

#### **JOB DESCRIPTION**

|  |
| --- |
| JOB IDENTIFICATION |
|  Job Title: Band 7 CT Radiographer Responsible to: CT Lead RadiographerReports to: CT Lead Radiographer Department(s): Radiology Directorate: WC&CSOperating Division: Fife AcuteJob Reference:No of Job Holders: 1Last Update (insert date): 08/08/2023 |

|  |
| --- |
| 2. JOB PURPOSE |
| Using a high level of skill and knowledge in CT, autonomously provide a high-quality diagnostic imaging service.In partnership with other band 7 CT Radiographers, deputise for the Lead CT Radiographer in his / her absence.Justify and perform CT and general radiographic examinations, providing direct care in order to assist in the management of patients referred from clinicians and other referrers.Supervise and train radiographers, student radiographers and support workers ensuring continuity of service delivery.Undertake Quality Assurance and Clinical Governance within CT, manage risk and coordinate Datix management within CT.Work with the radiology manager and radiology clinical activity manager to manage demand and capacity across CT services. |

|  |
| --- |
| **3. DIMENSIONS** |
| **General:*** Demands for diagnostic Imaging are generated by the specific needs of each clinical area. Images must be suitable for diagnosis and archived on PACS.
* Lead Radiographer will be available on a daily basis to provide advice when required during core working hours.
* Lead Radiographer will agree an annual personal development plan.

**Clinical areas:** * CT and any other clinical areas as required.
* Patients referred from A&E, GP, Out Patients, In Patients, ITU.
* Service covers imaging patients from neonatal to geriatric, including individuals who have varying degrees of ability and understanding.

**Clinical activity:** * Approximately 219,000 examinations per annum across all sites.
* CT – 30,000 OP examinations Fife wide per year

**Clinical provision:**  * CT - 24 hours, 365 days per annum. During on call and stand by periods (unsocial hours, over night and weekends) the post holder works unsupervised. Service covers trauma patients, urgent ward patients and emergency CT scans.
* General -365 days per annum. During on call and stand by periods (unsocial hours, over night and weekends) Service covers trauma patients, urgent ward patients.

**Staff Responsibility:** * Participate in the training / mentoring and induction of new staff members.
* Participate in the supervision and training / mentoring of Student Radiographers on clinical placement.
* Responsible for training and development of all CT radiographers, particularly with respect to more highly specialised procedures and supporting ongoing CPD.
* Direct and supervise the workload of band 6 and band 5 Radiographers, Student Radiographers and Support workers.
* As a “reviewer” – in accordance with NHS Fife policy - carry out annual PDP interviews with Radiographers, and Assistants.
* Deputise for Lead CT Radiographer
 |

|  |
| --- |
| 4. ORGANISATIONAL POSITION |
|  |

|  |
| --- |
| 5. ROLE OF DEPARTMENT |
| 1. Provide a high quality, efficient and effective imaging service fife wide
2. Diagnostic imaging equipment is used to carry out radiological examinations on patients and reports are provided to referring clinicians. The report assists the referrer in providing a diagnosis of the patient’s condition in order to decide on an effective course of treatment and care.
3. The departmental clinical governance strategy ensures a high standard of care for patients undergoing radiological examination and promotes multidisciplinary team working.

4. Provide a suitable environment for the training and assessment of student Radiographers. |

|  |
| --- |
| 6. KEY RESULT AREAS |
| The post holder has core skills in the highly specialised modality of CT scanning and expertise in general Radiography.Due to the inherent high radiation dose in CT examinations the post holder has a significantresponsibility to minimise the radiation dose to the patient, staff, and general public. CT is a rapidly changing environment. Advances in technology and technique require the post holder tocontinuously update their knowledge and skills. **Clinical*** Using a high degree of specialist knowledge, perform all routine and specialised CT, plain film imaging and fluoroscopy procedures.
* Act as a radiation protection supervisor for the CT and general departments.
* Maintain a high level of expertise in the safe operation of highly complex Imaging equipment, including regular equipment testing and managing faults effectively.
* Prioritise workload depending on the severity of the patient’s condition and whether diagnostic imaging will have a direct impact on their management
* Clinically and technically evaluate images and determine the need for further images based on that assessment using extensive knowledge and expertise in specialised clinical area.
* Provide advice to clinicians on images, verbally, identifying possible pathology.
* Operate high pressure intra-arterial / intra-venous injector pumps.
* Communicate effectively as part of the Radiology team to provide a high quality imaging service.
* Represent the Radiology department at daily NHS Fife safety huddle briefs, on a rotational basis raising any clinical or service concerns
* Communicate with fellow healthcare workers to ensure efficient and effective delivery of care.
* To care for the needs and welfare of every patient.
* Adapt technique to accommodate the varying physical needs of each patient.
* Maintain the knowledge and skills associated with current advances in technology and diagnostic techniques.
* Undertake intravenous cannulation / administration for patients requiring contrast media injections (following the required training and assessment of competence).
* Maintain a safe working environment.
* Be actively involved in training and assessment of student Radiographers on clinical placement, providing direct supervision at all times. Maintain the required knowledge and skills to provide effective training, keeping up to date with current advances in technology and diagnostic techniques.
* On a daily basis multi-task with frequent interruptions while ensuring continuous service delivery
* Act independently in the assessment of referrals for X-Ray examinations, taking full responsibility for the justification of general X-Ray examinations in order to reduce unnecessary ionising radiation exposure of patients in accordance with IR (ME) R 2000.

**Managerial*** Be able to exercise personal responsibility and make decisions in complex and unpredictable circumstances.
* Prioritise/ schedule workload to accommodate unplanned cases.
* Contribute to, and participate in, training schedules for Radiographers, Student Radiographers and Support Workers.
* Partake in the radiology leads on call rota to provide remote out of hours support to the on-call team.
* Support the CT lead in development of reports for submission to departmental meetings such as Health and safety and radiation protection meetings
* Deputise for the CT lead at weekly leads meetings, radiation protection supervisors meetings and health and safety meetings.
* Undertake staff appraisal through the TURAS system
* Manage the mandatory training records for all CT staff, coordinate mandatory training for staff
* Work in partnership with the radiation protection team to perform dose audits
* As part of the senior leads team investigate and work in partnership with patient relations to manage complaints relating to CT and general radiology services
* Investigate and manage datix incident relating to service area
* Delegate appropriate tasks and supervise Radiographers, Student Radiographers and Support workers within Radiology.
* Participate in the overall motivation of the Radiology team as a whole, and individually where necessary.
* Be actively involved in Audit and Quality Assurance to achieve departmental Clinical Governance and Clinical Effectiveness goals.
* Seek opportunities for service improvement and patient safety initiatives
* Rearrange distribution of personnel to accommodate unplanned staff absence.
* Comply with professional / organisational policies and procedures
* Contribute (to) and comply with all departmental policies such as:

**Educational*** Participate in mandatory training and actively pursue Continuous Professional Development keeping an up to date personal record in accordance with HPC requirements.
* Maintain knowledge of technological and technical advances in methods of diagnostic Imaging in CT and plain film imaging in order to promote a culture of continuous improvement within the department.
* Develop knowledge and understanding within evidence-based framework and transfer to situations encountered in practice.
* Maintain / update skills as necessary to achieve required competency level.
 |

|  |
| --- |
| 7a. EQUIPMENT AND MACHINERY |
| Specialised investigative and diagnostic imaging equipment is utilised which comprises of multifunctional controls. The equipment is operator dependent and requires specific skills to achieve images of diagnostic quality. Post holders use the equipment listed below. Equipment costs vary from £1,000 to over £1,000,000.Diagnostic Equipment* Multi slice Computed Tomography (CT) scanner, including table and gantry operator console, with post processing workstation
* High pressure CT injector.

Diagnostic Equipment General* General purpose x-ray equipment
* Dedicated Fluoroscopy units for general and interventional work
* Mobile X-Ray units for ward and theatre Radiography
* Mobile Image Intensifiers for Theatre / Coronary Care Fluoroscopy
* Orthopantomogram (OPG) unit for dental and Maxillo Facial / Orthodontic referral
* Intra Oral dental unit

Accessory Equipment* Dental CR Processor
* Wireless or cabled DR plates
* Computerised Radiography (CR) imaging plates and CR “imaging plate readers”
* Label Printers
* PC / “dumb” terminals – used in daily administration (quality assurance / communication [email] etc)
* Stationary grids and cassette holders
* A variety of immobilisation / support devices such as foam pads and bucky bands
* Patient Hoists / Aids
* Patient wheelchairs / trolleys
* Oxygen cylinders
 |

|  |
| --- |
| **7b. SYSTEMS** |
| Radiology Information System (RIS) for patient registration, link to PACS and data management.Computerised Radiography (CR) System including image manipulation and storage software.Picture Archive and Communication System (PACS) for storage, access and transfer of images.Access the internet and trust intranet via departmental PC’s / “dumb” terminals.Use software programmes such as Microsoft “Word” and “Excel” to create documents and tables e.g. used for quality assurance and audit. |
| 8. ASSIGNMENT AND REVIEW OF WORK |
| Demands for diagnostic imaging are generated by the specific service needs of each clinical area from across the board. Images must be suitable for diagnosis and archived on the PACS.Lead CT and General Radiographer / Consultant Radiologist will be available to consult on a daily basis.Lead CT and general Radiographers will delegate other non-clinical tasks.A Superintendent / Lead Radiographer will undertake appraisal in order to agree an annual performance development plan. |
| **9. DECISIONS AND JUDGEMENTS** |
| Freedom to act 1. Assess and understand a wide range of clinical information from a variety of disciplines and

 to critically evaluate it’s relevance in relation to the post holders specialty. 1. To manage time effectively ensuring maximum patient throughput and quality of service.
2. Prioritising workload according to patient and service needs.
3. Problem solve (in conjunction with colleagues).
4. Be accountable for own professional actions.
5. Consider mechanism of injury / illness and decide upon appropriate images to achieve best

 possible diagnostic outcome.1. Assess mental, physical and emotional condition of patient prior to examination. Technique may

 need to be adapted to suit these conditions in order to minimise risks and achieve best possible Diagnostic outcome. 1. Assess condition of patient to determine if an adverse reaction has occurred after “contrast”

 medium has been administered1. After examination ensure patient understands procedure for receiving results, and is well enough to be discharged from the department.
2. Be aware of how quickly, controlled and stable situations can soon become emergency or

 life threatening and can respond with speed and accuracy to minimise delays in treatment/ diagnosis.1. Can recognise abnormal appearances on images and make a decision on whether further

 imaging is required. 1. Assess images for diagnostic and photographic quality.
2. Assess and document student radiographer’s competency.
3. Delegate tasks to Radiographers and support staff to achieve the

 desired quality of patient care and service delivery.1. Provide leadership and supervision to more junior grades of staff in difficult situations such as

 very busy periods and with patients requiring more complex examinations.1. When deputising for Area Lead plan and prioritise patient workload.
 |
| 10. MOST CHALLENGING / DIFFICULT PARTS OF THE JOB |
| 1. Many patients attending for either CT or plain film imaging are very anxious requiring a caring approach whilst also working quickly and efficiently to produce high quality diagnostic images.
2. Maintain high levels of accuracy at all times to reduce risk of unnecessary irradiation.
3. On a daily basis be prepared to operate imaging equipment in differing and demanding environments.
4. Being able to manage an unpredictable work load effectively and interact successfully with fellow health care professionals and patients.
5. Combining training in new techniques or newly procured equipment with normal patient workload.
6. On a daily basis to cope with the mental and physical demands of working in acute areas. Patients are often terminally ill and have poor mobility. Compliance with scanning requirements is often difficult. Claustrophobic patients in CT require specialist care to undertake their examination.
7. Directly supervise and train Radiographers, Student Radiographers and Support Workers whilst maintaining a high throughput of patients.
8. Continual multi-tasking, constantly re-appraising and prioritising workload.
9. Work in unpleasant conditions where there is direct contact with bodily fluids, blood borne infections, MRSA, parasites and body odours.
10. Be aware of how quickly controlled and stable situations can escalate to become an emergency or life threatening.
11. Exposure to cases where the patient’s prognosis is poor.
12. Administration of contrast media - using the high pressure injector – involves a high level of responsibility and knowledge (additional training required).
 |
| **11. COMMUNICATIONS AND RELATIONSHIPS** |
| **Patients*** On-going requirement to provide information by explanation of often-complex procedures, listening to the patient’s requirements in order to encourage compliance with the imaging process e.g. concerns over radiation dose or regulations regarding pregnancy. (Daily)
* Some patients will have a barrier to understanding or be unable to communicate. The post holder must try to allay fears by ensuring that patients have the benefit of informed choice. (Every patient)
* Providing and receiving highly complex and sensitive information, e.g. dealing with non accidental injuries in children (Frequently)
* Patients will have injuries or illness that will require the adaptation of the imaging technique, utilisation of developed motivational and persuasive skills to acquire correct position and reduce mobility to produce an acceptable diagnostic image. (Daily)
* Provide reassurance as to the necessity of a CT examination involving a risk associated with the harmful effects of ionising radiation (Daily)
* Communication skills are adapted to meet the needs of patients who may be anxious, aggressive or intoxicated, with a variety of mental and physical disabilities, in pain or with language barriers. These barriers must be overcome by using clear, comprehensive, sympathetic and persuasive skills. (Daily)
* Obtaining informed consent is an essential aspect of any CT examination, especially when the examination requires an injection of contrast media, or is an interventional procedure.
* Advise and assist Radiographers or support workers on any of the above.

Relatives/Carers* Provide reassurance and receive information. (Frequently)
* Provide information using tact and diplomacy in the context of the standards of professional and personal conduct and within the regulations of the Data Protection Act. (Daily)
* Ask for assistance with, and instruct in methods of immobilisation, maintaining Radiation Protection. (frequently)
* Receive informed consent from relatives to continue with an examination when a patient is unable to communicate. (Occasionally)
* Advise and assist Senior Radiographers, Radiographers or support workers on any of the above.

**Radiography Staff (internal/external)*** Consult Senior Staff for advice. (Occasionally / frequently depending on clinical area)
* Communicate with all staff on any aspect affecting daily management of the department. (frequently)
* Discuss department policies and suggest improvements. (Occasionally)
* Delegate tasks to Radiographers, Radiographic Assistants and porters. (Daily)
* Pass on information relating to patient transfer to colleagues. (Daily)
* Work closely with radiology nursing staff when appropriate. (Frequently / Occasionally depending on clinical area)
* Consult with radiologists for advice. (Frequently / Occasionally depending on clinical area)
* Advise and assist Radiographers or support workers on any of the above.

Medical Staff/Nurse Practitioners * Query incorrect or unnecessary referrals in order to reduce patient radiation dose. (Frequently)
* Liaise with medical / nursing staff, e.g. to ensure patients arriving at allocated time are correctly prepared for examination and that the appropriate mode of transport is used. (Frequently)
* Provide advice on guidelines for relevant CT examinations.(Occasionally)
* Provide indication as to presence of pathology (Frequently)
* Seek help and advice when appropriate. (Occasionally)
* Work in conjunction with consultant / theatre staff. (Occasionally)
* Advise and assist Radiographers or support workers on any of the above.

Student Radiographers* Decide whether the Student is capable of performing an examination safely with the patient’s consent and after suitable tuition. (Frequently)
* Advise the student as to the best professional practice in any situation. (Frequently)
* Providing constructive criticism to student radiographers as part of the training / assessment process. (Frequently)
* Advise and assist Radiographers or support workers on any of the above.

Other hospital staff* Liaise with porters / ambulance staff, regarding patient transfers. (Daily)
* Admin and clerical staff regarding patient data. (Daily)
* Security staff, during daytime or out of hours, when issues of staff or patient safety may be

 Compromised. (Occasionally)* Advise and assist Radiographers or support workers on any of the above.

**Other external staff** * Service engineers. (Frequently)
* Medical physics and Physicists. (Occasionally)
* Liaise with relevant Education Institutes (Occasionally)
* General Practitioners. (Occasionally)
* Advise and assist Radiographers or support workers on any of the above.
 |
| **12. PHYSICAL, MENTAL, EMOTIONAL AND ENVIRONMENTAL DEMANDS OF THE JOB** |
| **Physical Skills:** 1. Positioning of patients demands a high degree of accuracy to minimise radiation dose i.e. avoid repeat exposure and to demonstrate the correct anatomical features required.
2. Sitting daily in a VDU environment
3. Have the expertise to handle and operate highly specialised and expensive equipment.
4. Highly developed hand-to-eye coordination is required to manipulate imaging equipment / images.
5. Following the appropriate training to perform intravenous cannulation / administration for patients undergoing examinations requiring contrast media.
6. Trolley setting under aseptic techniques (used for interventional / biopsies)
7. Be able to work with speed and accuracy when performing scans on confused or critically ill patients.
8. Possess keyboard skills for the entry of data into the RIS, CR and PACS.
9. Load and operate the high-pressure pump injector required for CT examinations.
10. Basic life support skills.
11. Manual handling skills.

**Physical Demands:**1. Maintain a level of physical fitness to maintain an effective pace of working throughout the whole shift.
2. The majority of the working day / night are spent standing, walking or bending.
3. Frequent transfer of patients from trolleys, beds and chairs onto imaging equipment requires the use of safe lifting and handling skills, using mechanical aids when required.
4. Manoeuvre patients on trolleys, chairs, beds and medical gas cylinders from the waiting area to the scan room and back frequently throughout the day and single handedly out of hours.
5. Maintain a high level of alertness to ensure safe working practices are maintained at all times including out of hours shifts.
6. Moving heavy equipment.

**Mental Demands:**1. Due to the extremely technical and specialist nature of CT a high level of concentration is required throughout all shift periods.
2. Working within a pressurised and busy environment whilst maintaining high concentration levels on patient care.
3. Providing supervision / direction to other staff while carrying out personal caseload.
4. Prioritising workload requires diplomatic skills in discussion with referrers from a variety of clinical areas.
5. When carrying out “out of hours” CT scans, single handedly taking responsibility for the entire CT service in the Victoria Hospital, managing patients and equipment.
6. Should imaging equipment malfunction during an examination (for example during an out of hours CT scan), evaluate the situation and provide an immediate solution. This can lead to a highly stressful and demanding episode.
7. When deputising for the Lead CT Radiographer takes responsibility for day to day service delivery.

**Emotional Demands:**1. Perform radiographic examinations and care for terminally ill patients.
2. You must posses a sensitive and caring approach during frequent work with terminally ill and anxious patients utilising counselling and empathy skills as necessary.
3. Ability to deal with highly distressing/emotional circumstances e.g. sudden collapse, attempted suicide, RTA’s, not only involving the patient but relatives and friends, also communicating complex and sensitive information in a manner which is consistent with their level of understanding, culture and background.
4. Perform examinations on non-accidentally injured babies and children within presence of the parent
5. The post holder will deal with a variety of patients (neonates, geriatrics, prisoners etc) some of whom may require extremely sensitive handling. The nature of this referral pattern can lead to unpredictable emotional demands.
6. Exposure to verbal abuse.
7. A risk of exposure to physical abuse from patients who may be confused, disorientated etc

**Working Conditions:**1. Exposure to bodily fluids, blood borne infections, parasites, MRSA and unpleasant odours frequently throughout all shifts.
2. There is frequent potential for needle stick injuries so safe working practices must be maintained during cannulation of all patients, including those with Hepatitis and HIV etc.
3. Risk of exposure to Ionising Radiation.
4. Moving from cold air-conditioned areas to hot air conditions in the working areas.
5. Working constantly in artificial lighting with little or no natural daylight.
6. Periods of time spent processing data using visual display units.
7. Working with equipment which has constant low level noise.
 |

|  |
| --- |
| 13. KNOWLEDGE, TRAINING AND EXPERIENCE REQUIRED TO DO THE JOB |
| * D.C.R. or BSc in Radiography.
* Post Graduate training in CT is desirable
* Expert clinical knowledge of CT and general radiography gained through experience
* Skills and competencies normally associated with 5 years radiographic experience
* The post holder must also have skills and competencies normally associated with 2+ years clinical experience at Senior level
* Intravenous injection course/ training
* HPC Registration.
* Evidence of Continuing Professional Development (including an up to date portfolio).
* Good written and verbal communication skills.
* Ability to take responsibility, make decisions and act in a supervisory capacity.
* Information Technology skills.
* “Applications” training on individual pieces of equipment.
* Good working knowledge of Ionising Radiation (Medical Exposure) Regulations 2017.
* Ability to work as part of the multi-disciplinary team.
* Ability to maintain required level of competence within area of remit.
 |