Healthier Communities, Outstanding Care

IONISING RADIATIONS SAFETY POLICY

POLICY

Reference	CPG-TW-IRSP		
Approving Body	*Radiation Safety Committee*		
Date Approved	*March 2026*		
For publication to external SFH website	**Positive confirmation received from the approving body that the content does not risk the safety of patients or the public:**		
	YES	**NO**	**N/A**
	X		
Issue Date	*28-April-2026*		
Version	*v5.0*		
Summary of Changes from Previous Version Author to complete	• *Scheduled review/ update – general updates made to names of trust committees/ groups.* • *Various appendices removed as now maintained locally within the Radiology Department as 'associated documents' (see associated documents listed further below). Remaining appendices re-numbered.*		
Supersedes	V4.0, Issued September 2021 to Review Date September 2025		
Document Category	Clinical		
Consultation Undertaken	*Radiation Safety Committee* *Jennifer Poveda, Radiation Protection Advisor*		
Date of Completion of Equality Impact Assessment	*March 2026*		
Date of Environmental Impact Assessment (if applicable)	*Not applicable*		
Legal and/or Accreditation Implications	Regulatory requirement		
Target Audience	Trustwide		
Review Date	*April-2029*		
Sponsor (Position)	Dr James Thomas, Deputy Chief Medical Officer		
Author (Position & Name)	Gillian Asher Deputy Radiography Services Manager Melissa Smith Deputy Radiography Services Manager		
Lead Division/ Directorate	Trust wide		
Lead Specialty/ Service/ Department	Radiology		
Position of Person able to provide Further Guidance/Information	Head of Radiology		

Associated Documents/ Information	**Date Associated Documents/ Information was reviewed**
The following associated documents can be obtained from and are maintained locally within the Radiology Department: 1. Radiation Safety Committee – Terms of Reference 2. Medical Exposures Committee-Terms of reference 3. Procedure for Personal and Environmental Dose Monitoring	1. Annually 2. Annually 3. March 2025

4. Procedure for the Protection of Pregnant and Breastfeeding Staff	4. July 2025
5. Best Available Techniques for the Management and Discharge of Radioactive	5. April 2026
6. Procedure for the Receipt, Accumulation and Disposal of Unsealed Radioactive Materials	6. May 2024
7. Handover Procedure for X-Ray Equipment	7. September 2026

CONTENTS

1.0 INTRODUCTION

The Trust uses ionising radiation from X-ray equipment and radioactive substances in order to benefit patients - directly through diagnostic X-ray tests, intra-operative guidance, Interventional radiology and Nuclear Medicine procedures, as well as indirectly in the maintenance and calibration of associated equipment.

The general principles by which the Trust manages risk are set out in the Trust's Risk Management Policy. The "Ionising Radiations Safety Policy" (IRSP) supports, supplements and clarifies those principles in relation to the use of ionising radiations.

It is supported by a number of documents that give detailed instruction on the means whereby ionising radiation risks are managed.

2.0 POLICY STATEMENT

This policy applies to any use of ionising radiation across the Trust. It does not apply to non-ionising radiations, such as lasers, ultraviolet, visible and infra-red light, ultrasound, microwaves, or electromagnetic fields. Alternative arrangements for the safety of non-ionising radiation sources are managed by the Medical Equipment Management Department. Due to the specialist nature of the policy the consultation has predominantly been drafted by the Radiation Safety Committee, RPS's and the Trust's advisers.

The Trust Board of Directors is committed to minimising risks to patients, staff, visitors, members of the public and contractors from any of the Trust's uses of ionising radiations, adopting the principle of ensuring radiation doses are as low as reasonably practical.

To this end the Board of directors will ensure that adequately resourced structures and systems and processes are in place, and regularly reviewed, in order that:

a. The Trust complies with current legislation and best practice.
b. Only justified practices involving ionising radiation are undertaken (i.e. the benefits to the patient or society outweigh the associated risk).
c. Medical and non-medical exposures are individually justified and optimised (i.e. 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), IR(ME)R must be enforced for all medical exposures.
d. All radiation sources are used appropriately and safely.
e. Radiation doses to staff, contractors and members of the public arising out of work activities are restricted to as low as is reasonably practicable, and within dose limits.
f. There is an appropriate exchange of information with other radiation employers. Commissioning or refurbishment of radiation facilities is done with consultation with a Radiation Protection Adviser. Procurement of medical scanning equipment is done in consultation with an appropriate Medical Physics Expert.

The Trust operates with permission from the HSE. There is a registration for the use of x-ray equipment and consent for the use of radioactive substances.

The Trust stores and uses radioactive material and accumulates and disposes of radioactive waste under environmental permits from the Environment Agency and with permission from the HSE following applications as above. In undertaking these activities, the Trust will use best available techniques to minimise the activity, volume and radiological effects on the environment and members of the public, of any disposal.

3.0 DEFINITIONS/ ABBREVIATIONS

Definitions used in this policy:

The Trust	Means the Sherwood Forest Hospitals NHS Foundation Trust.
Staff	Means all employees of the Trust including those managed by a third party organisation on behalf of the Trust. Staff who work in the Trust as part of an SLA and agency staff.
Ionising radiations	Means X-rays generated by electrical means i.e. diagnostic or therapeutic X-ray equipment, or the radiation from radioactive substances.
Radiation	Means all ionising radiation as far as this policy is concerned
RPA	Radiation Protection Advisor
RPS	Radiation Protection Supervisor
DGM	Divisional General Manager
HSE	Health and Safety Executive
HCPC	Health Care Professions Council

4.0 ROLES AND RESPONSIBILITIES

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 radiation, this responsibility is discharged through designated individuals.

Chief Medical Officer

Within this framework the Chief Medical Officer is responsible for this policy, delegating responsibility for the preparation and implementation of the Ionising Radiations Safety Policy and the associated procedures, structures and processes as follows:

The Divisional General Manager (DGM) for Clinical Services, Therapy and Outpatients (CSTO)

The DGM for CSTO will appoint: Medical Physics Experts (MPE's), Radiation Protection Advisers (RPAs) and Radioactive Waste Advisors, who advise on all aspects of radiation safety. The suitability of appointments will be ensured by seeking the advice of the Trust's External Medical Physics Expert.

The DGM will arrange for services in support of radiation safety to be available through the appointed experts and their colleagues.

Additionally, the DGM delegates responsibility for the formulation of an ionising radiation equipment replacement programme to the Head of Clinical Engineering (MEMD) and the Service Leads for the Department where such equipment is located.

The DGM is advised of the health of workers exposed to radiation by the Occupational Health

Medical Adviser.

Divisional General Managers (DGM)

Control of radiation facilities and departments using ionising radiation: Divisional General Managers in Divisions where radiation practices are undertaken are responsible, where relevant for ensuring that safety the required safety and protection measures are carried out.

Their responsibilities include ensuring that:

- There is suitable Divisional representation at Radiation Safety Committee Meetings.
- Explicit provision for the risk management of radiation and/or radioactive materials is made within their area's governance arrangements.
- Risk assessment is carried out before the introduction of any new practice involving ionising radiation or before the modification of an existing one. Risk assessments are reviewed regularly in line with the Trusts Risk Management Policy. Control measures identified in the risk assessment, for the prevention, mitigation or monitoring of exposures must be acted on.
- Systems for radiation safety, including staff resources, up-to-date local rules and procedures, and appropriate equipment and security measures, are in place. The advice of the RPA must be sought when updating any radiation systems, procedures or local rules and during planning new or modified facilities.
- Staff who take responsibility for, or undertake medical exposures, or supervise the use of radioactive substances are identified. An up-to-date list of their names, training scope and their scope of practice is maintained.
- Staff are adequately trained to fulfill their radiation-related duties and training records are maintained.
- Systems are in place to ensure the safety of carers, visitors and the control of contractors.
- There is appropriate cooperation between employers in circumstances where Trust employees may undertake radiation work at other establishments or there are external radiation workers visiting the Trust working inside a Trust-designated radiation area.
- Trained and experienced person(s) are appointed as Radiation Protection Supervisor (RPS), with the advice of the RPA for all areas using ionising radiation. A copy of the appointment letter, list of duties and acceptance letter will be kept by the department manager. The RPS must complete initial training and receive periodic update training.
- New, replacement, or re-sited radiation equipment must undergo a critical examination and commissioning tests prior to first use.
- Any department where exposures are made, or services utilise ionising radiation must have

documented IR(ME)R employers' procedures. All staff having duties under IR(ME)R must be trained in the IR(ME)R Employers procedures for that department.

- A programme of clinical and compliance audit is carried out, covering management arrangements and all aspects of ionising radiation legislation.

Head of Radiology

- An up-to-date inventory of radiation equipment must be maintained and shared with the Head of Clinical Engineering.
- Where radioactive products are administered to patients that a site ARSAC (Administration of Radioactive Substances Advisory Committee) certificate is in place to cover the work.
- An ARSAC certificate holder acts as the person responsible under IR(ME)R for every administration of a radioactive substance to a patient for medical or research purposes.
- Areas in which radioactive substances are used meet the requirements of the Trust procedures for the control of radioactive substances as part of the Trust's implementation of "Best Available Techniques" for the minimisation of radioactive waste disposal. The Nuclear medicine department will maintain the document identifying these techniques.
- Staff are adequately trained to fulfill their radiation-related duties when using radioactive substances.

All Staff

Staff are required to co-operate with the Trust in implementing this policy. All staff must carry out only activities involving radiation and radioactivity for which they have had appropriate training and only undertake the responsibilities for radiation work outlined in their job descriptions.

Radiation Safety Committee (RSC)

As part of its Risk Management Policy and to implement its Health and Safety Policy the Trust has convened a group of relevant specialist advisers and representatives of ionising radiation users as a sub-committee of the Patient Safety Committee (PSC), which in turn reports to the Quality Committee, and thereby to the Trust Board. The RSC is chaired by the Deputy Chief Medical Officer

The Radiation Safety Committee has the remit of:

- Developing and maintaining a list of roles within the Trust and their range of responsibilities associated with ionising radiation, for the PSC to approve.

- Drafting, reviewing and improving Trust documentation relating to ionising radiation compliance and practice.
- Advising the Quality Committee generally on issues relating to ionising radiation,
- monitoring compliance with Trust policies and procedures in relation to ionising radiation.

Detailed Terms of Reference of the Radiation Safety Committee are maintained by the Chair. They are reviewed and updated on an annual basis as part of the work plan for the committee.

Medical Exposures Committee

The Medical Exposures Committee is established as a sub-committee of the Radiation Safety Committee.

Its purpose is to address matters relating to the use of ionising radiation in the Radiology Department and wider Trust that affects patients. This committee provides regular updates to the RSC.

Detailed Terms of Reference of the Medical Exposures Committee are maintained by/ can be obtained from the Radiology Department. They are reviewed and updated on an annual basis as part of the work plan for the committee.

5.0 APPROVAL

This policy (v5.0) has been approved by the Radiation Safety Committee.

6.0 DOCUMENT REQUIREMENTS (POLICY NARRATIVE)

Documentation and supporting procedures

All written procedures relating to radiation work must be controlled documentation within an appropriate quality system, with a version, issue date and authorising signature on them. All written procedures relating to radiation work must be audited at least once every 3 years, and the results of the audit recorded and reviewed.

Implementation of the Radiation Safety Policy is supported by detailed Trust wide procedures. Appropriate procedures will be developed under the direction of the Radiation Safety Committee and will be ratified by the PSC.

Incident Reporting

Incidents must be reported according to the Trust Incident Reporting Policy and reported on the Trust incident reporting system: Datix. Radiation incidents must be reported to the RPA as soon as possible to provide a dose assessment and advise the Trust on the need for external

reporting to the CQC.

Incidents that may meet the threshold to be reported to the CQC must have a rapid review and be presented at the weekly divisional governance meeting. IR(ME)R Reportable incidents must be investigated by the Division where the incident originated and reported to the Trust Sign Off Meeting as per the process flowchart at Appendix A.

The loss or uncontrolled release of radioactive substances may require prompt reporting to the Police and the Environment Agency. Users of radioactive substances must ensure that they are aware of and follow supplementary procedures in their local rules for these circumstances.

A summary of incidents related to the use of ionising radiation is provided to PSC as part of the annual report.

A table of the process required for reporting radiation safety incidents can be found at *Appendix A.*

External Audit and Inspection

External audits and inspections by the Care Quality Commission, the Health & Safety Executive (HSE) and the Environment Agency may take place from time to time. The outcomes of these audits and inspections will be discussed at the Radiation Safety Committee and reported to the PSC.

Audit

Divisions are responsible for ensuring that clinical audit is undertaken to confirm that good standards practice are demonstrated and to improve the quality and outcome of patient care.

There will be an annual RPA audit of radiation departments that will include the RPS and management representatives and the outcomes from audits will be reported to the Trust Radiation Safety Committee. In addition to the annual RPA audits the department has a yearly audit programme combined with both radiation and clinical audits.

The management of radiation safety is audited every three years.

Research Exposures

Exposures carried out for the purposes of research studies require the authorisation of a Medical Physics Expert, prior to the study starting. It is the responsibility of the Chief or Principal Investigator to obtain such authorisation.

Procedures for the governance of radiation within research are held by the R&D Department. Chief and Principal Investigators are responsible for ensuring that these procedures are followed.

The Policy will be published on the Trust Intranet site. Additionally, areas designated as operating a radiation facility will ensure that all relevant staff are made aware of the policy, with local managers ensuring that distribution and awareness is commensurate with the level of

knowledge required regarding specific policy areas.

7.0 MONITORING COMPLIANCE AND EFFECTIVENESS

Compliance will be monitored by the Trust's Radiation Safety Committee who will commission internal audits to give the Patient Safety & Quality Group assurance that the policy is being complied with. An annual report will be produced by the Radiation Safety Committee to demonstrate compliance and identify risk issues

Minimum Requirement to be Monitored **(WHAT – element of compliance or effectiveness within the document will be monitored)**	**Responsible Individual** **(WHO – is going to monitor this element)**	**Process for Monitoring e.g. Audit** **(HOW – will this element be monitored (method used))**	**Frequency of Monitoring** **(WHEN – will this element be monitored (frequency/ how often))**	**Responsible Individual or Committee/ Group for Review of Results** **(WHERE – Which individual/ committee or group will this be reported to, in what format (eg verbal, formal report etc) and by who)**
Staff dose	Radiation Protection Supervisor	Audit	Annual	Radiation Safety Committee
Management Review	Radiation Protection Advisor	Audit	Three yearly	Patient Safety Committee

8.0 TRAINING AND IMPLEMENTATION

The policy and changes to it will be communicated to all staff via the weekly staff bulletin and team briefing mechanisms. Divisional changes will be communicated via email or governance processes.

Staff working in designated radiation areas are required to sign a statement that they have read and understood the local rules and other associated relevant procedures. All staff must complete the IRR online training package every three years.

All staff working with ionising radiation or with responsibility for radiation protection must receive appropriate training prior to undertaking such work. It is the responsibility of Divisional Managers to ensure staff receive such training and that records of such training are kept. Practitioners and operators as defined by IR(ME)R must have training to demonstrate their competence to act in these roles.

The Radiation Safety Committee will ensure that a training strategy for this policy is developed, identifying who should be trained and to what level.

TRAINING & APPOINTMENT REQUIREMENTS FOR RADIATION USERS AND THOSE WITH RADIATION PROTECTION RESPONSIBILITIES

Staff Group/QE	Initial Training	Update Training	Compliance Assurance
RPA- NUH requirement	RPA2000 RPA Certificate, HCPC	RPA2000 renewal every 5yrs	HoMPCE checks; biennial HCPC check; RPA2000 checks
MPE-NUH requirement	As defined by the syllabus in the EU MPE Guidelines; HCPC	Ongoing evidence of CPD	Line Manager who signs off CPD tells HoMPCE; biennial HCPC check
RWA-NUH requirement	RPA2000 RWA Certificate; HCPC	RPA2000 renewal every 5 years	HoMPCE checks; biennial HCPC check; RWA certificate check
Radiation Protection Supervisor	Formal RPS course (as recommended by relevant RPA), Relevant RPA approval	3 yearly refresher run by RPAs Ongoing evidence of CPD	Head of Radiology, Divisional DGMs checks training dates; RPA Audits
IRMER Practitioner	Relevant specialist training (+ IRMER training where required for non-FRCR or non-Radiographer); Appropriate statutory registration	Ongoing evidence of CPD	Lead clinician in clinical area/ Head of Service checks relevant CPD and registration status
IRMER Operator	Relevant specialist training (+ IRMER course where required for non-FRCR or non-Radiographer)	Ongoing evidence of CPD, informal updates or following changes	Lead clinician in clinical area/ Head of Service checks relevant CPD.
IRMER Referrer	Info via relevant induction; appropriate statutory registration	Ongoing evidence of CPD,Annual reminder via yearly letter	Head of Radiology ensures this is sent out

9.0 IMPACT ASSESSMENTS

- This document has been subject to an Equality Impact Assessment, see completed form at Appendix B
- This document is not subject to an Environmental Impact Assessment

10.0 EVIDENCE BASE (Relevant Legislation/ National Guidance) AND RELATED SFHFT DOCUMENTS

Evidence Base:

This policy is written to ensure compliance with statutory legislation and best practice and taking into account evidence of audits and professional body recommendations.

- The Environmental Permitting (England and Wales) Regulations 2016
- The Carriage of Dangerous Goods by Road Regulations 2009 and Amendment 2019
- The Ionising Radiations Regulations 2017
- The Ionising Radiation (Medical Exposure) Regulations 2017 IR(ME)R and 2024 amendments

Related SFHFT Documents:

- Risk Management and Assurance Policy
- Incident Reporting Policy and Procedures

11.0 APPENDICES

- As listed in contents table

Appendix A

SFHT Radiation Incident Reporting Process

Sherwood Forest Hospitals
NHS Foundation Trust

Examples of these are:

Patient related

- wrong site or wrong patient x-rayed/scanned-CT only
- duplicate ICE request (resulting in patients x-rayed again)
- selecting wrong patient on ICE (referrer)
- patient receives exposure much greater than intended (e.g. very over exposed image), wrong protocol settings on CT scanner.

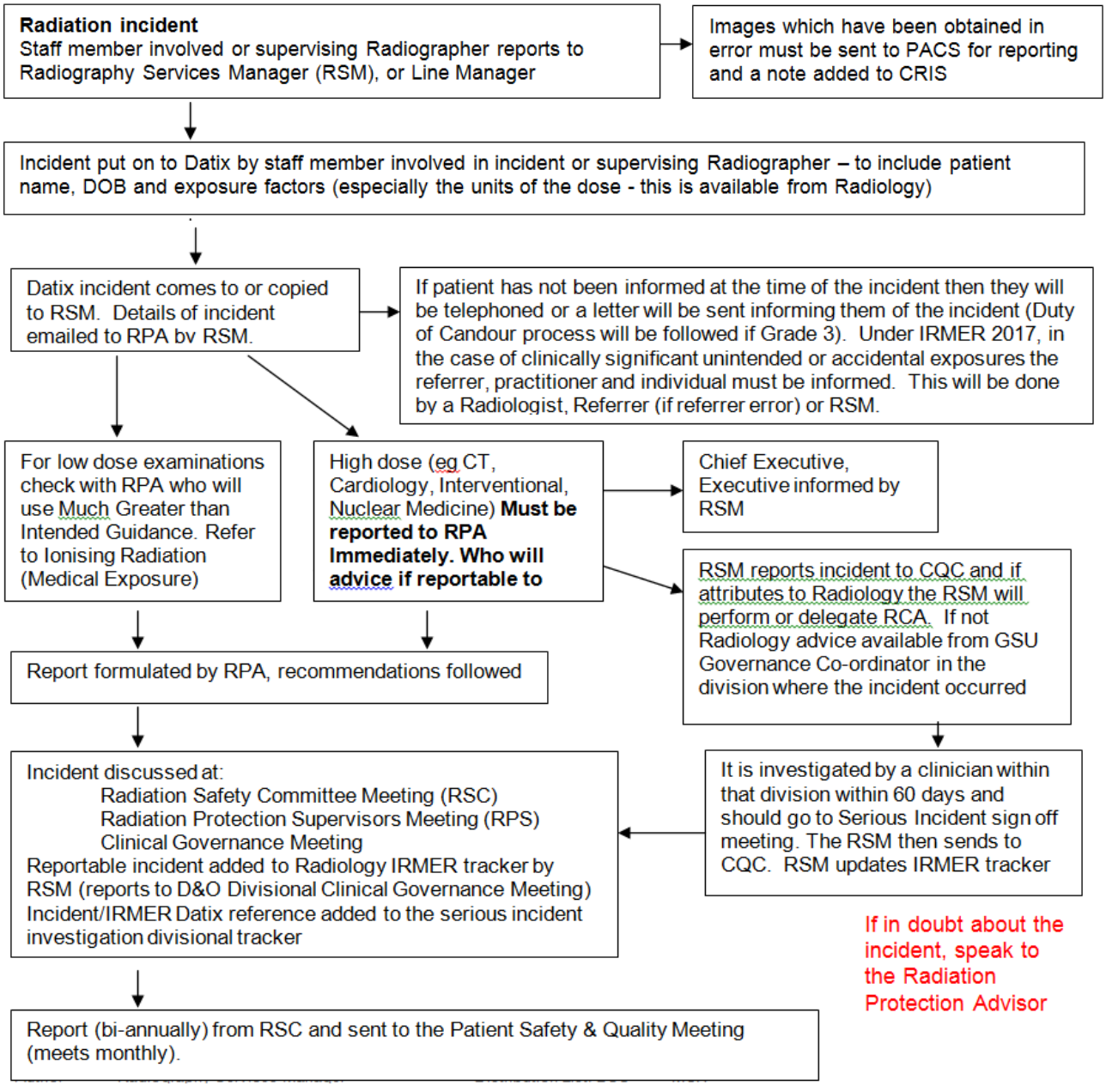
Staff or equipment related

Exposure fails to terminate (e.g. AEC failure or exposure switch failure)

Unintended exposure

- someone exposes unintentionally e.g. steps on a pedal or unauthorised person makes an exposure
- person walks into controlled area during exposure / not complying with local rules.

This list is only a brief guide – if in doubt check with Radiation Protection Advisor (RPA)-0115 8754500



APPENDIX B – EQUALITY IMPACT ASSESSMENT FORM (EQIA)

Name of service/policy/procedure being reviewed: Ionising Radiation Safety Policy			
New or existing service/policy/procedure: Existing			
Date of Assessment: September 2025			
For the service/policy/procedure and its implementation answer the questions a – c below against each characteristic (if relevant consider breaking the policy or implementation down into areas)			
Protected Characteristic	**a) Using data and supporting information, what issues, needs or barriers could the protected characteristic groups' experience? For example, are there any known health inequality or access issues to consider?**	**b) What is already in place in the policy or its implementation to address any inequalities or barriers to access including under representation at clinics, screening?**	**c) Please state any barriers that still need to be addressed and any proposed actions to eliminate inequality**
The area of policy or its implementation being assessed:			
Race and Ethnicity	none	none	none
Gender	None-see below	none	none
Age	none	none	none
Religion	none	none	none
Disability	none	none	none
Sexuality	none	none	none
Pregnancy and Maternity	It should be noted that there are certain requirements of the regulations, principally related to radiation dose limitation, which may require different treatment of men and women, due to potential for harm to those pregnant/breast-feeding	none	none

Gender Reassignment	none	none	none
Marriage and Civil Partnership	none	none	none
Socio-Economic Factors (i.e. living in a poorer neighbourhood / social deprivation)	none	none	none

What consultation with protected characteristic groups including patient groups have you carried out?

- **N/A**

What data or information did you use in support of this EqIA?

- **N/A**

As far as you are aware are there any Human Rights issues be taken into account such as arising from surveys, questionnaires, comments, concerns, complaints or compliments?

- **None**

Level of impact

From the information provided above and following EQIA guidance document Guidance on how to complete an EIA (click here), please indicate the perceived level of impact:

High Level of Impact/Medium Level of Impact/**Low Level of Impact** *(Delete as appropriate)*

For high or medium levels of impact, please forward a copy of this form to the HR Secretaries for inclusion at the next Diversity and Inclusivity meeting.

Name of Responsible Person undertaking this assessment: Gillian Asher

Signature: G Asher

Date: March 2026

APPENDIX C – ENVIRONMENTAL IMPACT ASSESSMENT

The purpose of an environmental impact assessment is to identify the environmental impact, assess the significance of the consequences and, if required, reduce and mitigate the effect by either, a) amend the policy b) implement mitigating actions.

Area of impact	Environmental Risk/Impacts to consider	Yes/No	Action Taken (where necessary)
Waste and materials	• Is the policy encouraging using more materials/supplies? • Is the policy likely to increase the waste produced? • Does the policy fail to utilise opportunities for introduction/replacement of materials that can be recycled?		
Soil/Land	• Is the policy likely to promote the use of substances dangerous to the land if released? (e.g. lubricants, liquid chemicals) • Does the policy fail to consider the need to provide adequate containment for these substances? (For example bunded containers, etc.)		
Water	• Is the policy likely to result in an increase of water usage? (estimate quantities) • Is the policy likely to result in water being polluted? (e.g. dangerous chemicals being introduced in the water) • Does the policy fail to include a mitigating procedure? (e.g. modify procedure to prevent water from being polluted; polluted water containment for adequate disposal)		
Air	• Is the policy likely to result in the introduction of procedures and equipment with resulting emissions to air? (For example use of a furnaces; combustion of fuels, emission or particles to the atmosphere, etc.) • Does the policy fail to include a procedure to mitigate the effects? • Does the policy fail to require compliance with the limits of emission imposed by the relevant regulations?		
Energy	• Does the policy result in an increase in energy consumption levels in the Trust? (estimate quantities)		
Nuisances	• Would the policy result in the creation of nuisances such as noise or odour (for staff, patients, visitors, neighbours and other relevant stakeholders)?		