

Leaders Job Description

Title: Principal Clinical Scientist

Band: Band 8B

Staff Group: Healthcare Scientist

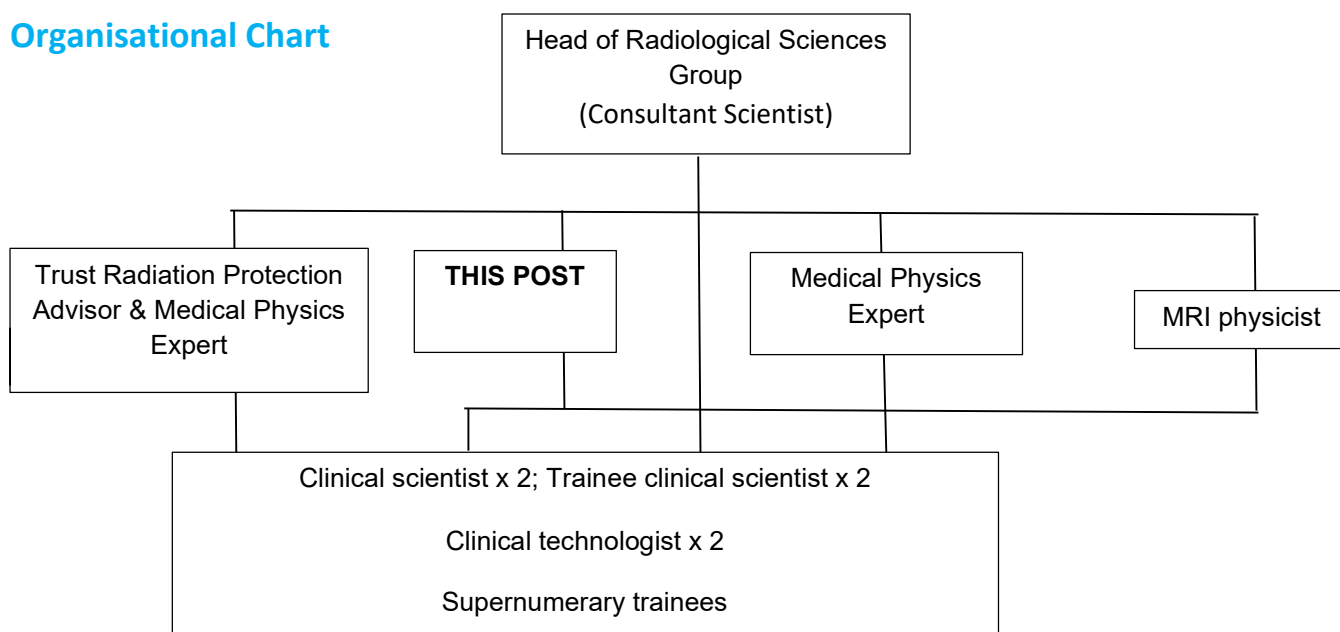
Reports to: Head of Radiological Sciences Group

Job Summary:

1. Undertake the following mandatory roles on behalf of Portsmouth Hospitals NHS Trust, and where appointed, to other NHS Trusts or healthcare providers under contract;
 - Medical Physics Expert (diagnostic radiology)
 - Radiation Protection Adviser (diagnostic radiology)
 - Laser Protection Advisor
2. Be responsible for providing radiation protection advice to clinical and non-clinical specialisms using ionising radiation and advising the Trust on corporate responsibilities under the relevant regulations eg Ionising Radiation Legislation (IRR 2017, IR(ME)R 2017).
3. Support the development of and review corporate and management policy to support implementation of, and compliance with legislation. Establish good working relations with regulators, liaise with and notify them as is required to maintain a positive reputation for the Trust.
4. Managing members of the team within the Radiological Sciences Section, provide and manage the delivery of highly specialised scientific support to clinical services in all fields of diagnosis and research using X-ray imaging. Apply a broad range of highly specialised, complex, routine and non-routine scientific work to
 - Monitor and limit radiation doses to staff and where applicable patients and visitors
 - Be responsible for overall management of personnel dosimetry programmes
 - Risk assessment, management, audit, measurement and optimisation.
 - Make recommendations and provide advice to secure compliance with the radiation regulations and optimal practice
 - Support the procurement and introduction into use of all types of radiation equipment, the design and operation and required maintenance of installations, and operational practices for clinical users.
 - Support multi-disciplinary work to introduce radiation equipment into effective clinical use developing constructive working relationships with heads of service, their responsible managers and radiation protection supervisors
 - Design, develop and deliver of training programmes concerning radiation safety
 - Emergency planning and preparedness.
5. Act as operator under IR(ME)R for practical aspects of X-ray Imaging Physics work
6. Assist the Trust, clinical directors and managers with advanced preparation and with the audits, inspections and investigations, as may be carried out by external bodies and enforcing agencies in order that the organisation is represented in the most appropriate manner for a successful outcome.

7. If appointed as laser safety advisor, provide specialised radiation expertise and support to the users of lasers. Be operationally responsible for the day-to-day provision of laser protection support to the trust and specialties that use lasers. Lead the provision of all aspects of highly specialised scientific support to users of lasers, including routine and non-routine work. Supervise the work of other staff in the group who are involved in this field.
8. Provide supervision and management of trainee scientists. Set standards for training and competence, provide and oversee the training of Clinical Scientists and Clinical Technologists. Be an accredited training supervisor where required.
9. Deputise for the Head of Radiological Sciences and the Trust Radiation Protection Advisor during periods of absence and as required.

Organisational Chart



Trust Organisational Expectations

The post holder will contribute to

1. Proactively and positively contribute to the successful overall performance of the Trust.
2. Deliver excellent levels of customer service to all patients/visitors and staff at the Trust.
3. Develop effective ways of working and create strong partnerships and relationships with all stakeholders to support the implementation of the Government's policies on Health.
4. Develop an organisational culture that fosters collaborative working among all staff groups, to ensure a focused commitment to delivering quality services and outcomes.
5. Act as an advocate for the Trust & its contribution to the Health Service arena through creating effective partnerships and relationships with internal and external stakeholders.
6. Comply with corporate governance structure in keeping with the principles and standards set out by the Trust.
7. Support the Trust culture of collaborative, flexible cross-team working and commitment to delivering quality services and outcomes, which support the Government's policies on public health
8. If your employment is to a post that requires you to be registered with a professional body, the continuation of your employment is conditional upon you continuing to be registered with the appropriate professional body. The Trust will require evidence of current registration.
9. In compliance with the Trust's practices and procedures associated with the control of infection, you are required to;
 - Adhere to Trust Infection Control Policies assuring compliance with all defined infection control standards at all times.
 - Conduct hand hygiene in accordance with Trust policy, challenging those around you that do not.
 - Challenge poor practice that could lead to the transmission of infection
10. The successful overall performance of the Trust.

Shared Core Functions

1. Proactively and positively contribute to the achievement of deliverables through individual and team effort.
2. Support team members to deliver on their objectives through offering advice, guidance and support as appropriate.
3. Ensure that approved budgets are spent effectively and in accordance with agreed procedures.
4. Liaison with Senior Professionals and related functions to ensure that work is neither overlooked nor duplicated.
5. Build and sustain effective communications with other roles involved in the shared services as required.
6. Maintain and continuously improve specialist knowledge in an aspect of Health Service which significantly contributes to the Trust's stated objectives & aims.
7. Establish and maintain strategic links with a range of external partners/stakeholders or manage the links made through the team. Engage with external partners/stakeholders to gain their necessary level of contribution & commitment to the successful delivery of your work.
8. Undertake proactive horizon scanning for either developments relating to Trust work or opportunities for Trust involvement around health issues.
9. Increase the level of knowledge & skills within the Trust through documenting key learning and supporting others to develop their professional abilities.
10. Dissemination of knowledge through engagement in report writing, and reviewing, taking full responsibility for technical accuracy and reliability and being sensitive to the wider implications of that dissemination.
11. Ensure that expertise is seen as a resource within and outside the Trust and form working partnerships with government departments, national agencies and key stakeholders internationally, nationally, regionally and across sectors.

Specific Core Functions

Key Responsibilities:

General responsibilities

- Provide highly specialised expert scientific and technical services as Radiation Protection Adviser and Medical Physics Expert in the field of Diagnostic Radiology.
- Manage the work of others in the group who support this work.
- Manage and plan own work for medium and long-term projects and programmes. Ensure services are delivered in a timely manner in accordance with service standards, client department and organisational timetables and deadlines. Inform Head of Section of issues or problems related to service provision.
- Develop effective, constructive and collaborative relationships with staff at all levels, external contract customers, external and regulatory agencies. Maintain the highest level of professional conduct, integrity and professionalism.
- Ensure that work is carried out in accordance with established and current legislation, standards and guidance applying professional judgment and experience. Review and analyse results to the highest standards of accuracy, reporting and acting on conclusions so as to ensure the safety of patients/staff. Make decisions on the suitability of radiation equipment performance or staff practice / procedures based on the analysis of highly complex performance data.
- Where required, advise and liaise with Trust management, Heads of Service, service managers, clinical consultants and other staff to provide expert advice and appropriate training where necessary in the field of Radiation Protection and Imaging Physics. Where necessary, participate in and convene committees and working groups for the effective discharge of these roles.
- Manage and provide training to staff within the Radiological Sciences Group where they are directly involved in providing scientific and technical services within the fields of Diagnostic Radiology, Radiation Protection and (where relevant) Lasers. Ensure training and development keeps abreast of professional and statutory requirements, and that competence is documented according to departmental procedures.
- Supervise and assess trainees, clinical scientists and clinical technologists for areas within own scope of practice. Contribute to objective setting related to these fields as part of the appraisal process. Review and update personal development plans for staff who support these areas of work.
- Initiate and undertake research / development and publication work that result in developments, improvements and optimisation of equipment, techniques and methods of treating patients in the fields of Imaging Physics and Radiation Protection. Supervise research student projects (eg MSc) in these fields.
- Attend internal and external courses/seminars/lectures to update knowledge in the fields of Imaging Physics (Diagnostic Radiology) and Radiation Protection and associated topics
- Present results of work within section and departmental seminars, to client departments and at national and international educational and research conferences and forums as appropriate.
- Support training events and seminars and make a significant contribution to the teaching and lecturing commitments of the section, the wider department, within Portsmouth Hospitals and at academic institutions and NHS Trusts where arrangements are in place with the Portsmouth Medical Physics Service.
- Undertake an appropriate continuing professional development (CPD).
- Identify and manage resources ensuring that service requirements are met to required standards and within allocated resources. Contribute to the review and development of service plans and business cases.

Responsibilities as Medical Physics Expert:

- As a senior Medical Physics Expert (Diagnostic Radiology) be the responsible lead for reviewing and interpreting the significance of adverse incidents for investigating and where required, reporting to relevant regulatory authorities. With prior consultation and on behalf of the Chief Executive, report such incidents to the appropriate regulatory authorities, be the responsible lead for developing and submitting investigation reports.
- Undertake and oversee acceptance testing, commissioning and optimisation and advising on maintenance, quality assurance and training for new diagnostic X-ray facilities, within areas of responsibility.
- Investigate complex clinical radiation dosimetry situations for Trust and other institution's ethics applications. Use expert knowledge to determine relevant parameters and undertake associated calculations for effective doses and/or organ doses as appropriate and advise on the associated risks and restrictions.

- Where required, act as an 'Operator' as defined by the Ionising Radiation (Medical Exposure) Regulations, in particular
 - Safety tests on medical radiation equipment, calibration measurements as part of testing
 - Developments that may impact on the safety of patients
 - Dosimetry assessments and dose audit
- Work autonomously on highly complex equipment using professional skill and knowledge for new X-ray modalities and also work to defined protocols and procedures. Undertake tests and measurements in standard and non-standard modes of operation to ensure accuracy and that equipment operates correctly, safely and within accepted limits.
- Develop test protocols for X-ray imaging equipment in line with professional guidance.
- Undertake the evaluation and detailed scientific and technical assessment of new techniques and modalities using X-rays to enhance and optimise the effectiveness of imaging effectiveness and radiation protection measures in line with evidence and innovation in healthcare. Working with multidisciplinary colleagues, support the safe implementation of new clinical procedures and techniques in line with national standards.

Responsibilities as Radiation Protection Advisor:

- Be responsible for providing advice and guidance to ensure that the Trust discharges its duties under IRR and other legislation relating to ionising radiation as relevant to the Trust's core activities.
- Maintain competence and 'RPA2000' certification as RPA for diagnostic radiology
- Participate in planning the equipping and design of new diagnostic radiology facilities or departments, their alteration or change of use:
 - Undertake the prior examination of plans for installations and acceptance of physical control measures for sources being introduced into service – both new and modified.
 - Undertake assessment of adequacy and make recommendations to ensure suitable design, including shielding and the undertaking of associated sophisticated shielding calculations including those diagnostic radiology X-ray facilities
 - Produce design specifications for the engineering control of radiation and sign-off final plans as the Trust's appointed representative expert.
- Undertake critical examinations of new facilities on behalf of Portsmouth Hospitals and liaise with installers to ensure that duties and responsibilities for new and modified facilities are met.
- Undertake and oversee the periodic examination and testing of physical control measures and checking of systems of work.
- Review plans, facilities, working practice and workload to advise upon the designation of controlled and supervised areas, their definition and subsequent operational working requirements. Advise upon and monitor their identification, means of access and dose control, and the documented rules and systems of work that govern working practices for the safety of patients, staff and the public.
- Advise upon and develop effective systems for the monitoring and review of radiation levels within and in the environment of radiation facilities, systems for dose limitation for employees, personnel monitoring, personal protection equipment, staff training and arrangements for outside workers.
- Undertake, oversee and review prior risk assessments for the purpose of dose control, optimisation, contingency planning, facility design, equipment and operational control measures.
- Undertake and oversee risk assessments for staff working with radiation who become pregnant.
- Undertake a key role in the development & updating of Emergency Planning procedures for radiation incidents including overseeing the provision of staff training within Medical Physics and the Emergency department.
- Identify training needs for staff at all levels undertaking roles covered by radiation legislation and support provision of training through specific programmes and training courses/events. Explore and support the development of e-learning and other methods of training delivery.
- Manage the Trust's personnel monitoring programmes for classified and non-classified personnel. Ensure results are reviewed, exceptions identified, investigation levels are commensurate with activities and that doses in excess of investigation levels are acted upon.

- Assist with the development of corporate, clinical and management policies to support the Trust's compliance with ionising radiation legislation. Review policies as required.
- Liaise with the Trust Radiation Protection Advisor and the Head of Radiological Sciences, as appropriate, to keep them updated on radiation protection matters.

Where appointed as Laser Protection Advisor

- If appointed as Laser Protection Adviser, undertake responsibilities for the safe use of non-ionising radiation under the AORaW regulations. Play a key role in ensuring the trust discharges its duties for the safe use of lasers under prevailing legislation, standards and guidance.
- Maintain competence and 'RPA 2000' certification as Laser Protection Adviser.
- Undertake the evaluation and assessment of new techniques and facilities utilizing lasers to enhance and optimise the effectiveness of radiation protection measures in line with evidence and innovation in healthcare. Support the safe implementation of new clinical procedures and techniques in line with national standards and relevant legislation.
- Support development and review of local and organisational policies related to the safe use of lasers.
- Identify key responsibilities for the effective management of lasers.
- Provide and / or support the provision of safety training to users of clinical lasers.

Other

Job Holders are required to:

1. Maintain personal and professional development to meet the changing demands of the job, participate in appropriate training activities and encourage and support staff development and training.
2. Always keep requirements in mind and seek out to improve, including achieving customer service performance targets.
3. Adhere to Trust policies and procedures,
4. Act in such a way that at all times the health and well being of children and vulnerable adults is safeguarded. Familiarisation with and adherence to the Safeguarding Policies of the Trust is an essential requirement for all employees.
5. Respect the confidentiality of all matters that they may learn relating to their employment and other members of staff.

This job description does not purport to cover all aspects of the job holder's duties but is intended to be indicative of the main areas of responsibility

Person Specification

Qualifications and Experience

Essential

- Certification as a Radiation Protection Adviser
- Certification as Medical Physics Expert (Diagnostic Radiology)
- MSc (or equivalent) in Medical Physics-related subject
- HCPC registration as a Clinical Scientists in Medical Physics
- Extensive experience and highly specialized knowledge in radiation protection and / or imaging physics

Desirable

- Certification as Laser Protection Adviser
- Record of publications in peer reviewed journals, specialist publications
- Experience of leading and managing teams, and projects
- Track record of presenting scientific papers at conferences/specialist interest groups
- Professional involvement with special interest groups, national working parties or advisory bodies

Skills and Knowledge

- Expert knowledge of Medical Physics in the field of radiation protection and imaging physics
- Well-developed and effective communication skills, both written and spoken
- Able to organize work and prioritize work according to service demands and competing pressures and able to develop policy and implement within own sphere of responsibility
- Evidence of leadership, and negotiating skills
- Well-developed advanced analytical skills in problem solving
- Experience using computers and standard Microsoft Office applications (Excel and Word) to a high level.
- Highly skilled at performing complex scientific measurements and tests with high precision, speed and accuracy, occasionally in hazardous conditions
- Highly developed skills in working with advanced, complex & costly equipment under normal and abnormal operating conditions
- Highly developed advanced skills for working safely with radiation sources, machines and a good understanding of ionizing radiation legislation and quality standards.
- Well-developed skills in teaching and training professional, clinical and support staff
- Effective at working independently and within different teams, contributing to groups and committees
- Ability to serve on local and regional task forces and/or committees
- Experience of LREC applications, interpretation and application of government legislation within the field of radiological imaging.

Working Together for Patients, with Compassion, as One Team, Always Improving

Strategic approach (clarity on objectives, clear on expectations)

Relationship building (communicate effectively, be open and willing to help, courtesy, nurtures partnerships)

Personal credibility (visibility, approachable, back bone, courage, resilience, confidence, role model, challenge bad behaviour, manage poor performance, act with honesty and integrity)

Passion to succeed (patient centred, positive attitude, take action, take pride, take responsibility, aspire for excellence)

Harness performance through teams (champion positive change, develop staff, create a culture without fear of retribution, actively listen and value contribution, feedback and empower staff, respect diversity)

Job description agreement

Job Holders name:

(print)

Job Holders signature: Date:

Senior Officer/ Head of Department

Name

Signature Date

Title: