JOB DESCRIPTION SC06-210

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| 1. JOB IDENTIFICATION
 | **Job Title** | Specialist Radiographer Band 6MRI-CT Scanning - NHS Tayside |
| **Department(s)****Location** | The appointment is based in the Clinical Research Imaging Facilities (CRIF) Clinical Research Centre, University of Dundee & Ninewells Hospital. |
| **Number of job holders** |  |
| JOB PURPOSETo provide a high quality, efficient and effective diagnostic service within MRI-CT with delegated responsibility for the day-to-day organisation of the service, safety management, quality management of equipment and images, administrative duties and management of the training programmes for other staff groups. For those staff working in CT they should comply to local Ionising Radiation Rules and to Ionising radiation (Medical Exposure) Regulations and will be working at operator statusTo carry a clinical caseload for MRI and CT within CRIF to participate in any rotation required including weekends and evenings.Provide specialist imaging services for private referersUndertake non-clinical imaging for University of Dundee, including forensic imaging when requiredTo participate in research, clinical trials and audit. Refer and report radiographic orbit examinations, providing direct care and a high quality diagnostic imaging service in order to assist in the management of patients referred from clinicians. |
| ORGANISATIONAL POSITION DIMENSIONS: CT and MRI Scanning - Can be rostered on any CRIF imaging facility or NHS Tayside radiology department for service needs. There may be some interventional radiology facilitated within CRIF.  Clinical Activity: 7000 examinations Clinical Provisions: 08.00hrs-2000hrs and may include weekends   |
| SCOPE AND RANGETo provide radiographic services on a rotational basis in CRIF To provide support input in the MRI and CT areas in contrast agents and supply ordering, in patient management, in quality initiatives, in teaching and training initiatives, in staff management and appraisal and in waiting list management.To take an active role in research projects and training issues related to these projects.To take an active role in the provision and planning of applications training periods.To take an active role in the training plan for junior grades of staff.To take an active responsibility for all safety issues related to MRI and CT. This will include acting as Operator to refer and report orbit xrays. Comply with IRR and IR(ME)R 17 regulationsTo take an active role in the management of all servicing of equipment and ensure it is carried out to standards set by NHS Tayside and to report faults and liaise with engineers.To take an active role in ongoing quality assurance and liaise with Radiation Physics for the evaluation of results.To take active role in mentoring of medical physics MSc students and radiographic staff who are working towards postgraduate qualifications. |
| MAIN DUTIES/RESPONSIBILITIES**clinical activity**Perform specialist imaging procedures – MRI, CT, and fluoroscopic examinations in CRIFEnsure examinations performed are in accordance with IR(ME)R and carried out following IRR local rules Act as Operator under IR(ME)R 17 as referrer and reporter of orbit radiographs prior to MRITo take delegated responsibility for the efficient and effective running of the MRI and CT unit on a day-to-day basis in the absence of senior colleagues.To have delegated responsibility for the day-to-day running of the service, equipment maintenance and quality assurance.To regularly liaise with Radiologists and other senior radiographic staff to maintain awareness of operational issues in the area.To be conversant with the patient management system, understand the appointments and booking systems and take part in the management of emergency bookings. To ensure that CRIS information is kept up to date. To liase with service engineers reporting faults, ensuring that faults are logged, reported and acted on appropriately and that down time is recorded.To present a professional approach in terms of leadership and conduct.To participate in performance review and maintain personal and departmental CPD activities.Monitor and maintain stock levels for consumables and contrast media advising the CRIF manager of any problems and liaise with nursing staff in the investigation of any contrast media reactions.**Personal Clinical Activity**To maintain a high standard of professional, administrative and technical work within MRI and CT scanningTo provide a high throughput clinical service to standards agreed with the Consultant Radiology staff.To ensure that protocols and standards are maintained and are evidence based.To ensure smooth throughput of patients and ensure scanning lists run to time where possible.To provide an out of hours service where required.To maintain a close working relationship with other members of multidisciplinary teams in the provision of a patient-carer focused approach to quality care.Perform a full range of examinations using specialised equipment including automatic injection pumps.Perform examinations without clinical radiologist supervision and make decisions about the need for further sequences to assist diagnosis.Recognise the difference between normal and abnormal anatomy and when radiologists not available, make informed decisions about further imaging requirements.Administer IV contrast media; Buscopan, Glucagon, oral contrast agents and any other appropriate agent using Patient Pathways or Patient Group DirectionsRefer patients for orbit radiographs and report images. Manage the movement of the disabled patient using knowledge gained in moving and handling course.Manage the infectious patient adhering to NHS Tayside guidelines.Manage the lifting and movement of coils during MR examinations using knowledge gained in moving and handling courses.Working safely using CT Colon insuflator where appropriate Provide images to a standard recognised by NHS Tayside Clinical Radiology and /or CRIF standardsEnsure patient safety checklists have been adequately completed and that patients are not at risk in the magnetic field. Similarly use Clinical radiology checklists for safe administration of contrast agentsEnsure that risks of cross infection are minimised by adhering to NHS Tayside guidelines on infection control.**Safety Activity**To maintain a safe working environment for patients, visitors and staff and ensure that local safety rules are followed.To read all local safety and operating regulations document on an annual basis.To be aware of responsibilities in the management of staff in emergency situations ensuring that all safety precautions are in place. To adhere to all NHST policy rules and guidelines as in 1. Clinical Radiology Department Policy Documents and Standard Operating Procedures
2. Ionising Radiation Regulations IR(ME)R 2000 and local rules
3. Health and Safety Guidelines
4. COSHH
5. Infection Control

vi) MRI Local Safety Rules**Research and audit activity**To participate in research .To undertake and practice Good Clinical Practice guidelines for research participants.To participate in the NHS Tayside and CRIF research projects and assist in the presentation of papers and posters at meetings as required. To assist Medical Registrar grades and University researchers in their research and audit projects and in training in the use of the CT and MRI consoles and evaluation packages. To initiate and monitor clinical audit programmes. To contribute to and implement changes in clinical practice which improve patient care through effective use of audit, research and peer review.**Training activity** Must be trained in PV cannulation and have completed the Administration of Medicines bookTo be trained in referral and reporting of orbit x-rays for pre MRI check.To provide teaching support for staff in all disciplines.To keep up to date with new technology and procedures and to maintain professional and technical skills through continued professional development.To participate in, in-service training and other training courses to ensure that working knowledge is kept up to date and duties are performed within the requirements of current legislation, policies and procedures.To facilitate, encourage, monitor and support the personal development of other staff including junior staff in the area to maximise their potential.To assist in the teaching of medical students, medical physics and other staff disciplines in MR and radiation safety, physics and pathology.To provide evidence of Continuous Professional Development for discussion at annual performance and development review. To promote excellence in clinical practice through continuing education and input into Clinical Governance and audit initiatives.Participate in mandatory training and actively pursue and provide CPD keeping an up to date personal record of this activity.Maintain knowledge of advances in MR and CT imaging and assist in the promotion of the continued improvement of the service delivery.Develop knowledge and understanding in an evidence based framework and transfer this knowledge to situations in practice. Take part in the in-house management training programme by taking responsibility for areas such as research and development, contrast media management, quality assurance and protocol development, teaching and training, equipment selection and tendering processes.**Documentation** Ensure that patient records and confidentiality are maintained in accordance with NHS Tayside policies and statutory regulations including the data protection act. Complete all research related documentation as required.Ensure that all departmental records are maintained for all patients and that all statistical information, equipment information, service information, protocol books and staff training information relating to CT and MR are documented appropriately.Maintain the following records and manuals:-* Policies, protocols and systems of work.
* Helium reading records
* Patient documentation
* CRIS post processing and other input including safety checks for administration of contrast agents
* Equipment service records
* Incident manual
* Quality assurance records.
* Pharmacy orders
* Faults log book
* Research documentation
* Personal CPD folder
* Data collection for audit and research purposes

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|  COMMUNICATIONS AND RELATIONSHIPSDemonstrate respect and dignity to all Be involved in the development of patient information in written form for patient use.Provide information by explanation of often complex procedures, listening to patients' requirements in order to encourage compliance with the imaging procedure.Contribute to regular staff meetings to ensure effective two -way communication.Maintain good communication channels with all members of the multidisciplinary team Liaise with staff from other departments and wards to facilitate good practice and best patient care.Establish clear lines of communication and ensure co-operative planning and decision-making.Convey to patients and relatives information involving CT and MRI scanning, precautions and side effects of examinations, offering counseling and reassurance when required.Deal with complaints and communicate unpleasant news.Liaise with clerical staff to ensure correct preparation and appointing of patients to allow a smooth pathway of patients through the CRIF CT and MR department.Liaise with referring clinicians re appointment times, referral criteria, patient suitability and safety results.Liaise with nursing and medical staff in the management of patient care before, during and after CT and MR examination when necessary.Confer regarding routine maintenance and faults reporting with relevant engineering staff.Liaise with relevant trial companies and coordinators involved in clinical trials and research.Liaise with anaesthetic staff during examinations where the patient is under anaesthetic.Liaise with paediatric staff in the management of children undergoing CT and MR examinations, ensuring that practice is in line with the children's charter.**Internally**Principal Investigators for Clinical ResearchR&D Imaging manager Tayside Academic Science Centre (TASC) staffMembers of departmental multi-disciplinary teamsMedical PhysicistsConsultant Radiologists and RegistrarsImaging managerRadiographic ManagersClinical Team ManagersWard and clinic staffCliniciansAncillary staff**Externally**Patients and CarersPeripheral hospital staffEquipment engineersIndustry representativesCommercial company representatives |
| KNOWLEDGE, TRAINING AND EXPERIENCE REQUIRED TO DO THE JOB* Radiographic diploma or degree (DCR®) or BSc Diagnostic Imaging
* Previous radiographic experience in an NHS radiology department.
* Evidence of continual professional development
* Must be registered with the Health Care Professions Council.
* Basic Life Skills training
* Cross-sectional imaging experience eg CT
* Knowledge of MR physics and safety issues.
* Knowledge and understanding of health & safety guidelines including manual handling
* Knowledge and understanding of IR(ME)R regulations and operator functions
* Experience of NHS systems e.g. CRIS, PACS and images transfer systems
* Knowledge of MS Office packages including Word, Excel and PowerPoint
* Experience of teamwork and able to demonstrate good teamwork
* Must have evidence of ongoing educational and personal development.
* Evidence of good communication and interpersonal skills is essential
* Evidence of good organisational skills
* Ability to think through problems and provide potential solutions
* Flexibility to provide out of hours work across evening and weekends essential
* Able to take responsibility for own learning and demonstrate personal and career development
* Supervisory skills desirable along with experience of teaching or training others
* An additional post-graduate qualification would be an advantage
* Knowledge of research implementation and practice is desirable
* Able to demonstrate ability to work effectively across multi-disciplinary groups is desirable
* Knowledge of MR Physics and safety issues would be an advantage
* Presentation skills are desirable
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ESSENTIAL ADDITIONAL INFORMATION

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| 1. SYSTEMS AND EQUIPMENT

Carry out clinical work using a variety of specialised equipment and software packages as required.Be able to use equipment throughout CRIF for research and clinical imaging:* MRI Scanner and associated coils and injector
* CT scanner, injector and insufflator
* Fluoroscopic equipment
* All ancillary equipment associated with above
* Patient monitoring systems

Be able to use the satellite consoles and workstations in all relevant sites for image post processing and manipulation and provide a training service for clinicians and other staff groups in their use.Be able to use any thin-client or Virtual software associated with the scannersUnderstand the use of monitoring equipment.To be able to use PACS / CRISBe able to use patient hoists, slide easies and other moving and handling equipment.Be able to use patient trolleys and wheelchairs.Be able to assist, and, manage the cardiac arrest procedure in MRI and ensure safety of patients and staff is not compromised.Understand the working of the label printers associated with the CRIS system and be proficient in their use.Be able to transfer data to CD, PACS, other department systems.**Information Systems**Understand the CRIS system and be able to input patient data, gather statistics and post process examinations.Be able to use Word, Excel and PowerPoint and have keyboard skills.Be able to transfer images to other sites as required.Be able to transfer and retrieve images from PACS.Be able to use the scheduling facility to ensure correct patient registration and transfer to PACS.Be able to access the internet and NHS Tayside email facilities.Be able to access University of Dundee data systems**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. |
| PHYSICAL DEMANDS OF THE JOBLong periods of work at a console/VDU.Frequent requirement for prolonged concentration and accuracy while operating CT and MRI scanning equipment.Some exposure to highly distressing situations.Occasional exposure to unpleasant working conditions during clinical duties.In- Hospital resuscitation training is mandatory.Frequent lifting duties during clinical duties requiring manual handling training.Frequent bending and twisting to manoeuvre MRI coilsStressful situations such as dealing with the claustrophobic patient and having the skills required to examine this type of patient.Frequent exposure to loud noise if patient requires escort during scan.Frequent exposure to patients with cancer and terminally ill patients.Frequent exposure to paediatric cases requiring anaesthetic.Being able to manage an unpredictable workload and interact with fellow healthcare workers.Cope with mental and physical demands of working in an acute area providing imaging on severely injured, terminally ill, abusive, paediatric and severely disabled patients.Keep up to date with continuously developing imaging modality.Manage the claustrophobic pateint and develop skills to ease patients through the scanning procedure.Be able to set-up and fill the injector pump avoiding contamination and ensuring no air is injected into patient.Position patients and coils safely to prevent burns to the patient.Have the expertise to handle expensive equipment and ensure that all safety precautions observed.Following appropriate training be able to cannulate and inject contrast media, buscopan and glucagon.Following moving and handling training be able to move patients in a safe manner.Posses keyboard skills.Position cardiac and respiratory gating equipment in a safe manner avoiding burns to the patient.Being responsible for the safety of the equipment, patients and other staff in the acute situation where many attendant staff are present and may have no knowledge of the hazards associated with the equipment.Managing the cancellation of lists because of equipment failure or staff shortages.Working 11 – 12 hour days when necessary. Weekend working may be required . |
| DECISIONS AND JUDGEMENTSBe accountable for own professional actions.Be responsible for the quality of the examinations being performed within agreed protocols and with experience to adapt the examinations to suit the individual circumstances and thus ensure a degree of skill mix to release radiologists as required Ensure a high degree of patient care is maintained and to decide in certain circumstances if the examination should be carried out or continued.Make decisions in safety problems when required.Prioritising workload requiring diplomatic skills where referrers believe their case is more urgent than others.Be able to manage the cancellation of patients and re-appointing where possible in times of equipment breakdown or because of increased acute service demands.Vet the request cards for patient safety and suitability, and assess time required for each examination to ensure ease of appointing. |
| MOST CHALLENGING/DIFFICULT PARTS OF THE JOBEnsuring staff, patient, equipment and visitor safety due to the inherent dangers of the MRI scanner.Keeping abreast of new developments and protocol changes involved in evidence based practice in CT and MR scanning.Ensuring patient co-operation by overcoming patient fears, claustrophobia and lack of knowledge within a limited time frame, using empathy and persuasion to achieve a positive experience for the patient thus ensuring optimum imaging standards.The management and dealing with patients and relatives in relation to unforeseen circumstances e.g. equipment breakdown and staffing issues and acute service demands.Dealing with terminally ill patients.Dealing with very difficult and often aggressive patient/relatives.Dealing with the patient who has been told of a serious life threatening diagnosis and assisting them through the scanning process and often offering counseling in these circumstances.Ensuring scanning lists run to time because of varying patient demands.Working long days with prolonged concentrationImaging cadavers for research projects |
| 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. |