Portsmouth Hospitals University NHS Trust

Job Description

Title: Radiotherapy Physics Technician/Dosimetrist

Band: 5

Staff Group: HealthCare Scientists

Reports to: Head of Radiotherapy Quality Control or Head of Radiotherapy Treatment Planning (depending on specific role)

Job Purpose:

Contribute to the technical and scientific service provided by the Medical Physics Department. Specifically, to provide a flexible mix of treatment planning, quality control, support to theatre and workshop activities, and development projects, within the Radiotherapy Physics Section.

Key Responsibilities

Provide specialised technical support in the field of Radiotherapy Physics, involving a broad range of specialised, complex, routine and non-routine technical and scientific work in the following; (direct contact with radiotherapy patients may be required in the mould room and in theatre)

• Perform routine quality control and radiation dosimetry measurements, unsupervised once sufficient competence achieved,

• Non-routine quality control, radiation dosimetry, and equipment commissioning measurements, under the direct guidance of senior colleagues,

• Radiotherapy treatment planning and calculations for external beam and brachytherapy treatments,

• Attendance at theatre to provide technical support to brachytherapy procedures.

• Technical and administrative support across a range of radiotherapy physics activities,

• Production of patient-specific devices in the mould room and workshop,

3. Manage own work and where necessary, the work of a small specialised team of medical physics technicians Provide technical support to a number of areas within the section.

4. Contribute to development and research work activities of the section, where appropriate.

5. Work closely with line-manager, the Head of Radiotherapy Quality Control and the Head of Radiotherapy Treatment Planning to achieve coordinated delivery of specialised scientific and technical services that demand skilled performance to ensure accuracy and patient safety.

Specific Functions:

▪ Work is carried out in accordance with protocols and procedures to the required tolerances and standards.

▪ Complex clinical and technical data are evaluated with care and accuracy applying a high level of professional judgment and also in accordance with protocols and procedures to the required tolerances and standards.

▪ Routine technical support within the Radiotherapy Physics Treatment Planning group is planned and prioritized according to schedules taking into account pressing service demands as they arise. Own work and that of supporting staff is managed accordingly.

▪ Work is carried out in a timely and effective manner, showing care and consideration to the needs of patients and colleagues at all times.

▪ Calibrations, measurements and radioactive source manipulations are undertaken precisely and accurately. Results are entered into spreadsheets and software with care and errors minimized. Unusual findings are checked and repeated for validation.

▪ Results, measurements and observations are recorded and analyzed with care and accuracy. Unusual results are validated and reported promptly. Results are analyzed and reports are issued under the authority of the Head of Radiotherapy Quality Control or registered clinical scientist.

▪ Work with complex equipment, appliances and sources is performed strictly to protocol and procedure. Equipment is not operated outside the normal modes of operation unless covered by specific protocol.

▪ New procedures and policies for areas of complex technical work are developed. Changes are proposed that will lead to the improvement of quality, safety and effectiveness of the service.

▪ New equipment is commissioned and procedures are evaluated, with support for their implementation into routine use.

▪ Supplies and services are ordered in accordance with Medical Physics Department and Trust policies

▪ Close collaboration with clinical users is sustained by understanding their needs and facilitating delivery of appropriate service.

▪ Assistance is provided with the maintenance of statutory records required by relevant radiation legislation.

▪ Act as an ‘Operator’ as required by the Ionising Radiation (Medical Exposure) Regulations

▪ Training and development is provided and supported to trainee/entry level Medical Physics Technicians and Medical Physics Technicians in the Radiotherapy Physics Group to a training plan agreed with the Principal Physicist. Assistance is provided with the maintenance of training records

▪ Assistance is provided with the training of Clinical Scientists, Pre-registration Clinical Scientists and staff of allied departments as directed by the Head of Radiotherapy Physics.

▪ Work and activities are undertaken that involve some exposure to unpleasant conditions and exposure to hazards.

▪ Department protocols, Health and Safety policies, Local Rules and Systems of Work for radiation procedures are applied and adhered to by members of the Radiotherapy Physics Section, so that work is undertaken in a safe manner in compliance with ionising radiation legislation.

▪ Supervision and training support is provided to staff, in accordance with approved programmes. Competence to practise is monitored and formal records of competency maintained for inspection by IRMER regulators.

▪ Internal and external courses/seminars/lectures are attended to update knowledge in the field of Radiotherapy Physics. Communications are maintained within the section, and professional contact with peers

Organisational Chart

Available on request.

Other

This 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

Person Specification

Qualifications

Essential

- BSc. in science or engineering-based subject.

Desirable

- Completion of relevant qualification (e.g. radiographer) or training scheme (medical physics technologist training)
- Completion of technologist training scheme
- MSc or significant equivalent specialist experience
- Evidence of leadership or managerial development

Experience

Essential

- Work experience

Desirable

- Relevant transferable work experience, in a clinical or technical environment
- Experience of supervising technical staff

Skills & Knowledge

Essential

- *Highly numerate*
- *Able to use computers, spreadsheets and other software packages*
- *Able to communicate scientifically and technically with colleagues and staff in allied disciplines*
- *Technically practical with an analytical approach to problem solving*
- *Ability to work accurately with attention to detail*
- *Ability to work in teams and independently, and supervise individuals and lead teams*
- *Well organised and able to manage, prioritise own work and that of others*
- *Highly developed physical accuracy and dexterity, and good spatial awareness*
- *Able to work with patients or in the patient environment with care and discretion*
- *Able to organize and or lead meetings*

Desirable

- Good understanding of hazards posed by, and precautions needed with ionising radiation.
- Familiarity with the use and handling of radioactive materials in medicine
- Able to respond well to minor incidents and problems

Working Together For Patients with Compassion as One Team Always Improving

Strategic approach (clarity on objectives, clear on expectations)

Relationship building (communicate effectively, be open and willing to help, courtesy, nurtures partnerships)

Personal credibility (visibility, approachable, back bone, courage, resilience, confidence, role model, challenge bad behaviour, manage poor performance, act with honesty and integrity)

Passion to succeed (patient centred, positive attitude, take action, take pride, take responsibility, aspire for excellence)

Harness performance through teams (champion positive change, develop staff, create a culture without fear of retribution, actively listen and value contribution, feedback and empower staff , respect diversity)

Job holders are required to 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.

Print Name:
Date:
Signature: