**Agenda For Change Job Description Template**

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| * **JOB IDENTIFICATION**

**Job Title:** Trainee Clinical Scientist**Responsible to:** Principal Clinical Scientist, Vascular Lab, NHS Greater Glasgow and Clyde**Department:** Department of Clinical Physics and Bioengineering**Directorate:** Diagnostics |
| **2. JOB PURPOSE** |
| The post holder will undertake the National School of Healthcare Science Scientist Training Programme in Vascular Science. The Trainee Clinical Scientist will be responsible for their own progression through the training programme, for completing the learning outcomes as outlined in the Curriculum Library, and for progressing through a mixture of work-based competence while undertaking the complementary academic master’s programme. As well as local training, the trainee may be required to visit other departments and institutions to gain specialist experience. The academic component at Newcastle University will include both distance learning and block-release attendance.At all times the Trainee Healthcare Scientist is expected to work within standard operating policies and procedures of the host department and adhere to high standards of professionalism, health and safety, risk reduction, confidentiality, patient care and dignity, and respect for equality and diversity. |
| **3. ROLE OF DEPARTMENT** |
| The Vascular Lab is a sub-division of NHS Greater Glasgow and Clyde’s Department of Clinical Physics and Bioengineering (DCPB) and provides highly specialised diagnostic ultrasound services for Vascular Surgery. Vascular Lab staff play a key role in the pathway of Vascular Surgery patients (both inpatient and outpatients), carrying out a range of complex ultrasound imaging and Doppler measurement examinations on around 200 patients per month. The lab is spread over two sites – with outpatient clinics provided at West Glasgow Ambulatory Care Hospital and the Queen Elizabeth University Hospital. The Vascular Lab based at University Hospital Hairmyres is part of NHS Lanarkshire Surgical and Critical Care Services. We provide highly specialised diagnostic vascular ultrasound for vascular surgery. Working closely with the team of vascular consultants and nurses, our two vascular scientists have an integral role in the treatment and care of vascular surgical patients. Via the Southwest Scotland Vascular Network, we cover outpatient services for NHS Lanarkshire and inpatient services for NHS Lanarkshire, NHS Ayrshire & Arran and NHS Dumfries and & Galloway. The vascular lab was purpose built in March 2022 and is comprised of two clinical vascular scientists, 2 clinical support workers and a vascular lab receptionist |
| **4. ORGANISATIONAL POSITION** |
| The post holder will hold a substantive post within NHS Greater Glasgow and Clyde, and an honorary contract with NHS Lanarkshire. The post holder will undertake supervised training in both organisations, and the lines of professional responsibility in each are illustrated below. A picture containing text, screenshot, diagram, plan  Description automatically generated |
| **5. SCOPE AND RANGE** |
| The remit of the Vascular Lab is to provide highly specialised diagnostic ultrasound and pressure measurement services to Vascular Surgery. This includes ultrasound imaging of the peripheral venous and arterial systems, ultrasound imaging of the extracranial arteries, support for a graft surveillance programme, ABPI measurement, and fistula monitoring. In addition the lab provides support for urgent access vascular surgery outpatient clinics, one-stop multi-disciplinary venous ulcer clinics, and ultrasound-guided foam sclerotherapy treatments.The post holder will work as an integral part of the Vascular Lab team whilst undertaking the NSHCS Scientist Training Programme in Vascular Science. They will work under close supervision during the first year of their training. As they develop competence in specific aspects of the vascular lab service, they will operate with increased autonomy. |
| **6. MAIN TASKS, DUTIES AND RESPONSIBILITIES** |
| **Scientific and Clinical Practice** * Undertake a range of clinical and scientific investigations within Vascular Science, e.g., ABPI measurements, various doppler ultrasound assessments.
* Acquire and maintain a high level of professional competence in the performance of investigations carried out.
* Interpret and act upon results of investigations in accordance with departmental policies, procedures, and quality systems.
* Comment and advise on new proposals and protocols, especially for service improvements.
* Assist in the provision of advice to medical, nursing and other healthcare staff on the optimal and safe use of scientific procedures and highly complex equipment, including assisting in the design of new facilities.
* Assist with the procurement, acceptance and use of medical devices and consumables.
* Be responsible for the safe use of complex scientific and medical equipment, including recording all maintenance and calibration procedures performed and any corrective actions undertaken.
* Use consumables, hazardous materials and equipment safely and in accordance with Health and Safety policies.
* Participate in risk management procedures including risk assessment and the investigation and reporting of adverse incidents.
* Participate in internal and external audit processes and quality systems.
* Undertake R&D within the department as an integral part of training and acquire relevant skills to undertake clinical audit.
* Assist with supervision and training of support staff, students and new appointees, and participate in departmental seminars and scientific meetings to disseminate knowledge acquired through study or research.

**Education and Training*** Successfully progress and complete the training and assessment programme in conjunction with the local Training Coordinator/Officer and National School of Healthcare Science to achieve certified competence awarded by the Academy of Healthcare Science. Undertake suitable training within the host department and other placements to successfully acquire core competencies and thereafter maintain the required standards of competence when undertaking duties.
* Take responsibility for own learning and development by recognising and taking advantage of all opportunities to learn, including appraisal, supervision, academic course and problem based learning and maintaining a personal portfolio of learning.
* Ensure that own learning needs, identified with the Training Coordinator /Officer and reflecting the requirements of the curriculum, are met.
* Retain sufficient flexibility and adaptability in learning in order to ensure full contribution to improving services in response to changing health care needs.
* Maintain knowledge of recent scientific developments and undertake supplementary training to develop both knowledge and skills.
* Attend mandatory training (both vocational and academic) as required.
* Participate in internal and external assessment processes.

**Patient Management and Clinical Care**Delivery of patient care, experience and contribution in the following areas:* Provide support to specialist clinics and specialist treatment interventions.
* Perform, report and interpret a range of investigations undertaken indirectly for or directly with patients within a range of care settings.
* Specialist care and treatment interventions for patients across the range of clinical pathways and health care settings.
* Appropriate clinical and scientific advice and interpretation of analytical results.
* Participate in multidisciplinary meetings.
* Apply and promote evidence based practice and use of relevant clinical protocols and procedures.
* Ensuring that all equipment used on patients and the public is handled and applied in accordance with health and safety requirements and other national or international guidelines.
* In some specialties trainees will be involved in the collection and processing of clinical samples from patients.

**Communication*** Communication and interpretation of complex clinical, scientific and technical information to a wide range of people including clinicians, managers, patients and the public.
* Liaise with senior scientists and clinical users of the service on appropriateness of investigations, interventions and tests.
* Communicate scientific innovation and service redesign.
* Communicate research and development findings in written and oral formats to internal and external contacts.

**Quality audit*** Contribute to audits to inform patient management and clinical care.
* Contribute to quality audits relating to accreditation and regulation
* Perform quality assurance, process and outcomes audits relevant to the specialty.
* Develop an audit report and prepare an action plan for any issues that arise from the audit process.
* Contribute to the design of audits to improve the cost effectiveness of the service to patients.

**Clinical Governance*** Maintain standards for health and safety procedures.
* Comply with quality and governance procedures within the department including risk management and risk mitigation.
* Maintain high standards of professional and personal conduct.
* Ensure that patient safety and experience and effectiveness of service are maximised.

**Occasional Duties*** To carry out any other reasonable duties to achieve learning and experience that may be required, which are commensurate with the grade and nature of the post.
* This job description outlines the main current duties and responsibilities of the training post. The job description will need to be reviewed and subsequently may be altered. Any resulting changes will be subject to consultation.
* In addition to regular assessment and planning meetings, the trainee will have an annual meeting to discuss progress and to consider issues relevant to the wider national training programme.
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| **7a. EQUIPMENT AND MACHINERY** |
| The post holder will be required to acquire a detailed in-depth knowledge of the following equipment functions and how to calibrate, clean, maintain and troubleshoot technical problems to ensure safe, accurate, high quality data/reports are produced as they assist medical staff in making decisions regarding patient treatment and care.* A variety of ultrasound imaging and Doppler systems.
* Sphygmomanometer
* Ultrasound phantoms
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| **7b. SYSTEMS** |
| The post holder will be required to use the following software:* Microsoft Office
* Healthcare computer systems including Cinical Portal, Trakcare and in-house reporting software.
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| **8. DECISIONS AND JUDGEMENTS** |
| **Professional*** Accountable for own professional actions and reports whilst working within Professional Codes of Practice/Guidelines, policies and procedures. He/she will work under supervision, particularly in year 1, with increasing autonomy under supervision in years 2 and 3. Knowledge of legislation e.g. Health and safety (COSHH and fire), SIGN guidelines, SVT guidelines, local policies and procedures and responsibility for maintaining updates both professionally and mandatory training (moving and handling, violence and aggression and immediate life support) will be acquired and require to be maintained.

**Clinical*** The post holder will learn to perform and report complex ultrasound imaging techniques including imaging of:
	+ carotid arterial distribution
	+ upper/lower arterial distribution
	+ peripheral deep venous system
	+ peripheral superficial venous distribution

The post holder will learn to perform and report Doppler ultrasound imaging assessments. |
| **9. COMMUNICATIONS AND RELATIONSHIPS** |
| * The post-holder works as part of a multi-disciplinary team of Healthcare Science, Surgical, Nursing, AHP, and administrative staff. The post holder must be able to communicate effectively will all members of the team.
* The post-holder must be able to communicate with patients, their relatives and carers, in a manner which they understand and while respecting their views, autonomy and culture.
* The post-holder must be able to present the results of their own work to fellow scientists and clinicians at scientific meetings and through scientific publications.
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| **10. PHYSICAL, MENTAL, EMOTIONAL AND ENVIRONMENTAL DEMANDS OF THE JOB** |
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| **Physical skills*** In years 2 and 3, the post holder will be expected to perform several ultrasound examinations per day. Each investigation takes 20-90 minutes to perform. Some are performed standing and some sitting depending on patient mobility/body habitus.
* Highly developed hand-eye coordination skills to allow for training in the manipulation of ultrasound probes to enable scanning.
* Manipulates and positions all patients providing immobilization when required for scans and other clinical procedures.
* Expertise is required to handle and operate highly specialised and expensive equipment.

**Physical Demands*** Specific pieces of equipment can be heavy or awkward to lift or move resulting in periods of moderate physical effort and occasionally, moving heavy medical equipment in excess of 100Kg (daily to weekly basis), e.g., ultrasound scanners.
* Moving of equipment/packages (~10 kg) on a daily basis.
* Keyboard/computer skills.
* Scanning patients in cramped and awkward positions on a daily basis including repetitive hand, wrist, arm and shoulder movements (which can often lead to repetitive strain injuries even with moving and handling training).
* Pushing and pulling - moving patients in wheelchairs occasionally
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| **Mental demands*** Often subject to interruptions from staff (clinical, technical, company representatives, support staff etc.), telephone calls etc., requiring immediate attention and disrupting other work.
* Prioritising workload during unpredictable periods
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| **Emotional demands*** Exposure to distressed and/or critically ill patients and relatives when scanning on a daily basis.
* Exposure to verbally/physically abusive and aggressive patients/public.
* Communicating complex issues with a multidisciplinary team.
* Communicating with all staff and supporting their needs.
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| **Working conditions*** The working environment and equipment can often be contaminated with uncontained body fluids which must be cleaned before proceeding and precautions must be taken in these circumstances
* Frequent use of a computer and ultrasound scanners throughout the working day in low-level lighting conditions.
* Excessive heat in clinical areas due to ultrasound machine output (Need air-conditioning).
* Frequent exposure to unpleasant bodily odours from patients e.g. gangrenous lower limbs during scanning.
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| **11. MOST CHALLENGING/DIFFICULT PARTS OF THE JOB** |
| * Workload, long periods of concentration and variety of tasks.
* Frequent concentration during highly complex vascular scans while often being interrupted.
* Prioritising workload, in particular the demands on the distance-learning MSc with on the job training.
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| **12, KNOWLEDGE, TRAINING AND EXPERIENCE REQUIRED TO DO THE JOB** |
| **Essential*** A 1st or upper 2nd class honours degree in a relevant science subject.
* Excellent communication skills
* An underpinning knowledge of general anatomy and physiology, physics, chemistry and biology.
* Be working towards possession of, or willing to embark on a recognised MSc in Healthcare Science.
* Able to prioritise and manage own work, and take responsibility for their own learning and development.
* Excellent team working skills

**Desirable*** Some specialist knowledge of other diagnostic technologies relevant to vascular disease.
* Some specialist knowledge of vascular physiology, anatomy and pathology
* Some specialist knowledge of working procedures and practices in the field of vascular ultrasound, vascular physics and technology
* Some specialist knowledge of wider clinical issues and their implications for diagnosis and therapy.
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