NHS TAYSIDE – AGENDA FOR CHANGE

JOB DESCRIPTION

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| 1. JOB IDENTIFICATION
 | Job Title | Band 6 Radiographer – Computed Tomography(CT)/Interventional Radiology (IR) |
| Department(s)/Location | Clinical Radiology, Ninewells Hospital: Tayside rotation |
| Number of job holders | 16 |
| JOB PURPOSETo provide an efficient and effective service within the CT and IR departments, with delegated responsibility for the day to day organisation, safety, management and administrative duties, reporting to the Superintendent Radiographers (CT and IR.) Justify, supervise and perform examinations in CT and IR, and other radiographic areas as necessary. Assist in the management of patients referred from clinicians. Supervise and train other grades ensuring continuity of service delivery within clinical radiology.To participate in clinical trials, audit and research as required.To participate in emergency specialised procedures and on call rotation and out of hours working, cross site if required. |
| ORGANISATIONAL POSITIONImaging ManagerLead Radiographer CT/IR RadiographerSpecialist radiographer Band 6 CT/IR (this post)CT Superintendent IR Superintendent General Radiographers Band 5 / 6 in training |
| SCOPE AND RANGE**Service Level:**24 hour service. 365 days per annum, based on clinical demand.A service is provided to out-patients and in-patients, accident and emergency (A&E) and intensive care (ITU). The service covers patients from neonatal to medicine for the elderly and individuals who have varying degrees of ability and understanding.**Staffing:**Responsible to Lead and Superintendent Radiographers (CT and IR) and, ultimately, to the Imaging Manager.Responsible for radiographic staff, assistants, radiography, medical and nursing students and visiting personnel assigned to the CT/IR departments.**Equipmen**t:An extensive amount and range of specialist equipment is used as detailed in section 8.**Budget:**Required to ensure that resources are used efficiently and effectively. |
| MAIN DUTIES/RESPONSIBILITIESImaging examinations use potentially dangerous ionising radiation. It is the post holder’s responsibility to minimize radiation dose and risks to patients, staff, relatives, general public and self in accordance with IRR 2017 and IR(ME)R 2017.**Clinical** Perform specialist imaging procedures – CT/IR examinations and fluoroscopic examinations.Perform general radiographic and fluoroscopic examinations when necessary* Ensure examinations performed are in accordance with IR(ME)R (The Ionising Radiation (Medical Exposure) Regulations) and local rules by means of justification.
* Transfer images to PACS
* Manipulate and reconstruct images according to the clinical situation.
* Retrieve images from PACS and other workstations.
* Maintain a high level of expertise in the safe operation of imaging equipment and manage faults effectively.
* Maintain a high standard in reducing unnecessary ionising radiation exposure to patients. Set an example and advise less experienced radiographers when required.
* Prioritise the workload in response to demand.
* Verbal and written communications are used daily to query incorrect or unnecessary referrals in order to reduce patient radiation dose.
* Assess patient condition physically, mentally and emotionally prior to and during each examination to produce the best possible image.
* Clinically evaluate images in order to assess quality and to determine the need for additional images to further aid patient diagnosis.
* Recognise abnormal pathology and, if required, seek relevant advice regarding e.g. Administration of IV contrast / further imaging.
* Work closely with all members of the clinical radiology team to ensure a smooth patient journey through the department.
* Liaise with other departments, wards and clinicians to provide a high quality service.
* Maintain accurate patient records.
* Maintain patient confidentiality at all times.
* Work independently when providing an on call service for patients requiring urgent imaging due to acute trauma or illness.
* Undertake intravenous (IV) cannulation for patients requiring the injection of contrast media and anti spasmodics following the required training and assessment of competence. Use of patient Pathways for iv administration of contrast agents as well as PGDs for administration of Buscopan
* Ensure safe use of the pump injector providing adequate training. Fill and operate the IV injector, co-ordinating its use with the imaging equipment.
* Operate other equipment and deal with any faults. See section 8 for more details on equipment.
* Have a high level of knowledge of interventional procedure consumables e.g. guide wires, catheters etc particularly in the on call emergency situation.
* Provide a safe, tidy and clean environment to carry out examinations, reducing the risk of accidents and infection to both patients and staff. This is in accordance with COSHH, Health and Safety Guidelines and Infection Prevention and Control Policies.
* Report equipment faults to Superintendent Radiographer / equipment manufacturer.
* Monitor and maintain stock levels for consumables and contrast media, advising the Superintendent Radiographer in that area of any problems.
* Undertake Quality Assurance (QA) Programs in all areas of responsibility ensuring high quality images are produced within safe Radiation dose limits.
* Ensure compliance with relevant statutory requirements and organisational policies and procedures.
* Initiate and participate in clinical audit/research in all areas of responsibility.

**Managerial** * Directly supervise and delegate tasks to more junior radiographers assigned to CT and IR to ensure optimum patient care.
* Supervise assistants to achieve the desired quality of patient care.
* Exercise personal responsibility and make decisions in complex and unpredictable circumstances.
* Be responsible for the day to day management and prioritisation of emergency patients.
* Liaise with administration staff regarding patient appointments and allocation of urgent appointments.
* Ensure appropriate departmental policies and procedures, and systems of work are in place.
* Develop and maintain training programmes for staff and students in areas of responsibility.
* Assist the Lead and Superintendent radiographer as necessary.
* Frequently reassess workload to provide better utilisation of radiographic resources.
* Take part in equipment selection and evaluation when equipment is being replaced.
* Continually review and update patient information leaflets to ensure information is current.
* Anticipate and prepare for extended examinations or significant delays and take appropriate action.

**Educational** * Be actively involved in the training of radiography students providing direct supervision at all times.
* Be actively involved in training general radiographers.
* Be involved in the training of nursing, medical and ‘other’ students who are assigned to the CT/IR areas.
* Participate in mandatory training and actively pursue and provide Continual Professional Development (CPD) keeping an up to date record.
* Promote and encourage CPD.
* Maintain knowledge of technological and technical advances in specialised imaging techniques and diagnostic 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.

**Documentation** * Maintain accurate patient records both on paper and on relevant computer systems e.g. Radiology Information System (RIS).
* Ensure all statistical information, equipment information, including service and faults are documented and kept up to date.
* Comply fully with the data protection act to ensure patient confidentiality.

Others include: QA records; research documentation; training manuals/records; policies and procedures, and systems of work. |
| COMMUNICATIONS AND RELATIONSHIPS Daily contact with,**Patients*** Provide information by explanation of often complex procedures, listening to the patient’s requirements in order to encourage compliance with the imaging procedure. Specialist examinations can be frightening therefore patient cooperation is essential. Motivational and persuasive skills are needed to produce acceptable images in patients who may have severe injuries, illness or phobias. Some patients may have a barrier to understanding or are unable to communicate, e.g. varying mental / physical disabilities / intoxication / pain.
* Provide reassurance and explain the risk/benefits of having an examination, e.g. Radiation dose.
* Deal effectively with complaints.
* Provide advice and information in written form for patients attending for specialist examinations.
* Providing and receiving highly complex and sensitive information, e.g. Dealing with non-accidental injuries in children and IV drug abusers

Relatives/Carers* Provide reassurance and ask for assistance with gathering information relating to the examination. Ask advice on how to best move/transfer their relative if required.
* Ask for assistance with, and instruct in methods of immobilisation, maintaining Radiation Protection.
* Deal effectively with complaints.

Radiography Staff (Other grades of Radiographic Staff, Nurses and IDA/Helpers)* Provide advice and training to other staff in the CT and IR areas. Also provide reassurance to more junior grades of staff.
* Delegate tasks to other staff.
* Consult Superintendent Radiographer in area / Radiology Services Manager for advice when necessary.
* Pass on information to colleagues regarding patient transfer between different areas in the radiology department.

Radiologists* Liaise and discuss with radiologist the workload, patient preparation and the protocol to be used.
* Co-ordinate the patient returning to the ward with a report and hard copy.
* Ask for advice.
* Provide support, training and guidance to Specialist Radiology Registrars.
* Liaise with radiologists with regard to protocol development.

Radiology Administration Staff* Liaise with administrative staff to ensure correct preparation and appointing of patients including urgent and emergencies to allow a smooth pathway of patients through the department.
* Advise administration staff of which examination codes to use when entering a patient on the CRIS.
* Liaise with administration staff for the production of statistics and audits.

Student Radiographers, Nurses and Medical Students* Actively teach student radiographers about the equipment and imaging techniques used. Advise on best professional practice in any situation and provide constructive criticism.
* Inform and demonstrate equipment and imaging techniques to medical and nursing students.

Clinicians* Liaise with referring clinicians regarding referral criteria. Query incorrect, incomplete or unnecessary referrals, providing appropriate advice.
* Query a patient's suitability for an examination.
* Seek help with patients who may be in pain, immobile or who are unable to tolerate the procedure.

Porters* Liaise with porters regarding the condition of the patient, transport method and examination time.
* Advise porters should problems arise, e.g. alteration of lists due to unforeseen circumstances such as equipment breakdown or emergency patients.

Wards/Out Patient Departments* Liaise with wards to arrange appointment and discuss patient care before, during and after the examination when appropriate.

Other Departments* Maintain good communication pathways with all other departments within the hospital.

External Maintenance Providers* Report equipment faults to external maintenance providers
* Use the ‘on line’ links to equipment manufacturers to try and resolve problems with minimal disruption to services

VisitorsInform and demonstrate equipment and imaging techniques to visiting clinicians and guests. |
| KNOWLEDGE, TRAINING AND EXPERIENCE REQUIRED TO DO THE JOB* BSc Radiography or equivalent, DCR or HDCR.
* Evidence of ongoing educational and personal development to Postgraduate Diploma or MSc level.
* HCPC Registration**.**
* An extensive knowledge and experience in CT/IR imaging.
* Ability to undertake IV cannulation.
* Hold a certificate of competence in IV cannulation, accredited by the College of Radiographers.
* Follow patient pathways for the administration of contrast agents
* Follow PGDs for administration of Intra-Venous Contrast Media (IVCM) and Buscopan
* Understanding and effective implementation of IR(ME)R regulations.
* Evidence of commitment to professional issues and/or interests.
* Ability to use initiative, act in a supervisory capacity and accept responsibility.
* Ability to work as part of a Team.
* Good communication skills.
* Have knowledge of manual handling techniques.
* Basic life support skills mandatory.
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| SYSTEMS AND EQUIPMENTUse a range of specialised equipment for each of the modalitiesCT - GE Revolution EVO scannerCT - GE VCT scannerCT – Canon VariousTheatre – Ziehm and Fuji flat plate C armsIR – Siemens Artis (Various)Fluoro – general equipment as well as any new purchased equipment employed in delivering the service**Responsibility for Records Management**All records created in the course of the business of NHS Tayside are corporate records and are public records under the terms of the Public Records (Scotland) Act 2011. This includes email messages and other electronic records. It is your responsibility to ensure that you keep appropriate records of your work in NHS Tayside and manage those records in keeping with the NHS Tayside Records Management Policy and with any guidance produced by NHS Tayside specific to your employment. |
| 9. PHYSICAL DEMANDS OF THE JOB**Physical Skills:*** A high degree of accuracy is required when positioning patients in order to minimise radiation dose and demonstrate the anatomical features required, avoiding the need for a repeat exposure. This is of particular importance in trauma situations where a timely diagnosis and subsequent treatment is imperative.
* Have the expertise to handle and operate highly specialised and expensive equipment.
* Highly developed hand / eye co-ordination is required when manipulating equipment and images.
* During the positioning process the operator is required to manipulate the X-ray tube, patient and film often at the same time, whilst continually assessing the condition and needs of the patient.
* In theatre there is a requirement for spatial awareness in order to manoeuver large, cumbersome equipment in restrictive conditions, maintaining a sterile environment for ongoing surgery. These units must also be positioned with precision using multi-planar locks requiring good hand / eye co-ordination.
* Possess basic life support skills.
* Transferring and positioning patients for all radiological examinations requires a high level of physical strength and fitness.
* Possess keyboard skills for the entry of data into the RIS, CR and PACS.

**Physical Demands:*** Maintain a high level of physical fitness to frequently move ceiling suspended monitors through 3 dimensions during all shifts.
* The majority of the working day and night is spent standing and walking and bending to position patients.
* The regular cleaning of X-ray equipment and the frequent changing of mattress sheets involves bending and lifting.
* The frequent transfer of patients from trolleys, beds and chairs onto X-ray tables requires the use of safe lifting and manual handling skills, using mechanical aids when required.
* Required to be on the feet all day, frequently whilst wearing a lead coat e.g. in theatre and on mobiles.
* To independently meet the high workload demands of urgent in patient referrals when on a shift requiring the individual’s alertness and clear thought for 12 hours.
* Ensuring a safe and controlled environment for both patients and staff requires that all heavy lead lined doors are closed and secured for each examination.

**Mental Demands:*** A high level of concentration is required when assessing and performing examinations throughout all shift periods.
* Prioritising workload is often unpopular and requires diplomatic skills in discussion with referrers who all believe that their patient should take priority.
* Frequently, when on standby at night, take responsibility for the entire radiography service alone, managing patients and equipment.
* Should imaging equipment malfunction during an examination (occasionally during an intensive theatre case), evaluate the situation and provide an immediate solution. In the X-ray room, the patient must be informed in a factual yet in a reassuring, professional manner. This scenario also leads to a delay in diagnosis, thus increasing both the physical and emotional demands on the radiographer.
* Cope with the mental and physical pressures of working in acute areas, often independently, sometimes having to provide images on severely injured, abusive or violent patients.

**Emotional Demands:*** Perform radiographic examinations and care for terminally ill patients.
* Provide examinations for critically injured patients in the A&E department, sometimes bleeding heavily, with distorted or severed limbs and / or severe burns.
* Move quickly from a routine examination to an acute setting due to sudden and unpredictable demand e.g. X-ray of a painful finger with no history of trauma, to a victim of a road traffic accident requiring multiple X-rays, independently taking responsibility for the diagnostic imaging service to that patient.
* Sensitive handling is required with all patient groups from neonates to geriatrics. Care, understanding and sensitivity are required when dealing with all patients and especially when patients are anxious or distressed.

**Working Conditions:*** Exposure to unpleasant odours and bodily fluids and infections frequently throughout all shifts and therefore utilising the use of universal infection control precautions.
* Be required to wear heavy lead rubber aprons during fluoroscopy procedures, often in a hot theatre environment.
* Risk of exposure to scattered ionising radiation, particularly during fluoroscopic procedures.
* Moving from cold air-conditioned areas to hot air conditions in the working areas.
* Working constantly in artificial lighting with little or no natural daylight.
* Often working with hazardous chemicals, both during the replenishment of the processor chemical mixers for the departmental daylight processors and for the processor in the theatre darkroom.
* Exposure to verbal and physical abuse from some patients, both intentional and unintentional (e.g. patients who may be confused or disorientated).
* Periods of time spent in front of computer monitors accessing data.
* Working alongside equipment that constantly emits low-level noise.
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| 10. DECISIONS AND JUDGEMENTS1. Be accountable for our own professional actions, working independently. 2. Provide leadership and supervision to Radiographers and more junior grades in difficult situations such as high workloads (very busy periods) and with patients requiring multiple examinations.3. Using knowledge and skills attained through experience, training and, Continuous Professional Development be actively involved in the training and development of ore junior members of staff and share knowledge with colleagues. 4. Based on experience, use skills to assess patient condition, decide on an appropriate method to obtain a radiograph of the highest standard possible. 5. A practitioner under Ionising Radiation (Medical Exposure) Regulations decides whether an x-ray request is justified as the correct examination to diagnose a patient’s condition and provide advice and guidance to radiographers. 6. Plan and prioritise own patients workload and that of Radiographers when required, especially when working in accident and emergency during out of hours. 7. Justification of an x-ray request  |
| 11. MOST CHALLENGING/DIFFICULT PARTS OF THE JOB1. On a daily basis operate imaging equipment in differing and demanding environments, being able to manage an unpredictable workload effectively and interact successfully with other health care professionals.2. Prioritising workloads requires diplomatic skills in discussion with referrers who request that their patient should take priority. This can be very stressful, especially during nights and evening when there is a reduced number of staff available to carry workloads equal to that during the day.3. Providing supervision to staff when performing one’s own examinations requires great concentration in unpredictable situations throughout the majority of the shift period.4. Cope with the mental and physical demands of working in acute areas, independently, sometimes having to provide images of severely injured, abusive or violent patients.5. When imaging equipment malfunctions during an examination (i.e. theatre cases), evaluate the situation and provide and immediate solution to maintain the radiographic service. Provide advice and supervision to Radiographer Grades encountering such a situation.6. Give supervision and assistance to radiographer Grades whilst actively involved in performing x-ray examinations oneself at all times.7. Whilst working overnight with a minimum staff quota, meet the demands of accident and Emergency orthopaedic theatre, general theatre, mobiles, urgent ward work and neonatal unit.8. Directly supervise and train Student Radiographers whilst maintaining a high throughput of patients. 9. Combining training in new techniques or newly procured equipment with normal patient workload.10. Work in areas where contact with body fluids and odours are unavoidable. Use of surgical gloves and protective clothing is essential to eliminate contact with body fluids and adhere to infection control policy. Protective clothing must also be worn when handling chemicals.11. Receive training in CT and IR to be competent in performing these procedures under supervision.12. Deal with parents who may be anxious about their child’s condition. Especially difficult in the cases of suspected Non-Accidental Injury.13. Perform examinations while providing good patient care to terminally patients.14. Move quickly from a routine examination to an acute setting due to sudden and unpredictable demand e.g. x-raying a painful finger with no history of trauma to a victim of a road traffic accident, requiring multiple x-rays; independently taking responsibility for the diagnostic imaging service.15. Exposure to verbal abuse from some patients.16. Risk of physical abuse from patients who may be confused, disorientated or after the consumption of drugs or alcohol.17. Use personal skills to deal with health colleagues exhibiting stress and under performing in their work areas.18. Several times a day make judgments on how best to keep the radiation dose as low as possible to the patient, while still being able to provide images of a diagnostic quality.  |
| 12. JOB DESCRIPTION AGREEMENT The job description will need to be signed off using the attached sheet by each post holder to whom the job description applies. |