

Clinical Scientist Job Description

Title: Clinical Scientist (HCPC registered)

Band: 8A

Staff Group: Radiological Sciences Group, Medical Physics Department

Reports to: Head of Radiological Sciences Group

Job Purpose:

1. Provide specialised scientific support in the field of radiation protection and diagnostic radiology physics for a broad range of specialised, complex, routine and non-routine scientific work specifically in;
 - Radiation protection
 - Radiological performance and safety testing of diagnostic X-ray equipment
2. Support the work of the Radiation Protection Advisor and unless already certificated, follow an agreed training plan and work towards submission of an RPA portfolio. Play a key role in ensuring the Trust discharges its duties under Ionising Radiation Regulations including audit, radiation risk assessments and support for personal dosimetry.
3. Act as a Medical Physics Expert for Radiology Physics for a broad range of X-ray imaging modalities. Duties to include evaluation and pre-purchase assessment of state-of-the art X-ray imaging equipment, quality assurance, performance and safety testing and imaging optimization, including dose audit.
4. Undertake investigations of adverse incidents involving the exposure of staff or patients to unexpected levels of radiation arising from equipment failures, accidents, and failure in procedure or inappropriate practice. Assess the radiological impact, adverse effects, and potential consequences of such incidents. Produce reports for Trust management and clinicians advising of the appropriate course of action.
5. Support the safe introduction, application and optimisation of new techniques and developments, contributing to service, protocol, and procedure development for the fields of Radiation Protection and X-ray imaging.
6. Assist with the training and supervision of pre-registration Clinical Scientists and Medical Physics technicians and other staff in development.
7. Actively support the day-to-day work of the Medical Physics department and research and development activities.

Key Responsibilities:

- **X-ray physics service provision:** Liaise with consultant clinical staff, radiographic and other staff providing highly specialized scientific & technical support, advice and appropriate training where necessary in the field of radiation protection and diagnostic radiology physics.
- **Radiation Protection:** Support the work of the Radiation Protection Advisor and unless already certificated, follow an agreed training plan and work towards submission of an RPA portfolio. Play a key role in ensuring the Trust discharges its duties under Ionising Radiation Regulations including audit, radiation risk assessments and support for personal dosimetry.
- **Medical Physics Expert:** Reporting back to the lead MPE, act and take responsibility as Medical Physics Expert as defined by the Ionising Radiation (Medical Exposure) Regulations in agreed areas of diagnostic and interventional radiology physics.
- **Equipment Testing:** Undertake equipment evaluation, acceptance testing and commissioning of new equipment. Ensure specifications are met and detailed baseline parameters are established, and that system performance characteristics are fully evaluated to aid optimization of diagnostic effectiveness. Work autonomously and in accordance with defined protocols and procedures on highly complex equipment. Undertake tests and measurements in standard and non-standard modes of operation to ensure accuracy of calibration and that the equipment operates correctly and within accepted limits.
- **Standards for equipment testing:** Undertake work in accordance with established standards to high standards of accuracy, applying professional judgment and experience. Analyse results to identify options for remedial action so as to ensure the safety of patients and staff. Support the checking of accuracy and consistency of reports and data that are issued by the team. Support the process of updating test methods and protocols for the developing imaging technology and other types of new equipment.
- **Information resources and computing:** Support the analysis and reporting of equipment test results by making changes to bespoke computer-based systems or spreadsheets to meet the demands of continually developing technology and new test methods. Adapt software / spreadsheets to ensure that analysis of results continues to be disseminated efficiently and accurately.
- **Radiation Safety:** Ensure that work is carried out in a manner that minimizes radiation exposure to those present and in accordance with local rules for radiation protection. Abnormal conditions are not intentionally created, unless as part of a strict procedure or with prior approval from the radiation protection adviser. Report incidents to the line manager or head of section as appropriate and provide assistance to achieve a successful resolution.
- **Staff Training:** As part of the department's nationally accredited training for clinical scientists, lead on the delivery of training for year 1 training for STPs working in conjunction with other scientist staff for delivery. Provide support also to university students undertaking projects within the department. Contribute to the training of other colleagues as part of their role development.
- **Record Keeping:** Assist with the maintenance of statutory records required by relevant legislation.
- **Operator:** Act as an 'Operator' as defined by the Ionising Radiation (Medical Exposure) Regulations in the area of performance testing of diagnostic x-ray equipment and calibration of test equipment.
- **Time and personal management:** Manage and plan own work and the day-to-day work of any junior staff who have been delegated tasks. Ensure the Line Manager/Head of Section is kept informed of issues or problems related to service provision.
- **Research and Development:** Initiate and undertake research, development and publication work of the section. Undertake investigations that result in development, improvements and optimisation of equipment, techniques and methods of diagnosing and treating patients in the field of radiation protection / diagnostic radiology physics.
- **Publications / presentations:** 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. Publish work within peer reviewed journals.

- **Professional training:** Contribute to the teaching and lecturing commitments of the section and wider department within Portsmouth Hospitals and at academic institutions and NHS Trusts where arrangements are in place with the Portsmouth Medical Physics Service.
- **CPD:** Attend internal and external courses/seminars/lectures to update knowledge in the field of diagnostic radiology physics, radiation protection and other topics appropriate to the role. Undertake appropriate CPD scheme as required to maintain registration.

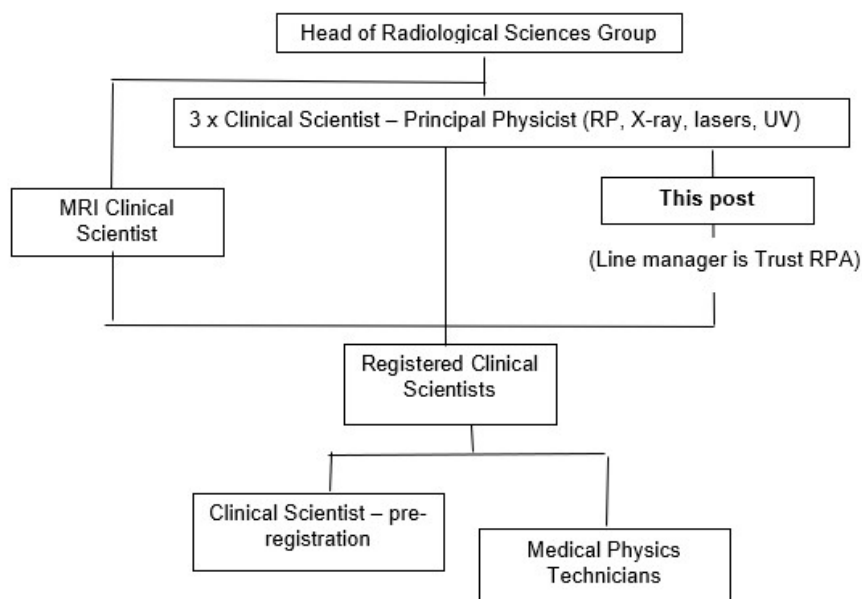
Other

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, e.g. Health and Safety at Work, Equal Opportunities, and No Smoking.
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. In addition, all staff are expected to complete essential/mandatory training in this area.
5. Respect the confidentiality of all matters that they may learn relating to their employment and other members of staff. All staff are expected to respect conform to the requirements of the Data Protection Act including the responsibility to ensure that personal data is accurate and kept up to date.

The 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.

Organisational Chart



Trust Organisational Expectations

The post holder will:

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.

Proactively, meaningfully and consistently demonstrate the Trust Values in your every day practice, decision making and interactions with patients and colleagues.



Working together
for Patients



Working together
with Compassion



Working together
as One Team



Working together
Always Improving

Shared Core Functions

1. Proactively and positively contribute to the achievement of deliverables through individual and team effort. Manage the production of the required deliverables and control risks,
2. Support team members to deliver on their functionally relevant 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.
12. Develop structures, systems, ways of working and personal values that will support the Trusts sustainable development objectives with regards to issues such as Carbon reduction and waste minimization; and to encourage all stakeholders of the Trust to act as enthusiastic agents of change.



Management Essentials

We are proud to offer a comprehensive development programme, Management Essentials, designed to equip staff with the skills and knowledge to become effective managers.

This post has been identified as a role that will benefit from this training, and you will be able to enrol in both mandatory and, relevant, optional modules upon commencement with the Trust.

Please click [here](#) for further information on the Management Essentials programme.



Leadership Insights

Additionally, our new leadership development programme, Leadership Insights, aims to help all newly promoted, existing and aspiring leaders, at every level at the Trust, to recognise, reflect and role model the core principles of people-centred leadership.

If, this is of interest to you, you will be able to enrol upon commencement with the Trust.

Please click [here](#) for further information on the Leadership Insights programme.

Person Specification

Qualifications and Experience

Essential

- BSc in Physics or Physical Science
- MSc (or equivalent e.g. MPhil) in relevant Medical Physics-related subject
- Registration with HCPC as Clinical Scientists in Medical Physics
- Extensive experience and highly specialized knowledge in X-ray physics and/or radiation protection
- Be on the UK's register for Medical Physics Experts (MPE) or Radiation Protection Advisor (RPA)

Desirable

- PhD in related subject area
- 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
- Record of publications in peer reviewed journals, specialist publications

Skills and Knowledge

Essential

- Well-developed and effective communication skills, both written and spoken
- Able to organize own work, data, documentation
- Evidence of leadership and supervision of projects and the work of others
- Able to prioritise work according to service demands and competing pressures
- Able to develop policy and implement within own sphere of responsibility
- Well developed, analytical approach to problem solving
- Significant experience using computers and standard Microsoft Office applications (Excel and Word) to a high level.
- Able to analyze facts and data methodically and accurately and extract significance
- Highly developed skills to perform complex scientific measurements and tests with high precision, speed and accuracy, occasionally in hazardous conditions
- Highly skilled in working carefully, safely and competently with highly complex & costly equipment
- Advanced skills for working safely with radiation sources, machines and of ionizing radiation legislation
- Well-developed skills for teaching and training to professional, clinical and support staff
- Able to balance competing priorities and demands within pressing time-scales

Desirable

- Experience using advanced data handling packages and computer programming languages (e.g. Matlab, Image J etc)
- Experience of research and development

Personal Qualities

- Able to enlist the support and co-operation of others
- Able to communicate complex facts and details to a wide range of professional groups
- Sensitive to the needs of patients and colleagues
- Research interests and a desire to keep abreast of and understand emerging technologies
- Responsive and flexible attitude and approach
- Willingness to work flexibly when required
- Willingness to work at other sites within Portsmouth Hospitals NHS Trust and at the premises of other client / collaborating organizations according to prevailing service requirements
- Highly self-motivated and resourceful

Job Description Agreement

Job Holders name:

(print)

Job Holders signature:

Date:

Senior Officer/ Chief of Service

Name (print)

Signature:

Date:

Title: