclear medicine practices, diagnostic nuclear medicine practices and high dose interventional radiology and high dose computed tomography;

(d) be involved as appropriate for consultation on optimisation, including patient dosimetry and quality assurance, and to give advice on matters relating to radiation protection concerning exposures, as required, in all other radiological practices.

See statement of duties of the MPE listed in Appendix 4.

3.9 Radioactive Waste Advisers (RWA)

Radioactive Waste Adviser (RWA)

The RWA will provide advice and supervision on matters concerning the holding, accumulation

and disposal of radioactive substances as governed by the Environmental Permitting Regulations 2016, (EPR16).

See statement of duties of the RWA listed in Appendix 5.

3.10 Radiation Protection Supervisors (RPS)

An RPS will be appointed in writing by the Assistant Care Group Director to assist in securing compliance with the Ionising Radiations Regulations 2017. They are appointed to supervise any area which has been made subject to Radiation Local Rules. The essential role of an RPS is to supervise work with ionising radiations in their area on a regular basis, as appropriate, to ensure compliance with Local Rules.

An RPS may be given additional specific duties and responsibilities that will be delegated to them by their Line Manager. These duties are usually in respect of compliance with Regulation 5 of The Management of Health and Safety at Work Regulations 1999.

See statement of duties of an RPS listed in Appendix 6).

3.11 Laser Protection Supervisors (LPS)

An LPS will be appointed in writing by their Departmental Manager to assist in securing compliance with the Control of Artificial Optical Radiations 2010. They are appointed to supervise any area which has been made subject to Radiation Local Rules.

The essential role of an LPS is to supervise any work with Optical radiations in their area on a regular basis, as appropriate, to ensure compliance with Local Rules. An LPS may be given additional specific duties and responsibilities that will be delegated to them by their line-manager. These duties are usually in respect of compliance with Regulation 5 of The Management of Health and Safety at Work Regulations 1999.

See statement of duties of an RPS listed in Optical Radiation Policy, REF: CORP /**HSFS 9.**

3.12 Employees' Responsibilities

It is the duty of every employee to ensure that they do not expose unnecessarily, themselves, or other persons, to ionising or non-ionising radiations. They must also comply with regulation 35 of IRR17, which states that every employee who is engaged in work with ionising radiation shall make full and proper use of any Personal and Protective Equipment (PPE) that is provided by their employer.

Employees should only undertake work with ionising and non-ionising radiations or associated with medical exposures, within the scope of their training and authorisation and according to the relevant procedures.

3.13 Radiation Safety Committee (RSC)

The Radiation Safety Committee (RSC) has the remit of drafting Trust documentation, advising the Chief Executive and monitoring compliance with Trust policies and procedures in relation to ionising radiations. It is also responsible for the approval of this policy, **REF: CORP/HSFS 21.**

See Terms of Reference in Appendix 8.

3.14 The Optical Radiation Health and Safety Committee (ORSC)

The Optical Radiation Health & Safety Committee reports to the Trust's Radiation Safety Committee, to produce guidelines and establish new protocols for quality assurance and safety. It acts as a platform for the delivery of advice on optical radiation, to implement new policy in response to new legislation and standards.

For each department where hazardous optical equipment is in use, the Departmental Manager is responsible for the attendance of their staff at ORSC meetings. Departmental Managers will Chair the ORSC on a rotational basis and will liaise with the Medical Technical Services Department to organise and schedule the annual meeting.

Regular attendance at this meeting is compulsory for anyone working as an LPS. In the event of foreseen but unavoidable absence from a meeting, an LPS should identify and fully brief a competent member of the department to attend in his/her place.

This group is responsible for the approval of the 'Optical Radiation Policy'**, REF: CORP/HSFS 9.**

See Terms of Reference in Appendix 9.

3.15 DATIX – Incident Reporting

In the event of an Incident that involves Ionising and Non-Ionising Radiation it will need to be reported on a Web based incident reporting system called DATIX, using the Category Radiation and Sub-Category that corresponds to the legislation that may have been breached, with the relevant Incident Detail. Any Near-Misses can be filtered out by using the appropriate Sub-Category.

4. TRAINING/SUPPORT

Specialist training where particular risks exist, will be the responsibility of the Clinical Governance Sub Group (Radiation) e.g. radiation safety training.

Under regulation 17 of IRMER 2018 a practitioner or operator must not carry out any exposure or any practical aspect without having been adequately trained. A certificate issued by an institute or person competent to award degrees or diplomas can be used to provide other evidence of adequate training.

The Trust must keep and have available for inspection by the CQC an up-to-date record of all relevant training undertaken by all practitioners and operators engaged by the employer to carry out any exposures or any practical aspect of such exposures, showing the date or dates on which training qualifying as adequate training was completed and the nature of the training.

Training records for Medical Imaging Staff will be kept and monitored by the Departments leads to ensure appropriate training is taking place. Training Records for non-medical imaging staff will be kept by the relevant department.

A specific training plan will be developed to support this strategy, with key personnel being trained as a priority.

4.1 Ionising Radiation Safety - Training

All new Operators and Non-Medical Referrers must attend an IRMER/AWARENESS training course as part of their induction process. Evidence of a training attendance certificate should be held within the relevant department for confirmation. Theoretical training for the RPS/LPS will be provided at approved training centres. A list of available courses can be obtained from the Radiation Protection Advisers.

4.2 Operator - Training

An **Approved User** is an operator who has been approved to use a specific device. The relevant department will keep a list of Approved Users. The laser should only be used on patients in the presence of an Approved User. They will have received training in the following areas:

- Radiation Safety;
- Manufacturer's Operational Procedures;
- Guidelines for Use.

All operators must be able to demonstrate evidence of having attended operator training which is equipment specific. All staff involved in a medical exposure to Ionising radiation must receive appropriate training. Evidence of training attendance certificates should be held within the department. All operators must have evidence of on-going continuing professional development training. A written record should be kept to demonstrate evidence of attendance. All operators will only operate equipment for which they have been trained and, where appropriate, hold qualifications. Users will receive training that will be organised by their line-manager and the department's nominated Training Co-ordinator.

4.3 Competency Training - The Role of the Lead Clinician

The **Lead Clinician** will have the responsibility for writing guidelines for use, training and supervision of junior clinical staff and assessing their competence, prior to performing diagnostics/treatments unsupervised. A written treatment protocol should be produced by the Lead Clinician which identifies the procedure that is being performed, that sets out the necessary checks and tests. The treatment protocol should be signed and dated. A separate

treatment protocol should be in place for each investigation. Junior staff will work under the direct supervision of an appropriately trained and experienced registered user. Users will receive training that will be organised by their department's nominated Training Co-ordinator.

The training co-ordinator's role is to ensure that staff have been assessed against the equipment used or that might be used in their areas, and determine the most appropriate level of training required (if any).

4.4 Training and Information - IRR17 Regulation 15.

Those individuals who are engaged in work with ionising radiation will be given appropriate training in the field of radiation protection and receive such information and instruction as is suitable and sufficient for them to know–

(a) the risks to health created by exposure to ionising radiation as a result of their work;

(b) the general and specific radiation protection procedures and precautions which should be taken in connection with the work with ionising radiation to which they may be assigned; and

(c) the importance of complying with the medical, technical and administrative requirements of IRR2017;

All those involved in work or affected by work with ionising radiation, including management and outside workers, need to know how to work safely and reduce risk to their health.

Refresher training should be scheduled at regular intervals to maintain competence levels. In addition, employers should review employee's capabilities and provide additional or refresher training for employees as needed. If new equipment is brought in or working practices change, staff will require further training.

5. EQUIPMENT MAINTENANCE AND QUALITY ASSURANCE

The Medical imaging Department will supervise the operational maintenance of any of the Trust's medical devices that include sources of Ionising radiation, MRI and Diagnostic Ultrasound. Medical Physics Departments will be responsible for providing expert support on radiation safety. The Medical Technical Services Department will supervise the operational maintenance of any of the Trust's medical devices that include sources of Optical radiation

5.1 Ionising Radiation - IRR17

The Trust must establish a quality assurance programme which gives assurance that equipment will satisfy the requirements of IR[ME]R 17 regulation 15 that includes-

(a) who has responsibility for organising the different elements;

(b) who will carry out testing or dose assessment;

(c) who has responsibility for acting on any adverse findings.

The assurance programme will set out the frequency of any testing and other measurements. It must also specify action levels, taking account of advice from relevant professional bodies. If these levels are exceeded, the employer must assess what remedial action is necessary, taking account of the risk arising from its continuing use.

Quality Control procedures will be created by an appropriately qualified state registered health care professional, in accordance with the manufacturer's instructions. An adequately trained QA radiographer can then carry out procedures, with the results being formally documented for inspection by the relevant manager. The reporting of any faults identified by the Quality control tests will be the responsibility of the QA radiographer who will report to the Clinical Governance and Education manager in Medical Imaging.

In accordance with the requirements of regulations 32 of the Ionising Radiations Regulations 2017, both the service engineer and the user will each carry out appropriate checks before returning equipment back to the user for routine use. A Customer handover form must be completed to transfer responsibility for a controlled area and equipment to service engineer prior to the commencement of work. This will be used to identify any known hazards that exist with the equipment or environment (including non-radiation issues) such that the service company is able to perform the necessary risk assessments:

5.2 Requirements under IRMER 2017

In addition, under regulation 15 of IRMER 2017 the Trust must undertake adequate -

(a) testing of any equipment before it is first used for a medical radiological purpose;

(b) performance testing at regular intervals;

(c) performance testing following a maintenance procedure which is capable of affecting the equipment's performance.

6. RISK ASSESSMENTS

The Trust is committed to ensuring the safety of patients, staff and the public through the integrated management of all aspects of governance and risk.

The Trust 'Risk Management Strategy' is described in an "umbrella" document that defines the strategic direction for risk management in the Trust. It describes the framework and the method that the Trust will use to identify, manage and reduce the risks (actual or potential) which exist within the organisation, (see Risk Identification, Assessment and Management Policy – CORP/**RISK 30).**

The Management of Health and Safety at Work Regulations 1999, Regulation 3(6), requires that you should make a suitable and sufficient assessment of all of the significant risks associated with all hazardous work based tasks and activities. Before commencing a new work activity, radiation risk assessments are required that identify the radiation hazards present and evaluate the extent of the risks involved, i.e. see IRR 2017 Regulation 8.

7. HEALTH SURVELLANCE AND MEDICAL EXAMINATION

A medical examination will be made available to any patient or employee following a reported incident involving a suspected over-exposure and when an investigation shows that the employee has been exposed predetermined levels of Ionising Radiation and Non-ionising radiations. The individual's health record will be made and kept up to date and will contain a summary of the results of the medical examination. Continued Health Surveillance will be made available if appropriate.

Anyone exposed to ionising radiations as a result of work activities must decide when such an employee needs to be designated as a classified person (see IRR 2017 regulation 21).
After the initial medical examination conducted before an individual's designation as a classified person (regulation 25(2) and regulation 25(3)), periodic reviews of health should take place at least once every year. The relevant doctor may specify a shorter period between reviews.

8. MONITORING COMPLIANCE WITH THE PROCEDURAL DOCUMENT

The implementation and effectiveness of this Policy will be monitored through the aforementioned groups and committees:

- The Medical Imaging Department will implement procedures for the monitoring of staff and patient doses to ensure that adequate and effective controls are in place;

- The Clinical Governance Sub Group (Radiation) will performance manage the implementation of Trust/Care Group Governance Action Plans, which will include risk issues;

- Significant risks (i.e., those risks with a score of 15 or more) escalate the risk assessment and action plan to the Management Board (via the Head of Corporate Affairs)

The RPA is responsible for providing the advice and information regarding any changes in legislation that is used during the periodic review of the policy. The Trust's Radiation Safety Committee is responsible for the approval of this 'Ionising and Non-Ionising Radiation Safety Policy document'. Monitoring of this policy will be the responsibility of the members of the RSC.

Local rules and Risk Assessment will be reviewed at least every two years by the RPS/LPS /department manager. The assessor will be responsible for ensuring that the manager receives feedback so that he/she can deal with any issues.

Risk Assessments referred to a department's management team will be reviewed, monitored and acted upon.

RSC meeting attendance (and non-attendance) will be recorded and monitored by an individual's line manager and discussed through the PDA system.

Training course attendance (and non-attendance) will be recorded and monitored by an individual's line-manager through the PDA system. The line manager of the recorded non attendees will be sent a letter informing them of the staff members failure to attend training and a further training date arranged.

In the event of persistent non attendees the responsible manager will contact the staff member's line manager and develop an action plan to ensure this training takes place in a timely manner.

What is being Monitored	Who will carry out the Monitoring	How often	How Reviewed/ Where Reported to
Current Legislation	RPA/LPA	Every two years or when deemed appropriate by the RPA/LPA	Change in Policy reported to ORSC/RSC Groups
Risk Assessments	RPS/LPS/Manager/ RPA/LPA	Every two years or in response to a change in working practice	LPS/RPS/RPA/LPA Self-Assessment. Actions reported to RSC/ ORSC and Service managers.
Local Rules	RPS/LPS	Every two years or in response to a change in working practice.	LPS/RPS/RPA/LPA Self-Assessment and Service managers.
RSC/ORSC Meeting Attendance	Chair of RSC/ ORSC through group secretary	Every year	Line Manager at PDA with reference to minutes from RSC and ORSC meetings.
RPS/LPS Update Training	Manager/LPA/RPA	Every two years	Line Manager at PDA/RSC with reference to the minutes from RSC and ORSC meetings and OLMS training records.

Under IRMER 2017, Operator and Practitioner training records will be kept by the Medical Imaging Department's Head of Service via the Clinical Governance and Education Manager.

9. DEFINITIONS

CPD	Continuous Professional Development
DATIX	Web based system for reporting incidents.
OLMS	Oracle Learning Management System
ORSC	Optical Radiation Safety Committee
LPA	Laser Protection Adviser
LPS	Laser Protection Supervisor
RPA	Radiation Protection Adviser
RPS	Radiation Protection Supervisor
RWA	Radioactive Waste Adviser
MPE	Medical Physics Expert
IRR99	Ionising Radiation Regulations 2017
MHSWR	Management of Health and Safety at Work Regulations 1999
EPR2016	Environmental Permitting Regulations 2016
COARR	Control of Artificial Radiations Regulations 2010
IRMER	Ionising Radiation [Medical Exposure] Regulations 2017
NIR/IR	Non-ionising Radiation - refers to any type of electromagnetic radiation that does not carry enough energy to ionise atoms, ionising radiation can ionise atoms.
PDA	Performance Development Appraisal
PPE	Personal Protective Equipment
RSC	Radiation Safety Committee

10. ACCOUNTABILITY FRAMEWORK

- The Trust's Board of Directors
- The Trust's Clinical Governance and Quality Committee.
- The Trust's Radiation Safety Committee
- Departmental Business/Service managers
- Radiation Protection Supervisors

11. EQUALITY IMPACT ASSESSMENT

An Equality Impact Assessment (EIA) has been conducted on this procedural document in line with the principles of the Equality Analysis Policy (CORP/EMP 27) and the Fair Treatment for All Policy (CORP/EMP 4).

The purpose of the EIA is to minimise and if possible remove any disproportionate impact on employees on the grounds of race, sex, disability, age, sexual orientation or religious belief. No detriment was identified. (Please see Appendix 11).

12. ASSOCIATED TRUST PROCEDURAL DOCUMENTS

1. Medical Devices Management Policy - CORP/**PROC 4**
2. Medical Equipment Training for Trust Staff - CORP/**RISK 2**
3. Risk Identification, Assessment and Management Policy – CORP/**RISK 30**
4. Optical Radiation Policy - **CORP/HSFS 9.**
5. Medical Imaging Service Referral for Imaging by Non-Medical Staff Policy - **PAT/T 1**
6. Fair Treatment for All Policy – **CORP/EMP 4.**
7. Equality Analysis Policy – **CORP/EMP 27.**

13. REFERENCES

1. The Personal Protective Equipment Regulations 2002
2. Control of Artificial Optical Radiations 2010
3. Management of Health and Safety at Work Regulations 1999
4. Environmental Permitting Regulations 2016
5. The Ionising Radiation [Medical Exposure} Regulations 2017
6. The Ionising Radiation Regulation 2017

APPENDIX 1 - STATEMENT OF DUTIES OF THE EMPLOYER

While every attempt has been made to include as many of the employer's responsibilities as possible, the list in this Appendix is not necessarily exhaustive. Guidance has been issued jointly by the Health and Safety Executive, (HSE) and the Health Departments as *the Regulatory Requirements for Medical Exposure to Ionising Radiation: An Employer's Overview HSG22.*

The employer will need advice from the RPA from the issues contained in this appendix, although items 27-45 may lie in the domain of the MPE.

Before starting work with ionising radiation:

1. Make a prior risk assessment before starting a new radiation activity; establish suitable dose constraints for the restriction of exposure of each category of person likely to be exposed.

2. Obtain prior authorisation, either in generic or specific individual form, for the use of X-ray equipment for research or medical treatment.

3. Notify the HSE before radiation work is undertaken for the first time, or if any material changes are made to a previous notification.

4. Obtain Permit under EPR 2016 or an exemption and conform to its conditions, if keeping, using or disposing of radioactive substances.

5. Prepare contingency plans and incorporate them in local rules if the risk assessment shows that an accident is reasonably foreseeable.

On commencing radiation work:

6. Consult and appoint one or more suitable Radiation Protection advisers (RPA), providing adequate information and facilities for this function (Appendix 2).

7. Designate as appropriate the necessary controlled and supervised areas (to be described in local rules) with the necessary monitoring and controls (demarcation, signs, restricted access, systems of work, written arrangements, etc.) to provide adequate protection from external radiation and radioactive contamination, including washing and changing facilities as required.

8. Provide suitable and sufficient monitoring equipment and arrange for its maintenance and testing; ensure records of tests of monitoring equipment made by a qualified person are kept.

9. Ensure records of monitoring of designated areas are kept.

10. Obtain information from the manufacturer and installer about the proper use, testing and maintenance of radiation equipment after its critical examination, and involve the RPA.

11. Ensure the necessary steps are taken to restrict exposures to ionising radiation for staff, patients and others who may be exposed, setting investigation levels and providing written arrangements if necessary.

12. Demonstrate commitment to radiation protection through a written radiation safety policy, the establishment of a radiation protection committee and by clear management lines, clear actions and the involvement of senior staff.

13. Provide sufficient engineering controls, design features, safety features and warning devices to restrict exposures as far as is reasonably practicable, and ensure that these are properly maintained and tested at suitable intervals.

14. Ensure personal protective equipment is provided, worn and maintained as appropriate, after all other measures have been considered.

15. Provide relevant local rules in compliance with the legislation, appointing radiation protection supervisors (RPS) as necessary to ensure the local rules are implemented.

16. Ensure that all employees (including RPS) are given appropriate radiation protection training sufficient to understand the risks and precautions needed, including female workers who may be pregnant or breastfeeding.

17. Co-operate with other employers concerning exposure of others, as appropriate.

18. Designate classified persons, if necessary, and provide appropriate radiation monitoring and medical surveillance (health record); inform all persons when they are designated as classified persons.

19. Provide personal radiation monitoring and dosimetry records as necessary; ensure that the results of personal monitoring are kept under review (as low as reasonably practical; ALARP) and that any unusual results are investigated.

20. Ensure that dose limits are not exceeded, including those for pregnant and breastfeeding staff.

21. Investigate and notify to the HSE overexposures received by staff, respecting subsequent dose limitations, and medical exposures that are significantly greater than intended resulting from an equipment malfunction or defect.

22. Review procedures periodically, preferably with the support of the radiation protection committee.

On using radioactive substances:

23. Ensure radioactive substances in use are sealed wherever practicable to prevent leakage. Where this is impracticable, the substance should be contained to prevent leakage in so far as is practicable, keeping records of appropriate leakage tests in both cases.

24. Account for and keep records of the quantity and location (including ultimate disposal) of all radioactive substances.

25. Ensure radioactive substances are suitably contained and stored when not in use.

26. Ensure radioactive substances are suitably contained and labelled when in transit.

On making medical exposures:

27. Determine locally those who are the referrers, Ionising Radiation (Medical Exposure) Regulations 2017, (IR(ME)R) practitioners, operators and Medical Physics Experts (MPE) in diagnostic radiology, diagnostic nuclear medicine and therapy nuclear medicine.

28. Maintain records (available for inspection) of the training and continuing education of the above practitioners and operators, even when they are practising on contract at a site belonging to another radiation employer.

29. Ensure an MPE is available in diagnostic nuclear medicine practices and closely involved with all therapeutic nuclear medicine.

30. Ensure an MPE is involved as appropriate for consultation on optimisation, including patient dosimetry and quality assurance (QA) and other radiation protection advice concerning medical exposure, in all other radiological practices not covered in paragraphs 30 and 31.

31. Ensure written protocols are in place for every type of standard radiological practice for each piece of equipment and a current inventory of equipment is kept for and at each radiological installation, ensuring the amount of equipment is limited to that necessary for the proper carrying out of medical exposures.

32. Establish QA programmes for standard operating procedures.

33. Establish recommendations concerning referral criteria for medical exposure, including radiation doses, and ensure these are available to the referrer.

34. Establish local diagnostic reference levels, undertake reviews and ensure corrective action is taken as necessary.

35. Establish dose constraints for research programmes where no direct medical benefit for the individual is expected from the exposure.

36. Ensure a clinical evaluation of the outcome of each medical exposure, including factors relevant to the patient dose, is recorded.

37. Ensure clinical audit is carried out in accordance with national procedures.

38. Implement written procedures (as specified in Schedule 1 of IR(ME)R [3] and reproduced here) and ensure these are complied with by the IR(ME)R practitioners and operators:

    (a) to correctly identify the individual to be exposed to ionising radiation,

    (b) to identify individuals entitled to act as referrer or IR(ME)R practitioner or operator,

    (c) to be observed in the case of medico-legal exposures,

    (d) for making enquiries of females of childbearing age, to establish whether the individual is or may be pregnant or breastfeeding,

    (e) to ensure that QA programmes are followed'

    (f) for the assessment of patient dose and administered activity'

    (g) for the use of diagnostic reference levels for radiodiagnostic examinations'

    (h) for determining that research programmes are conducted on informed volunteers, subject to dose constraints when no direct medical benefit is expected, or subject to individual target levels of dose for patients who are expected to benefit from the exposure,

    (i) for the giving of information and written instructions to patients undergoing treatment or diagnosis with radioactive medicinal products,

    (j) for the carrying out and recording of a clinical evaluation for each medical exposure including, where appropriate, factors relevant to the patient dose, and

    (k) to ensure that the probability and magnitude of accidental or unintended doses to patients from radiological practices is reduced so far as reasonably practicable.

39. Make an investigation of any incident involving a suspected or actual medical exposure that is significantly greater than intended (other than an incident resulting from an equipment malfunction (see paragraph 21) and notify the appropriate authority if the exposure has indeed occurred, with a detailed investigation.

40. Review procedures periodically, preferably with the support of a medical exposures committee.

On using equipment for medical exposure:

41. Ensure that the equipment available for the range of examinations or treatments using ionising radiation is appropriate and is not used for procedures for which it is not suitable.

42. Ensure that the equipment is maintained in a manner consistent with the manufacturer's recommendations, to ensure that medical exposures are ALARP, and compatible with the intended clinical purpose or research objective.

43. Ensure that new or replacement diagnostic X-ray equipment is provided with a suitable means of indicating the quantity of radiation produced during a radiological procedure.

44. Draw up a suitable QA for the radiation equipment, having consulted the RPA and MPE.

45. Identify, provide, maintain and calibrate appropriate test equipment as part of the QA programme.

APPENDIX 2 - STATEMENT OF DUTIES OF THE RADIATION PROTECTION ADVISER (RPA)

The radiation protection adviser (RPA) is an individual or corporate body that meets the criteria of competence specified by the HSE and, for ongoing consultation, is appointed in writing by a radiation employer, IRR17 regulation 14(1) – (3). The appointment includes the scope of the advice that is required as appropriate on the following matters (IRR 2017, Schedule 4). Where necessary an RPA will report directly to the Chief Executive's office.

The scope of advice is drawn up and agreed by the employer and RPA when making the appointment.

1. The specification of requirements as to controlled and supervised areas.

2. The prior examination of plans for installations and the acceptance into service of new or modified sources of ionising radiation in relation to any engineering controls, design features, safety features and warning devices provided to restrict exposure to ionising radiation.

3. The regular calibration of equipment provided for monitoring levels of ionising radiation and the regular checking that such equipment is serviceable and correctly used.

4. The periodic examination and testing of engineering controls, design features, safety features and warning devices and regular checking of systems of work, including any written arrangements provided to restrict exposure to ionising radiation.

The RPA will be consulted on the following matters.

5. Risk assessments, and contingency plans if necessary.

6. The form and content of local rules for each designated controlled or supervised area.

7. The conduct of investigations and subsequent reports as necessary.

8. Staff and pubic dose assessments and recording, including personal and area monitoring.

9. The selection and use of appropriate personal protective equipment.

10. Critical examinations of newly installed or repaired equipment and articles for work with ionising radiation.

12. Arrangements for outside workers.

13. Staff training as appropriate for classified persons, outside workers, those who enter controlled areas under written arrangements, other staff as necessary, safety representatives, radiation protection supervisors, staff undertaking monitoring, supervisors and managers with specific radiation responsibilities.

14. Information and instructions for pregnant and breastfeeding employees.

15. Radiopharmacy design and associated protocols in conjunction with the radiopharmacist.

16. Training for emergencies.

APPENDIX 3 - STATEMENT OF DUTIES OF THE LASER PROTECTION ADVISER (LPA)

Introduction

The Laser Protection Adviser (LPA) is an individual that meets the criteria of competence specified by the HSE and for ongoing consultation, is appointed in writing by a radiation employer.

The scope of advice is drawn up and agreed by the employer and LPA when making the appointment.

1. To provide an LPS with support, information and advice and on the management of risk.

2. The specification of requirements as to controlled and supervised areas.

3. The prior examination of plans for installations and the acceptance into service of new or modified sources of optical radiation in relation to any engineering controls, design features, safety features and warning devices provided to restrict exposure to non-ionising radiation.

4. Advice on the calibration of equipment provided for monitoring levels of optical radiation and the regular checking that such equipment is serviceable and correctly used.

5. Advice on the periodic examination and testing of engineering controls, design features, safety features and warning devices and regular checking of systems of work, including any written arrangements provided to restrict exposure to optical radiation.

The LPA will be consulted on the following matters.

6. Risk assessments, and contingency plans if necessary.

7. The form and content of local rules for each designated controlled or supervised area.

8. The conduct of investigations and subsequent reports as necessary.

9. The selection and use of appropriate personal protective equipment.

10. Critical examinations of newly installed or repaired equipment and articles for work with non-ionising radiation.

11. Quality assurance programmes for non-ionising radiation equipment.

12. Staff training.

13. Updating of the laser safety policy, local rules and associated documentation.

14. The design of engineering and procedural controls for sound laser safety management

APPENDIX 4 – STATEMENT OF DUTIES OF THE MEDICAL PHYSICS EXPERT (MPE)

The Medical Physics Expert is an individual that meets the criteria of competence specified by the Department of Health and is appointed by the Trust. The appointment includes the scope of the advice that is required under regulation 14 of IRMER 2017. The MPE must be available to contribute to the following issues.

1. Optimisation of the radiation protection of patients and other individuals subject to exposures, including the application and use of diagnostic reference levels.

2. The definition and performance of quality assurance of the equipment.

3. Acceptance testing of equipment.

4. The preparation of technical specifications for equipment and installation design.

5. The surveillance of the medical radiological installations.

6. The analysis of events involving, or potentially involving, accidental or unintended exposures.

7. The selection of equipment required to perform radiation protection measurements.

8. The training of practitioners and other staff in relevant aspects of radiation protection.

9. The provision of advice to an employer relating to compliance with these Regulations.

The MPE will also give advice on the following subjects.

10. Dosimetry and quality assurance matters relating to radiation protection concerning Exposures.

11. Physical measurements for the evaluation of dose delivered.

12. Medical radiological equipment.

APPENDIX 5- STATEMENT OF DUTIES OF THE RADIOACTIVE WASTE ADVISER (RWA)

The Trust is required to have a management system, organisational structure and resources, which are sufficient to achieve compliance with the limitations and conditions specified in the Permits issued under the Environmental Permitting Regulations, (EPR16). The Radioactive Waste Adviser is a certified individual that meets the criteria of competence specified by the Environment agency, for ongoing consultation, is appointed in writing by the Trust. The appointment includes the scope of the advice that is required as appropriate on the following matters.

The scope of advice is drawn up and agreed by the employer and the RWA when making the appointment.

1. The use of Best Available Techniques (BAT) to minimise the amount of radioactive waste requiring disposal and reduce its radiological impact on the environment and members of the public.

2. The keeping and use of radioactive materials listed in the Trust's Permit issued under EPR16.

3. The accumulation and disposal of radioactive waste materials listed in the Trust's Permit issued under EPR16.

The following list of duties will be supervised by the RWA.

4. To provide a record that demonstrates the location of both open and closed sources whilst held on the premises.

5. To help the relevant RPS monitor and keep records of the date, quantity, route and activity of removal of radioactive waste from the premises.

6. To help the relevant RPS ensure that the total activity on the premises at any time is within the limits that are specified in the Trust's Permits.

7. To help the relevant RPS ensure that all sites acting under the conditional exemptions from the requirement to hold an environmental permit in respect of certain radioactive substances. This is to satisfy the conditions that must be met if they are to remain exempt from the requirement for a permit as listed in Section 7 of Schedule 23 within EPR16.

8. If required, to undertake radiological impact assessments prior to any application to the Environment agency for permission to use, hold, accumulate and dispose of radioactive materials. To specify and select and then justify the environmental consequences of the chosen routes for disposal.

9. To advise on the security and conditions under which the radioactive materials are stored are adequate and well maintained.

10. To provide an annual report to the Environment agency, for entry on to the Pollution Inventory Reporting, in respect of discharges of aqueous waste, transfer of solid waste for incineration and any other disposal route specified as part of the Trust's Permit.

The following list of duties may be undertaken by a RPS who is responsible for the control of radioactive materials.

11. The RPS has responsibility to duly complete and maintain clear and up to date records for compliance purposes in respect of all relevant limits and conditions.

12. The RPS will ensure records are adequately collated to represent activities on site as a whole, such that individual record keeping within departments does not result in a breach of an authorised limit once the records are totalled together as required for compliance purposes.

13. The RPS will immediately inform the RPA if any authorised limit has, or is about to be, exceeded. The RPA will initiate an urgent investigation to establish the facts before reporting to the relevant authorities without undue delay in the event that a statutory reporting requirement is necessary.

14. In the event that the RPA is unavailable, the Chief Executive will undertake the necessary action, either personally or by delegation.

15. The RPS will present a written and verbal report to the RSC on a six monthly basis. In the event that the RPS is unable to attend the meeting, a duly briefed representative must be delegated to attend on their behalf and speak to the report.

APPENDIX 6 - STATEMENT OF DUTIES OF A RADIATION PROTECTION SUPERVISOR (RPS)

Duties of an RPS under Regulation 18 IRR 2017

To supervise the work with ionising radiation in the area to which the RPS appointment relates and ensure it is carried out in accordance with the local rules.

1. To specifically ensure any work instructions relevant to restriction of exposure or entrance to controlled areas are brought to the attention of persons who need to be advised.

2. To keep under review any supervised radiation areas and advise the radiation employer (through the RPA) should it be necessary to re-designate such areas.

3. To participate in rehearsals of contingency arrangements, where relevant.

4. To observe from time to time, all procedures involving exposure to ionising radiation in areas where the RPS has a supervisory role, to ensure working practices are consistent with any documented work instructions aimed at ensuring doses remain as low as reasonably practicable (ALARP).

5. To ensure that relevant sections of the local rules and the Trust Radiation Safety Policy are brought to the attention of those who may be affected.

Additional Duties under Regulation 5 of MHSWR 1999

The following additional arrangements for supervision are necessary to comply with the general duty under regulation 5) of the Management of Health and Safety of Work Regulations 1999, (MHSWR). These duties are indicative of those that may be undertaken by the RPS. Any RPS will be appointed by the Trust in writing, see the Approved Code of Practice, (ACOP) 18(5) and see paragraph 4.9.3 shown above. Any additional management duties will be delegated to the RPS by their line-manager.

1. To supervise the issue, wearing, collection and return of personal monitoring dose meters at the appropriate time, where relevant.

2. To assist the employer in performing risk assessments including those for pregnant and breast-feeding staff, where relevant. The risk assessment will normally be reviewed biannually or following a change in working practices or relevant legislation. An incident or near miss should also prompt a review of the risk assessment. The outcome of any review should be documented, even if no amendments were required at the time of the review.

3. To assist, in consultation with the Laboratory/Department /Section Manager and the RPA, in the production of Local Rules. The Local Rules should be subject to an annual review.

They should also be reviewed following changes in working practices, legislation or the risk assessment.

4. To assist the employer in the development of contingency plans and to ensure that all staff are able to implement them effectively.

5. To ensure that staff receive such information and training as is necessary for them to carry out their work in accordance with the regulations, and that new employees read and understand the relevant sections of the Local Rules.

6. To attend and to arrange and encourage the attendance of other staff, on specific training lectures and/or courses relevant to the radiation protection aspects of their work.

7. To ensure that in consultation with the Laboratory / Section / Department Manager and the RPA, that all workers likely to be exposed to radiation are informed of the potential hazards.

8. To encourage female staff to promptly inform the RPS or the employer if they are pregnant or breast feeding and to ensure that such staff are made aware of any necessary work restrictions.

9. To ensure that any investigations required under the Local rules, MHSAW Regulations or IR(ME)R 2017 (as applicable) or as requested by the RPA, are completed and appropriately reported.

10. To notify the RPA of any significant changes in procedure, equipment, technique, the working environment, or new projects which could affect radiation safety.

11. Where relevant, to ensure that radionuclide stock is appropriately controlled, that radioactive waste is appropriately accumulated and removed from the laboratory, and that records of these activities are clear, legible and up to date.

12. Where relevant, to supervise the carrying out of contamination monitoring on a regular basis and the recording of the results, with due reference to any permissible contamination limits recommended for the working area. This requirement extends to the requirement for two yearly leak testing of sealed sources, where applicable.

13. Where relevant, as advised by the RPA, to maintain and keep available for inspection, records of: contamination monitoring, investigation reports, stock control, waste disposal, permit to work, personal monitoring records, transport consignment notes etc. as relevant.

14. To supply the RPA on request and at least annually, with a record of active waste disposals, as appropriate.

15. Where relevant, to ensure that all radiation monitors in the department are subject to an annual test and examination.

16. To ensure that any necessary action required by reports of the RPA is followed up.

17. To ensure any engineering or physical radiation control measures are appropriately supplied and functioning e.g. door interlocks, fume cupboards, warning lights/signs, PPE etc.

18. To play a role in equipment quality assurance in order to help maintain optimisation of exposures and to act in a timely manner to report any suspected equipment problem consistent with documented QA procedures.

19. To liaise with staff from other departments or outside workers/contractors where relevant, in respect of issue of permits to work, to ensure that they do not unknowingly put themselves at risk and are aware of relevant systems of work.

20. To make an appropriate entry into the radiation passbook of an Outside Classified Radiation Worker, where you have been appropriately trained.

21. To arrange for the monitoring of Controlled Areas before allowing cleaners or tradesmen to enter, in accordance with the system of work.

22. To supply the RWA on request and at least annually with a record of radionuclide use and waste disposal, in accordance with IRR 2017, and in conditions of Permits, under EPR 16.

23. To ensure that an effective QA programme is maintained for all the counting equipment held within the Nuclear Medicine Department, and that records of the QA are available for inspection by the Health and Safety Inspectors and IRMER Inspectors.

24. To ensure that all radiation monitors in the department's care are regularly checked and calibrated annually, under the guidance of the RWA.

APPENDIX 7 - CLINICAL GOVERNANCE SUB – GROUP (RADIATION)

Terms of Reference

Statement of Scope and Purpose

The Clinical Governance Sub-Group (**Radiation**) will meet on a monthly basis. The meetings will be held on the first Tuesday of every month. Minutes will be presented to the Medical Imaging Clinical Governance Group.

The Radiation Group (incorporating Ionising Radiations (Medical Exposures) Regulations 2017 and the Ionising Radiation Regulations (2017) will have the following membership:

Membership

The committee shall comprise:

- Head of Service
- IRMER/Radiation Lead Radiographer
- RPS – Nuclear Medicine
- Medical Imaging Clinical Governance and Education Manager
- Radiation Protection Advisers
- Operational Managers
- Health and Safety Lead Radiographer
- QA Lead Radiographer
- Radiation Protection Supervisors – (Plain Film and Nuclear Medicine, Mammography, CT scanning and Interventional Radiology)
- Medical Physics Experts

The Clinical Governance and Education Manager will act as Chair and Elective Operational Manager the Vice - Chair.

Meeting Arrangements

The Radiation Group will only be deemed quorate when the following requirements are met:

- The Chair and/or Vice-Chair are present. There are five members of the Group in attendance, including the Chair and/or Vice-Chair

It will be the responsibility of the Chair and/or Vice-Chair to declare the meeting void if it does not fulfil the above quorate arrangements. In their absence, the Elective and the Acute Operational Managers within Medical imaging will hold the responsibility.

Duties

- The Radiation Group will be responsible for the continued implementation of the IR(ME)R Procedures and Protocols in line with current legislation, and provide guidance and training to referrers, practitioners and operators.

- The Radiation Group will be responsible for Quality Assurance documentation and setting, and standardisation of Local Dose Reference Levels across all imaging sites in the Trust.

- The Radiation Group will review and investigate untoward radiation incidents and near-misses and any examinations where Local Dose Reference Levels were exceeded without valid explanation. The relevant personnel will be informed as appropriate.

- The Radiation Group will be responsible for assessing all proposals from Non-Medical Referrers, PAT/T 1 - Policy for Referral for Imaging by Non-Medical Staff, including those relating to ultrasound and MRI. Radiation Awareness Training will be provided by the Care Group.

Communication

To ensure sharing of information with regards to all aspects of radiation safety, the agendas, minutes and supporting documentation will be circulated as follows:

- Medical Imaging Clinical Governance Group
- Radiation Protection Adviser / Medical Physics Expert / Nuclear Medicine.
- Radiation Protection Adviser / Medical Physics Expert / Radiology

The Radiation Group will review the radiation awareness implications of future developments within the Directorate using guidance from:

- Ionising Radiation (Medical Exposure) Regulations 2017
- Ionising Radiations Regulations 2017
- The CQC
- The Health and Safety Executive
- The Environment Agency
- IPEM 91

Accountability

Accountability Framework for the Radiation Group is as follows:

- The Trust's Board of Directors
- The Trust's Clinical Governance and Quality Committee.
- Radiation Safety Committee
- Medical Imaging Clinical Governance Group
- Management Team
- Radiation Protection Supervisors – See Appendix 10 below.

APPENDIX 8 - RADIATION SAFETY COMMITTEE

Terms of Reference

Statement of Scope and Purpose

As part of the management and communication framework for Health and Safety within the Trust, the Committee shall assist the Chief Executive to comply with all relevant legislative requirements relating to the use of ionising and non-ionising radiations.

The Radiation Safety Committee has responsibility for the following areas:

- Drawing up and ensuring implementation of systems for the safeguarding of radioactive materials, safe disposal of radioactive waste.
- Advising the Trust/other employees on appropriate radiation safety matters.
- Audit, inspect and perform such tests as necessary and issue an annual report.
- Ensuring radiation risk assessments are performed and reviewed and implemented.
- Ensuring policies and procedures relating to Radiation are in place and reviewed regularly.

Membership

The committee shall comprise:

- Assistant Care Group Director for Diagnostics and Pharmacy Care Group
- ARSAC Licence holder Nuclear Medicine
- General Manager for Diagnostics and Pharmacy Care Group
- Head of Service, Medical imaging
- IRMER/Radiation Lead Radiographer
- Radiation Protection Supervisors
- Medical Imaging Clinical Governance and Education Manager
- Radiation Protection Advisers
- Operational Managers, Medical imaging
- Health and Safety Lead Radiographer
- QA Lead Radiographer
- Radiation Protection Supervisors – (Plain Film and Nuclear Medicine, Mammography, CT scanning and Interventional Radiology)
- Medical Physics Experts
- Laser Protection Adviser appointed by the Trust

and additional members as the Committee may decide.

The Clinical Governance and Education Manager will act as the Chair and the Head of Service Manager for Medical imaging the Vice Chair.

Meeting Arrangements

Quorum

The Radiation Committee will only be deemed quorate when the following requirements are met:

- The Chair and/or Vice-Chair are present and there are five members of the Group in attendance, including the Chair and/or Vice Chair

It will be the responsibility of the Chair and/or Vice-Chair to declare the meeting void if it does not fulfil the above quorate arrangements.

Frequency

The committee shall meet twice a year at a place and time as decided by the committee. The minutes of meetings and the RPA reports will be circulated to the Chief Executive and the Head of Risk and Legal Services.

Attendance

In the event of foreseen but unavoidable absence from a meeting, the committee member should identify and fully brief a competent member of the department to attend in his/her place.

Duties

The following Core Duties will be undertaken by the group:

- to receive reports from the Radiation/Laser Protection Advisers on any unsatisfactory conditions and to advice on measures to be used to remedy them,
- to receive reports from the RPS and other supervisors on the implementation of Local Rules and on the disposal of radioactive substances,
- to consider the progress reports of Radiation Protection Advisers and Radiation Protection Supervisors and decide on appropriate action as necessary,
- to inform the Chief Executive when necessary, but at least once every 12 months, of measures to be taken to secure compliance with relevant legislation.
- As part of the Trust framework for the protection of patients, liaise on relevant topics with the Clinical Governance Standards Committee.

Matters of Legislative Compliance

Matters of legislative compliance that will be considered by the committee and will include but not be limited to:

- The designation of radiation controlled and supervised areas.

- The completion of prior risk assessments.
- The training and instruction of staff.
- The monitoring of staff doses and the designation of classified workers.
- The appointment of Radiation Protection Advisers and Radiation Protection Supervisors.
- Local rules, written systems of work and contingency plans.
- The safe use, security, safekeeping, disposal, movement and transport of unsealed and sealed radioactive substances.
- Written procedures for the protection of patients undergoing diagnostic and therapeutic procedures involving ionising and non-ionising radiation.
- The installation, maintenance, quality assurance and safe use of radiation generating equipment and equipment that can affect the exposure of patients to radiation.
- Diagnostic reference levels relating to patient radiation doses.
- The protection of members of the public exposed to radiation as a result of their contact with or support/care of patients.
- The annual return of disposal of radioactive waste
- Monitoring of ARSAC certificates
- Radiation incident reporting

Accountability Framework

The Accountability Framework is as follows:

• The Trust's Board of Directors
• The Trust's Clinical Governance and Quality Committee.
• The Trust's Radiation Safety Committee
• Departmental Service managers
• Radiation Protection Supervisors

APPENDIX 9 - THE OPTICAL RADIATION HEALTH & SAFETY COMMITTEE

Terms of Reference

Scope

The Optical Radiation Safety Committee has a duty to report to the Trust's Radiation Safety Committee, to produce guidelines and establish new protocols for quality assurance and safety. Our remit is to act as a platform for the delivery of advice on Optical radiation and to implement and respond to new legislation and standards. This group is responsible for the approval of the 'Policy for the Safe Use of Optical Radiation within the Trust'.

The committee shall comprise:-

- Clinical Leads/Departmental Managers
- The Manager for Medical Technical Services
- The Laser QA Technician (Medical Technical Services)
- Laser Protection Adviser, (LPA) appointed by the Trust
- Health and Safety Advisers appointed by the Trust
- Laser Protection Supervisors, (LPS) appointed by the Trust

and such additional members as the Committee may decide.

A Clinical Lead/Departmental Manager will act as Chair and the Manager for Medical Technical Services as the Vice Chair.

Meeting Arrangements

The committee will only be deemed quorate when the following requirements are met:

The Chair and/or Vice-Chair are present

There are five members of the Group in attendance, including the Chair and/or Vice Chair

It will be the responsibility of the Chair and/or Vice-Chair to declare the meeting void if it does not fulfil the above quorate arrangements.

The committee shall meet once a year at a place and time as decided by the committee.

Minutes of meetings shall be circulated to those who are present and those invited to the meeting, the Assistant Care Group Director for the Diagnostics and Pharmacy Care Group, the Head of Service and the Clinical Governance and Education Managers for Medical Imaging and the Chief Executive's Office.

In the event of foreseen but unavoidable absence from a meeting, the committee member should identify and fully brief a competent member of the department to attend in his/her place.

Duties

To discuss information obtained from and to maintain close links with other relevant groups:

- The Medical Healthcare Products Regulatory Agency, (MHRA).
- The Health and Safety Executive, (HSE).
- Public Health England, (PE).
- The National Physical Laboratory, (NPL).
- The Institute of Physics, (IOP).

To encourage professional and practice development,

To provide a focus for the formal reporting of relevant legislation and standards,

To review the terms of reference and effectiveness of the group on an on-going basis,

To provide support to those departments which use non-ionising radiation and work with them on areas of common interest.

To ensure that the Trust's Radiation Safety Committee is aware of any new developments, and to learn from and share information with them,

To receive and ratify operational policies developed within the Trust and by other routes.

Matters of Legislative Compliance

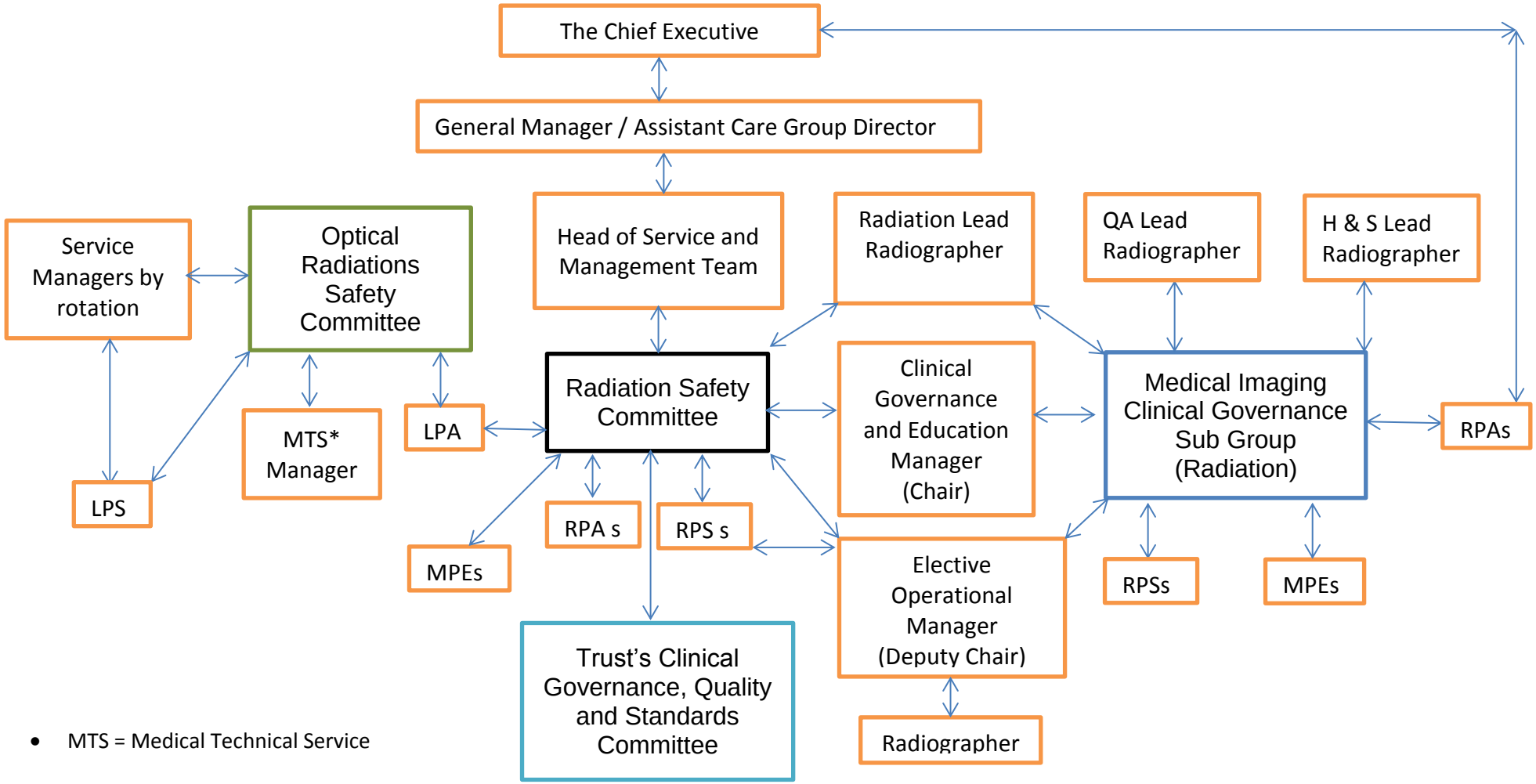
Education, training and matters of legislative compliance that will be considered by the committee will include but not be limited to:

- Physical principles, instrumentation and measurement techniques
- The installation, maintenance, quality assurance, calibration and specification of equipment.
- Safety and biological effects
- Evidence-based medicine
- Diagnostic and therapeutic clinical applications
- Research and effectiveness
- The designation of radiation controlled and supervised areas
- The completion of prior risk assessments
- The training and instruction of staff.
- Local rules, written systems of work and contingency plans.
- Incident reporting

Accountability Framework is as follows:

- The Trust's Board of Directors
- The Trust's Clinical Governance and Quality Committee.
- The Trust's Radiation Safety Committee
- Departmental Service managers
- The Optical Radiation Health & Safety Committee.

APPENDIX 10 – MANAGEMENT FRAMEWORK



- MTS = Medical Technical Service

APPENDIX 11 - EQUALITY IMPACT ASSESSMENT PART 1 INITIAL SCREENING

Service/Function/Policy/Project/ Strategy	CG and Department	Assessor (s)	New or Existing Service or Policy?	Date of Assessment
CORP HSFS 21 v.5 - Policy	The Diagnostics and Pharmacy Care Group – Medical Physics	Peter Thompson	Existing Policy	09/01/2018

1) Who is responsible for this policy? The Diagnostic and Pharmacy Care Group- Medical Physics – Radiation Safety Committee

2) Describe the purpose of the service / function / policy / project/ strategy? Trust-Wide – all users of potentially hazardous Ionising/ Non-ionising Radiations

3) Are there any associated objectives? Yes

4) What factors contribute or detract from achieving intended outcomes? None

5) Does the policy have an impact in terms of age, race, disability, gender, gender reassignment, sexual orientation, marriage/civil partnership, maternity/pregnancy and religion/belief? No

- **If yes, please describe current or planned activities to address the impact**

6) Is there any scope for new measures which would promote equality? No

7) Are any of the following groups adversely affected by the policy?

Protected Characteristics	Affected?	Impact
a) Age	No	
b) Disability	No	
c) Gender	No	
d) Gender Reassignment	No	
e) Marriage/Civil Partnership	No	
f) Maternity/Pregnancy	No	
g) Race	No	
h) Religion/Belief	No	
i) Sexual Orientation	No	

8) Provide the Equality Rating of the service / function /policy / project / strategy – tick (✓) outcome box

Outcome 1 ✓	Outcome 2	Outcome 3	Outcome 4

If you have rated the policy as having an outcome of 2, 3 or 4, it is necessary to carry out a detailed assessment and complete a* **Detailed Equality Analysis form in Appendix 4

Date for next review: **January 2020**

Checked by: A Grierson **Date:** 09/01/2018