



Royal Devon and Exeter
NHS Foundation Trust

“Our vision is to provide safe, high quality seamless service delivered with courtesy and respect. To achieve our vision we expect all our staff to uphold our Trust Values”

JOB DETAILS	
Job Title	Dosimetrist
Reports to	Chief Dosimetrist
Band	6
Department/Directorate	Medical Physics / Specialist Services

JOB PURPOSE

The post holder will be a Radiographer/Clinical Technologist/Clinical Scientist, with proven experience in radiotherapy. Experience using the Varian-Eclipse treatment planning system would be considered as an asset. Our Centre is currently equipped with ‘fully loaded’ TrueBeam linear accelerators. Image guided radiation therapy (IGRT) is performed using the Varian OBI- CBCT and MV imaging functionality. CT simulations are performed using a state of the art canon CT simulator equipped with respiratory gating. Treatment planning is performed using the Varian-Eclipse treatment planning platform. Our Centre provides approximately 1800 radiotherapy courses a year, serving a population of over half a million.

The main purpose of this position is the delivery of routine operational/clinical treatment planning and mould room services. Responsibilities also include service development, maintenance and quality control as well as on the effective management of patient-workflow from CT-simulation/Treatment Planning to treatment delivery. The post holder is expected to provide support for all the different aspects involving the Treatment Planning process; from pre-CT patient setup-immobilization and chart preparation for radiotherapy delivery.

The post holder will fulfil the following regulated and/or specialist roles as required:
RCT/HCP Registration

KEY WORKING RELATIONSHIPS

The key working relationships are primarily those with other members of the Radiotherapy Physics and Exeter Oncology Centre teams together with staff elsewhere in Medical Physics. These will include:

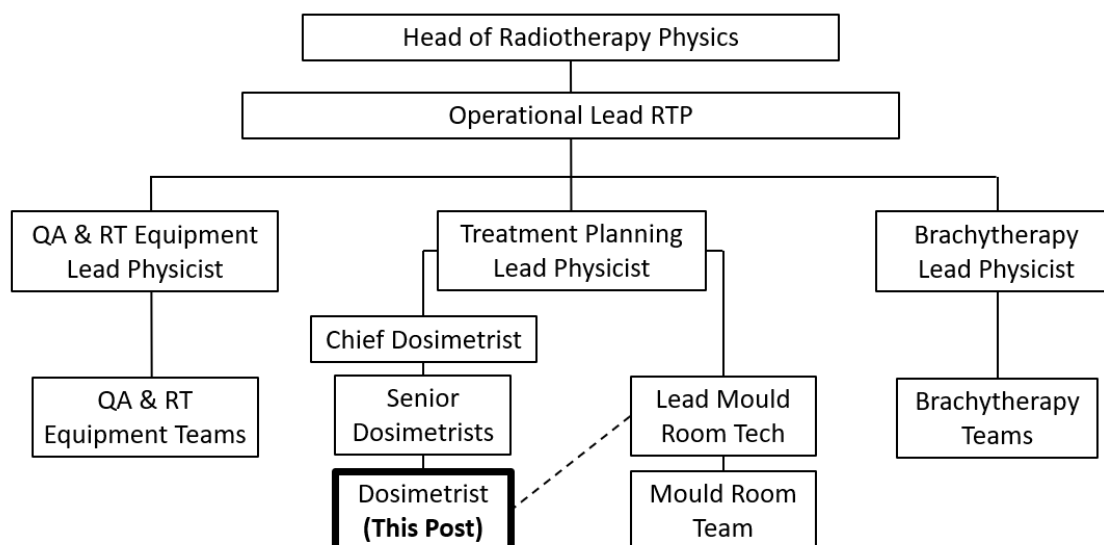
- Radiographers
- Clinical Scientists
- Clinical Technologists
- Dosimetrists



- Patients
- Medical staff
- Clerical staff
- Suppliers

The key working relationships are primarily those with other members of the dosimetry group and mould room teams. An effective and continuous interaction with all Exeter Oncology Centre teams is essential for this role.

ORGANISATIONAL CHART



KEY RESULT AREAS/PRINCIPAL DUTIES AND RESPONSIBILITIES

- Generate 3D computer-based radiotherapy treatment plans for patients undergoing radiotherapy. These plans include simple, complex 3D conformal planning (IMRT & VMAT) and SBRT.
- Manipulate and combine three dimensional CT, MRI, PET and radiation dose images using IT equipment and software so that treatment volumes, organs at risk and radiation distributions can be visualised and matched.
- Prepare and verify radiotherapy treatment plans, supporting the efficient execution of the radiotherapy workflow.
- Provide checks on treatment plans by means of manual calculations, spreadsheets, and software based methods and physical measurements when required.
- Participate on the patient specific (IMRT-VMAT) and machine specific QC program as required. This program includes daily, weekly monthly and annual components.
- Advise the mould room team and the pre-treatment CT team on patient set up and produce optimised immobilization
- Support the treatment planning quality control program.
- Contribute to the commissioning and implementation of advanced radiotherapy treatment planning strategies.
- Support the Lead Planning Physicist in the development of emerging techniques including volumetric modulated arc therapy (VMAT), image guided radiotherapy (IGRT) gated radiotherapy and adaptive radiotherapy (ART)

- Work directly with patients to manufacture bespoke immobilisation, often with frail, distressed or in challenging circumstance.

COMMUNICATION/RELATIONSHIP SKILLS

- Communicate with medical staff, providing advice regarding the clinical effects of complex treatment plan options referring to key statistical indicators
- Communicating with radiographers and physicists involved in both the pre-treatment and on-treatment relating to plan preparation and dosimetry advice

ANALYTICAL/JUDGEMENTAL SKILLS

- Ensure all work complies with the relevant Health and Safety legislation.
- Maintain an awareness of radiation protection issues within the workplace, especially regarding the IRR99, IRMER COSHH regulations.
- Using knowledge and experience to develop optimal treatment plans with consideration of guidance including ICRU and RCR.
- Advise/deal with issues of conflicting demands, including in situations involving re-treatment
- Awareness of own limitations (role, registration and professional training).
- Contribute to and work within a safe working environment.
- Comply with Trust Infection Control Policies.

PLANNING/ORGANISATIONAL SKILLS

- Participate in the working of the Medical Physics Department ISO 9001:2015 Quality System, suggesting Quality Improvements, undertaking audits and contributing to developments in the documentation system.
- Maintain and develop departmental documentation recording all relevant information.
- Take part in regular performance appraisal.
- Assist the leadership with the introduction of new techniques, equipment and systems and supervise other staff on specific projects under direction of senior medical physics staff.
- Contribute to the maintenance, development and implementation of treatment planning initiatives as required by the lead Treatment planning Physicist

PHYSICAL SKILLS

- Ability to concentrate for long (hours) periods of time
- Highly-developed physical skills are required, to carry out manufacturing and modification procedures, scientific measurements where a high degree of precision and accuracy is essential.
- Advanced IT skills.

PATIENT/CLIENT CARE

- Work with hazardous resources, taking all precautions minimise risk to oneself and others.
- Work and communicate with ill and anxious patients and carers.

POLICY/SERVICE DEVELOPMENT

- Monitor and promote developments in radiotherapy, particularly in the specialist areas of treatment planning connected with this post.

FINANCIAL/PHYSICAL RESOURCES

- No financial responsibility

HUMAN RESOURCES

- Provide training for students, trainees, clinical scientists, technologists and other staff both as part of recognised programs and when required locally.
- Undertake any training required in order to maintain competency including essential training such as Fire, Manual Handling etc.

INFORMATION RESOURCES

- Post holder may responsible for recording and analysing data relating to clinical treatment planning using standard office tools and radiotherapy specific applications.

RESEARCH AND DEVELOPMENT

- The successful candidate is expected to develop their radiotherapy skills through participation on scientific conferences, internal and external training courses and actively contribute to do research and development of novel radiotherapy techniques.
- Undertake a supporting role in R&D and clinical trials.

FREEDOM TO ACT

- Ensure that all clinical work is checked by a registered member of staff until evidence of competency in a specific area is agreed.
- Undertake CPD, maintaining a record of training and development activities and participating in nationally coordinated schemes.

Post holder will act under standard procedures published in the department's quality system. The post holder may have to enact judgements for situation falling outside this within the scope of their own competence as an operator (under IRMER) or with the supervision of lead dosimetrist/physicist, as appropriate.

OTHER RESPONSIBILITIES

To take part in regular performance appraisal.

To undertake any training required in order to maintain competency including mandatory training, e.g. Manual Handling

To contribute to and work within a safe working environment

The post holder is expected to comply with Trust Infection Control Policies and conduct him/herself 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.

APPLICABLE TO MANAGERS ONLY

Evidence that supporting employee health and wellbeing is included in any documents outlining the skills and knowledge that line managers need.

Proportion of line managers whose job descriptions include supporting employee health and wellbeing.

This post has been identified as involving access to vulnerable adults and/or children and in line with Trust policy successful applicants will be required to undertake a Disclosure & Barring Service Disclosure Check.

THE TRUST- VISION AND VALUES

Our vision is to provide safe, high quality seamless services delivered with courtesy and respect. To achieve our vision we expect all our staff to uphold our Trust values. Our Trust values are:

Honesty, Openness & Integrity
Fairness,
Inclusion & Collaboration
Respect & Dignity

We recruit competent staff that we support in maintaining and extending their skills in accordance with the needs of the people we serve. We will pay staff fairly and recognise the whole staff's commitment to meeting the needs of our patients.

We are committed to equal opportunity for all and encourage flexible working arrangements including job sharing.

We are committed to recruiting and supporting a diverse workforce and welcome applications from all sections of the community, regardless of age, disability, gender, race, religion, sexual orientation, maternity/pregnancy, marriage/civil partnership or transgender status. We expect all staff to behave in a way which recognises and respects this diversity, in line with the appropriate standards.

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.

The RD&E is a totally smoke-free Trust. Smoking is not permitted anywhere on Trust property, including all buildings, grounds and car parks. For help to quit call: 01392 207462.

POST	Dosimetrist
BAND	6

Requirements	Essential	Desirable
<p>QUALIFICATION/ SPECIAL TRAINING</p> <p>BSc/MPhys/MSci good honours degree in physics/radiography</p> <p>MSc in Radiotherapy related subject</p> <p>Clinical Registration with a PSA healthcare institute: HCPC or RCT with a minimum of 2 years post-qualification experience</p> <p>Further industry membership (e.g. IPEM or equivalent)</p>	E	D
<p>KNOWLEDGE/SKILLS</p> <p>Broad knowledge of Radiotherapy, Radiation Physics</p> <p>Advanced knowledge of procedures and techniques within radiotherapy pathway</p> <p>Mature Treatment planning/Mould Room knowledge</p> <p>Knowledge of Quality Control procedures and tolerances for treatment machines and planning systems</p> <p>Use of word processing, presentation software, spread sheets and other office packages.</p>	E	D
<p>EXPERIENCE</p> <p>At least two years' experience as a registered clinical scientist or radiographer or dosimetrist.</p> <p>Experience of using computerised treatment planning systems including dose volume constraints and margining tools</p> <p>Experience with advanced IMRT planning techniques</p> <p>Clinical Trials knowledge and experience</p> <p>Radiation legislation awareness including IRMER17 and IRR17</p> <p>Quality Management Systems e.g. ISO 9000</p>	E	D
<p>PERSONAL ATTRIBUTES</p> <p>Excellent multidisciplinary team working skills</p> <p>Effective written and verbal communication skills</p> <p>Able to present highly complex information to other staff groups</p> <p>Able to exercise sufficient physical effort to lift and position medium weight equipment and materials</p>	E	D

Able to concentrate intensively for long period to resolve difficult circumstances regarding a patient's treatment under time pressure	E	
Able to deal with emotionally distressing circumstances involving cancer patients	E	
OTHER REQUIREMENTS Regular requirement for almost continuous DSE use	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				
Exposure Prone Procedures	N				
Blood/body fluids	Y				
Laboratory specimens	N				
Hazard/Risks requiring Respiratory Health Surveillance					
Solvents (e.g. toluene, xylene, white spirit, acetone, formaldehyde and ethyl acetate)	Y				
Respiratory sensitisers (e.g isocyanates)	N				
Chlorine based cleaning solutions (e.g. Chlorclean, Actichlor, Tristel)	Y				
Animals	N				
Cytotoxic drugs	N				
Risks requiring Other Health Surveillance					
Radiation (>6mSv)	N				
Laser (Class 3R, 3B, 4)	N				
Dusty environment (>4mg/m3)	Y				
Noise (over 80dBA)	Y				
Hand held vibration tools (=>2.5 m/s2)	Y				
Other General Hazards/ Risks					
VDU use (> 1 hour daily)	Y				F
Heavy manual handling (>10kg)	Y				
Driving	Y				
Food handling	N				
Night working	N				
Electrical work	Y				
Physical Effort	Y				
Mental Effort	Y			M	
Emotional Effort	Y				
Working in isolation	Y				
Challenging behaviour	N				