

JOB DESCRIPTION

1. JOB DETAILS

Job Title:	Clinical Scientist
Band:	7
Base	Royal Surrey County Hospital, Guildford
Department / Portfolio	Department of Medical Physics Regional Radiation Protection Service
Reports to:	Head of Radiation Protection
Accountable for	N/A

2. JOB PURPOSE

The Medical Physics Department provides radiation physics services to the St Luke's Cancer Centre at the Royal Surrey County Hospital and to a number of Hospitals and Healthcare Providers in South Surrey, West Sussex and beyond. The Medical Physics Department encompasses Radiotherapy Physics, Technical Services including electronics and computing support to the Cancer Centre, Nuclear Medicine, Scientific Computing and the Regional Radiation Protection Service (RRPS) to all the above hospitals and a wide range of external organisations. The Department of Medical Physics also hosts the National Coordinating Centre for the Physics of Mammography (NCCPM) on behalf of Public Health England. Close links exist with the University of Surrey, with a number of joint and visiting appointments.

The Regional Radiation Protection Service (RRPS) provides comprehensive radiation protection, diagnostic radiology physics and X-ray engineering services over the above area and beyond. These include the statutory provision of Radiation Protection Advisers (RPA), Medical Physics Experts (MPE) in Diagnostic Radiology, Laser Protection Advisers (LPA), Radioactive Waste Advisers (RWA) and MR Safety Experts. It has a team of 11 clinical scientists, 8 medical physics practitioners and technologists, a computer scientist, office staff, plus researchers, postgraduate trainees and undergraduate students. The RRPS also provides advice and services to users of non-ionising radiations including MRI, ultrasound, lasers, radiofrequency and ultraviolet. The Service provides NHSBSP mammography physics services for the South East (East) region. The RRPS is active in income generation outside the NHS and provides a wide range of radiation protection advice and services to a variety of employers including corporate organisations, companies, private hospitals, dentists, vets and others. A successful integrated radiation protection and X-ray maintenance scheme provides services to over 80 dentist practices across the South-East. The service is active in research and development and training, including organising courses both locally and at a national level.



2.1 JOB SUMMARY

To be a clinical scientist and a member of the RRPS team, working with other team members in the provision of a comprehensive radiation protection and radiological physics service to the NHS and outside bodies as above. In addition to aid Medical Physics Experts (MPE) under the Ionising Radiation (Medical Exposure) Regulations 2017 (IR(ME)R2017) and to participate in all areas of work, but to take on responsibility for some key aspects of the service. The postholder will work at a senior professional level, providing advice and services to employers facilitating compliance with ionising radiation legislation and aiming for certification as an RPA. Issues are highly specialist, very varied and highly complex. He/she operates with a high degree of autonomy, particularly in the areas for which he/she is responsible.

3. KEY RESULT AREAS/MAIN DUTIES AND RESPONSIBILITIES:

3.1 Clinical Scientific

- 3.1.1 Aid MPE's (diagnostic radiology) for diagnostic radiology clients across the NHS and private sector. Liaise as necessary with clinicians, radiologists, radiographers and other healthcare professional on the protection of the patient and the necessary optimisation of dose and image quality.
- 3.1.2 Participate in all key areas of scientific work within the team.
- 3.1.3 Investigate, measure, analyse and report on complex radiation safety, dose and image quality performance issues using electronic devices and computers on a wide variety of diagnostic X-ray installations from simple radiographic systems to highly complicated and sophisticated state of the art digital systems.
- 3.1.4 To be involved in the provision of non-ionising radiation protection services. To include radiation safety audits and performance measurements where appropriate together with the provision of advice for ultrasound, lasers, ultraviolet, magnetic and radiofrequency including microwaves.
- 3.1.5 Aid in the audit and inspection of procedures for compliance with relevant legislation, standards and agreed good practice in the following areas:-
 - (a) For ionising radiations in all types of organisations and departments where radiation is used including hospital departments of radiology, nuclear medicine, radiotherapy, cardiology, pathology plus dental practices, veterinary practices and other commercial and industrial radiation facilities.
 - (b) With others for non-ionising radiations including lasers, ultraviolet and radiofrequency in hospital departments including theatres, physiotherapy and dermatology.
- 3.1.6 Calculate dose and risk in the event of unnecessary, inadvertent or accidental irradiation or doses much higher than intended, including radiation exposures of the unborn child.
- 3.1.7 To be involved in the design, development, organisation and maintenance of the many databases critical to the daily work of the RRPS.



3.2 Managerial

- 3.2.1 To act as a member of the RRPS team assisting the Head of the RRPS in managing the provision of comprehensive diagnostic radiology physics and radiation protection services. To help ensure that the obligations and targets of the RRPS are met and that the budget is balanced.
- 3.2.2 To aid in the development of written protocols and procedures for the measurement, testing and survey activities.
- 3.2.3 To aid in the Section's income generating activities in both the NHS and private sectors by provision of services, support, networking and liaison with existing and potential customers in both hospitals and industry.
- 3.2.4 To prioritise and manage one's own work including in particular with regard to the functions of a Medical Physics Expert and a lead in areas of particular responsibility.

3.3 Teaching, training and research

- 3.3.1 To be aid in the training of STP and BSc trainees.
- 3.3.2 Be involved in developing and giving training courses and tutorials in radiation protection and diagnostic radiology physics at local, regional and national level including:-
 - (a) In all types of organisations and departments where ionising radiation is used including hospital departments of radiology, nuclear medicine, radiotherapy, cardiology and dental including IRMER courses for healthcare practitioners.
- 3.3.3 Radiation protection and IRMER courses at regional level including courses for Radiation Protection Supervisors, Assistant Practitioners in Mammography and dentistry
- 3.3.4 To carry out research in collaboration with other RRPS staff and other academic and NHS colleagues in research and development.
- 3.3.5 Present papers at local and national scientific meetings and publish papers in peer-refereed journals.
- 3.3.6 Keep abreast of the latest technical and scientific developments in order to further the work of the Department.

3.4 Professional

- 3.4.1 If not already, to work towards State Registration as a Clinical Scientist and to participate in the IPEM Continuing Professional Development scheme or other appropriate scheme to maintain State Registration.
- 3.4.2 Keep abreast of the latest scientific and technical development and their application in the relevant clinical fields. Attend appropriate scientific meetings and seminars as appropriate as part of continuing professional development.



3.5. General Working Requirements

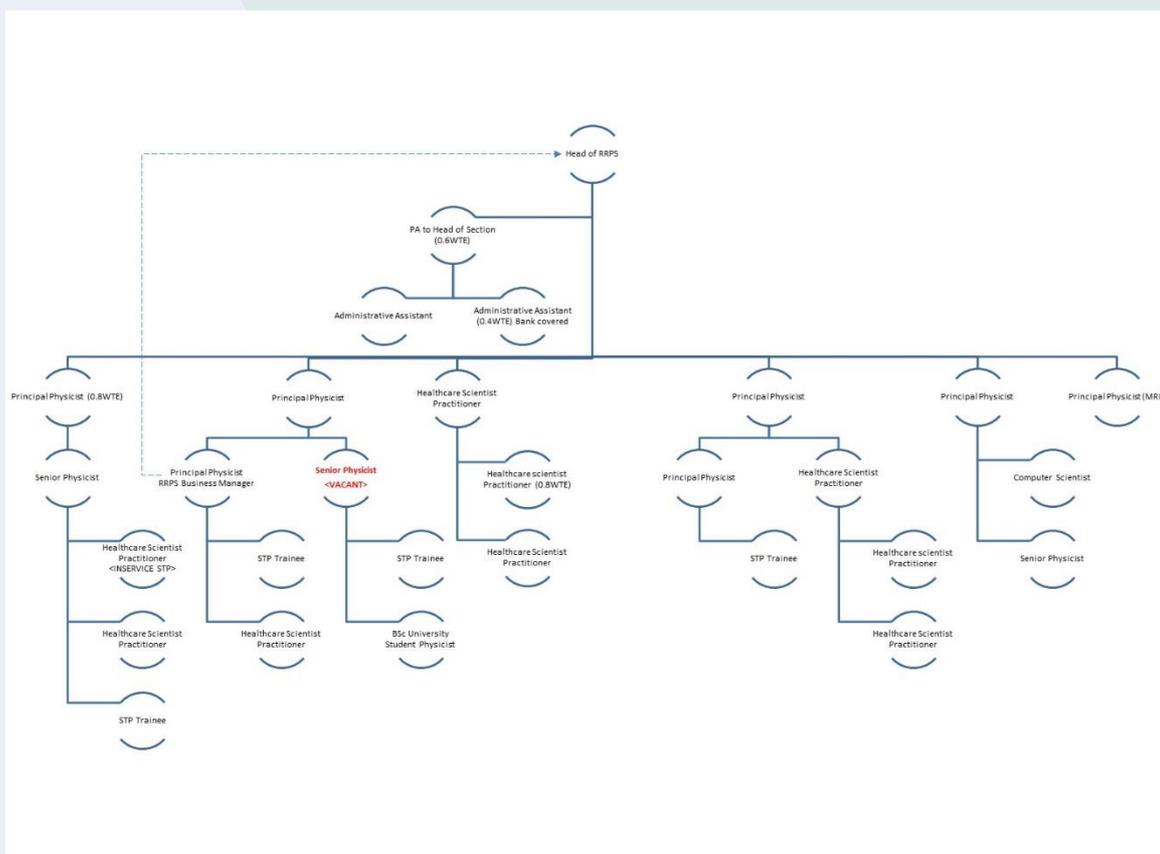
- 3.5.1 To work effectively and proactively within a multi-disciplinary team, involving close working, team building and scientific supervision of other technical and scientific team members as appropriate.
- 3.5.2 Carry out all duties in accordance with the requirements of IRR17 and IRMER2017 and other relevant Statutory Regulations, Approved Codes of Conduct and Local Rules pertaining to radiation, together with the general provisions of the Health & Safety at Work Act.
- 3.5.3 Work in other departments, other Trusts, independent hospitals and other institutions and organisations served by the RRPS, in liaison with radiology managers, radiation protection supervisors, heads of departments, medical consultants and managers. Liaise also with commercial organisations and industry. When working outside the Trust the postholder will abide by local policies and practices. He/she will behave professionally and courteously at all times seeking to uphold the standards and increase the reputation of the RSCH.
- 3.5.4 On a day to day basis drive many local journeys throughout the South East and regularly be required to drive long distances to clients and premises served by the RRPS over the Country as a whole.
- 3.5.5 To be on-call for radiation emergencies under the Trusts Emergency Plan, the National Arrangements for Radiation Emergencies (NAIR) and any other major radiation emergency.
- 3.5.6 To carry out extended periods of VDU work on a regular basis.
- 3.5.7 Take all precautions when dealing with X-rays and other ionising radiation hazards and when handling radioactive sources or radioactive waste.
- 3.5.8 Take all precautions when dealing with non-ionising radiation hazards such as magnetic and electric fields, lasers, ultraviolet, infrared and microwaves.
- 3.5.9 Take all precautions as regards electrical and mechanical hazards when operating and investigating sophisticated radiology and imaging equipment.



4. KEY WORKING RELATIONSHIPS AND COMMUNICATION

Internal to the Trust	External to the Trust
<p>Medical physics sections</p> <ul style="list-style-type: none"> • Nuclear medicine • Radiotherapy • NCCPM • Scientific Computing <p>Departments that use ionising and non-ionising radiation:</p> <ul style="list-style-type: none"> • Radiology • Cardiology • Ophthalmology • Physiotherapy • Oncology 	<p>Private Hospitals & companies</p> <p>Dental Practices</p> <p>Other NHS Trusts</p> <p>Veterinary practices</p>

5. DEPARTMENT CHART OR REPORTING STRUCTURE OF THE POST:



6. OTHER RESPONSIBILITIES

Finance

You are required to comply with the Trust Standard of Business Conduct policy and the NHS Codes of Conduct and Standards of Business Conduct for NHS Staff and you are required to declare all situations where you (or a close relative or associate) have a controlling interest in a business (such as a private company, public organisation, other NHS organisation or voluntary organisation) or in any other activity which may compete for an NHS contract to supply goods or service to the Trust.

Confidentiality

- All employees must respect and protect the confidentiality of matters relating to patients or other members of staff and must comply with the requirements of the Data Protection Legislation. This means that the protection of personal data in any form of media (e.g. system, paper, word of mouth by any means that personal information can be processed) is a requirement by law. Any member of staff found to have permitted unauthorised disclosure of personal confidential and sensitive information and is found in breach of their duty of confidentiality could lead to disciplinary proceedings in accordance with the trust's disciplinary policy. No confidential information must be accessed, read, discussed, or disclosed unless it is necessary in the pursuance of the legitimate duties of their role.

Equal Opportunities

- The Royal Surrey is an equal opportunity employer. We celebrate diversity and are committed to creating an inclusive environment for all employees. A copy of Equality and Diversity Policy and our Single Equality and Diversity Scheme are available from the Human Resource department or on the internet/intranet.
- Staff must ensure that they treat members of staff, patients and visitors with dignity and respect at all times and report any breaches of this to the appropriate manager.



Corporate Governance

- The Trust, as a public organisation, is committed to acting with honesty, with integrity and in an open way. The Trust Board of Directors is responsible for ensuring that Trust services are managed in this way. We are working together to achieve the highest levels of compliance with the risk management standards promoted through the NHS Executive's Controls Assurance programme and the Clinical Negligence Scheme for Trust (CNST). All of us are expected to become familiar with these standards as they relate to our work and further details are available from your manager.
- One of the controls assurance standards relates to Health & Safety. Under the Health & Safety at Work Act 1974, all of us have a duty:
 - To take reasonable care of ourselves and others at work;
 - To co-operate in meeting the requirements of the law.
- All staff must have an understanding of the Trust's Health and Safety policy and be aware of the responsibilities associated with this.
- All staff must adhere to the Trust's Infection Control Policies and maintain the standards laid down in those policies, complying with dress codes and hygiene codes in all clinical areas.

Further details are available from the Trust's Health & Safety Advisors.

Safeguarding

Royal Surrey NHS Foundation Trust has a safeguarding policy for both adults and children and is committed to the protection of children, young people and adults. The Trust acknowledges that, due to the nature of hospitals, many people who would not normally be considered vulnerable can be in a position where they lack capacity or have reduced control. It also recognises that abuse of vulnerable adults/children can occur within domestic, institutional and public settings, and as such we have a responsibility to protect patients and associated dependents within our care. All employees have a responsibility to meet the statutory requirements to safeguard and promote the welfare of both children and adults to ensure that they come to no harm and to raise any concerns regarding safeguarding. All employees would be fully supported in raising any safeguarding concerns. All employees must be aware of Trust policies in relation to safeguarding and must adhere to them at all times.

Infection Control

Infection Prevention and Control is the responsibility of all Trust staff.

All staff have a responsibility to protect service users, visitors and employees against the risk of acquiring health care associated infections by consistently observing Trust Infection Prevention and Control Policies and procedures and best practice guidance in order to maintain high standards of Infection Prevention and Control.

Our vision, mission and values

The Trust undertook a listening exercise with its staff which has formed our vision, mission and values. We are currently working with staff to define our new behaviours which will become part of everything we do.



Our Mission

Together we deliver compassionate, safe care every day.

Our Vision

To provide nationally celebrated, community focused health and care.

Our values are:

- **Continuously improving**
Continuously improving is not just a value.
It's what unlocks our innovation.
- **Excelling together**
Excelling together is not just a value.
It's what we do every day.
- **Caring together**
Caring together is not just a value.
It's what sets our Royal Surrey family apart.
- **Learning together**
Learning together is not just a value.
It's what keeps our services safe.

7. RIDER CLAUSE

This is an outline of duties and responsibilities. It is not intended as an exhaustive list and may change from time to time in order to meet the changing needs of the Trust and Division.

Signed (Employee):----- Date:-----

Print name (Employee):-----

Royal Surrey NHS Foundation Trust aims to ensure that no job applicant or employee is unfairly disadvantaged on the grounds of race, colour, nationality, ethnic origin, age, disability, sex, sexual orientation, marital status/civil partnership, religion/belief or trade union status.



PERSON SPECIFICATION

POST: Clinical Scientist

BAND: 7

*Assessment will take place with reference to the following information

A=Application form

I=Interview

T=Test

C=Certificate

Area	Essential	Desirable	Assessment
Values and Behaviours			
Demonstrable commitment to and focus on quality, promotes high standards to consistently improve patient outcomes	√		A/I
Demonstrable skill to work together to serve our community through delivering safe and excellent clinical care	√		A/I
Value diversity and difference, operates with integrity and openness	√		A/I
Treating others with compassion, empathy and respect and	√		
Share information openly and effectively with patients, staff and relatives	√		
Works across boundaries, looks for collective success, listens, involves, respects and learns from the contribution of others	√		A/I
Uses evidence to make improvements, increase efficiencies and seeks out innovation	√		A/I
Actively develops themselves and others	√		A/I
Qualifications			
Good honours degree in relevant subject	√		C
Educated to masters level in medical physics, radiation protection or equivalent	√		C
Registration as a clinical scientist or working towards registration (HCPC)	√		A/I/C
Knowledge and Experience			
Knowledge and understanding of the nature, use, risks and radiation protection of ionising radiations such as X-rays, gamma rays and electrons.	√		A/I
Knowledge and understanding of all the areas of legislation, approved codes and good guidance, applicable to the use of ionising radiations in the field of medical, dental, veterinary and industry where appropriate.	√		A/I
Specialist knowledge of the techniques employed to measure the performance and radiological safety of digital and analogue state of the art X-ray imaging equipment.	√		A/I
Knowledge and understanding of ultrasound and non-ionising radiations including magnetic, electric fields, ultraviolet, infrared, microwaves and particularly lasers.		√	A/I



Experience in medical physics and radiation protection. Analysing and interpreting highly complex and varied situations and judging measures required to assess performance, risk and benefit in comparison with relevant legislation, codes, guidance and standards.	√		A/I
Specialist experience or awareness in the use of physics testing equipment and complex procedures employed to measure the application, performance and safety of a wide variety of X-ray and other ionising and non-ionising radiation equipment.	√		A/I
A level of understanding of clinical risks to patients, staff and public arising from ionising radiation exposure.	√		A/I
Capacity to act and to exercise own initiative when dealing with issues within own specialist areas of competence.	√		A/I
Knowledge of relevant legislation, national standards, professional and other guidelines:- [e.g. IRR17, IR(ME)R2017, ISO 9001, BSI , RIDDOR, NAIR, EPR16, REPP19, CDG2009, MDA/MHRA guidance, BS 60825, BS 207]		√	A/I
Knowledge of management issues.		√	A/I
Membership of IPEM		√	A/I



Skills and Capabilities			
Able to write, modify and enter data into databases in use within the RRPS.	√		A/I
Able to use complicated image display and graphical software in the analysis of clinical and test object medical X-ray and other images.	√		A/I
Able to input, analyse and extract data and present in graphical or other forms from data files, spreadsheets and databases.	√		A/I
Able to undertake scientific, clinical and other information searches using on-line journal and other internet search facilities.		√	A/I
Able to use Excel, Word, Powerpoint and other MS packages to create documents, spreadsheets, presentations and data files.	√		A/I
Manual dexterity: ability to make accurate measurements using sophisticated testing equipment.	√		A/I
Able to lift medium weight (up to 20 Kg) testing instrument cases, in and out of vehicles, occasionally over difficult terrain, throughout hospitals including upstairs.	√		A/I
Able to analyse complex and difficult scientific issues.	√		A/I
Able to communicate complex information at all levels in both Trusts and small and large non-NHS organisations.	√		A/I
Able to communicate in radiation emergency situations and advise others including A&E staff, Police, Fire & Ambulance personnel.		√	A/I
Able to write scientific papers and make presentations at local, national and international conferences.		√	A/I
Able to train varied groups of other professional and non-professional staff at all levels.	√		A/I
Able to deliver teaching and training on complex subjects to a wide range of professional and non-professional groups.	√		A/I
Able to deal with complex and unpredictable situations.	√		A/I
Understanding of hazards posed by, and precautions needed with: <ul style="list-style-type: none"> • Ionising radiation including X-rays, gamma rays, electrons and neutrons • Open and closed radioactive sources (including clinical and non-clinical radioactive waste) • Non-ionising radiations including lasers magnetic, radiofrequency, microwave, ultraviolet, infrared • Electrical & mechanical hazards 	√		A/I

Personal Attributions			
Used to working in a busy environment	√		I
Adaptability, flexibility and ability to cope with uncertainty	√		I
Willing to engage with and learn from peers, other professionals and colleagues in the desire to provide or support the most appropriate interventions	√		I
Professional calm and efficient manner	√		I
Effective organiser / prioritisation skills	√		I
Demonstrates a strong desire to improve performance and make a difference by focusing on goals	√		I
Attention to detail	√		I
Highly motivated with ability to influence and inspire others	√		I
Ability to work independently	√		I
Adheres to NHS Managerial Code of Conduct	√		A/I/R
Commitment to providing improvement to Patient experience	√		A/I/R
Able to relate and adapt to the perspective of others, tenacity in getting the job done	√		A/I/R
Professionally credible & confident	√		A/I/R
Clarity of thought and articulate in presenting ideas	√		A/I/R
Commitment to Trust Policies and Values & Behaviours	√		A/I/R
Other			
Willing to work occasional unsocial hours	√		A/I
Enthusiasm and commitment	√		A/I
Willing to routinely travel off-site	√		A/I
Willing to support occasional overnight and foreign travel	√		A/I
Entitled to drive in the UK (having a UK license or equivalent – please check at https://www.gov.uk/driving-nongb-licence)	√		A/C

