NHS TAYSIDE – AGENDA FOR CHANGE

JOB DESCRIPTION

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| 1. JOB IDENTIFICATION
 | Job Title | Orthotic Technician |
| Department(s)/Location | Tayside Rehabilitation Engineering Services (TRES), TORT Centre, Ninewells Hospital, Dundee |
| Number of job holders | 6 |
| JOB PURPOSEUnder the supervision of the Senior Orthotic Technician, to provide comprehensive technical support to users of the Orthotic Service including:* preparation, filling and stripping of plaster of Paris body casts/models
* fabrication, repair and maintenance of orthotic devices
* the repair and adaptation of footwear
* custom design and manufacture of specialised jigs, tooling and fixtures
* basic maintenance of specialised workshop machinery, tools and equipment
* maintenance of stock levels and ordering of materials and components
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| ORGANISATIONAL POSITIONMusculoskeletal and A&E ServicesClinical Group DirectorMusculoskeletal and A&E ServicesClinical Group ManagerTRESPrincipal Orthotist(Head of Orthotics Service)Senior OrthotistsOrthotistsOrthotic Technician**(THIS POST)**Senior Orthotic Technician |

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| SCOPE AND RANGETRES is the name for a group of services, which form Clinical Group of the NHS Tayside Acute Services Division.The part of the Musculoskeletal and A&E Services constituent TRES services are:* Orthotics
* Prosthetics
* Assistive Technology (includes wheelchairs, seating, environmental controls, electronic assistive technology and other disability equipment)

The Orthotics Service works closely with other clinical specialities throughout NHS Tayside - including orthopaedics, rheumatology, diabetic services, medicine for the elderly and paediatric services - to provide a comprehensive clinical service, which includes the provision of all types of orthotic devices of contemporary designs using modern materials.TRES provides a clinical orthotics service to the people of Dundee, Angus, Perth and Kinross, North East Fife, South Kincardineshire and Orkney - a total population of around 500,000.Each year, around 3,000 new patients are referred to the Service and in the region of 20,000 orthotic devices are delivered to patients. The Service provides continuing specialized clinical care to about 20,000 people.Clinical work is carried out at a number of locations in Dundee, Perth, Arbroath, Stracathro, Pitlochry and Orkney. The manufacturing and procurement of devices take place in the TORT Centre, Ninewells Hospital, Dundee, and in the Orthotics Department at Perth Royal Infirmary.The Orthotics Service is managed by the Principal Orthotist and his/her Deputy and is guided by occupational policies, procedures and guidelines as set by the Health Professions Council (HPC), the Scottish Executive and NHS Tayside.The service employs 9 **orthotic technicians**, 6 of whom are based in the Ninewells Orthotics Department.The Ninewells Department produces approx. 13,500 orthoses per year.**Under the supervision of the Senior Technician, the postholder’s role involves;**The fabrication of a wide range of orthoses as prescribed by the orthotist, complying with waiting time targets and all relevant departmental and NHS, Health and Safety, quality control standards, policies and procedures. Postholder will produce on average, 40 orthoses per week.Manufacturing time can vary between 30minutes for a fairly simple orthosis to 2 days or more for a complex one. Repairs/adjustments to orthoses can take anything from 15minutes to one day.Postholders average week is approx. 95% fabrication, 2% writing reports/collating information for fabrication to proceed, 2% maintenance and 1% stock control.The postholder may occasionally be required to work for limited periods in the Orthotic departments at either Perth Royal Infirmary or Stracathro Hospital. |
|  5. MAIN DUTIES/RESPONSIBILITIESUnder the supervision of the Senior Orthotic technician;* The postholder is required to work on a rotational basis, in 3 different workstations (2 weeks at each station), dealing with different aspects of orthotic fabrication.
* Work is carried out in a chronological order at each workstation unless an urgent job is required, and this will receive priority.
* Multi-skilled duties in the production of specialist and bespoke orthoses to a high standard. This entails; use of plaster, Resin etc for the making of positive and negative moulds and casts. Techniques using thermosetting resins, forming processes for thermoplastic materials, metal forming, light engineering, welding and brazing, cutting and grinding processes, leather working ,sewing and joinery
* Adaptation and repair of bespoke, stock or patient’s own footwear in accordance with the given prescription.
* The postholder will be required to participate in demonstrating skills to other technicians, orthotists and student othotists in fabrication techniques
* There will be occasions when the post holder will be required to provide technical assistance to the orthotist, in the clinic, during patient appointments, and where appropriate give technical advice directly to patients
* The postholder will be required to give technical advice either to the orthotist or patient/carer outwith the clinic. This can happen on a weekly basis
* Performing specified delegated operational duties, e.g. inventory and stock control, health and safety measures and quality assurance procedures
* The postholder will be involved in the routine repairing, cleaning and day to day maintenance of tools, machines and equipment, e.g.sharpening tools, changing bearings, changing sanding belts, adjusting tensions and etc.
* The postholder will report any faults of machinery and tools to the Senior Orthotic Technician
* Movement of heavy, awkward and unstable loads using manual handling equipment where feasible.
* Safe disposal of sharp waste products including metal and plastic off cuts.
* The post holder will be expected to comply with all relevant NHS, Trust and Departmental policies, including those relating to Health and Safety. In this respect, after appropriate training, he/she may be required to carry out risk assessments and report the results of these to the TRES Health and Safety Committee.
* To deal with patient’s technical queries regarding the manufacture of orthoses/shoe adaptations
* To be innovative and able to work with the orthotist and other disciplines in the research and development of nonstandard orthoses .e.g. evaluating new materials, trialing new fabrication techniques.
* To advise on individual preventative maintenance requirements to the patient.
* To assess the technical requirements of the prescribed device and provide an appropriate specification for the orthoses with consideration to technical guidance from the supplier of components employed. e.g. Selection of knee joints/ankle joints relative to the weight of the patient.
* evaluate new materials and components and to ensure they are of a high quality
* To take measurements and diagrams of existing or modified orthoses, and to accurately record into patient’s notes, materials and components used, for future duplicate orthoses to be made.
* To fill negative and modify positive moulds for the production or alteration of orthoses. e.g. The squaring of casts for the alignment of internally moulded knee and ankle joints.
* To actively participate in departmental meetings and make recommendations where appropriate to improve the quality of the service.
* There may be occasions (following appropriate training) when, by agreement between the Principal Orthotist and the Principal Prosthetist, the postholder will be asked to work for limited periods within the prosthetic service.

Your performance must comply with the national “Mandatory Induction Standards for Healthcare Support Workers 2009” and with the Code of Conduct for Healthcare Support Workers |

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| COMMUNICATIONS AND RELATIONSHIPS* The postholder must be able effectively to communicate with orthotists regarding the specification and manufacturing details of devices. The postholder will be required to participate in demonstrating skills to other technicians, orthotists and student othotists in fabrication techniques
* The postholder is required to communicate with administrative staff, using verbal, written or electronic means to ensure that information relating to the progression of patients' treatment is recorded and acted upon as necessary. E.g. informing the patient when work on modified footwear is completed and the shoes can be collected.
* The postholder must be able to effectively communicate with disabled adults and children (some who may have learning difficulties or may have incurable degenerative conditions and communication problems) and their carers to advise on the technical aspects of their orthosis. E.g. when a device is handed in for repair, whether the patient's own footwear is suitable to be adapted etc.
* Occasionally the postholder may be faced with challenging or threatening behaviour and may use empathy and reassurance to diffuse the situation.
* The postholder may feel under pressure at times to meet patients’ urgent requests and emotional demands. This requires a sensitive approach, understanding and good negotiation skills.
* Orthotics Service and other TRES meetings are held regularly during which the postholder will be expected to participate in discussions relating to the aims and objectives of the service, service development, quality matters, risk management issues (including health and safety), etc.
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| KNOWLEDGE, TRAINING AND EXPERIENCE REQUIRED TO DO THE JOBThe postholder will have theoretical and practical knowledge of the manufacture of orthoses, acquired through a 4 year in house training programme to diploma equivalent level, plus significant experience.Significant experience will include;* A basic knowledge of gross human morphology, anatomy and biomechanics,
* Well developed knowledge and experience in a wide range of work practices are required in the manufacture of both modern and conventional orthoses including; the properties of a wide range of materials including thermoplastics, thermosetting materials, metals, wood, rubber, leather, adhesives and finishing compounds, resins and plaster
* The use of hand tools for precision cutting, shaping, assembly of components, riveting etc.
* The use of machines for cutting, grinding and polishing.
* The vacuum forming of thermoplastics, foams and sheet materials.
* The use of gas and electric arc welding equipment.
* Keeping informed of new materials and techniques is essential (by keeping in touch with other departments, company reps, internet and literature)

The postholder will be competent in the appropriate use (following training) of the ReTIS Patient Database Suite.NHSTayside provides Health and Safety training including training in fire safety, risk assessment, the Control of Substances Hazardous to Health (COSHH) and manual handling.The postholder must have an awareness and understanding of all relevant NHS Scotland, NHS Tayside and TRES policies and procedures. |

ESSENTIAL ADDITIONAL INFORMATION

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| 1. SYSTEMS AND EQUIPMENT

In the manufacture of orthosis and footwear adaptations to be worn by patients, and the manufacture of models, tools and jigs. Routine use of:* Anthropometric instruments
* Hand tools, including cutting instruments and electrically and pneumatically powered tools
* High speed grinding, routing and polishing machines
* Drilling and cutting machines, including milling machines and lathes
* Ovens and vacuum forming equipment
* The use of fume and dust extraction systems when dealing with various toxic solvents, glues and materials
* The postholder will be involved in the routine repairing, cleaning and safe use oftools, machines and equipment, ensuring fitness for purpose.
* The postholder will report any faults of machinery and tools to the Senior Orthotic Technician
* Designing and making of tools and jigs to facilitate in the fabrication of orthoses. E.g. Jig for making bespoke springs for wrist hand orthosis. Rotating vice for spinal brace production.
* Information management and communication systems
* Electronic mail system, internet/intranet browsing, word processing and spreadsheets in order to communicate information to relevant bodies/departments to collate specific patient information for data to be inputted into spreadsheets for the updating of patient’s records. To source products ensuring they meet all the health and Safety requirements.
* The operation of all TRES clinical services is facilitated by dedicated and sophisticated computer-based information management systems (the ReTIS Database Suite). These include functions, which handle patient information, clinical records, job processing, patient appointments, stock control, stock ordering and management reporting. The postholder will require to use the orthotics system on a routine basis for recording of information, job progressing, and communication with other members of the service team.
* TRES operates a quality system, which assures the quality of the service provided to patients, carers and other healthcare professionals. The postholder will be required to follow all quality procedures.

**Responsibility for Records Management**All records created in the course of the business of NHS Tayside are corporate records and are public records under the terms of the Public Records (Scotland) Act 2011. This includes email messages and other electronic records. It is your responsibility to ensure that you keep appropriate records of your work in NHS Tayside and manage those records in keeping with the NHS Tayside Records Management Policy and with any guidance produced by NHS Tayside specific to your employment. |
| PHYSICAL DEMANDS OF THE JOBThe postholder requires;* Highly developed levels of manual dexterity, hand skills, and hand-eye co-ordination with a high degree of accuracy and sensory/fine motor skills, to appropriately operate specialised precision forming, cutting and grinding tools and machinery.
* On a daily basis, to work for prolonged periods of time in environments where fumes (toxic and carcinogenic e.g. acetone, adhesives and solvents), and dust (toxic and carcinogenic eg carbon fibre and polyurethane foams), noise, vibration (from machinery and metalwork) and heat (ovens/heat gun/welding/brazing equipment) are generated. Personal protective equipment is provided for use in these areas.
* On a daily basis, to work on orthoses and footwear , which may be contaminated, with body fluids/decaying flesh and excreta, causing high risk of exposure to infection.
* Working in variable temperatures from one room to another (and even in different areas within the same room), where the temperature difference can be considerable.
* Operating high-speed cutting, grinding and polishing machinery with speeds of up to 3000 rpm
* Accurate manipulation of sharp hand tools
* The postholder will be expected to minimize the risk to themselves and to patients and staff by maintaining a clean environment and using appropriate safety and infection control measures
* The postholder is required to produce work to a high standard under pressure of a strict timetable on a daily basis, either due to the urgent nature of a treatment episode, (which includes the manufacture and provision of an orthosis). Or due to time constraints imposed by external agencies (e.g. the patient transport service, and to allow the discharge of inpatients).
* Every shift the postholder will be required to concentrate for long periods of time. In particular when using finishing machines and routers, a high level of concentration may be required for periods of up to 4 hours at a time .Also when working on several jobs at a time high levels of concentration is required throughout the day
* The manufacture of orthoses requires a high level of physical exertion in the lifting of 25kg bags of plaster, plaster casts, materials (sheets of plastic eight foot by four foot) and components which are large, heavy and awkward to handle. Plaster casts, which can weigh up to 60kg, and sometimes heavier. The postholder on a daily basis will have to handle these during manufacture using appropriate manual handling equipment where feasible.
* On a weekly basis a high level of physical exertion is required in the filling, stripping and rectifying of moulds, with the handling of 25kg bags of plaster and buckets of liquid plaster.
* Continuous twisting and bending whilst making an orthosis throughout the day can be physically demanding.

 * The postholder can expect regular interruptions to self or colleagues in the same vicinity, daily. This can cause immediate re-organisation of the post holder’s workload.
* Prolonged use of specialised machines and hand tools on a daily basis.

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| DECISIONS AND JUDGEMENTS* The postholder objectives will be set in agreement with the Principal Orthotist and Senior Orthotic Technician and the postholder through annual PDP”
* The post-holder is required to fabricate, maintain and repair orthotic devices to meet the requirements of patients. Whilst it is the responsibility of the orthotist to specify the prescription details, i.e. the design and materials used, the construction of the orthosis is the responsibility of the postholder. This is achieved by dialogue between the orthotist and the postholder who is expected to provide technical advice based on his/her knowledge and experience.
* The postholder is expected to assess the practicalities of manufacturing to a prescribed specification and shall inform the orthotist or Senior Technician if, in his/her judgement, the specification needs to be altered to allow manufacture to proceed.
* The postholder decides on appropriate fabrication techniques to fulfil prescribed specifications of orthoses or shoe adaptations
* The postholder decides on the appropriate design and materials for shoe adaptations, depending on the style and construction of the shoe.
* If the senior technician is unavailable It can also be the postholder’s decision as to whether a shoe is suitable for adaptation, or beyond economical repair.
* The postholder will be required to supervise student Orthotists or trainee technicians in the various fabrication techniques, safe working practices and correct usage of tools and machinery. The postholder would expect their decision and judgements to be adhered to.
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| MOST CHALLENGING/DIFFICULT PARTS OF THE JOB* The postholder is required to produce work to a high standard under pressure of a strict timetable on a daily basis, either due to the urgent nature of a treatment episode, (which includes the manufacture and provision of an orthosis). Or due to time constraints imposed by external agencies (e.g. the patient transport service, and to allow the discharge of inpatients).
* The high level of physical and mental stress required to fabricate the significant and unpredictable demand for orthoses/shoe adaptations to a high standard in order to meet waiting times targets.
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| JOB DESCRIPTION AGREEMENT The job description will need to be signed off using the attached sheet by each postholder to whom the job description applies. |

**JOB DESCRIPTION AND ESSENTIAL ADDITIONAL INFORMATION FORM – SIGNATURE OF AGREEMENT**

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| **Post Title** | **Orthotic Technician** |
| **Reference Number** |  |

The attached job description and essential additional information will be used as part of the Agenda for Change assimilation exercise and therefore the job matching panel may wish to seek further clarification on any issues contained within the documents. **Should this be necessary please identify an appropriate Manager and Postholder representative who can be contacted to provide this clarification. (This may be one of the undernoted postholders or a staff side representative who has been involved in agreeing the job description)**

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| **Responsible Manager** | Lorna Duncan |
| **Contact No.** | Ext. 36302 |
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| **Postholder Representative** |  |
| **Contact No.** |  |