# SFHRT5
# Prepare routine components for custom made devices

## Overview

This standard is about determining from the job sheet/card supplied by the prescribing clinician what components will be needed to manufacture the routine custom made device. The standard depends on you being able to understand the format and information supplied and being able to interpret it correctly. Users of this standard will need to ensure that practice reflects up to date information and policies.

# SFHRT5
Prepare routine components for custom made devices

## Performance criteria

*You must be able to:*

P1 analyse the prescription and model and identify:
- P1.1 the materials that will be needed to produce the components
- P1.2 the components that will be needed to achieve the required function
- P1.3 the manufacturing process(es) that will be required to produce the components
- P1.4 the optimum position and form of components

P2 design a device that:
- P2.1 has the potential to achieve the required function for the service user
- P2.2 incorporates sufficient retention and support
- P2.3 achieves the best possible balance between function and aesthetics

P3 contact the relevant person without delay if it is not feasible to produce the components and propose alternative options for the design of the components and the device

P4 evaluate whether the model needs to be modified to design and manufacture the required components

P5 evaluate the model and design and decide on the basis of the prescription, time and function:
- P5.1 where pre-formed components can be used within the device
- P5.2 which components will need to be custom-made

P6 identify and select any pre-formed components which are required, make any modifications to them that are allowable and necessary to ensure that they will perform the correct function, and confirm that they are fit for purpose

P7 select material for and form the routine custom-made components to the required design and size

P8 check components during preparation to confirm that:
- P8.1 they fit to the model
- P8.2 they will not damage surrounding tissues
- P8.3 they comply with the prescription and design
- P8.4 make any adjustments which are required

P9 use working methods and systems throughout the process which:
- P9.1 promote health and safety
- P9.2 reduce the risk of infection and contamination

P10 are consistent with the assessed risks

# SFHRT5

Prepare routine components for custom made devices

## Knowledge and understanding

*You need to know and understand:*

K1 the reasons for maintaining records throughout the process and of clearly identifying the products during the manufacturing process

K2 the organisational procedures and requirements for the recording of information about incoming work, work in progress and work delivered, and the purpose of this

K3 quality audit systems, their purpose, nature and procedures, impact of the relevant regulatory body, currently the Medicine and Healthcare Regulatory Authority, on the recording of incoming work, the detailed design and manufacturing specification and the recording of materials and processes

K4 the principles of quality assurance, processes and procedures for quality assurance in your workplace

K5 the methods used for setting and calibrating equipment and of testing that this is correct

K6 the effects of modifying manufacturers' components and products to meet production/usage requirements on the physical properties of the components/products and the legal implications

K7 the relevant regulatory body, currently the Medicine and Healthcare Regulatory Authority, in monitoring the progress of devices through the production process

K8 health and safety at work legislation and related procedures and liability, principles of, and how to apply legislation and regulations

K9 the characteristics, properties and the processing of the following commonly used materials:

- K9.1 metals
- K9.2 plastics: thermoforming, thermosetting, composites
- K9.3 wood
- K9.4 leather
- K9.5 plaster of Paris
- K9.6 adhesives
- K9.7 fabrics
- K9.8 foams
- K9.9 other materials

K10 the following:

- K10.1 hand tools: their selection, use and maintenance
- K10.2 measuring instruments: use and methods of application
- K10.3 machine tools: selection, installation, use and maintenance
- K10.4 welding processes and equipment for metals and plastics
- K10.5 sewing machines: selection, use and maintenance
- K10.6 general equipment: ovens, compressors, vacuum formers, fume and dust extraction apparatus

K10.7 workshop layout
K10.8 health and safety regulations and practice
K10.9 computers, including CAD/CAM

K11 the roles and responsibilities of the interdisciplinary team
K12 ethical considerations in rehabilitation technical services
K13 prosthetics/orthotics/special seating care systems in the UK
K14 prosthetic/orthotic/special seating measurement technique
K15 prosthetic/orthotic/special seating components and their application
K16 prostheses/orthoses/special seating for a range of conditions
K17 wheelchair systems and seating alignment
K18 the musculo-skeletal system
K19 anatomical terminology in relation to prosthetics/orthotics/special seating
K20 the anatomical planes and reference points of the body
K21 the pathological conditions giving rise to prosthetic/orthotic/special seating provision and the relevant terminology
K22 the following in order to fabricate prosthetic/orthotic devices:
K22.1 the interaction of anatomical joints and prosthetic/orthotic joints in relation to centre of joint rotation, ground reaction forces, alignment and forces applied to tissue
K23 or
K23.1 the relationship of the pelvis, spine and knee, including basic tissue mechanics, in order to fabricate special seating systems
K24 elementary arithmetic and its application and the use of calculators

# SFHRT5
Prepare routine components for custom made devices

## Additional Information

### External links

This National Occupational Standard was developed by Skills for Health.

This standard links with the following dimension within the NHS Knowledge and Skills Framework (October 2004):

Dimension: Core 5 Quality

# SFHRT5

## Prepare routine components for custom made devices

| | |
|---|---|
| **Developed by** | Skills for Health |
| **Version number** | 1 |
| **Date approved** | June 2010 |
| **Indicative review date** | June 2012 |
| **Validity** | Current |
| **Status** | Original |
| **Originating organisation** | Skills for Health |
| **Original URN** | RT5 |
| **Relevant occupations** | Health and Social Care; Healthcare and Related Personal Services |
| **Suite** | Rehabilitation Technical Services |
| **Key words** | prosthesis, orthoses, seating, rehabilitation, components, devices |