

## **The Newcastle upon Tyne Hospitals NHS Foundation Trust**

### **Job Description**

#### **Job Details**

<b>Job Title</b>	Clinical Technologist
<b>Band:</b>	6
<b>Directorate:</b>	Northern Medical Physics and Clinical Engineering
<b>Service / Function:</b>	Mechanical Engineering Services (MES)
<b>Site:</b>	Freeman Hospital, University Hospital of North Durham

#### **Essential Requirements**

- Completion of a recognised mechanical engineering apprenticeship, training scheme or equivalent.
- Degree or equivalent level experience in relevant subject.
- Post Graduate Diploma or equivalent level experience.
- Full valid driving licence.
- Specialist knowledge and skills in medical or scientific equipment relevant to working area.
- Good knowledge of materials and principles used in engineering
- Skilled in the operation of machine tools including CNC programming.
- Good knowledge of engineering software packages (e.g. 2D / 3D CAD / CAM) and experience of applying them.
- Proven ability to problem solve.
- Good knowledge of IT software packages (e.g. Word, Excel, PowerPoint, Access) and experience of applying them
- Knowledge of anatomy, physiology and pathology relevant to area of work.
- Knowledge, skill and experience necessary to respond calmly, competently and professionally in the event of a patient experiencing problems, including CPR.
- Ability to demonstrate equipment in non-technical language. Good communicator.
- Empathy with disabled clients and their carers

#### **Desirable Requirements**

- Skilled in welding techniques including TIG.
- Good organisational and communication skills.
- Desire to provide high quality engineering solutions.
- Registered as a Clinical Technologist with RCT or AHCS

#### **Job Purpose**

- Providing the technical aspects of the Mechanical Engineering Service (MES) at

- the Freeman Hospital, University Hospital of North Durham and across the region.
- Assists in maintaining and developing high standards of service provision, in accordance with formal Quality Management Systems where appropriate, throughout their area of responsibility.
  - Project lead – independently managing a caseload of referrals, including initial assessment, problem solving, risk analysis, design, manufacture and documentation.
  - Ensuring the safe introduction, delivery / handover of manufactured / modified products into clinical, domestic and educational establishments. Providing both verbal and clearly written instructions regarding their safe use.
  - Compliance with all relevant legislative and other national and local requirements.
  - Safe and efficient operation of all engineering / scientific equipment on which you have been trained.
  - Undertake other duties and responsibilities within the scope of MES to meet the changing needs and circumstances of the service.
  - Contribute to research and development projects.

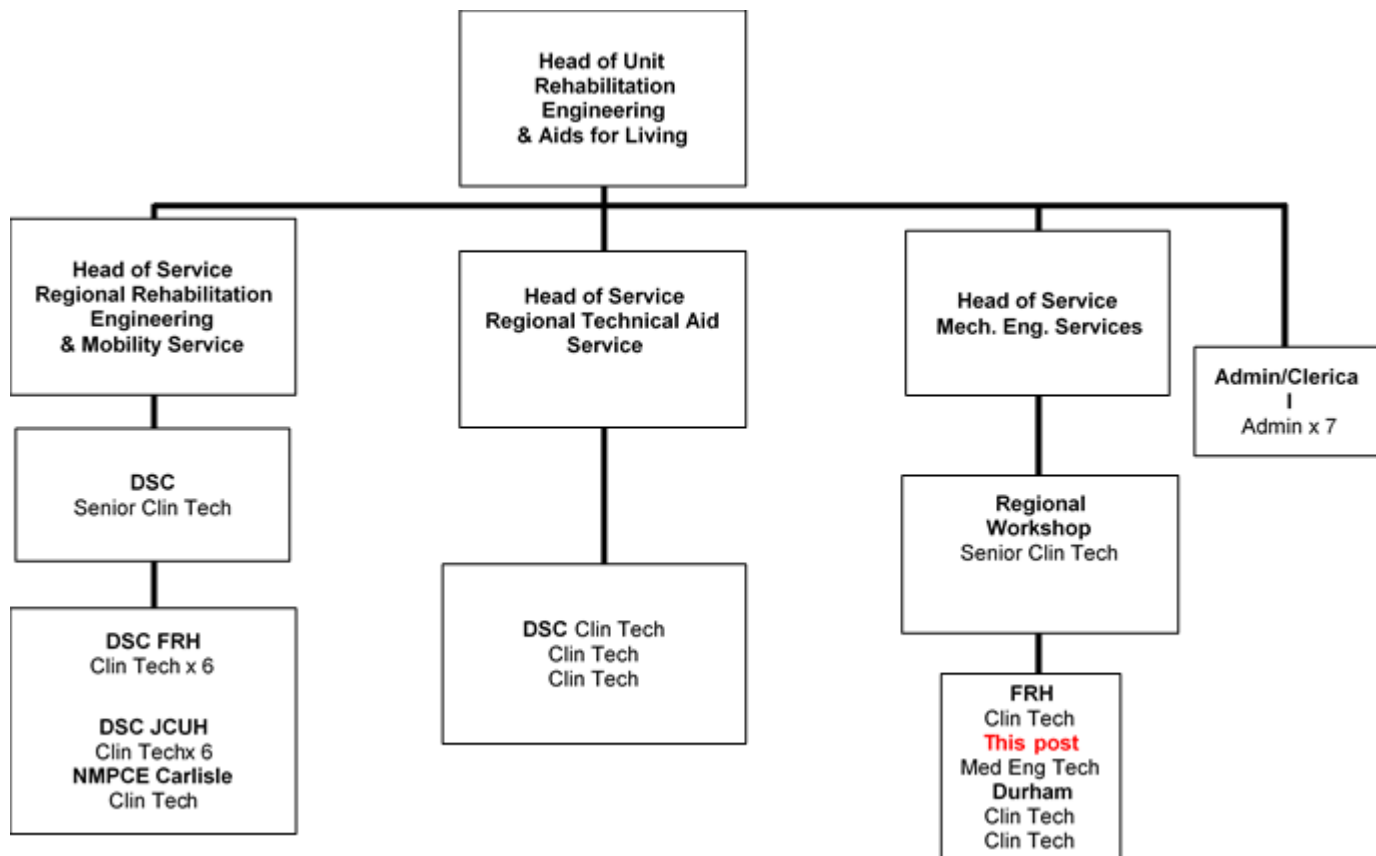
### **Dimensions**

- The Northern Medical Physics and Clinical Engineering is a Clinical Directorate of the Newcastle upon Tyne Hospitals NHS Foundation Trust (NUTH).
- The Directorate provides both clinical services and research in a wide range of scientific and technical specialities.
- The Directorate has a compliment of 130 staff (February 2021).
- The Directorate delivers medical physics and clinical engineering services to NUTH and to a number of other healthcare organisations across Northern England. We also employ staff based in units at North Tees and Hartlepool NHS Foundation Trust, County Durham and Darlington NHS Foundation Trust and North Cumbria University Hospitals NHS Trust.
- We serve patients within tertiary, acute and primary care settings.

### **Organisational Arrangements**

**Reports to:** Senior Clinical Technologist

**Accountable to:** Head of Service



### **Knowledge Training and Experience**

- See essential requirements
- The post holder is expected to follow an approved programme of continuing professional development (CPD)

### **Skills**

#### **Communication and Relationships**

- Communicates with senior staff of a variety of disciplines.
- Communicates complex information relating to specialist procedures to colleagues.
- The post holder is required to develop positive working relationships at all levels in connection with their service.
- The post holder is responsible for ensuring effective communications within their service and across professional boundaries, overcoming barriers to understanding.
- To communicate procedures in simple terms to patients and their relatives.

#### *Clinical*

- Well-developed patient handling skills
- Explain procedures to patients and others, some of whom have significant barriers to accepting the information.
- Communicate sensitive information to appropriate staff.
- Provide accurate oral and written reports.
- Contribute to the training of new technologists.

### **Analytical and Judgemental**

- Exercise judgement in the interpretation of computer information within their specialism
- Interpretation of complex technical information
- Recognition of faults and taking appropriate action.

### **Planning and Organisational**

- Responsible for planning and prioritisation of own workload, some of which are ongoing.

### **Physical Dexterity**

- Highly developed specialist skills required to operate expensive complex medical or scientific equipment.
- Knowledge of safe lifting and handling techniques.
- Good hand-eye co-ordination requiring a high degree of precision.
- Proficient IT skills.

*If employed in a technical role, to be able additionally to:*

- Ability to service, repair and calibrate complex medical and scientific equipment using appropriate test instrumentation.
- Use precision tests and measurement equipment safely and effectively

*If employed in a clinical role, to be able additionally to:*

- Regularly carry out some patient measurement

### **Key Result Areas**

#### **Patient / Client care**

- Provide a range of highly specialist clinical technical services for patients or medical equipment support services.
- To ensure Trust standards and guidelines on infection control are followed.
- Be alert at all times to any malfunctioning of the full range of complex equipment, identifying malfunctions accurately.
- Carry out service, repair and calibration in accordance with appropriate protocol.
- Respond immediately, correctly and professionally to any patient emergency.
- Carry out tests in accordance with appropriate protocol.

#### **Policy and Service Development**

- Implement decisions affecting working practices within own areas of activity.
- Contributes to discussions on changes to policies and procedures within the section so to ensure they reflect best practice, thus maintaining and improving the quality of the services

#### **Financial and Physical Resources**

- To be responsible for the safe use of expensive highly complex equipment used by the post holder and others
- Responsible for maintenance of stock levels of materials

### **Human Resources**

- Delivers guidance and training of junior technologists and other staff.

### **Information Resources**

- Records patient and technical data into database accurately.
- Design/generate and save computer generated programs/protocols for own/other use at a later date
- Regularly uses computer software to design/manufacture (using CAD/CAM or equivalent), mechanical components, assemblies, electronic circuits or printed circuit board layout or
- Significant responsibility for maintaining information systems which includes updating software

### **Research and Development**

- Participate in development of new treatment techniques
- Participates in Research and Development, equipment testing and trials of clinical devices
- Continuing involvement on a weekly basis in development work as part of research programmes or activities

### **Freedom to Act**

- Post holder is responsible for management of own work schedule
- Outputs are defined by manager/project leader/referrer but post holder has significant discretion in how best to achieve these, guided by broad occupational policies or regulations
- Lead technologist within specialist area

### **Effort and Environment**

#### **Physical Effort:**

- There is a frequent requirement to sit in a restricted position as a substantial proportion of the working time is spent using a computer.
- Occasionally exert moderate physical effort for short periods.

#### **Mental**

- There are frequent prolonged periods of concentration while using technical software

#### **Emotional**

- Occasional exposure to direct distressing or emotional circumstances.

#### **Working Conditions**

- Occasional exposure to unpleasant substances or patients with serious infectious conditions or devices contaminated with bodily fluids.
- VDU use.

**Signed:** .....  
(Post holder)

**Date:** .....

**Signed:** .....  
(Directorate Manager or equivalent)

**Date:** .....

## The Newcastle upon Tyne Hospitals NHS Foundation Trust

## Person Specification

JOB TITLE: Clinical Technologist

Band: 6

DIRECTORATE: NMPCE

<u>REQUIREMENT</u>	<u>ESSENTIAL</u> Requirements necessary for safe and effective performance of the job	<u>DESIRABLE</u> Where available, elements that contribute to improved/immediate performance in the job	<u>ASSESSMENT</u>
<b>Qualifications &amp; Education</b>	<ul style="list-style-type: none"> <li>• A recognised mechanical engineering apprenticeship, training scheme or equivalent.</li> <li>• A Degree in relevant subject or equivalent qualification or experience.</li> <li>• Appropriate Post-Graduate Diploma or equivalent level experience</li> <li>• Full, valid driving licence.</li> </ul>	<ul style="list-style-type: none"> <li>• Registered as a Clinical Technologist with RCT or AHCS</li> </ul>	
<b>Knowledge &amp; Experience</b>	<ul style="list-style-type: none"> <li>• Specialist knowledge and skills in medical or scientific equipment relevant to working area.</li> <li>• Good knowledge of materials and principles used in engineering</li> <li>• Skilled in the operation of machine tools including CNC programming.</li> <li>• Good knowledge of engineering software packages (e.g. 2D / 3D CAD / CAM) and experience of applying them.</li> <li>• Knowledge of anatomy, physiology and pathology relevant to area of work.</li> <li>• Knowledge, skill and experience necessary to respond calmly, competently and professionally in the event of a patient experiencing problems, including CPR.</li> </ul>	<ul style="list-style-type: none"> <li>• Skilled in welding techniques including TIG.</li> </ul>	
<b>Skills &amp; Abilities</b>	<ul style="list-style-type: none"> <li>• Proven ability to problem-solve.</li> <li>• Good knowledge of IT software packages (e.g. Word, Excel, PowerPoint) and experience of applying them.</li> <li>• Ability to demonstrate equipment in non-technical language. Good communicator.</li> </ul>	<ul style="list-style-type: none"> <li>• Good organisational and communication skills.</li> </ul>	
<b>Values / Behavioural / Attitudes</b>	<ul style="list-style-type: none"> <li>• Flexible approach.</li> <li>• A professional approach to dealing with other staff and patients.</li> <li>• Empathy with disabled clients and their carers</li> </ul>	<ul style="list-style-type: none"> <li>• Desire to provide high quality engineering solutions.</li> </ul>	
<b>Core Behaviours</b>	<ul style="list-style-type: none"> <li>• Alignment to Trust Values and Core Behaviours</li> </ul>		

CANDIDATE:

REFERENCE NO:

SIGNED BY:

DATE:

DESIGNATION: