The Christie NHS
NHS Foundation Trust

JOB DESCRIPTION

JOB DETAILS

Job Title:	Registered Healthcare Science Practitioner (Clinical Technologist) / Radiographer (band 6)
Department:	Diagnostic Radiology and Radiation Protection Service (DRRPS) within the Imaging Physics and Radiation Protection (IPRP) Group – a regional NHS physics service for the North West.
Division:	Christie Medical Physics and Engineering (CMPE)
Base:	The Christie, Withington. However, due to the large regional physics service and North West Imaging Networks formation, this post requires regular travel and customer location working throughout North West and infrequently, further afield. Some working from home for non-clinical work is satisfactory and will likely be part of on-going work patterns where this does not impact negatively on service delivery and team cohesion. There is potential, once trained, to be based in the Lancashire and South Cumbria Integrated Care System/Imaging Network for those who live further north than Manchester.

ORGANISATIONAL ARRANGEMENTS

Accountable to:	1. (Managerially & Professionally) Group Leader, Imaging Physics and Radiation Protection Group 2. (Reporting) Principal Physicist or Senior Technologist, Diagnostic Radiology & Radiation Protection Service
Other Accountabilities:	1**.** (Professionally) Lead Healthcare Scientist 2**.** (Clinically) Clinical Directors of Radiology in organisations where CMPE provide services
Responsible for:	1. (Management and supervision) Healthcare Science Assistants, Associates and Practitioners 2**.** (Supervision) Clinical Scientists in training when post holder has competence in the skill set and can cascade the knowledge

JOB PURPOSE:

To assess the safety and performance of X-ray imaging equipment, provide technical support, radiation protection and patient dosimetry advice to users of ionising radiations, in order to optimise the use of X-rays in diagnostic imaging and comply with regulatory requirements. Activities fall within the framework provided by a Medical Physics Expert or Radiation Protection Adviser.

Please note that this role is in diagnostic radiology physics, not radiotherapy or nuclear medicine. It is not a 'radiography post' nor patient-facing. However, radiographers with experience of performing QA on diagnostic equipment hoping for a change of field would be suitable candidates.

SPECIFIC DUTIES/JOB RESPONSIBILITIES

1. **Equipment performance testing and radiation protection surveys**

- Undertake equipment performance and radiation protection surveys, alone or with a colleague, following clearly defined operating procedures in line with an ISO9001 quality management system. This will involve accurate positioning and methodical use of test objects. This will cover the full range of X-ray imaging equipment. It includes:
    - Critical examination and commissioning of new equipment
    - Routine quality control on existing installations
    - Investigation of faults on existing installations.
    - Calibration of patient dose measuring equipment
    - Checking the radiation protection of the installation.
- Analyse the results of equipment performance measurements.
- Write electronic reports (for the Radiation Protection Adviser, Medical Physics Expert and radiology staff) detailing the findings and recommending any action required.
- Maintain accurate records using Excel and Access, e.g. results from testing, details of equipment
- Calibrating x-ray dose measuring equipment
- Perform testing of UV units, as required by the group.
- Providing advice on and demonstrate level A QC testing, review results and report findings.

2. Radiation Protection

- Assist in providing radiation protection advice and support. This may include
    - performing standardised patient dose calculation, environmental monitoring, trial personal monitoring, patient dose audit, preparation of risk assessments and local rules with oversight from a Radiation Protection Adviser and/or Medical Physics Expert.
    - producing ad hoc reports on equipment or customer sites, e.g. lists of equipment due, inter-comparison of similar equipment types
    - updating central records of measurements, e.g. typical patient doses, equipment calibration factors
    - calibrating radiation protection meters as required and/or organising dispatch of equipment for external calibration.

3. Management

- Liaise with radiographic staff to book survey visits in conjunction with the Survey Team Administrator, with the potential for taking the lead for one geographic area.

- Supervise less experienced healthcare science staff (assistants, associates, practitioners or scientists) when undertaking equipment performance and radiation protection surveys as part of their training.
- Raise service issues or training opportunities in an appropriate forum to allow the team to adapt and learn e.g. through the quality management system, in a 'survey meeting', via modality leads or your line manager.
- Undertake internal audits.
- Participate in the recruitment process for technical staff as required.
- Contribute to ensuring the quality of the diagnostic and radiation protection service as required and as directed by the survey team lead or group leader
- Undertake line management functions for appropriate staff.
- A take a lead on a number of group functions such as H&S checks, oversight of online QA platforms, maintaining our inventory etc, as required

4. Professional

- Demonstrates the agreed set of values and accountable for own attitude and behaviour
- Maintain registration.
- Keep abreast of developments in the field and undertake continued professional development (self-directed and as directed by your line manager).
- Proactively share learning within the team and take part in meetings attended
- Follow the appropriate key work instructions, risk assessments and systems of work and ensure direct supervision of those you are responsible for until they are competent.
- Collaborate with other members of the group in the improvement of test protocols.
- Take a lead on surveys for a particular modality, developing protocols and gaining clinical understanding of the use of that modality, under the guidance of a medical physics expert/modality lead within our group.
- Collaborate with other members of the group and radiology staff in other hospitals on the optimisation of imaging equipment.
- Contribute to appropriate teaching activities and outreach events within the group, such as assisting in the preparation and delivery of material, e.g. at the Radiation Protection Supervisors courses. May also be involved in organising courses.
- Contribute to the research and development of the service, e.g. by carrying out measurements, processing, reporting and presenting data

NOTE

This job description indicates the duties and responsibilities that are appropriate to meet the present needs of the service. Since from time to time these needs may change it is necessary to recognise that the post holder must be willing to undertake other and/or different duties that may, after discussion, be assigned by the Director.

Date Prepared:	12/1/23	**Prepared By:**	W Mairs
Agreed by: Employee		**Agreed By: Manager**	
Date Agreed:		**Date Agreed:**	
Date Reviewed:		**Reviewed by:**	

Person Specification: Clinical Technologist (Diagnostic Radiology)

	Essential	Desirable
Qualifications	• Degree in STEM subject or Diagnostic Radiography degree (or equivalent) • Registration with Register of Clinical Technologists, or HCPC as a HCS Practitioner or radiographer (or equivalent)	• Registration in Diagnostic Radiology / Rad. Prot. field
Experience	• Operation of diagnostic X-ray equipment across a range of modalities (independently) • QA of rad/CR/DR equipment • QA of fluoroscopy equipment • QA of dental equipment • Assisting with non-routine QA of diagnostic X-ray equipment • Writing equipment performance reports for QA visits • Performing investigations into DX X-ray equipment performance issues • Supervision/training of staff	• QA of mammography equipment • QA of CT equipment • Leading non-routine QA of diagnostic X-ray equipment • RP tasks (see notes in JD) • Calibration of dosemeters • Providing training or advice for Level A (radiographer) QA • Involvement in development/improvement of QA test protocols
Skills	• High level of literacy and numeracy • Ability to operate complex imaging equipment • Ability to operate radiation instruments/dosemeters • Proficient in using Microsoft Office, scientific software and word processing to analyse data and produce reports • Ability to problem solve/fault find/investigate issues • Ability to work independently and as part of a team • Ability to analyse complex scientific data and clearly communicate findings/recommendations • Ability to apply health & safety and risk management principles to practical scenarios • Ability to handle challenging situations with professionalism	• Advanced Excel skills • Experience of teaching/training/presenting
Knowledge	• Working knowledge of appropriate UK radiation legislation and practical radiation safety principles • Knowledge of radiation physics and a wide range of diagnostic X-ray equipment (including CT, angiography and mammography) • Working knowledge of radiation instrumentation and test objects • Working knowledge of recommended standards of X-ray equipment • Knowledge of X-ray equipment life cycle and stages of QA	• Basic knowledge of quality systems • Basic knowledge/awareness of emerging techniques/modalities in diagnostic radiology

Values	• Ability to demonstrate the organisation's values and behaviours including respect towards others at all times. • Patient focused • Commitment to reflective practice and CPD • Adherence to RCT code of conduct	
Other	• Valid driving licence for a manual car • Willing to work flexibly in line with service needs (see notes below). • Physically able to lift heavy measuring equipment (up to 15 kg) • Enthusiasm, integrity and commitment to this role	

Note on current group work patterns

- Willing to travel on frequent basis (~3 times per week) throughout NW England region and infrequently further afield
- Willing to stay overnight infrequently (5-10 times per year) for equipment testing at more distant hospitals
- Typical hours the team work are between 8am and 6pm Mon-Fri. Due to the nature of the job there are occasions when work is required outside normal hours.
- The team work longer days when off site in the region to make visits more efficient e.g. 9.5 hour days. A 9 day fortnight or 4 day week may be an ideal pattern for balance.
- Infrequent weekend work required, with notice.

Those with sufficient relevant experience who do not meet the full criteria may be appointed on B5 until deemed sufficiently trained and competent.

GENERAL STATEMENTS:

RISK MANAGEMENT

It is a standard element of the role and responsibility of all staff of the Trust that they fulfil a proactive role towards the management of risk in all of their actions. This entails the risk assessment of all situations, the taking of appropriate actions and reporting of all incidents, near misses and hazards.

RECORDS MANAGEMENT/DATA PROTECTION

As an employee of the Trust, you have a legal responsibility for all records (including patient health, financial, personal and administrative) that you gather or use as part of your work within the trust. The records may be paper, electronic, microfiche, audio or videotapes, x-ray images. You must consult your manager if you have any doubt as to the correct management of the records with which you work.

HEALTH AND SAFETY REQUIREMENTS

All employees of the Trust have a statutory duty of care for their own personal safety and that of others who may be affected by their acts or omissions. Employees are required to co-operate with management to enable the Trust to meet its own legal duties and to report any circumstances that may compromise the health, safety and welfare of those affected by the Trust undertakings.

CONFIDENTIALITY AND INFORMATION SECURITY

As a Trust employee you are required to uphold the confidentiality of all records held by the trust, whether patient records or trust information. This duty lasts indefinitely and will continue after you leave the trust employment.

All Information which identifies individuals in whatever form (paper/pictures, electronic data/images or voice) is covered by the Data Protection Act 2018 and should be managed in accordance with this legislation.

TRUST POLICIES

The Trust operates a range of policies, e.g. Human Resources, Clinical Practice (available on the Trust intranet). All Trust employees must observe and adhere to the provisions outlined in these policies.

EQUALITY, DIVERSITY AND INCLUSION

The Christie NHS Foundation Trust is committed to advancing equality, diversity and inclusion for all our patients, other service users and staff. We want to ensure that everyone who works at the Christie or uses our services is welcomed, valued and treated with dignity and respect.

It is your responsibility to understand and work in line with the Trust's equality, diversity, inclusion and human rights policies. You should value others and treat everyone you come into contact with at work with fairness, dignity and respect at all times and uphold their human and other rights.

INFECTION CONTROL

Healthcare workers have an overriding duty of care to patients and are expected to comply fully with the best practice standards. You have a responsibility to comply with Trust policies for personal and patient safety and for prevention of healthcare-associated infection (HCAI); this includes a requirement for rigorous and consistent compliance with Trust policies for hand hygiene, use of personal protective equipment and safe disposal of sharps. Knowledge, skills and behaviour in the workplace should reflect this; at annual appraisal you will be asked about application of practice measures known to be effective in reducing HCAI

ENVIRONMENTAL SUSTAINABILITY

All employees of the Trust have a responsibility to ensure they have an awareness of environmental sustainability issues which affect the Trust and to contribute to the achievement of the reduction of the Trust's environmental and energy performance footprint e.g. (but not limited to) the use of energy consumed in workspaces (heat/light/paper consumed) and to recycle consumable products wherever possible using appropriate facilities.

FLU VACCINATION

All Trust staff must take part in the Trust's annual flu vaccination programme and ensure they receive the influenza vaccination on an annual basis.