



Australian Government

Department of Education, Employment and Workplace Relations

HLTCT406C Modify orthopaedic devices

Release: 1

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Modification History

Not Applicable

Unit Descriptor

Descriptor

This unit of competency describes the skills and knowledge required to modify orthopaedic devices. Simple modifications, which do not alter the intent of the orthopaedic device, may be performed at the technician's discretion

Application of the Unit

Application

Work is performed at the request of, and in consultation with, medical staff or with own discretion and requires a range of well developed skills where some discretion and judgement is required and individuals take responsibility for the quality of their outputs

Modification of orthopaedic devices may occur in various locations within the hospital environment e.g. operating theatres, emergency department, wards, out of care departments

All activities are carried out in accordance with organisation policies, procedures and infection control guidelines

Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Not Applicable

Employability Skills Information

Employability Skills

This unit contains Employability Skills

Elements and Performance Criteria Pre-Content

Elements define the essential outcomes of a unit of competency.

The Performance Criteria specify the level of performance required to demonstrate achievement of the Element. Terms in italics are elaborated in the Range Statement.

Elements and Performance Criteria

ELEMENT

1. Prepare to modify *orthopaedic devices*

PERFORMANCE CRITERIA

- 1.1 Assemble and check *equipment* for modifying orthopaedic devices to ensure that it is in clean and in working order
- 1.2 Receive request for modification of orthopaedic device and if in doubt confirm request with *relevant personnel*
- 1.3 *Assess client's condition* and identify *precautions* or potential *complications* associated with the modification of orthopaedic device
- 1.4 Explain procedure to client and obtain client consent/agreement
- 1.5 Provide the client with opportunities to ask questions and discuss areas of concern
- 1.6 Meet the comfort and safety *needs of the client* and applicator
- 1.7 Review condition of the wound and pin site and refer to relevant personnel as required

ELEMENT**PERFORMANCE CRITERIA****2. Modify orthopaedic device**

- 2.1 Appropriately position the area to which the orthopaedic device is to be modified
- 2.2 Identify client's specific needs in relation to the *modification* of orthopaedic device
- 2.3 Meet the comfort and safety needs of the client and applicator
- 2.4 Modify the orthopaedic device according to instructions and to meet the client's needs
- 2.5 Achieve correct moulding to maintain soft tissue or fracture position in accordance with pattern or condition of injury
- 2.6 Complete *documentation*

3. Undertake post modification procedures

- 3.1 Clean client at completion of procedure
- 3.2 Ensure the neurovascular status of limb is within normal limits
- 3.3 Check the fit and functionality of orthopaedic device
- 3.4 Provide client and carer with written and verbal *advice* for the care of the limb and orthopaedic device
- 3.5 Fit client with sling, heel/overshoes and ambulation aids, as required
- 3.6 Instruct client on the correct use of the ambulation aids , as required and ensure client is safe in the use of these aids
- 3.7 Arrange *appropriate support* for the client

4. Clean working environment

- 4.1 Dispose of waste in accordance with waste management policies
- 4.2 Clean equipment accordance with manufacturer's specifications and stored safely
- 4.3 Clean work surfaces in accordance with infection control guidelines

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the essential skills and knowledge and their level required for this unit.

Essential knowledge:

The candidate must be able to demonstrate essential knowledge required to effectively do the task outlined in elements and performance criteria of this unit, manage the task and manage contingencies in the context of the identified work role

This includes knowledge of:

- Anatomical positioning for modification and modification of orthopaedic device
- Anatomy and physiology relevant to orthopaedic device modification and modification
- Awareness and resolution of complications e.g. pressure sores, foreign objects in orthopaedic devices
- Confidentiality requirements of client information
- Interpretation of documentation relating to modification of orthopaedic devices
- Knowledge of current standards and best practice relevant to orthopaedic device modification
- Medical terminology relevant to orthopaedic device modification and modification
- Organisation policy and procedures, including Infection control and OHS
- Precautions and complications of modification of orthopaedic devices
- Purpose of modification of orthopaedic device

Essential skills:

It is critical that the candidate demonstrate the ability to

- Apply current standards and best practice to meet duty of care to client
- Communicate effectively with clients in relation to the procedure and manage clients' anxiety level
- Comply with policies and procedures including those of OHS and infection control
- Demonstrate all steps that must be taken in the correct and safe usage of equipment
- Recognise boundaries of responsibilities and refer problems to supervisor or other appropriate health professional
- Select appropriate material and use correct techniques for modification of orthopaedic devices

In addition, the candidate must be able to effectively do the task outlined in elements and

REQUIRED SKILLS AND KNOWLEDGE

performance criteria of this unit, manage the task and manage contingencies in the context of the identified work role

This includes the ability to:

- Apply current standards and best practice relevant to orthopaedic device modification
- Apply general problem solving skills to modify orthopaedic device for individual client needs
- Communicate with people from diverse cultural and linguistic backgrounds
- Correctly and safely modify an orthopaedic device
- Deal with conflict
- Solve problems including an ability to use available resources
- Take into account opportunities to address waste minimisation, environmental responsibility and sustainable practice issues
- Use numeracy skills ranging from the ability to complete basic arithmetic calculations, recording stock levels and statistical information
- Use oral communication skills required to fulfil job roles in a safe manner and as specified by the organisation, including skills in:
 - asking questions
 - providing clear information
 - listening to and understanding workplace instructions
 - clarifying workplace instructions when necessary
 - competence in English or a community language, depending on client group and organisation requirements
- Use effective verbal and non verbal communication skills with a range of internal and external persons
- Use reading and writing skills required to fulfil job roles in a safe manner and as specified by the organisation to a level of skill required for
 - reading and documenting clinical information
 - understanding policy and procedure manuals
- Work with others and display empathy with client and carers

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the Performance Criteria, Required Skills and Knowledge, the Range Statement and the

EVIDENCE GUIDE

Assessment Guidelines for this Training Package.

Critical aspects for assessment and evidence required to demonstrate this competency unit:

- The individual being assessed must provide evidence of specified essential knowledge as well as skills
- Where, for reasons of safety, space, or access to equipment and resources, assessment takes place away from the workplace, the assessment environment should represent workplace conditions as closely as possible
- Consistency of performance should be demonstrated over the required range of situations relevant to the workplace

Context of and specific resources for assessment:

- Relevant organisation policy, guidelines, procedures and protocols

EVIDENCE GUIDE

Method of assessment:

- Clinical skills involving direct client care are to be assessed initially in a simulated clinical setting (laboratory). If successful, a second assessment is to be conducted during workplace application under direct supervision
- Observation of work activities when modifying orthopaedic devices
- Observation of simulation and/or role play when modifying orthopaedic devices
- Discussion of physical and/or behavioural contingency scenarios involving duty of care
- Authenticated transcripts of relevant education/training courses
- Recognition of relevant life/work experience
- Questioning, written assessments/projects, e-learning can be used to assess knowledge
- Authenticated reports of experience in modifying orthopaedic devices (Documentation associated with performance reviews, supervisor/coordinator evaluations of work performance)
- Training records associated with first aid, occupational health and safety training, orientation/induction training, safe manual handling, universal infection control procedures
- Case study and scenario as a basis for discussion of issues and strategies to contribute to best practice

Access and equity considerations:

- All workers in the health industry should be aware of access and equity issues in relation to their own area of work
- All workers should develop their ability to work in a culturally diverse environment
- In recognition of particular health issues facing Aboriginal and Torres Strait Islander communities, workers should be aware of cultural, historical and current issues impacting on health of Aboriginal and Torres Strait Islander people
- Assessors and trainers must take into account relevant access and equity issues, in particular relating to factors impacting on health of Aboriginal and/or Torres Strait Islander clients and communities

EVIDENCE GUIDE

Related units:

This unit can be assessed independently, however holistic assessment practice with other health services units of competency is encouraged

This unit should be assessed in conjunction with:

- HLTAP401B Confirm physical health status
- HLTCT405C Apply orthopaedic devices
- HLTCT407C Remove orthopaedic devices

Range Statement

RANGE STATEMENT

The Range Statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Add any essential operating conditions that may be present with training and assessment depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts.

Types of orthopaedic devices may include:

- Brace
- Splint

RANGE STATEMENT

Equipment may include:

- Allen keys
- Benders
- Bracing equipment
- Drill and drill bits
- Hacksaw
- Heat gun
- Saw with vacuum
- Scissors
- Shears
- Spanners
- Spreaders
- Vice

Relevant personnel may include:

- Medical practitioners
- Other health professionals

Clients may include:

- Adolescents
- Adults
- Children
- Elderly
- In care clients and out of care clients
- Infants

Assessment of client's condition may include:

- Allergies
- Mechanism of injury
- Relevant medical history
- Skin condition e.g. oedema, blisters, pressure areas, broken skin, fragile skin

Precautions may include:

- Areas of broken skin
- Conditions that result in a significant functional disability that may limit a person's ability to manage a cast/splint
- Conditions that result in fragile skin

RANGE STATEMENT

Complications may include:

- Compromising related injury
- Fracture blisters
- Loss of movement/function
- Malalignment of bone
- Neurovascular complications e.g. pressure areas
- Orthopaedic device migration (due to loss of tissue bulk)
- Pressure areas
- Reduced range of movement/function of joint
- Secondary infection
- Wound breakdown

Clients specific needs may include:

- Age
- Functional requirements or restrictions
- Mobilisation difficulties or restrictions
- Phobias
- Physical anomalies
- Religious and cultural beliefs

Modifications of orthopaedic device may include:

- Addition
- Completion
- Converting
- Give more/less range of movement
- Reinforcing/strengthening
- Reline
- Repad
- Tightening
- Trimming

Documentation may include:

- Appliance hire documentation
- Appointment forms and books
- Cast check forms
- Client records
- Work log books

RANGE STATEMENT

Advice given to client may include:

- Limb care
- Mobilisation exercises/routines
- Oedema control
- Orthopaedic device care

Appropriate support may include:

- Arrangement of educational material
- Instructions for seeking advice if required
- Organisation of walking aids e.g. crutches, wheelchairs
- Review client's social needs in relation to their ability to self care with a orthopaedic device

Unit Sector(s)

Not Applicable