#### **JOB DESCRIPTION**

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| JOB IDENTIFICATION |
|  Job Title: Therapeutic RadiographerBand: Band 5Responsible to: Head of Therapy Radiography Professionally Accountable To**:** Head of Therapy Radiography Service: Specialist Oncology ServicesDirectorate: Regional Services Directorate  Location: Radiotherapy Department at Beatson West of Scotland Cancer Centre, Gartnavel General Hospital or at the Lanarkshire Beatson. The post-holder may be expected to work in either location.No of Job Holders 3.4Last Update (insert date): July 2023 |

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| 2. JOB PURPOSE |
| In accordance with scope of entitlement:* To accurately and efficiently plan and deliver radiotherapy and to provide highest possible standards of care and support to patients with a wide range of clinical pathologies and varying presentations.
* All patient positioning must be undertaken in order to achieve reproducibility of set-up to within a tolerance of 2mm each day.
* The post-holder will rotate through pre-treatment, CT and all treatment machines.
* He/she will continue to develop skills, competencies and clinical practice in preparation for career progression to Band 6.
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| **3. DIMENSIONS** |
| **Clinical Areas:****1. Pre-Treatment*** The pre-treatment area will include a CT, virtual simulation and data entry, the CT currents works at 50% capacity therefore throughput in the region of 6-7 patients per day.
* The post-holder will assist with CT scans and fluoroscopy, be involved in the process of intravenous contrast administration, marking-up patients, preparation and checking of treatment plans, and tattooing permanent marks on to patients’ skin.
* The virtual simulation area involves administration of prescription signatures, calculation and data entry, which houses 4 -5 staff and PCs, each with access to all modules of ARIA. Final preparation of treatment prescriptions, and the timely delivery of the completed prescriptions to the treatment units is undertaken for 5-10 prescriptions per day.

**2. Treatment*** The treatment area will be a Varian True Beam Linear Accelerator.
* Both Linear Accelerators are multi-modality, providing X-Ray or electron treatments at 6 or 10 Mev energies. Both have on-Board kV Imaging with Cone Beam CT facility.
* The patient workload on each linear accelerator will be in the region of 40 to 60 patients per day.

**Clinical Provision:*** Five days per week from 8.00a.m. to 7.00 p.m, including most public holidays
* There is currently no on-call service or weekend work carried out routinely in the satellite facility but there is weekend on-call provision and CHART (Conventional Hyperfractionated Accelerated Radiotherapy) for up to 24 cohorts of patients each year in the main centre.
* The post-holder is professionally accountable for his/her practice.
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| 4. ORGANISATIONAL POSITION |
|  Radiotherapy Assistants (Clerical)Band 2 & 3Radiotherapy Assistants (Clinical)Band 3Mould Room Clin Techs(Inc Satellite)Band 5General ManagerLead Clinician RadiotherapyClinical DirectorTeam LeadTeam LeadTherapy Radiographers Band 5Therapy RadiographersBand 6Therapy Radiographers Band 5Assistant PractitionersBand 4Head of Therapy RadiographyBand 8BClinical Services Manager Therapy RadiographersBand 6Team LeadRadiotherapy Assistants (Clinical)Band 3Assistant PractitionersBand 4Therapy Radiographers Band 5Therapy RadiographersBand 6Therapy Radiographers, Team Managers (Simulation)Band 7Therapy RadiographersTreatment/Sim Band 7Therapy Radiographers Band 5Radiotherapy Assistant (Clinical)Band 3Macmillan Information & Support RadiographerInformation & Support Radiographer Band 6Advanced Practitioner (Clinical Teams)R&D, Imaging,Clin Trials Prac EducBand 7Lead Pre-Treatment Radiographer (Simulation)Band 8ADeputy Head of Therapy Radiography (Treatment)Band 8ALead RadiographerSatellite Band 8ATherapy RadiographersBand 6Pre-Tx / Bkgs / SuplTeam ManagerBand 7Therapy Radiographers, Team Managers (Treatment)Band 7Mould Rm Clin Techs(Inc Satellite)Band 6Mould Rm ManagerBand 7Consultant Therapy RadiographersBand 8A |

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| 5. ROLE OF DEPARTMENT |
| The Beatson West of Scotland Cancer Centre provides an integrated cancer management and treatment service for patients from the West of Scotland. Facilities are situated in the Beatson West of Scotland Cancer Centre and the Tom Wheldon Building on the Gartnavel Hospitals site. There is also a Satellite Radiotherapy Facility located in a purpose built building in the grounds of Monklands District General Hospital which provides treatment and planning for Breast, Lung, Colorectal and Urology diagnosis.Approximately 7000 courses of radiotherapy are provided annually requiring over 100,000 patient attendances.* On the main centre the pre-treatment planning area is equipped with 3 CT Simulators, mark-up rooms and a prescription preparation area. Four virtual simulation offices are used by simulator staff to plan radiotherapy as part of the multidisciplinary team.
* The treatment area is equipped with 12 Linear Accelerators (4 TrueBeam, 5 multi-modality, 3 single modality) A number have On-Board kV Imaging with Cone Beam CT facility and Respiratory Gating, and currently 7 Linear Accelerators deliver VMAT.
* Additionally, there is a superficial X-Ray unit, Mould Room and computerised treatment planning systems.
* In the satellite facility there are 2 True beam multi energy linear accelerators equipped with on board KV imaging with cone beam facility and gating.
* The satellite also has independent mould room facilities

Linear Accelerators are highly complex and expensive items of equipment, with the cost being up to £1,500,000, or more, per unitSpecialist radiotherapy services include Total Body Irradiation, CHART, Paediatric radiotherapy, Stereotaxy, extracorporeal irradiation, image-guided radiotherapy and brachytherapy, lung and prostate SABR. Many treatments are delivered using IMRT or VMAT. The Beatson is a national centre (Scotland) for some of these specialised techniques. Future developments may include respiratory gating.The department is the main clinical training Centre for undergraduate student radiographers from Glasgow Caledonian University, which also provides a postgraduate programme. Students from the University receive over 90% of their clinical training in the Centre. In addition, assistant practitioner trainees from Stow College have undertaken their practical training in the centre and students from QMUC (Edinburgh) and other UK centres spend their elective placements here. Radiographers play a major part in the training and supervision of all students. Post-holders assess all GCU students on a continuous basis and for specific key staged assessments. In addition radiographers assist in the training and visits of other staff and students including medical, nursing and AHP disciplines.Radiographers have for many years been involved in extended-role activities. The following specialist radiographers are in post:* Consultant Head and Neck and Lung Radiographers
* Macmillan Information and Support Radiographer
* Breast Specialist Radiographer
* Specialist Neuro-Oncology Radiographer
* Research and Development Radiographer
* Clinical Trials Radiographer
* Specialist Imaging Radiographers
* Practice Educator
* Information and Support Band 6 Radiographer

In addition a number of radiographers are assigned to site-specific clinical teams or technical development groups. Senior Radiographers perform verification image review and approval and some undertake on-treatment clinical review.There is a Web-site with information for patients, carers and staff |
| 6. KEY RESULT AREAS  |
| **1. Radiotherapy:*** To position patients on the treatment and simulator couches, using lasers and appropriate positioning devices, to within a tolerance of 2mm
* To operate the treatment machine/CTs, including gantry, collimator, couch, imager.
* To ensure that the parameters set match those on the prescription and plan.
* To check wedge direction and multileaf collimator
* To report any aspect of the set-up which does not comply with departmental practice.
* To calculate and enter treatment details into ARIA
* To perform initial and regular prescription checks
* To acquire electronic verification images and participate in image review/approval
* To undertake in vivo dosimetry measurements

**2. Staff organisation:*** To work within a team of radiotherapy staff on a treatment unit, CT or pre-treatment area, and demonstrate flexibility within the staff rotation.
* To contribute to the training of student radiographers.
* To train, assist and supervise radiotherapy assistants (HCSW).

**3. Safety:*** To recognise and report equipment faults, accidents, incidents and unsafe practices to the Band 6 or Band 7 Radiographer in charge of the unit.
* To operate the radiotherapy equipment as trained and in a safe manner
* To follow divisional/departmental guidelines to ensure the safety of patients, visitors and staff in work areas
* To ensure compliance with IR(ME)R’17, IRR17 and local rules for radiation safety.
* To implement procedures following any emergency or non-routine situation (including Fire, Cardiac arrest) and when treating patients with infectious diseases.
* To attend all mandatory training, including Fire, and other H&S related lectures or training sessions.

**4. Patient Administration:*** To ensure the efficient throughput of patients by using the established appointment system
* To assist senior staff in rescheduling patients during equipment maintenance or break-down periods
* To maintain accurate patient records, both manual and computerised
* To communicate appropriate scheduling information to patients
* To liaise with radiotherapy wards and portering staff regarding in-patient appointments

**5. Quality Assurance:*** To provide accurate planning, calculation, data entry and treatment using treatment plans and prescriptions
* To conduct initial calculations and checks, independent MU checks and regular prescription checks, following departmental work instructions
* To be aware of the departmental Quality system (QART) and its electronic management (Q-Pulse), audit processes and written instructions
* To report any errors or omissions in treatment to the Band 6 or Band 7 radiographer in charge of the treatment area
* To report Clinical Governance issues

**6. Audit:*** To assist in the auditing of all aspects of the patient journey, including waiting times, gaps in treatment and checks
* To participate in patient and staff surveys

**7. Staff development*** To ensure that no task is undertaken without the appropriate knowledge, training or supervision
* To participate in mandatory and voluntary training
* To complete the list of objectives required during induction or following a break in service
* To actively pursue and undertake CPD opportunities
* To develop and maintain a personal portfolio

**8. Staff Appraisal:*** To be aware of and to participate in the Divisional KSF/PDP/TURAS process

**9. Communication Skills:*** To work within a team to ensure effective communication
* To treat all patients with sensitivity, dignity and tact
* To provide information, advice and support to patients at each stage of the planning and treatment processes
* To ensure that any complaint is dealt with politely and reported to the appropriate Band 6 or Band 7 Radiographer
* To liaise with nursing, medical and physics colleagues
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| 7a. EQUIPMENT AND MACHINERY |
| * The post-holder will require clinical knowledge, training and experience to ensure the safe operation and use of complex specialised equipment which has a value of up to £1,500,000, or more, per unit:
* Multi-Modality Linear Accelerators with MV or on-board kV imaging and CBCT
* The networking of these facilities.
* CT, Acuity, Eclipse; archiving and networking to Linear accelerators.
* All accessory equipment, including manual handling aids.
* Personal computer – for machine operation, administration, e-mail communication and CPD.
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| **7b. SYSTEMS**  |
| The post-holder must have knowledge of and possess keyboard skills in:* **ARIA, Patient information and appointment systems**
* Monitor treatment unit or simulator daily diary in order to regulate daily workload
* Produce appointments and new appointment lists for patients as necessary
* **IRREG or In-house Treatment planning and Calculation programs**
* Enter patient demographics, geometric and dose parameters and produce treatment dose distributions and MU calculations
* **ARIA Record and Verify System**
* Enter accurate patient demographics
* Translate planned parameters into accurate treatment unit settings
* Enter all planned treatment parameters accurately
* Check accuracy of all previous calculations
* Check appropriateness of prescribed dose and fractionation
* Carry out regular checks of the patients’ electronic treatment record
* Check accuracy of daily treatment parameters, ensuring mechanical accuracy of the treatment unit
* **Other**
* Internet and trust intranet to access relevant information for personal and professional development.
* Q-Pulse, Quality Assurance in Radiotherapy, information system.
* Standard Microsoft office applications (Word, Excel, Powerpoint etc) for compilation of reports.
* **Future Developments**
* Participate in the introduction of new systems – eg electronic prescriptions and signatures
* Maintain knowledge of relevant systems and participate in software or hardware upgrades as appropriate
* Ensure that knowledge and skills are maintained and updated to keep pace with developments
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| 8. ASSIGNMENT AND REVIEW OF WORK  |
| * There will be a period of mentoring for newly qualified staff
* Work within the team will be allocated by Band 6 or Band 7 radiographers
* Annual review with line manager
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| **9. DECISIONS AND JUDGEMENTS**  |
| * The Band 5 Radiographer will undertake the daily assessment and treatment of patients and perform calculations and checks.
* In the event of needing further information or assistance, he/she will contact a Band 6 or Band 7 radiographer
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| 10. MOST CHALLENGING/DIFFICULT PARTS OF THE JOB  |
| * Maintaining effective patient-focused care while developing skills and competencies required as new techniques & equipment are introduced.
* Developing and maintaining effective communication with all members of the multidisciplinary teams
* Managing the amount of time during which staff can talk and listen to patients while working in a busy and noisy atmosphere
* Providing patient advice regarding many aspects of treatment
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| **11. COMMUNICATIONS AND RELATIONSHIPS**  |
| * The post-holder requires good interpersonal skills to develop good communication links with colleagues and other members of the multidisciplinary team.
* He/she must also be able to communicate in an effective, clear and empathic manner with patients, relatives and carers, Oncology Medical staff, Oncology Nursing staff, Oncology Physics staff, Student Radiographers, Radiography lecturers and all other staff involved in the care of patients
* Treatment-related information needs to be conveyed in a manner that can be understood by patients and their carers or their parents, some of whom may have learning difficulties, dementia, alcohol dependency, claustrophobia and/or severe anxiety.
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| **12. PHYSICAL, MENTAL, EMOTIONAL AND ENVIRONMENTAL DEMANDS OF THE JOB**  |
| **Physical Skills:*** The post-holder requires to be able to use safe movement and handling techniques to move patients to and from narrow treatment or CT couches, with and without the use of mechanical aids.
* To safely use the treatment machines and simulator and associated ancillary equipment such as electron applicators, shadow trays, vacuum bags, BDSs and other treatment devices frequently throughout the working day.
* The post-holder must have excellent hand-eye coordination and manual dexterity to enable him/her to perform the tasks necessary safely, and accurately (within 2mm), when planning or treating radiotherapy patients
* The post-holder must be able to work with speed and accuracy
* He/she will possess keyboard skills for operating all electronic systems

**Physical Demands:*** The post holder ensures that patients are positioned/moved using up-to-date moving and handling skills and equipment in any planning, treatment or support areas of the department. For large/obese patients, flexibility and upper body strength are necessary.
* He/She will position all patients for treatment, and safely use and manoeuvre the treatment machines or simulator and associated ancillary equipment such as electron applicators, shadow trays and shielding blocks
* The post holder will be standing or walking for the majority of the shift and will be required several times a shift to push and manoeuvre trolleys, wheelchairs and beds.

**Mental Demands:*** The post-holder requires to concentrate continuously on the daily assessment and treatment or planning of patients and maintain accurate treatment records.
* He/she will require to adapt to changing work patterns and deal with frequent interruptions either by individuals or by telephone. The interruptions happen throughout the shift and involve giving or receiving patient or treatment related information, and will require the radiographer involved to focus on a different task or activity.

**Emotional Demands:*** Treating and managing terminally ill patients*.* The post holder will have to deal with and meet the needs of a wide range of cancer patients from newly diagnosed patients with good prognosis to terminally ill patients. He/She will frequently be in emotionally difficult and draining situations helping patients in an empathic and sensitive way to deal with their diagnosis, treatment and treatment reactions.
* He/She must be aware at all times of requirements for confidentiality
* The post-holder will also have to deal with the concerns and anxieties of relatives/carers of patients.

**Working Conditions:*** The post-holder is required to follow Infection control and Health and Safety guidelines when dealing with open wounds, body fluids and infections; frequent exposure to unpleasant odours and body fluids is a constant potential risk.
* The post-holder must adhere to radiation safety guidelines at all times (IR(ME)R, IRR17, Local Rules)
* The post-holder will work predominantly in areas with little or no natural light and may be expected to work in a constricted area.
* Their work may involve prolonged periods of viewing computer screens involving complex information.
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| 13. KNOWLEDGE, TRAINING AND EXPERIENCE REQUIRED TO DO THE JOB  |
| The following attributes are essential:* DCR(T) or BSc in Therapy Radiography (or equivalent)
* State Registration with HCPC (Therapy Radiographer) is mandatory
* General knowledge of Radiation Safety and IR(ME)R Regulations.
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| **14. JOB DESCRIPTION AGREEMENT** |
| A separate job description will need to be signed off by each jobholder to whom the job description applies. Job Holder’s Signature: Head of Department Signature: | Date:Date: |

EMPLOYEE SPECIFICATION

JOB TITLE: Band 5 Therapy Radiographer

DEPARTMENT: Lanarkshire Beatson Radiotherapy dept, Monklands Hospital, Airdrie. NHSGG&C Trust

DIVISION: Regional Services

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| **CRITERIA** | **ESSENTIAL** | **DESIRABLE** |
| ***QUALIFICATIONS & TRAINING*** |
| DCR/BsC in Therapeutic Radiography | Y |  |
| HCPC Registration | Y |  |
| First Aid training |  | Y |
| Data protection training | Y |  |
| ***EXPERIENCE*** |
| Previous experience with Varian equipment. |  | Y |
| Previous experience with Aria verification software. |  | Y |
| Previous patient care activity | Y |  |
| Previous healthcare experience | Y |  |
| Previous responsibilities for stock control |  | Y |
| Previous customer/carer/team member | Y |  |
| ***KNOWLEDGE, SKILLS AND ABILITY*** |
| Knowledge of IRMER & IRR17 | Y |  |
| Manual handling training  | Y |  |
| Some clerical skills | Y |  |
| Basic Nursing skills |  | Y |
| Adhere to infection control policy | Y |  |
| Occasional travel to Glasgow area | Y |  |
| Basic IT skills | Y |  |
| ***PERSONAL QUALITIES*** |
| Able to communicate with patients and staff | Y |  |
| Ability to be an effective team member | Y |  |
| Awareness of patient safety | Y |  |
| Empathetic and caring manner | Y |  |
| Physically able to perform all aspects of the role | Y |  |
| Strong references from current/previous employer | Y |  |
| Reporting accidents/incidents accurately  | Y |  |
| Willingness to learn new skills  | Y |  |