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Job Description

Job Group (Delete as applicable):	Clinical Perfusion
Job Title:	Clinical Perfusionist
Existing Grade:	Band 7 / 8A*
Care Group:	Surgery
Service Line:	Cardiothoracic Directorate
Department:	Clinical Perfusion Science & Research
Location:	Derriford Hospital
Appraiser:	Senior, Deputy Manager and Head of Clinical Perfusion
Accountable to:	Head of Clinical Perfusion
Position Number:	
Date:	1st May 2023

Job Purpose:

To provide a comprehensive, comprehensive, specialist and autonomous Clinical Perfusion service/resource to patients and other members of the multi-disciplinary team within the Cardiothoracic Directorate and Trust. The Clinical Perfusionist will also contribute to and participate in the development of department protocols and research. With experience the post-holder will support consultant colleagues in the application and choice of cardiopulmonary bypass and mechanical circulatory support in routine and emergency procedures/situations*.

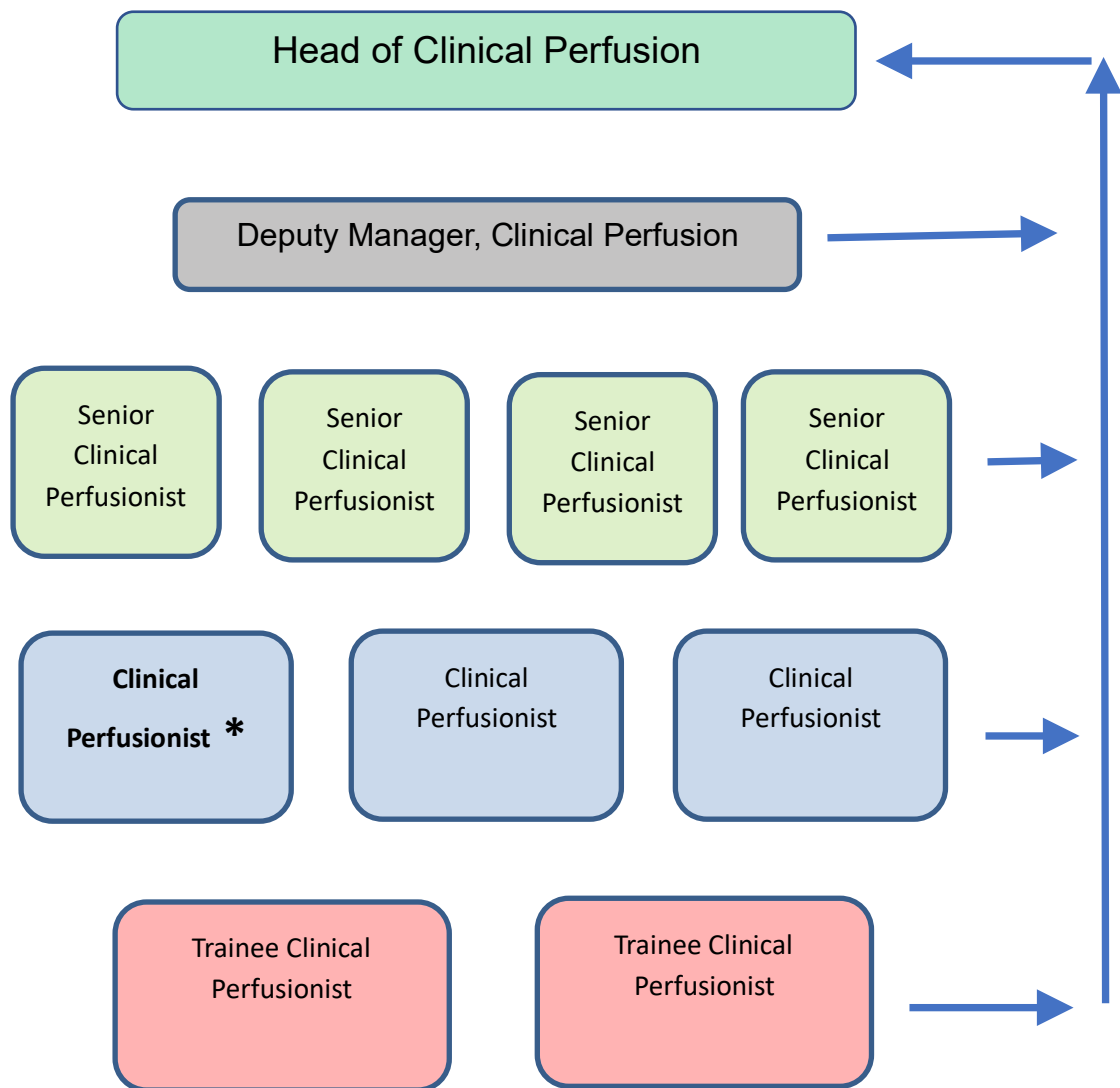
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Key Dimensions:

- Provide a comprehensive, specialist perfusion service as a vital member of the multidisciplinary team within the Cardiothoracic Directorate and throughout the Trust.
- Maintain infection control within Clinical Perfusion Science and Research.
- Maintain stock and stock control.

Organisational Chart

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Asterisk marks this post.

PRIMARY DUTIES & AREAS OF RESPONSIBILITY CLINICAL PRACTICE

- Take, where appropriate, delegated responsibility for the delivery of a highly specialist perfusion service, ensuring the service is effective and wellcoordinated.

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- Offer and undertake a range of highly specialised perfusion techniques during routine and emergency cardiopulmonary bypass.
- Assess the patient's relevant medical history, pathology and diagnosis and make appropriate decisions concerning conduct of the procedure.
- Advise clinicians on the suitability of equipment and persuade clinicians on appropriate course of action.
- Set up, prime and run the cardiopulmonary bypass machine to maintain "life support" for the period of cardiopulmonary bypass according to broad occupational and clinical policies as well as recent scientific evidence seeking advice when necessary.
- Undertake, analyse, interpret and correct arterial/venous blood gases and patient coagulation status.
- Administer drugs including colloid/crystalloid fluids, vasoactive drugs, cardioplegia solution, potassium, anticoagulants, haemostatic drugs, sodium bicarbonate and osmotic diuretics as clinically indicated.
- Monitor a wide range of highly complex and routinely conflicting clinical information on a minute-to-minute basis such as the blood oximetry, cardiac output, systemic vascular resistance, ventilation and anticoagulation whilst monitoring renal status and blood glucose and take appropriate autonomous action.
- Manipulate on a second-to-second basis the patient's cardiovascular system whilst on cardiopulmonary bypass.
- Determine requirement for, and perform where clinically indicated, haemofiltration and blood transfusion during cardiopulmonary bypass.
- Set up and manage, where appropriate; antegrade/retrograde cerebral perfusion; deep hypothermic circulatory arrest; mechanical support devices; extracorporeal membrane oxygenation; and extracorporeal carbon dioxide removal.

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- Ensure quality control, calibration and maintenance of expensive complex medical equipment in Clinical Perfusion and their safe use in compliance with Near-Patient Testing Policies.
- Participate in the running of an intra-aortic balloon counter-pulsation service across the Trust, ensuring availability of skilled clinical perfusion staff to support less-experienced staff in surgery, cardiology, and intensive care.
- Understand and interpret imaging for example chest x-ray and transoesophageal echo especially in conjunction with the use of intra-aortic counterpulsation*.
- Participate fully in Clinical Perfusion's 24hr on-call cover.
- Fully employ VISION data acquisition and ensure patient record is complete.
- Review VISION data to audit own practice in terms of blood usage; patient physiological indicators and pharmacology.
- Contribute to collective practice audit and lead on specific required topics*.

MANAGERIAL RESPONSIBILITIES

- Liaise with other members of the surgical, anaesthetic and nursing team.
- Support management of a work programme for all clinical areas.
- Manage and prioritise own caseload/workload independently.
- Responsible for supervision of students, involving judging competence levels and organising suitable activity.
- Required to complete training record and casebook.
- Discuss and sensitively deal with any highlighted problems that have arisen during supervision. This may be providing reassurance where necessary or discussing the problem with a senior member of staff*.

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- Maintain infection control policies within the department. Directly responsible to the Deputy Manager in Clinical Perfusion for their development.
- Respect the confidentiality of all matters that may relate to colleagues employment and other members of staff. All staff are expected to respect the requirements of the “UK Data Protection Act 2018/UK General Data Protection Regulation (UK GDPR)”.
- Advise line managers on issues of service delivery including shortfall and activity.
- Audit own patient records and report to the Head of Clinical Perfusion any concerns.

HUMAN RESOURCES

- Respect the confidentiality of all matters that may relate to colleagues employment and other members of staff.
- Assist where necessary in the interview and selection procedure for junior staff.
- Supervision of trainee clinical perfusionists during routine clinical work.
- Take responsibility and demonstrate effective delegation of responsibility to junior colleagues ensuring that delegation is accompanied by empowerment*.

EDUCATION AND TRAINING RESPONSIBILITIES

- Organise and implement education and training programmes including specialist core lectures for student Clinical Perfusionists and other staff members.
- Responsible for providing a working insight to cardiopulmonary bypass for the purpose of teaching other members of the Cardiothoracic Directorate including anaesthetic Registrars and medical students whilst ensuring the safe optimal delivery of cardiopulmonary bypass and patient care.

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- Must undertake presentations to a broad range of audiences often of large numbers to promote understanding of a unique specialty.
- Encourage and support staff development and training.
- Attend post-graduate courses, seminars and conferences to facilitate continual professional development.
- Maintain record of continuous professional development and ensure reregistration requirements are met.

RESEARCH AND DEVELOPMENT RESPONSIBILITIES

- Develop specialised techniques and protocols.
- Participate in developing and implementing protocols and procedures within clinical perfusion. When impacting on other professional groups discuss with appropriate associate to encourage co-operation and negotiate a favourable outcome.
- Remain responsible for assuming and up-dating knowledge on areas surrounding policies and ensure that the relevant information is distributed to the appropriate individuals.
- Regularly evaluate, research and audit perfusion equipment testing as part of routine work.
- Evaluate and contribute to changes in practice to improve quality of patient care.
- Offer advice in conjunction with lead clinicians for research and development in the directorate to promote perfusion research within a multidisciplinary team.
- Liaise, co-ordinate and comply with other appropriate authorities and departments in the development work of research e.g. medical staff, R&D, Ethics committee, suppliers and both internal and external laboratories.

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- Critically review current literature to reflect current thinking of principles and practices of cardiopulmonary bypass that can ultimately lead to improvement in patient care.
- Ensure that all duties are carried out in accordance with policies, practices and procedures of University Hospitals Plymouth NHS Trust.
- Comply with the corporate governance structure in keeping with the principles and standards set out by the Trust.

FREEDOM TO ACT

- Draw on knowledge of a range of theories to inform practice. Assist in developing strategies for the management and delivery of care to the patient.
- Work as an autonomous practitioner, taking responsibility for organising and delegating, where appropriate multiple techniques required during a single procedure e.g. cardiopulmonary bypass, cell salvage, blood gases and intra-aortic balloon pumps.
- Take initiative, manage and prioritise own caseload/workload independently.
- Monitor and evaluate own service delivery and that of others in the team.
- Accountable for own professional action and recognise own professional boundaries through interpretation of clinical/professional policies.
- Work within defined departmental and national protocols/policies and professional code of conduct.
- Work independently accessing appraisal within an individual performance framework at pre-determined intervals.
- Provide evidential action on own initiative as clinical circumstances indicate.
- Where appropriate lead the MDT when problem-solving especially when the patient is on cardiopulmonary bypass*.
- Administer selective cardiovascular and controlled drugs as clinically indicated and determined.

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COMMUNICATIONS & WORKING RELATIONSHIPS

- Frequent, rapid, communication in an unambiguous and concise manner with consultant colleagues and other members of the multidisciplinary team. This may require direct instruction in the use of particular devices, and/or the use of unfamiliar or infrequently used techniques of a highly specialist nature.
- Tactful communication of sensitive patient related information is required
- Offer pre-operative advice to medical staff on the suitability of equipment and devices for specific procedures, taking into account changes/deterioration in patient condition and any concomitant disease processes, laboratory data, near patient test results and other technically limiting factors. Resistance to implementation of particular techniques due to differences in expert opinion, inexperienced surgeon/anaesthetist must be overcome by tactful, clear and concise explanation.
- Liaise closely with multidisciplinary colleagues to agree optimum peri-operative care pathways to facilitate patient treatment.
- Utilise a variety of strategies to communicate highly complex, sensitive information about the service area to staff, Head of Clinical Perfusion, other organisations and the general public.
- Accomplished presentation skills required to promote multi-disciplinary and inter-departmental liaison, collaborative practice and understanding of specialist clinical area to broad range of audiences, including other professionals and stakeholders.
- Demonstrate good negotiation skills in the management of conflict across a range of clinical situations.
- Contribute to clinical teams, both multi-disciplinary and uni-disciplinary, by discussing own and others input around patient needs ensuring a well co-ordinated care plan.

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- Teach new skills to other members of staff and junior colleagues.
- Build rapport with individuals and peers to build up and maintain trust and respect.
- Show courtesy and respect for the dignity of patients and their relatives.

OTHER

KNOWLEDGE TRAINING AND EXPERIENCE

- Attend national and international conferences to maintain, develop and contribute towards continuing professional development and enhancement of clinical skills in own area of expertise.
- Assist in the development of evidence based guidelines for practice within own clinical specialty.
- Attend relevant professional development seminars required of practicing Clinical Perfusionists in order to maintain appropriate registration with the College of Clinical Perfusion Scientists of Great Britain and Ireland, and the Health and Care Professions Council.
- Demonstrate in depth knowledge of clinical practice guidelines and clinical governance directives issued by relevant professional bodies.
- Apply the principals of clinical governance, at the time in force, to professional practice.
- Identify personal/professional development evidenced by personal development plan, professional portfolio developed within an appraisal framework, including objectives relating to clinical specialty.
- Reflect on practice, particularly atypical procedures to consolidate understanding and knowledge.
- Maintain a current knowledge base of conditions and disease processes relevant to the conduct of cardiopulmonary bypass.

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- Deliver training formally and informally to others locally, regionally, nationally and internationally, where necessary in area of clinical expertise.
- Maintain a current knowledge base of pharmacokinetics and pharmacodynamics of relevant cardiovascular drugs employed during and affecting cardiopulmonary bypass.
- Maintain update of new techniques and developments for the promotion and maintenance of good practice in Clinical Perfusion.
- Familiar with departmental and Trust Blood Transfusion policies.
- Identify, assess and mitigate risks, effecting change in practice accordingly.
- Use leadership skills to inspire professionalism, commitment and enthusiasm in Clinical Perfusion and the wider multi-disciplinary team*.

ANALYTICAL AND JUDGEMENT SKILLS

- Discuss and evaluate options for the management of peri-operative care delivery with consultant and other medical colleagues.
- Use specialised knowledge as a basis for informed clinical judgement/decision making to ensure best practise for highly complex clinical procedures often in the absence of the full clinical picture and where expert opinions differ to assist other members of the multidisciplinary team.
- Seek to anticipate potential communication breakdown and/or conflict situations seeking to encourage those involved to suggest alternatives and facilitate resolutions.
- Demonstrate reflective practice to assist in professional development and enhancement of care delivery.
- Adapt to meet changes in patient condition or circumstances.
- Monitor a wide range of highly complex and routinely conflicting and complex clinical information on a minute-to-minute basis and take appropriate autonomous action.

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INFORMATION RESOURCES

- Create own clinical perfusion reports by employing clinical perfusion data acquisition software and manage own data acquisition database.
- Maintain a high professional standard of record keeping with accuracy, honesty and completeness of all paperwork and database records of clinical data and add appropriate data to the SCTS Database in accordance with local Trust policies. These records are maintained on Microsoft Access/Excel and perfusion database therefore knowledge of such systems is essential.
- These records should be easily accessible by all for the purpose of audit, stock control, finance, performance management, professional registration and bench-marking purposes.
- Generate and file patient reports, clinical audit reports and clinical governance compliance/non-compliance reports with particular regard to the Data Protection Act.
- Ensure that all information is handled according to UHPT policy.

FINANCIAL AND PHYSICAL RESOURCES

- Responsible for careful use of all aspects of perfusion equipment. Ensure that equipment is in safe working order prior to use. All faults should be reported.
- Responsible for costing/sourcing suppliers as and when required.
- Responsible for maintaining departmental stock levels and expiration dates when required.
- Will be asked to report on specific consumable items or procedures and outline consequential cost implications*.

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PLANNING AND ORGANISATIONAL SKILLS

- Autonomously manage personal case/work load.
- Assist in the implementation of education and training programmes to facilitate continuing professional development within the department.
- Assist in the organisation of a broad range of complex activities within Clinical Perfusion and recognise the changing requirements of service provision.
- Assist in the allocation of duties ensuring adequate cover for service provision.
- Plan and organise ahead for several eventualities whilst maintaining flexibility should the course of work change.
- Contribute to the development of innovative and specialist techniques within the Cardiothoracic Directorate and Trust-wide.

PHYSICAL SKILLS

- Provide highly specialist clinical and technical skills during the delivery of direct patient care.
- Demonstrate highly developed auditory, visual and perceptive skills in dealing with multiple strands of complex data/information on a second to second basis during the delivery of routine and specialist perfusion techniques.
- Act and think, quickly and clearly, often under acute time constraints to resolve unforeseen events and emergency situations during the conduct of direct care delivery.
- Well-developed computer literacy and advanced keyboard skills for data management, administration and Report writing.
- Accomplished manual dexterity, essential for construction and manipulation of extracorporeal circuit.

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PHYSICAL EFFORT

- Have due regard for personal safety and that of others with respect to relevant health and safety legislation and moving and handling policies.
- Dismantling and removal of cumbersome, potentially infected, clinical waste from treatment areas.
- Move very heavy, cumbersome equipment between clinical areas, including the transfer of patients on specialist devices between treatment, diagnostic imaging and critical care areas.
- Unload, unpack and rearrange heavy perfusion equipment on a regular basis.
- Attend your cardiopulmonary bypass procedure for its duration, this may involve having to maintain a particular sitting or standing position for what may be many hours.
- Control several distal parts of the extracorporeal circulation at the same time often in physically challenging circumstances.

MENTAL EFFORT

- Maintain intense levels of concentration for prolonged periods, occasionally for several hours, during the direct delivery of routine and specialist perfusion techniques. In particular, the monitoring of multiple strands of complex and frequently contentious data from various sources during cardiopulmonary bypass.
- Flexible to the demands of the clinical environment, including but not limited to unpredictability of workload, emergency procedures, deadlines and catastrophic clinical situations.

EMOTIONAL EFFORT

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- Maintain calm during emergency and high-pressure situations whilst continuing to communicate clearly and effectively with other members of the multi-disciplinary team.
- Maintain respect for and the dignity of, all patients undergoing treatment whether as an emergency or otherwise and in the event of a patient fatality during the procedure.
- Understand that in the event of a patient fatality in cardiac theatre, patient death may be documented as the time you discontinued cardiopulmonary bypass.
- Engage and interact with patients (and their relatives) when they are on mechanical assist devices, often where patient prognosis is poor.
- Develop appropriate strategies for dealing with peri-operative and postoperative death.
- Develop appropriate strategies and skills for dealing with stress and stressful situations.
- Support and motivate individual members of the team and other colleagues in the multi-disciplinary team where appropriate*.

WORKING CONDITIONS

- Work within infection control and health and safety guidelines in order to prevent cross infection of patients, contamination of clinical areas and prevent contaminated sharps injuries etc.
- Daily exposure to patient body fluids and other potentially infectious/hazardous material whilst managing highly invasive, specialist devices during the direct delivery of patient care.
- Daily management of arterial and venous blood samples in close proximity to highly invasive circulatory support devices whilst maintaining patient's vital signs on a moment to moment basis.

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- Take effective precautions to prevent the cross contamination of patients and colleagues and reduce the general spread of infection within the workplace.
- Work in a safe manner to mitigate risk to patients and to other members of the multi-disciplinary team. Identifying areas of risk and taking appropriate action when necessary.
- Frequent exposure to noxious chemicals during Heater-Cooler maintenance, requiring wearing of full PPE including Type FFP3 Mask for several hours.
- Keep up-to-date with mandatory statutory training.

All Job Holders are required to...

- Work to the Trust values - Put patients first, Take ownership, Respect others, Be positive, Listen, learn and improve.
- Adhere to Trust policies and procedures, e.g. Health and Safety at Work, Equal Opportunities etc.
- Maintain personal and professional development to meet the changing demands of the job, participate in appropriate training activities and encourage and support staff development and training.
- Attend statutory, essential and mandatory training.

Respect the confidentiality of all matters relating to their employment and other members of staff. All members of staff are required to comply with the requirements of the UK Data Protection Act 2018/UK General Data Protection Regulation (UK GDPR)" or "Data Protection legislation.

- Comply with the Corporate Governance structure in keeping with the principles and standards set out by the Trust.

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- Comply with the codes of professional conduct set out by the professional body of which registration is required for the post.
- Ensure they are familiar with the Risk Management Framework, follow policies, procedures and safe systems of work, make known any hazards or risks that they identify and take all necessary actions to reduce risk.
- Ensure the welfare and safety of children within their care. This includes staff who come into contact with children and families in the course of their work as well as those staff who have a specific role with children and families.
- Ensure they attend Child Protection training at the appropriate level within the specified time frame.
- Staff must comply with Safeguarding Policies and Procedures in order to promote safeguarding and prevent abuse to vulnerable people using Trust services.
- Maintain the prevention and control of infection and fully comply with all current Trust Infection Control policies and procedures.
- Take responsibility for any records that they create or use in the course of their duties, in line with the Public Records Act and be aware that any records created by an employee of the NHS are public records and may be subject to both legal and professional obligations.

All Managers are responsible for...

- Assessing risks and implementing the necessary actions to minimise these risks within their sphere of responsibility. They must also enable staff to attend the relevant statutory and essential training.
- Managing attendance in accordance with the Trusts Attendance Management Policy.

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All Heads of Departments are responsible for...

- Ensuring all necessary risk assessments are carried out within their division, Service Line or department in liaison with relevant sources of specialist support and expertise within the Trust. They must also ensure that the risk management process is completed appropriately.

Note

This job description is neither definitive nor exhaustive and is not intended to be totally comprehensive. It may be reviewed in the light of changing circumstances following consultation with the post holder. This job description is to be read in conjunction with all current Plymouth Hospitals NHS Trust policies, procedures & guidelines.

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PERSON SPECIFICATION TEMPLATE

ATTRIBUTES	ESSENTIAL	DESIRABLE
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KNOWLEDGE & EXPERIENCE	<ul style="list-style-type: none"> • Networking: being able to work within and outside of the department with credibility out of area • Familiarity with the application of cardiopulmonary bypass in critical/emergency situations and cardiopulmonary resuscitation • Demonstrate continuing professional development towards re-accreditation and re-registration with the College of Clinical Perfusion Scientists of Great Britain and Ireland and the Health Professions Council • Familiar with a wide range of specialist and routine clinical perfusion techniques • Conversant with, and the limitations of, equipment and devices used for the direct delivery of routine and specialist clinical perfusion techniques to patients • Deliver specialist training to others where appropriate • Advanced computer literacy and keyboard skills • Familiar with several data acquisition technologies, data presentation tools and their statistical basis • Conversant with health and safety guidelines (Trust-wide and national) related to the use of particular devices, techniques, drugs and solutions • Proven evidence of policy and/or protocol development and post incident reporting 	<ul style="list-style-type: none"> • Proven knowledge of national strategies impacting on provision of cardiopulmonary bypass procedures, national directives and clinical governance, for example GIRFT • Published author or co-author of peer reviewed scientific literature • Proven evidence of Policy and/or Protocol development and/or contribution
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	<ul style="list-style-type: none"> • Proven knowledge of research methodology and statistics • Develop the skills to interpret imaging for example x-rays and transoesophageal echo to an appropriate standard • Demonstrate competence in employing monitoring and test results to make sound clinical decisions when choosing medication • Use pharmacology within field of competence whilst considering patient allergies and clinical consequences • Demonstrable 1st on-call experience 	
QUALIFICATIONS	<ul style="list-style-type: none"> • Accreditation by Society of Clinical Perfusion Scientists of Great Britain and Ireland • MSc • Licentiate registration with College of Clinical Perfusion Scientists of Great Britain and Ireland • Proven evidence of continual professional development 	<ul style="list-style-type: none"> • Society of Clinical Perfusion Scientists of Great Britain and Ireland Advanced Certificate

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APTITUDE & ABILITIES	<ul style="list-style-type: none"> • High level of organisational skills • Ability to work as an autonomous practitioner or as part of a multidisciplinary team • Effective information technology skills including advanced keyboard skills and Microsoft Word, Excel, PowerPoint, Access and various hospital and perfusion databases • Ability to work efficiently and effectively in stressful or emotive situations for prolonged periods maintaining intense levels of concentration <p>Able to communicate highly complex</p> <ul style="list-style-type: none"> • and detailed information often in extremely difficult circumstances <p>Effective negotiating skills</p> <ul style="list-style-type: none"> • Attention to detail and accuracy • Able to interact with patients and their relatives where necessary • Accountable for own professional action • Act as a role model and resource for learning across the multi-disciplinary team • Ability to teach to a high degree of complexity to different staff groups • 	<ul style="list-style-type: none"> • Effective leadership skills • Ability to facilitate change by discussion and implementation of emerging best practise
DISPOSITION / ATTITUDE / MOTIVATION	<ul style="list-style-type: none"> • <p>Work in a calm, orderly manner both as an autonomous practitioner and as a member of the multidisciplinary team</p>	

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	<ul style="list-style-type: none"> • Able to provide support for colleagues in clinical perfusion and the multidisciplinary team • Good organisational skills and an ability to lead others • Able to work well within a busy environment 	
	<ul style="list-style-type: none"> • Conscientious in all aspects of clinical and professional work 	
OTHER FACTORS	<ul style="list-style-type: none"> • Able to participate fully in departmental on-call rota • Research demonstrable experience and demonstrate an aptitude for the statistical analysis, presentation and publication of findings • Full UK driving licence 	<ul style="list-style-type: none"> • Full member of the Society of Clinical Perfusion Scientists of Great Britain and Ireland