

Recruitment Person Specification

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.

Trainee Clinical Perfusion Scientist

	Essential	Desirable
Qualifications/Training	BSc (hons) in a biological/life sciences field	MSc
Experience		Previous work within a healthcare environment.
Skills/Knowledge	<p>Demonstrates academic capability to undertake Masters level course work, including producing a masters thesis/project.</p> <p>An understanding of the role of a clinical Perfusion Scientist</p> <p>Good interpersonal & communication skills</p> <p>Good team player.</p> <p>Self motivated.</p> <p>Manage time effectively between academic studies and clinical training.</p>	
Additional job requirements Eg. unsocial hours	<p>The two years Master course contains dedicated block weeks at University of Bristol. Must be willing to live away from home during the university block weeks.</p> <p>Capable of working irregular work patterns</p>	Previous experience of evidence of irregular working shift patterns
Any other additional information	<p>Must be self disciplined to work through studies</p> <p>Fully aware this is a fixed term 2 year training programme post.</p>	

May 2021

JOB DESCRIPTION

1. JOB IDENTIFICATION

Job Title: Trainee Clinical Perfusion Scientist

Department(s): Clinical Perfusion

Job Holder Reference:

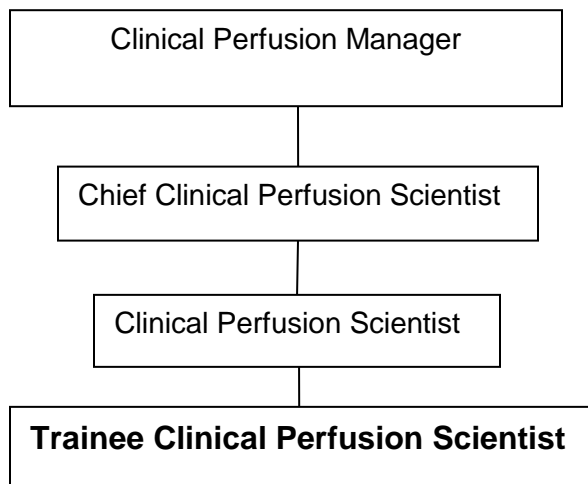
2. JOB PURPOSE

To undertake training as a Clinical Perfusion Scientist, in line with the Society of Clinical Perfusion Scientist's of Great Britain & Ireland training programme.

Hospital based clinical training is supplemented with a 2 year, block release, MSc Clinical Perfusion Science Course at the School of Perfusion in the University of Bristol.

Professional Accreditation Examination is taken after successful completion of the MSc Clinical Perfusion Science and evidence of completed professional portfolio.

3. ORGANISATIONAL POSITION



3. SCOPE AND RANGE

Under the guidance of the service College of Clinical Perfusion Scientist tutor/mentor, will train in the following aspects of Clinical Perfusion Science, in accordance with hospital and departmental policies & protocols:

- Adult & paediatric cardiopulmonary bypass procedures (CPB) procedures
- Intra-Aortic Balloon Pump therapy (IABP)
- Extra corporeal Membrane Oxygenation (ECMO)
- Short term Ventricular Assist Devices (STVADs)
- Long term Left Ventricular Assist Devices (LTLVADs)
- Cell salvage techniques.

4. MAIN DUTIES/RESPONSIBILITIES

- a) Under direct supervision from an accredited Clinical Perfusion Scientist, learn to review patient notes for relevant medical history, pathology and diagnosis and how this affects the clinical decision process regarding the conduct of extracorporeal support i.e. perfusion technique, cannulation, type of equipment, intravenous fluid, blood products and drug additions to prime.
- b) Under direct supervision, assemble, prime, de-air and manage extracorporeal devices and circuitry for cardiac surgical procedures, according to clinical perfusion procedures and protocols.
- c) Gain the knowledge required to assess, interpret and manage a wide range of highly complex conflicting clinical information, on a continual basis, and take appropriate action. For example, blood pressure and flow, anticoagulation, ECG, fluid balance, patient/blood temperatures and blood gases and electrolytes.
- d) Work as a continually supervised practitioner, ensuring that during a clinical procedure all actions are checked by a qualified supervising Clinical Perfusionist
- e) Acquire an understanding and assist in the provision of a departmental autologous cell salvage service.
- f) Acquire an understanding and assist in the management of an intra aortic balloon pump (IABP) therapy service.
- g) Acquire knowledge and skills within the field of short and long term ventricular assist devices.
- h) Acquire knowledge and skills within ECMO therapy.
- i) Acquire knowledge and skills within Thromboelastograph (TEG) analysis, interpretation & management.
- j) Integrate information from auditory, visual and perceptive senses on a constant basis and use this to manage the various therapies and devices used within clinical perfusion science.
- k) Act and think clearly and calmly under acute time pressures and in emergency situations.
- l) Seek advice from senior colleagues in order to gain experience and knowledge.
- m) Keep up with current techniques and research developments to maintain good perfusion Practice.
- n) Adhere to professional code of conduct and professional guidelines as defined by the Society of Clinical Perfusion Scientists of Great Britain and Ireland. Ensure that clinical practice is patient centred and that it is monitored and audited, these results being

benchmarked against other comparable units

- o) Develop knowledge and expertise in current developments and future trends in cardiac Surgery.
- p) Organise academic workload to achieve the MSc in Clinical Perfusion Sciences.
- q) Undergo annual appraisals (TURAS) and utilise to identify areas of personal and professional development. Regular reviews to track progress with mentor.
- r) Participate in scientific presentations.

6. SYSTEMS AND EQUIPMENT

- a) Heart Lung Machines (£100K) – Routine daily maintenance, calibration, set up, operation and trouble shooting of. (disposable circuit costs £400 per case)
- b) ECMO systems (£30K)- routine daily maintenance, calibration, set up, operation and trouble-shooting of. (Disposable circuit cost £1500 per case).
- c) VAD systems (£25k)- used during complex clinical situations- set up, calibration, Management and trouble shooting of (disposable circuit costs of £3300-£6600 per case).
- d) Blood Gas Machines- daily maintenance, operation, interpretation and recording of results.
- e) ACT Machines -Daily maintenance, QC, operation, interpretation and recording of results.
- f) Intra Aortic Balloon Pump (£30K0 - daily maintenance, set up and operation, trouble shooting.
- g) Thrombelastograph-Regular operation and interpretation of results. (disposable costs of £500 Per patient).
- h) CDI inline monitors- daily maintenance, calibration, set up, operation, trouble Shooting, interpretation and recording of results.
- i) Cell saver units- set up, calibration and operation as required.
- j) Microsoft Excel- Used daily for make up of Perfusion Records and departmental stats, Timesheets and research databases.
- k) Microsoft Word- Used daily for company, departmental, institutional and other correspondence.
- l) Microsoft Power-point- Used regularly for presentation of research, stats and teaching.
- m) Email Systems- Used daily for internal and external communications
- n). Sorin CONNECT Database- Tailor made software program for recording and handling all perfusion related data.
- o). DATIX- adverse incident reporting system
- p). Heartsuite/CATHI/Clinical portal and other clinical databases

7. DECISIONS AND JUDGEMENTS

- a) Under direct supervision from accredited staff, recommend appropriate course of action in the use and troubleshooting of CPB procedures and equipment such as ECMO, VAD, IABP, Ultrafiltration, cell salvage and point of care testing to medical, nursing & other Technical staff. This may be in an elective or emergency setting and in the absence of a full clinical picture.
- b) Under the direct supervision from accredited staff, develop skills on making decisions regarding patient clinical care e.g. decision to give blood /fluids, anaesthetic inhalation agents or various drugs during CPB/ECMO/VAD procedures or the manipulation of flows, pressures, temperature or IABP settings.
- c) Under supervision, carries out highly complex calculations based on individual patient demographics to ascertain dosages of drugs/fluids/ blood & blood products required by each patient.

8. COMMUNICATIONS AND RELATIONSHIPS

- a) Communicate in an effective, clear, concise manner as a core member of the cardiothoracic surgical team, and learn how to deal with complex and/or contentious information to ensure a positive patient outcome.
- b) Learn to communicate in a proactive manner, and gain experience in emergency and stressful situations.
- c) Learn and understand how to relay sensitive information to members of the surgical team and other staff groups to ensure appropriate continuation of patient care.
- d) Gain the required experience and knowledge to remain composed during emergency and high-pressure situations; communicating effectively and clearly to colleagues within the multi disciplinary team
- e) Maintain close liaison within the multidisciplinary team and foster good working relationships.
- f) Communicate effectively on a routine basis with the College Tutor/Mentor of training progress and identify areas requiring further explanation, training and support.
- g) Communicates effectively with the Clinical Perfusion Science management team & the team of Clinical Of Clinical Perfusion Scientists.

9. PHYSICAL DEMANDS OF THE JOB

PHYSICAL SKILLS

- a) For each CPB procedure, sitting at the Heart-Lung console in a restricted position for long periods ranging from 2 to 8 hours or greater whilst concentrating on the many Variable parameters.
- b). Possess excellent hand to eye co-ordination and manual dexterity to perform tasks safely, efficiently and accurately.
- c). Under supervision, set up equipment on a daily basis, which requires bending and lifting of sterile packs weighing 5-20 kilos and move the heart lung machine weighing 200 kilos, with no motorised assistance, between clinical areas which will involve manoeuvring this through doors, into sterile operating field and restricted spaces in the operating theatres and preparation areas.
- d) Under direct supervision, during emergency situations, learn to perform, set-up & prime rapidly whilst maintaining accuracy of all calibrations and fluid/drug additions.
- e) Under supervision, learn how to safely transfer patient on various clinical perfusion support machines to and between various clinical areas e.g. theatres/ICU/CCU/ CT/ Cath lab which may Involve elevators.
- f) Learn to deal with equipment malfunctions rapidly and effectively as any delay in this may have serious effects and may require lateral thinking and utilisation of unusual resources. This may demand intense physical effort e.g. in cases of manually removing and replacing a pump or hand-cranking the tubing at a rate of approximately 100 revolutions a minute against sizable resistance.
- g) Wearing of lead aprons within the Cath lab setting or when x-ray screening is being used in theatre.
- h) On a daily basis, removal of used disposables and safe disposal of this waste (20 - 30 kilograms) at the end of the case.

- i). Transfer of stock to the clinical area.

MENTAL EFFORT

- a) Cardiopulmonary bypass, requires lengthy intense concentration from 2 hours to 8 hours for every procedure.
- b) The supervised post-holder, as an integral part of the Cardiac Surgery team has to deal daily with other categories of staff in often stressful situations and to provide instant solutions to clinical and technical problems which may arise and be expert in troubleshooting these and/or providing alternative solutions.
- c) Multitasking skills are essential for the job as the post-holder, under supervision, may be subject to interruption from emergency demands for IABP, ECMO or cell saving procedures in areas out with the theatre area and for troubleshooting of equipment.

EMOTIONAL EFFORT

- a) The management of Cardiopulmonary bypass holds with it a great responsibility and is recognised as a highly stressful undertaking that is emotionally extremely demanding by its very nature. It requires dealing on a daily basis with life and death situations where decisions made by the post-holder have the potential to cause injury and/or death to the patient during CPB i.e. any microscopic air left in the circuit may lead to neurological deficits, ranging from confusion to CVA -with any gross air proving fatal to the patient.
- b) Procedures which involve a high operative risk, post surgical mortality or morbidity will have a distressing effect on the trainee clinical perfusion scientist who was involved and in the event of a death during a procedure, the supervised post-holder has the responsibility for cessation of the CPB and thus ending the patient's life support while maintaining the sensitivity and the dignity of the patient.
- c) While supervised by an accredited Clinical Perfusion Scientist, be called upon to set up and perform CPB and associated procedures on an emergency basis, where time is of the essence yet there is no room for decreased accuracy of service and with any delay having serious if not fatal implications to the patient i.e. in trauma cases, the responsibility for ensuring that the patient is adequately supported while replacing potentially huge blood losses.
- d) In the event of equipment failure, must be able to resolve problems quickly and efficiently with the prime objective of preserving the patient's circulation and limiting patient injury or death. This may result in the post-holder experiencing great stress, even when this has been speedily rectified.
- e) ECMO/VAD is performed at the bedside in the presence of parents/relatives. This evokes intense emotions, as ECMO/VAD is usually a final procedure and not all survive.
- f) In the event of the death of a patient on ECMO/VAD, the supervised post-holder is responsible for switching off the ECMO/VAD machine and ending that life.

WORKING CONDITIONS

- a) On a daily basis working in a space restricted environment in the Operating theatre and in other areas as required (e.g. ITU cubicles / Cath Lab)
- b) On a daily basis sitting at the Heart-lung machine console in a restricted position for long periods ranging from 2 to 8 hours or greater.

- c) Standing in one position for long periods of time in each shift e.g. during an ECMO procedure.
- d). Continuously monitoring haemodynamics, pump parameters and blood gases on VDU equipment for the duration of each case.
- e) On a daily basis working with exposure to high volumes of patient body fluids (circuit blood volumes range from 2 to 5 litres of blood) with inherent risks of infection e.g. in cases of HIV, CJD, Hepatitis A, B and C and MRSA
- f) Daily exposure to volatile anaesthetic gases and the responsibility for the scavenging of these whilst on CPB.
- g) Even adhering to local Health and Safety policies and exercising utmost care and attention, spills are often unavoidable due to the surgical techniques or the technical limitations of some equipment employed e.g. splashes from used cannulae as they are handed from the table.

10. MOST CHALLENGING/DIFFICULT PARTS OF THE JOB

- a) Training is given within emergency cases, which are highly complex and may be undertaken at any hour. This provides a very high stress situation with increased physical and mental demands. Despite this, intense concentration is required, to be fully alert and possess sound analytical and judgemental skills to manage the patient accordingly.
- b) Due to the very nature of this role, if a patient does not have a successful outcome from surgery/ECMO/VAD, the supervised post-holder is the person who switches off the lifesupport system to the patient. This can in itself be highly emotionally distressing. The trainee must develop strategies to assist with this process.
- c) Balancing academic and clinical workloads effectively to promote good learning while achieving successful completion of the training course work and professional portfolio

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

- a) Life Science/Biological Science honours graduate qualification required as minimum for entry into trainee programme.
- b) Undertakes a 2-year block release MSc qualification in Clinical Perfusion Sciences at University of Bristol.
- c) Requires to undertake in-house training programme and maintain a professional training log of 150 supervised cases.
- d) Undertake on call duties while supervised by an accredited Clinical Perfusion Scientist, towards the end of the training programme, to give experience of out of hour emergency type workload.
- e) On successful completion of the MSc programme, undertakes the Society of Clinical Perfusion Scientists of Great Britain & Ireland professional Accreditation examination. This consists of a practical and via voce examination held within the hospital setting.

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:

May 2021

Delivering care through collaboration

NHS Golden Jubilee

Beardmore Street, Clydebank G81 4HX

Telephone: 0141 951 5000

www.nhsgoldenjubilee.co.uk



Chair: Susan Douglas-Scott CBE

Chief Executive: Jann Gardner

Recruitment line: 0800 0283 666

Dear Candidate

POST: Trainee Clinical Perfusion Scientist

HOURS: 37.5 hours per week

CLOSING DATE: 25 June 2021

The Golden Jubilee Foundation welcomes your enquiry in connection with the above post. Please find enclosed an information pack.

Should you wish to submit an application for the above post, please ensure you do so in advance of the closing date. Late applications will not be forwarded for short listing.

When providing referees on the application form, please be aware that we require a minimum of two references to cover at least **two years** of previous employment/training history. If there is insufficient space on the application form to list all of your referees, please provide on an additional page. Where possible, please provide us with e-mail addresses for contact. Additionally, you should note that as part of the pre-employment checks a PVG or Disclosure Scotland check will be completed. **It is an offence for barred individuals to apply for regulated work.**

Should you contact the recruitment team to discuss any queries regarding your application it is advisable that you retain the job reference number as you will be asked to quote this when you call.

In the meantime, I wish you success with your application and should you require any further information please do not hesitate to contact the recruitment team on the contact telephone number shown above.

Yours sincerely
Recruitment Assistant

Golden Jubilee Foundation
General Information for Candidates



- This information package has been compiled to provide prospective candidates with details of the post and background information about the Golden Jubilee Foundation (GJF).
- The contents of this package are as follows:-
 - Job Description/person specification
 - Terms and Conditions of Service
 - Application Form
 - Equal Opportunities Monitoring Form
 - Information on Agenda for Change
- The Equal Opportunities Monitoring form is required for monitoring purposes only and will not be made available to the interview panel during any part of the recruitment process.
- Please note, to ensure that we adhere to our current policy on Equal Opportunities; CV's received with Application Forms will be destroyed prior to Application forms being passed for Short listing.
- GJF operates a No Smoking Policy on all Premises and Grounds and in shared vehicles.
- All offers of employment will be subject to the receipt of two year's satisfactory References, Occupational Health screening and Disclosure Scotland clearance. Please note that it is an offence under the act for barred individuals to apply for regulated work.
- Please submit your completed application through the Jobtrain Recruitment System to:-

recruitment@gjnh.scot.nhs.uk

- The short listing process will take place shortly after the closing date.
- As a Disability Confident Leader we recognise the contribution that all individuals can make to the organisation regardless of their abilities. As part of our ongoing commitment to extending employment opportunities all applicants who are disabled and who meet the minimum criteria expressed in the person specification will be guaranteed an interview.
- The organisation has introduced a set of shared values. These values will be measured during our Values Based Competency Interview. Our values are:
 - Valuing dignity and respect
 - A “can do” attitude
 - Leading commitment to quality
 - Understanding our responsibilities
 - Effectively working together

Golden Jubilee Foundation
Terms and Conditions of Service

The terms and conditions applicable to this post are those of all NHS Scotland Employees.

1. Superannuation

You have the option to join the NHS Superannuation Scheme, to participate in the State Earnings Related Pension Scheme or to take out a Personal Pension.

Employees contributions to the NHS Scheme range from to 5.2% to 14.7% of salary (depending on rate of Pensionable Pay) and the employers' contribution equates to 13.5% of salary. Employees in the NHS Scheme are "Contracted-out" of the State Earnings Related Pension Scheme and pay a lower rate of National Insurance contributions. Employees who choose to participate in the State Earnings Related Pension Scheme pay the higher rate of National Insurance contribution. A Stakeholder Pension is also available.

2. Salary

£40,872 to £47,846 per annum

3. Grade

This post is offered at Band 7 (this is a trainee appointment and Annex 21 will apply)

4. Annual Leave

The annual leave entitlement in a full year commencing 1st April to 31st March is 27 days, rising to 29 days after 5 years' service and 33 days after 10 years' service. There are 8 Statutory and Public Holidays in each leave year. (Pro rata where applicable)

5. Hours of Duty

37.5 Hours per week

6. Tenure of Employment

This post is offered on a temporary basis

7. Asylum and Immigration Act 1996

Under the Asylum and Immigration Act 1996, we are required to carry out checks to ensure that all prospective employees are entitled to live and work in the United Kingdom. You will therefore be asked to provide appropriate documentation prior to any appointment being made.

Benefits

NHS Superannuation scheme:

New entrants to the Golden Jubilee Foundation who are aged sixteen but under seventy-five will be enrolled automatically into membership of the NHS Pension Scheme. Employee contributions vary from 5.2% to 14.7% depending on annual pensionable pay. Benefits include a lump sum and pension when you retire, life assurance of 2 years' pay - while you are working, pension and allowances for your spouse and children in the event of your death, and benefits for ill-health retirement.

Our pension scheme is provided by Scottish Public Pensions Agency. This scheme is a qualifying pension scheme, which means it meets or exceeds the government's new standards. All benefits including life insurance and family benefits are explained on the SPPA website <http://www.sppa.gov.uk/>

Annual leave entitlement (including public holidays):

35 days' annual leave on appointment

37 days' annual leave after 5 years

41 days' annual leave after 10 years

Free car parking

Continuing professional development opportunities

Discounts at the Golden Jubilee Conference Hotel

Leisure Club membership – Get fit and healthy at the Centre for Health and Wellbeing with a discounted membership rate of £25 per month.

Discounted Room Rates - Rooms rates discounted subject to specific conditions.

Discounted Dining - 20% off food and beverage when dining in the hotel.

Golden Bistro (Hospital Restaurant) - Discounted food in our award winning hospital restaurant.

NHS Staff Benefits

As a staff member in the Golden Jubilee Foundation, you will have access to a wide variety of offers and discounts from local and national businesses using your NHS ID badge. For more information and to view these discounts, visit www.nhsstaffbenefits.co.uk - new offers are added on a weekly basis.