

JOB DESCRIPTION

JOB DETAILS	
Job Title	Principal Clinical Scientist, Lead Physicist for Diagnostic Radiology Physics
Reports to	Deputy Head/Head of Clinical & Radiation Physics
Band	8b (subject to formal job matching)
Department/Directorate	Medical Physics Department / Clinical Specialist Services Division

JOB PURPOSE
<p>The post-holder will work at a senior level with responsibility for the leadership and management of the highly specialised area of diagnostic radiology physics.</p> <p>The post holder will be an experienced Medical Physics Expert (MPE).</p> <p>Responsible for managing resources across the speciality, including line management and supervision of clinical, scientific and technical staff, and will liaise with other staff on managing risk, resources and performance across the department.</p> <p>Represent the department and the Trust and deputise as required.</p> <p>The post holder will fulfil the following regulated and/or specialist roles as required:</p> <p>Medical Physics Expert (MPE)</p> <p>Radiation Protection Adviser (RPA) or be able to demonstrate a short timeframe for achieving this.</p>

KEY RESULT AREAS/PRINCIPAL DUTIES AND RESPONSIBILITIES
<p>Specific duties include but are not limited to:</p> <ul style="list-style-type: none"> Responsible for leading the Diagnostic radiology Physics team. Responsible for ensuring provision of scientific support to diagnostic radiology services within the Trust and for external partners as agreed and described through service contracts. Manage the X-ray quality assurance programmes Act as a Medical Physics Expert (MPE) for patients in diagnostic radiology as required and defined by the Ionising Radiation (Medical Exposures) Regulations 2017 (IRMER17) and amendments Act as or assist the other Trust RPA / Head of Clinical Radiation Physics in resolving any radiological incidents that may occur and which may be reportable to the HSE or other bodies. To Chair the Trust's Dose Optimisation Committee (Radiology and Cardiology)

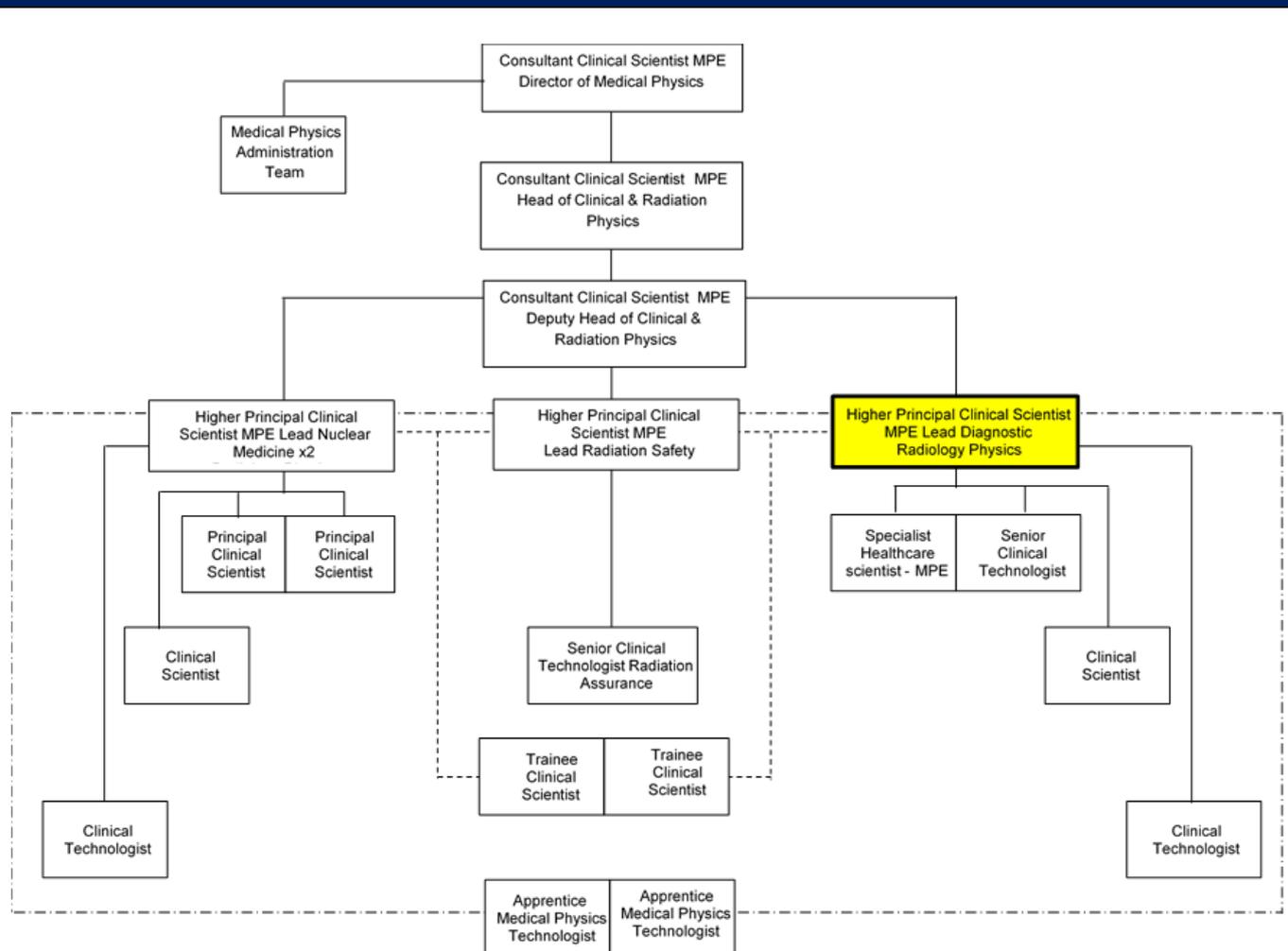
KEY WORKING RELATIONSHIPS				
<p>The post holder is required to deal effectively with staff of all levels throughout the Trust as and when they encounter on a day-to-day basis. In addition, the post holder will deal with external engineers, external organisations and the public. This will include verbal, written and electronic media.</p> <p>Of particular importance are working relationships with:</p> <table border="1" data-bbox="229 1944 1422 2065"> <thead> <tr> <th>Internal to the Trust</th> <th>External to the Trust</th> </tr> </thead> <tbody> <tr> <td> <ul style="list-style-type: none"> Clinical Scientists Clinical Technologists </td> <td> <ul style="list-style-type: none"> Engineers </td> </tr> </tbody> </table>	Internal to the Trust	External to the Trust	<ul style="list-style-type: none"> Clinical Scientists Clinical Technologists 	<ul style="list-style-type: none"> Engineers
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- Service lead in Radiology, Radiologists, Radiographers and X-ray engineers
- Service lead in Cardiology, Cardiologists, and Cardiac Physiologists
- Other clinical professions, incl. medical, nursing, pharmacy and allied health professionals
- Specialist, technical and technical support staff, incl. infection control, recruitment, finance, estates, IM&T and procurement
- Clerical staff
- Trainees
- Clinical and general managers

- External customers e.g. University of Exeter technical and academic staff
- Patients
- Peer group and the wider scientific community
- External partners and suppliers

There will also be some liaison with Medical Physics and Clinical Scientist staff on a regional/national basis.

ORGANISATIONAL CHART



FREEDOM TO ACT

- The post holder is the lead physicist for their specialty and therefore works with a high degree of autonomy.

- The post holder has freedom to work within a set of parameters to ensure patient, staff and public safety and will manage and develop work practices for their area.
- Undertake quality control measurements on radiation measurement equipment as required.
- Work autonomously under the direction of the Head of Clinical & Radiation Physics prioritising and managing your own schedule.
- Act as a Medical Physics Expert (MPE) for diagnostic medical exposures using x-rays for identified modalities.
- Assess staff doses in a variety of complex situations. Use expert knowledge to determine relevant parameters, derive effective radiation doses and advise on risks and appropriate courses of action.
- Write procedures, work instructions and instructions for physics and other staff engaged in the provision of services. Ensure processes are documented in accordance with the local quality system, undertaking audits both as auditor and auditee, and initiating quality improvements.
- Act as MPE, act as an Operator under IR(ME)R17 for x-ray equipment.
- Coordinate programme of surveillance of radiological equipment. Advise as appropriate on clinical use of equipment.
- Produce routine and complex spreadsheets as required to deliver the service, including for surveillance of radiological equipment and patient dose estimation.
- Participate in the production and execution of quality assurance protocols required for surveillance of radiological equipment.
- Undertake quality control measurements and other general activities on wide ranging radiological equipment when required. This may require working outside office hours but within the Agenda for Change working day envelope.

COMMUNICATION/RELATIONSHIP SKILLS

- Communicate highly complex scientific information relating to own specialty, within the department and with any/all other staff groups, patients and carers as required.
- Communicate highly complex radiation safety and regulatory advice with medical and other staff, patients and carers as required.
- Communicate highly complex governance, performance and improvement information, including the results of audit, peer review, quality improvement (QI) and research.
- Present work at professional and scientific meetings and conferences and in peer reviewed literature, collaborating with colleagues within and out with the Trust.
- When working in other departments and on other sites, the post holder will behave professionally and courteously at all times and will observe local policies, rules and working practices.

ANALYTICAL/JUDGEMENTAL SKILLS

- Make judgements in highly complex situations involving the analysis and interpretation of highly complex clinical and scientific data.
- Analyse, communicate and manage the performance of own area. Optimisation of radiation services for own area.
- Provide advice on procuring, commissioning, accepting and routine quality assurance of highly complex clinical equipment including the assessment, interpretation and communication highly complex information.

PLANNING/ORGANISATIONAL SKILLS

- Plan and organise the work of own specialist team including workload and the allocation of work.
- Responsible for prioritisation of own work and that of others.

- Leads plans and strategies in response to changing circumstances and organisational priorities.
- Support the commissioning of highly complex clinical equipment which may involve leading on projects.
- Manage and participate in project work, including audit, research and QI.
- Participate in annual service and business planning processes, e.g., service and workforce plans and equipment procurement and replacement plans.
- Plan, organise and run meetings.

PATIENT/CLIENT CARE

- Provide highly specialist healthcare science services for own area.
- Act as an MPE for own area.
- Act as an MPE to support other areas as part of a networked system.
- This involves advising medical staff or other healthcare professionals on highly specialised clinical technologies and their application.
- Carry out highly specialist dose estimates for medical exposures in diagnostic radiology and issue appropriate advice for complex situations which require special attention as required by IRMER17.
- Act as an “Operator” as defined under IRMER as required.
- Work with and assist trust appointed Radiation Protection Advisors in their duties.
- Use and develop the quality management system (QMS), or equivalent governance controls (reference ISO9000 and BS70000), to ensure that services are provided to the appropriate standards and are subject to external scrutiny.
- Work with ionising and non-ionising radiation and other hazardous resources, taking all precautions minimise risk to oneself and others.
- Occasionally work and communicate with ill and anxious patients and carers.

POLICY/SERVICE DEVELOPMENT

- Contributes to policy and strategy development and implementation for their specialism, contributing to an overall plan for the wider department and how this impacts service users.
- Applies the interpretation of national and international guidance and implement protocols to keep services in line with recommended practice. In conjunction with the line manager proposes and develops changes to practice for service users and supporting implementation outside own area.
- Lead on QI and service development for own area, contributing to an overall plan for the department.
- Use benchmarking and QI techniques to seek out and implement best practice.
- Embrace ‘continuous improvement’ as described by QMS standards such as ISO9000 and BS70000.
- Be aware of relevant legal and statutory issues, international standards, and guidelines for best practice.

FINANCIAL/PHYSICAL RESOURCES

- Responsible for the safe use of highly complex clinical and test and measurement equipment when assigned to the team.
- Specify, commission, test and verify highly complex clinical and test and measurement equipment
- Selection and requisition of specialist equipment and materials.
- Manage physical assets in own area.
- Manage a delegated budget for the specialty.

HUMAN RESOURCES

- Work autonomously; planning, prioritising and managing own work.

- Line management of staff within own specialty, including recruitment, managing attendance and performance and supporting personal professional development.
- Supervise staff (including clinical) under the post holder's direction and sign off work and reports as required.
- Use coaching and mentoring techniques to support staff within and out with own specialty.
- Teach and train healthcare scientists, including, for example, apprenticeship programmes and programmes accredited through the National School for Healthcare Science (NSHCS).
- Organise and deliver specialist teaching and training for other staff groups and clients.
- May need to have difficult conversations with staff and deal with sensitive and challenging behaviours and situations.
- Ensure that practices comply with Health and Safety legislation and other relevant regulations, including IRR, IRMER and EPR.

INFORMATION RESOURCES

- Regularly use, test and manage computer systems and software including systems which are used to record and process data relating to own specialty.
- Specify, procure, commission specialist software on occasion. Or provide advice to other teams to do so.
- Configure and/or write software to process, analyse and report highly complex datasets.
- Effectively manage data availability, integrity and confidentiality.
- Use and develop the QMS, or equivalent governance controls, to effectively manage document control.

RESEARCH AND DEVELOPMENT

- Lead on QI and service development for own specialty including initiating, undertaking and supervising research projects.
- Initiate and participate in clinical and service audit.
- Participate in, support and supervise clinical trials as required.
- Introduce and commission new processes, procedures, protocols and techniques.
- Specify, commission, test and verify highly complex clinical and test and measurement equipment.
- Present work at professional and scientific meetings and conferences and in peer reviewed literature, collaborating with colleagues within and out with the Trust.
- Responsible for own continuous professional development (CPD) and for maintaining professional registration and certification.

PHYSICAL SKILLS

- Highly-developed physical skills are required, to carry out testing procedures and scientific measurements where a high degree of precision and accuracy is essential.
- Perform minute adjustments to medical equipment or instrumentation.
- Execute and coordinate equipment-based clinical measurements.
- Perform analysis of complex pieces of information and take prompt action as required to maintain safe and effective clinical operations.
- Advanced keyboard skills

PHYSICAL EFFORT

- Ability to stand up for hours at time while performing computer-aided measurements whilst sometimes wearing heavy PPE
- Manipulate (push) heavy pieces of equipment (assisted by trolleys and tables on wheels)

- Lift heavy (>10kg) test equipment (in accordance with relevant manual handling protocols)
- Ability to sit for long (hours) period of time in front of computer monitors
- The post holder is required to travel between all Trust sites and to sites where external contracts are held

MENTAL EFFORT

- Provide clinical advice under time pressure directly affecting medical exposure of patients.
- Deliver scientific advice on medical exposures making judgements under time pressure.
- Able to concentrate frequently when subject to unpredictable working patterns and interruptions.
- Able to concentrate for prolonged periods (hours)
- Able to extract relevant clinical information from complex datasets.

EMOTIONAL EFFORT

The post holder must be able to deal with rare but unexpected situations involving emotional distress.

WORKING CONDITIONS

- There is frequent potential for exposure to ionising and non-ionising radiation.
- Ensure that all practices comply with Statutory Regulations, Approved Codes of Practice and local Safety rules, particularly IRR17 and IR(ME)R17.
- Reduce as much as practicably possible his/her radiation exposure as well as the radiation exposure to patients, staff and members of the public to ionising radiation.
- Regular VDU user.

OTHER RESPONSIBILITIES

- Take part in regular performance appraisal.
- Undertake any training required in order to maintain competency including mandatory training, e.g. Manual Handling
- Contribute to and work within a safe working environment
- The post holder is expected to comply with Trust Infection Control Policies and conduct themselves at all times in such a manner as to minimise the risk of healthcare associated infection

As an employee of the Trust, it is a contractual duty that you abide by any relevant code of professional conduct and/or practice applicable to you. A breach of this requirement may result in action being taken against you (in accordance with the Trust's disciplinary policy) up to and including dismissal.

You must also take responsibility for your workplace health and wellbeing:

- When required, gain support from Occupational Health, Human Resources or other sources.
- Familiarise yourself with the health and wellbeing support available from policies and/or Occupational Health.
- Follow the Trust's health and wellbeing vision of healthy body, healthy mind, healthy you.
- Undertake a Display Screen Equipment assessment (DSE) if appropriate to role.

APPLICABLE TO MANAGERS ONLY

Leading the team effectively and supporting their wellbeing by:

- Championing health and wellbeing.
- Encouraging and support staff engagement in delivery of the service.
- Encouraging staff to comment on development and delivery of the service.
- Ensuring during 1:1's / supervision with employees you always check how they are.

GENERAL

This is a description of the job as it is now. We periodically examine employees' job descriptions and update them to ensure that they reflect the job as it is then being performed, or to incorporate any changes being proposed. This procedure is conducted by the manager in consultation with the jobholder. You will, therefore, be expected to participate fully in such discussions. We aim to reach agreement on reasonable changes, but if agreement is not possible, we reserve the right to insist on changes to your job description after consultation with you.

Everyone within the Trust has a responsibility for, and is committed to, safeguarding and promoting the welfare of vulnerable adults, children and young people and for ensuring that they are protected from harm, ensuring that the Trusts Child Protection and Safeguarding Adult policies and procedures are promoted and adhered to by all members of staff.

At the Royal Devon, we are committed to reducing our carbon emissions and minimising the impact of healthcare on the environment, as outlined in our Green Plan available on our website. We actively promote sustainable practices and encourage colleagues to explore and implement greener ways of working within their roles

PERSON SPECIFICATION

Job Title	Lead Physicist for Diagnostic Radiology Physics
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Requirements	Essential	Desirable
QUALIFICATIONS / TRAINING		
Degree in Physics or a related subject	E	
MSc in Medical Physics or related subject	E	
State registered Clinical Scientist (HCPC)	E	
Medical Physics Expert	E	
Further specialist training allied to Medical Physics at postgraduate level	E	
Corporate member of IPeM	E	
Chartered Physicist (CPhys)		D
Chartered Scientist (CSci)		D
Additional specialist certification:		
Radiation Protection Adviser (RPA)		D
KNOWLEDGE / SKILLS		
Advanced theoretical and practical knowledge in relevant area of medical physics sufficient for the role of Medical Physics Expert (MPE).	E	
Expert understanding of relevant legislation, national standards, professional and other guidelines.	E	
Specialist theoretical and practical knowledge of highly complex clinical equipment and systems and specialist test and measurement equipment.	E	
Specialist theoretical and practical knowledge of non-ionising radiation physics and systems and specialist test and measurement equipment.		D
Specialist theoretical and practical knowledge of relevant medical physics processes, procedures and techniques.	E	
Specialist theoretical and practical knowledge relating to the assessment of risk applied to medical physics.	E	
Ability to use word processing, spreadsheet and database software and relevant software tools for analysis and development.	E	
EXPERIENCE		
Extensive post registration experience acting as an MPE and to fulfil any additional specialist roles.	E	
Extensive experience using highly complex clinical equipment and systems and specialist test and measurement equipment.	E	

Extensive experience dealing with governance and regulatory compliance matters.	E	
Experience in introducing/commissioning new equipment and techniques.	E	
Experience in service improvement / research and development. Experience of clinical trials.	E	
Experience in the structured management of work activities, eg, ISO9000 quality management system.	E	
Experience in delivering specialist teaching and training including professional presentations.	E	
PERSONAL ATTRIBUTES		
Highly motivated with positive attitude to change.	E	
Able to work under stressful-time sensitive conditions.	E	
Able to work as part of a team.	E	
Able to inspire confidence in clinical, scientific and managerial colleagues.	E	
Able to work with people with illness without becoming unduly distressed.	E	
OTHER REQUIREMENTS:		
Full driving licence / able to travel to different working locations with equipment.	E	

		FREQUENCY			
		(Rare/ Occasional/ Moderate/ Frequent)			
WORKING CONDITIONS/HAZARDS		R	O	M	F
Hazards/ Risks requiring Immunisation Screening					
Laboratory specimens	N				
Contact with patients	Y		O		
Exposure Prone Procedures	N				
Blood/body fluids	Y	R			
Hazard/Risks requiring Respiratory Health Surveillance					
Solvents (e.g. toluene, xylene, white spirit, acetone, formaldehyde and ethyl acetate)	N				
Respiratory sensitisers (e.g isocyanates)	N				
Chlorine based cleaning solutions (e.g. Chlorclean, Actichlor, Tristel)	N				
Animals	N				
Cytotoxic drugs	N				
Risks requiring Other Health Surveillance					
Radiation (>6mSv)	N				
Laser (Class 3R, 3B, 4)	N				
Dusty environment (>4mg/m3)	N				
Noise (over 80dBA)	N				
Hand held vibration tools (=>2.5 m/s2)	N				
Other General Hazards/ Risks					
VDU use (> 1 hour daily)	Y				F
Heavy manual handling (>10kg)	Y		O		
Driving	Y		O		
Food handling	N				
Night working	N				
Electrical work	N				
Physical Effort	Y		O		
Mental Effort	Y				F
Emotional Effort	Y	R			
Working in isolation	Y	R			
Challenging behaviour	Y	R			