

Dumfries and Galloway Royal Infirmary

JOB DESCRIPTION –

****This Job Description applies to B7 BSE accredited applicants only****

1. JOB IDENTIFICATION

Job Title: Highly Specialist Cardiac Physiologist in Echocardiography

Department(s): Cardiac Physiology

Job Holder Reference: PTB009ECG.20

No of Job Holders:

2. JOB PURPOSE

The post holder will be expected to fulfill the job description immediately or within 12 months of appointment.

The post-holder is responsible for assisting in the provision of a professional, highly skilled, efficient, high quality diagnostic and interventional cardiac service to patients attending Dumfries and Galloway Royal Infirmary

The purpose of this role is to allow assessment and diagnosis of cardiac disorders in cardiac and non-cardiac sourced patients.

The post-holder is responsible for providing clinical input and reports on all cardiac investigations in a timely manner in order to support best possible clinical practice and patient care.

The post holder is required to work ultimately as an autonomous consultant practitioner in echocardiography and is expected to contribute to the management and development of the ultrasound service.

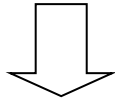
This post supports the Cardiac Physiology Service Manager/Consultant Practitioner in the management and delivery of the service.

This post directly supports the Cardiac Physiology Service Manager's aims to ensure that there are clear and effective structures and processes designed for co-ordinated decisions that achieve the Board's Health Plan strategy for safe and effective clinical care.

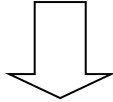
This post will be line managed by the Echo team lead supported by the service manager.

3. ORGANISATIONAL POSITION – see attached chart.

Clinical Physiology lead/pacing lead
B7

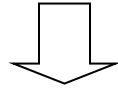


Team Lead-Echo B7

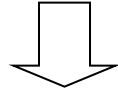


Highly specialised Cardiac Physiologist
in Echo-B7

Highly specialised cardiac Physiologist
in pacing-B7



Student Cardiac Physiologist-B5



X2 Cardiographers/HCSW-B4

SCOPE ANDRANGE Service Level:

The post-holder has a key role in the provision of a highly skilled, professional and efficient cardiac service to all departments within DGRI and to externally sourced patients as required. As a senior member of staff, and highly skilled in specialist areas of cardiology, the post-holder will have to prioritise and organise his/her own workload and supervise the work of other staff in order to ensure continuity of service and patient care.

The post holder contributes to the training and supervision of both physiology and medical staff within echocardiography and contributes to the technical work of the Department at a supervisory level.

The post holder performs and reports echocardiograms providing technical and clinical assistance during Transesophageal scans ensuring accurate archiving of images and data storage.

Budget:

Contribute to the financial planning of the department. Will contribute to financial and costing information for the service manager in particular for individual, highly complex, interventional cases.

Will contribute to ultrasound stock management and in the acquisition of new ultrasound equipment.

Be responsible for the completion of his/her own timesheet, recording on-call duty if appropriate and management of his/her time.

Staff:

Direct reports – Provide direction and guidance as well as clinical supervision and training to all other cardiac physiologists and locum staff.

Will provide guidance and leadership in the day to day running of the ultrasound service to physiology and junior medical staff in the absence of the clinical lead in ultrasound.

Research and Development:

Will research regularly, and as and when required, into new and or advanced procedures being developed in cardiology by use of professional journals, publications, meetings and the Internet. Will be required to adapt to provide new procedure and policy for DGRI on any new or changes/advances in cardiac procedures for example: Acquisition and analysis of 3D volumes in right and left heart assessment.

Participate and provide information/results in clinical trials either in a primary role or assist with clinical trials performed by other clinical departments or other cardiac research centers.

Will have the ability to perform highly specialist ultrasound scans and report in detail information as required during research studies.

Will be an advanced user of ultrasound archiving and reporting systems and will assist in the provision of regular audit activity reports to the team lead and service manager.

5. MAIN DUTIES/RESPONSIBILITIES

The post-holder is responsible for performing, complex and highly a specialist cardiac ultrasound scans on both cardiac and other patients, sourced by the DGRI and is responsible for analysis of the results and reports.

Perform on occasion, mainly in the absence of more junior staff – rarely

Will be required to maintain competences in and perform and analyse when necessary resting electrocardiograms.

Highly Specialised – main clinical duties of this post

He/she will require a detailed knowledge and understanding of echocardiography and its evaluation of cardiac pathology

A detailed knowledge of the anatomy, physiology and pathophysiology of the cardiovascular system including understanding of congenital abnormalities.

A detailed working knowledge of all ultrasound systems and image optimisation through technical knowledge and skills in adjusting various controls and using specialised ultrasound modalities/software and patient archiving systems.

Develop and perform echocardiography in accordance with British Society of Echocardiography (BSE) guidelines.

Possess the ability to report cardiac ultrasound scans and skills to report and provide conclusions. The post holder should be aware of the implications of their reports on diagnosis and treatment of patients.

Develop a detailed working knowledge of advanced procedure e.g. Transesophageal Echo (TOE) and Stress Echocardiography. Provide assistance to cardiologists and Specialist Cardiac registrars during advanced procedures to include: Stress echo

Preparation of patient using relevant documentation

Set-up equipment

TOE

As above and including -

Make available drugs from secure storage area.

During the procedure, operate echo machine and provide care and reassurance for the patient, including airway maintenance e.g. assisting the patient to tilt their head and giving suction.

Post-procedure, decontaminate and sterilise all equipment appropriately

The cardiac physiologist will be an advanced life supporter and is responsible for the well being of the patient throughout these procedures (no nursing support)

Work closely and liaise with Cardiologists, Cardiac Surgeons and Nurse Practitioners regarding patient investigations, reports and planning of patient care.

Provide training/assistance to all visiting medical professionals during their own echo

lists. **Supervision teaching and training and**

- Specialist teaching, training and the supervision of other staff in cardiac ultrasound, including training plans and supervision of log books.
- The post-holder will be involved in teaching, providing information and supporting non-cardiac clinical staff in all aspects of diagnostic and interventional cardiology.
- Participate in the induction programme for new staff.
- The post-holder will produce a personal work plan and identify training needs as required to their team lead.

6. SYSTEMS AND EQUIPMENT



The post-holder will be required to have a detailed in-depth knowledge of the following equipment functions. How to operate, calibrate, clean, maintain and trouble-shoot technical problems to ensure that safe, accurate, high quality data/reports are produced since they can affect decisions regarding patients' treatment and care.

Medical:

Cardiac Ultrasound systems (unit value >100K) – to know how to use and optimize various

~~complex inter-relating settings to achieve the best possible images and haemodynamic~~

information to provide a comprehensive, detailed and accurate reports. Care, decontamination and sterilization of TOE and thoracic probes.

ECG machines - will also provide knowledge and support to non-cardiac staff in the process of carrying out the above functions.

Computer software packages:

Medical

Echo Pac and Xcelera workstations - Analysing and reporting ultrasound studies, operation of patient database, archiving of images, patient information and system settings. IT

Carestream RIS system – used for appointing and pending patients attending for Echocardiography and other department procedures.

Clinical Portal – reviewing clinical records and ensuring Echo reports are available in a timely manner.

The post-holder is responsible for recording daily, weekly and monthly workload statistics and will assist the team lead when required in analysis and production of management reports. The post-holder must have advanced skills in the use of Microsoft Office XP

7. DECISIONS AND JUDGEMENTS

Professional

Will work as an independent practitioner, accountable for own professional actions and reports whilst working within Professional Codes of Practice/Guidelines and policies and procedures. He/she will work mainly unsupervised but may seek advice from other consultant practitioner or consultant cardiologists in imagining and reporting highly complex/conflicting cardiac ultrasound scans and will be expected to supervise more junior staff.

Clinical

Autonomous reporting, involving acquisition and analysis of highly-complex medical data which have a direct impact on patient diagnosis and treatment plans.

For example – assessment of left ventricular function and severity of valve disease prior to cardiac surgery.

Assessment of ventricular function pre and post heart transplant and in patients with advanced heart failure, post chemotherapy and during drug treatment programs.

Required to make highly complex autonomous decisions, which prioritises patient care and treatment.

Facilitates and supports other physiology and Medical staff when complex clinical decision making diagnostic skills are required.

Assesses and analyses patient well-being and make judgments regarding a range of physical and emotional care needs during diagnostic procedures.

The post-holder is required to act on any acute, new or conflicting findings from the cardiac ultrasound scan results and impart this information and or opinion to the patient and the referring consultant/surgeon. Where the consultant/surgeon is unavailable the post-holder will have to inform and in some cases urge and persuade other clinical staff that action for the patient's welfare is required as a matter of urgency.

Emergency echo pager

The post-holder will be at times responsible for carrying an emergency pager and will require interrupting routine work in order to perform or allocate other competent staff for urgent, emergency scans.

Policies and procedures

The post-holder is required to implement, review and recommend/develop policies and procedure for the cardiology service and to take the lead in the development of ultrasound policies and procedures.

The post holder will contribute to other hospital wide policies requiring input for ultrasound activity patient procedure and care and ultrasound equipment.

8. COMMUNICATIONS AND RELATIONSHIPS

The post-holder must have highly developed communications skills. These must be allied to an accurate knowledge and understanding of the well-established forms of communication in order to provide complex information to highly specialist clinical staff in a knowledgeable and professional manner and convey the same information/results to patients and relatives at a level that can be clearly understood.

The post-holder will demonstrate a balanced and equitable approach to managing difficult situations for patients, staff and visitors.

Inter-departmental/staff communication

Daily communication, with all levels of staff throughout the organisation in a concise, professional and reasonable manner.

Communicate complex findings from cardiac ultrasound to cardiac surgeons, cardiologists, other clinical consultants, nurse practitioners and ICU staff.

Liaise with administration and nursing staff regarding patient referrals and provision of cardiac ultrasound scans.

Regular communication with nursing staff and unit co-ordinating staff regarding appointments, and results.

External

- Inform external Cardiologists of patients non-invasive results. Receive and act upon where appropriate, instructions for patient follow-up care.
- Liaise with external Cardiac centres to obtain complex information regarding patient's previous cardiac investigations. Provide echo reports with often copies of the images to other cardiac centres upon request.

Patients, Carers and relatives

- Communicate to patients the arrangement of appointments and any information relevant to their procedure.
- Instruct patients, at an appropriately level, what to expect during their investigations and why. In this manner also to actively encourage their co-operation in order to achieve the best possible outcome/results from their test/procedure.
- Communicate to patients through an appropriate interpreter and respect any cultural or religious requirements.

9. PHYSICAL DEMANDS OF THE JOB

Clinical – Moving and handling

On a daily basis be required to position and maneuver patients in order to optimise test information.

The post-holder may have to perform cardiac investigations on difficult to manage patients. Due to high risk clinical procedures the post-holder can be exposed to highly distressing and exceedingly emotional circumstances.

Moving and handling of both small light, and large heavy (156cm x 64cm x 90cm: 190kg) cardiac ultrasound machines. Maneuver ultrasound machines into small tight areas in patient wards/ICU rooms to accommodate space for the process of carrying out a scan whilst still allowing room for other clinical staff. During portable examinations, whilst at all times trying to protect the patient's dignity and minimise their discomfort, the operator has to obtain an acceptable operating position for both her/himself and the patient in order to optimise the information acquired.

There is physical requirement of the highest capability in dexterity; hand and eye co-ordination allied to prolonged periods of concentration, keyboard skills and accuracy during the performance of all ultrasound scans.

An allocation of one is allocated at present for complex/difficult studies. A 10 -15 minutes of concentrated mental effort is required for measuring, and calculating results in order to compile a full comprehensive report.

Risk

All clinical and administrative tasks require the post-holder to be in front of VDU's of differing size and quality.

The post-holder may be required to decontaminate/sterilise Transesophageal imaging probes as and when required. Performing scans on post-operative patients in ICU (daily). During all cardiac investigations the post-holder will be expected to take precautions and adhere to Risk and Infection Control policies/guidelines in order to minimise the risks of injury to both patients and themselves.

Administrative

The post-holder requires good keyboard skills for using Office XP and medical software packages to input data, update clinical notes and type up results of procedures. Assist in the provision in Audit of section activity/workload in cardiac ultrasound.

Contributing to planning of service development mainly in the cardiac ultrasound service.

Appointing patients and organising patient admissions ensuring sufficient resources are available to keep waiting times to a minimum and the prioritisation of urgent, emergency and portable ultrasound scans.

10. MOST CHALLENGING/DIFFICULT PARTS OF THE JOB

The most challenging aspect of the post is to provide highly accurate diagnostic analysis of all cardiac investigations and be responsible for reporting and when required acting on the results. In particular when performing the various tests the post holder will often obtain findings that are new, acute or indeed in conflict with previous findings.

Will often discover new or acute findings from ultrasound scan which will require input from medical staff and or admission for urgent treatment.

For example: post heart transplant where there is evidence of rejection of the new heart, new intracardiac masses or severe reduction in ventricular function.

Clinical staff may seek opinion from the post holder as the specialist in the field of Echocardiography.

The most difficult part of the job is time management as circumstances change during the working day according to the needs and priorities of the patients and other clinical staff or departments.

The post-holder will be expected to use empathy, persuasion and perseverance to achieve a positive result for the patient to optimise test results.

11. KNOWLEDGE, TRAINING AND EXPERIENCE REQUIRED TO DO THE JOB

Clinical Physiology Degree or equivalent level (BTEC/HNC + Specialist courses)

BSE Adult accreditation (or pending accreditation within 12 months of appointment). and Member of British Society of Echocardiography with several CME accredited courses in Echocardiography, Masters or Equivalent to Master's Degree.

ASCST/ MSCST accreditation or equivalent experience, training and knowledge in cardiology and cardiac pathology.

Intermediate Life Support accreditation from Resuscitation Council (U.K.)

Extensive training in service having gained a complete knowledge of all Cardiac procedures. Comprehensive, evidenced experience as a Senior Physiologist with a high level of highly specialist knowledge and skills in performing and reporting ultrasound scans. Knowledge and experience in scanning patients with congenital heart defects.

The post-holder will be expected to have participated in, published, or have contributed to research publications in cardiology.

Excellent presentational skills – and will be expected to make presentations to other cardiac physiologists and at professional meetings.

Desirable:

Accepted onto the voluntary register for State Registration.
Member of Society Cardiac Science & Technology (SCST)

12. JOB DESCRIPTION AGREEMENT

A separate job description will need to be signed off by each jobholder to whom the job description applies.

Job Holder's Signature:

Date:

Head of Department Signature:

Date:

Recruitment Person Specification Band 7 Echocardiographer

The aim of this form is to record the criteria applicants need to meet to qualify for appointment to the vacant post. It must be completed before the recruitment process begins and must reflect the job description for the post.

	Essential	Desirable
Qualifications/Training	1. Cardiology degree or equivalent basic level of qualifications. BSE adult accreditation. Significant experience at band 7 level as an autonomous Echocardiographer	6. Cardiology Degree Proven CPD in cardiology
Experience	2. Experience and or knowledge of advanced analysis, including strain analysis, 3D and 3D volumetrics.	7. Experience in scanning and reporting patients with Adult Congenital Heart Disease, Advanced Heart Failure and Pulmonary Hypertension patient groups.
Skills/Knowledge	3. Evidence of/experience in training and mentoring. Experience in developing training plans and delivering education and training within Echocardiography.	8. Strong back ground in Cardiology.
Additional job requirements Eg. car driver, unsocial hours	4. Flexible working pattern required to work shifts to match service needs. Good administration and PC skills.	9. Delivering professional presentations to both cardiac physiologists and other professional bodies.
Any other additional information	5. Demonstrated record of good team working in a multidisciplinary environment. Show initiative in dealing with complex staffing/service issues.	