OXFORD UNIVERSITY HOSPITALS NHS FOUNDATION TRUST
Department of Medical Physics and Clinical Engineering

Job Description

JOB TITLE:	**Clinical Scientist - Imaging Physics and Radiation Protection**
GRADE:	Registered Clinical Scientist, Band 7
Hours of work:	37.5 hours per week.
Responsible to:	Medical Physics Expert
Clinical liaison:	Consultant radiologists, superintendent radiographers, radiographers, Imaging Physics Section staff

The Imaging and Non-Ionising Physics section is part of the department of Medical Physics and Clinical Engineering (MPCE) and is responsible for providing scientific support and advice wherever diagnostic x-rays, and non-ionising radiations (e.g. MR, ultrasound, phototherapy and lasers) are used. MPCE has ISO9001:2015 certification.

The Imaging and Non-Ionising Physics (IG) Section provides scientific and radiation protection support to OUH NHS Foundation Trust and a number of other acute and primary casre service users.

The section is responsible for implementing 'cradle to grave' QA programmes on all modalities of radiological equipment, lasers and UV systems. This includes assistance with equipment specification and selection, acceptance testing and commissioning, establishment of an ongoing QC programme, providing training for radiographers as necessary, and ultimately advising when equipment is no longer suitable for clinical use. The section monitors radiation doses to patients and staff, performs environmental monitoring (including radon) and specifies shielding requirements for x-ray and optical radiation facilities. It also provides radiation dose estimates for IRAS submissions and radiation incidents. It leads the Trust's internal audit programme for regulatory compliance. The section is also an active provider of radiation safety (x-ray & optical) and IRMER training courses to all its clients and provides HSST, STP and PTP training to medical physics and clinical technologist trainees.

JOB SUMMARY: The post holder will work at a senior level as part of the Imaging Physics team providing radiation protection advice, scientific and technical support to service users. The role require a high degree of organisational skills and a knowledge of working within a scientific environment, providing support for quality, radiation assurance, governance and incident management, within Imaging Physics.

DUTIES AND RESPONSIBILITIES

1. Clinical and Scientific

1.1 Participate in the Quality Assurance and performance checks on a full range of radiological imaging equipment as well as ultrasound and UV devices, including the

design, acceptance and commissioning of new installations throughout OUH NHS Foundation Trust and Great Western Hospitals NHS Foundation Trusts and other service users.

1.2 Participate in the optimisation programme for diagnostic radiology throughout OUH NHS Foundation Trust and Great Western Hospitals NHS Foundation Trusts and other service users.

1.3 Participate in the day to day provision of radiological safety services within OUH NHS Foundation Trust and Great Western Hospitals NHS Foundation Trusts and other service users including audit and safety advice.

1.4 Participate in the quality assurance checks and calibration of all types of physics test equipment.

1.5 Provide radiation dose and risk assessments for staff and patients for a variety of applications including research applications, incident reports and other exposure assessments.

1.6 Participate in patient dose monitoring and optimisation programmes using various techniques e.g., Dose Area Product measurements, calculations, use of radimterics software, and assist in the development of dose reduction strategies and software applications.

1.7 Participate in the development and modification of image processing software.

1.8 Advise clinical and radiographer staff on options for optimisation of patient examinations with diagnostic equipment, in areas where competency has been achieved.

1.9 Identify problems with radiological equipment and QA equipment, to investigate causes and suggest remedial actions.

1.10 Assist in the formulation of new (and review existing) protocols and procedures and database records.

1.11 Be responsible for the safe use and correct functioning of expensive and highly complex test and radiological equipment during measurements and clinical use, by self and others.

1.12 Provide advice, assistance, and support to the provision and development of the radiation physics services, including radiological safety, in consultation with the RPA and MPE for X-ray, CT, dental, etc. as appropriate and consistent with experience and skills.

1.13 To assist with the development of audit tools and be involved with management and analysis of the regulatory Internal Audit programme.

1.14 To work towards RPA 2000 certification and /or accreditation as Medical Physics Expert in Diagnostic Radiology.

2. Managerial

1.1. Prioritise and manage own work, as agreed by senior colleagues, to meet agreed outcomes

1.2. Ensure that all work performed is documented in accordance with procedures and any applicable standards or legislation.

1.3. Assist in the supervision of trainee clinical scientists and clinical technologists.

3. Research and Development

3.1 Keep abreast of current developments in the relevant areas of Imaging Physics.

3.2 Undertake research and development commensurate with the achievement of clinical objectives, publishing results of new work in international journals and/or at (inter)national conferences.

3.3 Identify appropriate areas for development projects and to propose these to senior staff.

3.4 Assist with the assessment and evaluation of new equipment before purchase and subsequent clinical use.
3.5 Write research based reports; create spreadsheets and databases to assist in the analysis of measured data.

4. Teaching and Training

4.1 Participate in the training and supervision of healthcare scientists and technologists.
4.2 Participate in training for medical and other NHS staff on a range of subjects relevant to the work of the Group.

5. Professional

5.1 Maintain state registration and an agreed programme of CPD**.**
5.2 Provide physicist advice at National Arrangements for Incidents involving Radiation (NAIR) incidents and other emergencies.
5.3 Keep abreast of technical and scientific developments having immediate or potential applications in medical diagnosis, therapy or research, and advise the Head of Section on their implications. Postholder has to decide on how results of work are interpreted, based on (inter)national protocols, publications and own judgement.
5.4 Attend and deliver suitable seminars and courses as part of training and personal development and to further the work of the Department.
5.6 Contribute presentations to the Department's CPD seminar programme.
5.7 Ensure that all aspects of the work are provided in accordance with a quality framework, and conform to relevant legislation, national protocols and Trust policies.

6. General

6.1 To frequently use radiation dosimetry equipment and imaging phantoms to assess and produce accurate results, and make detailed assessments of the status of radiological equipment, to ensure accuracy of patient diagnosis. This work is frequently required to be done within tight timescales to minimise patient waiting times for diagnostic examinations.
6.2 To ensure compliance with the policies and procedures in the areas of work for which the postholder caries responsibility. Participate in the development and routine operation of such procedures.
6.3 Frequently to use VDU equipment for periods up to the whole working day.
6.4. Occasionally to lift moderately heavy, cumbersome dosimetry equipment for several short periods during a shift.
6.5 When working in other departments, the postholder will liaise with local heads of department, medical consultants, superintendents and nursing staff, adhering to local policies and practices. The postholder will behave courteously and professionally at all times and seek to ensure that the highest level of service is provided by Medical Physics.
6.6 Work the hours necessary for the proper and efficient performance of the work, within the flexible working system set up in the Department. In practice the postholder will occasionally be required to perform duties outside the normal working hours of the Department.
6.7 To perform other appropriate duties which may be requested from time to time by the Head of Imaging Physics & NIR or the Head of Medical Physics and Clinical Engineering, commensurate with the grade.

LIAISES WITH:
Qualified Advisers Required by Statute, Clinical staff i.e., radiographers and nurses, Clinical Scientists, Clinical Technologists, Scientific computing and business support staff, external service providers.

RISK MANAGEMENT
The management of risk is the responsibility of everyone and will be achieved within a progressive, honest and open environment.

Staff will be provided with the necessary education, training and support to enable them to meet this responsibility.

Staff should be familiar with the
- Major Incident Policy
- Fire Policy

and should make themselves familiar with the 'local response' plan and **their** role within that response.

RESPONSIBILITIES FOR HEALTH & SAFETY
The post holder is responsible for ensuring that all duties and responsibilities of this post are carried out in compliance with the Health & Safety at Work Act 1974, Statutory Regulations and Trust Policies and Procedures. This will be supported by the provision of training and specialist advice where required.

INFECTION CONTROL
Infection Control is everyone's responsibility. All staff, both clinical and non-clinical, are required to adhere to the Trusts' Infection Prevention and Control Policies and make every effort to maintain high standards of infection control at all times thereby reducing the burden of Healthcare Associated Infections including MRSA.

All staff employed by the OUH Trust have the following key responsibilities:

- Staff must decontaminate their hands prior to and after direct patient contact or contact with the patient's surroundings.

- Staff members have a duty to attend mandatory infection control training provided for them by the Trust.

- Staff members who develop an infection (other than common colds and illness) that may be transmittable to patients have a duty to contact Occupational Health.

CHILDREN'S RIGHTS
The post holder will endeavour at all times to uphold the rights of children and young people in accordance with the UN Convention Rights of the Child.

SAFEGUARDING CHILDREN AND VULNERABLE ADULTS

The Trust is committed to safeguarding children and vulnerable adults throughout the organisation. As a member of the trust there is a duty to assist in protecting patients and their families from any form of harm when they are vulnerable.

INFORMATION GOVERNANCE

All staff must complete annual information governance training. If you have a Trust email account this can be completed on-line, otherwise you must attend a classroom session. For further details, go to the Information Governance intranet site.

SERIOUS UNTOWARD INCIDENTS

All staff must report incidents and near misses so that the Trust can reduce the risk of harm by investigating and incorporating risk reducing measures to safeguard patients, visitors and staff, in accordance with the Trust Incident Reporting Policy.

REVIEW OF THIS JOB DESCRIPTION:

This job description is not definitive or exhaustive and should be regarded only as a guideline to the duties required. Responsibilities and duties may be added, following consultation with the postholder should the requirements of the Department or Trust change.

ORGANISATIONAL CHART