



Australian Government

Assessment Requirements for HLTOTH005 Modify orthopaedic devices

Release: 1

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Modification History

No equivalent unit.

Performance Evidence

Evidence of the ability to complete tasks outlined in elements and performance criteria of this unit in the context of the job role, and:

- modify one of each of the following orthopaedic devices:
 - Ankle Foot Orthosis (AFO)
 - Bed Resting Ankle Foot Orthosis (BRAFO)
 - cam walker
 - collar and cuff
 - gunslinger brace
 - hinged knee and hinged elbow braces
 - humeral brace
 - joint supports for elbow, wrist, knee, ankle
 - pelvic binder
 - shoulder abduction sling
 - shoulder immobilisers
 - zimmer splint
 - soft neck collar
 - cam boots.

The modification of each of the above must include:

- interpreting referrals, sourcing information, liaising with the healthcare team and following instructions within the healthcare setting
- reviewing, treating, advising and referring clients:
 - paediatrics
 - adults
- modification techniques:
 - addition
 - completion
 - converting
 - give more or less range of movement
 - reinforcing and strengthening
 - relining
 - repadding

- tightening
- trimming
- re-aligning
- selecting, using and maintaining equipment:
 - allen key
 - bender
 - bracing and splinting equipment
 - eye protection equipment
 - goniometer
 - heat gun
 - saw with vacuum
 - scissors
 - screwdriver
 - shears
 - spanners
 - spreaders
 - tape measure
 - vice
- selecting and using materials:
 - bandages
 - dry dressings
 - felt, foam and padding
 - hinges
 - off the shelf braces and splints
 - reinforcement bars
 - synthetic materials
 - tape and strapping
- selecting and using aids:
 - ambulation aides
 - gait aides
 - heel
 - overshoes
 - sling
- documenting clinical records.

Knowledge Evidence

Demonstrated knowledge required to complete the tasks outlined in elements and performance criteria of this unit:

- procedures relevant to orthopaedic device modification:

- client confidentiality and privacy
- client consent
- duty of care
- infection control
- inventory
- work health and safety
- role and responsibilities and boundaries of responsibilities relevant to orthopaedic device modification
- anatomy and physiology relevant to orthopaedic device modification
- methods for interpreting radiological findings and features of x-rays, CT scans and MRI scans relating to orthopaedic devices and the presenting condition
- conditions for referral of clients for immediate review by a medical practitioner:
 - evidence of infection
 - intense localised pain
 - neurovascular status outside normal limits
 - wound breakdown and deterioration
- individual client needs:
 - developmental stage including paediatrics and adults
 - in clients and out clients
 - functional requirements and restrictions
 - mobilisation difficulties and restrictions
 - level of anxiety
 - physical anomalies
 - religious and cultural beliefs
 - environment and climate
- orthopaedic device type and purpose:
 - collar and cuff
 - hinged knee and hinged elbow braces
 - humeral brace
 - joint supports for elbow, wrist, knee, ankle
 - shoulder abduction sling
 - shoulder immobilisers
 - soft neck collar
 - zimmer splint
- pathology and assessment of client conditions:
 - allergies
 - mechanism of injury
 - interference
 - non-union fracture
 - oedematous extremity

- wires, pins, external fixatures and surgical wounds
- medical history and co-morbidities
- skin condition including oedema, blisters, pressure areas, broken skin, fragile skin and wound breakdown
- precaution types, characteristics and resolution:
 - areas of broken skin
 - fragile skin
- complication types, characteristics and resolution:
 - compromising related injury
 - fracture blisters
 - loss of movement and function
 - malalignment of bone
 - neurovascular complications including altered sensation and poor capillary refill
 - orthopaedic device migration due to loss of tissue bulk
 - pressure areas
 - secondary infection
 - wound breakdown
- orthopaedic device modification techniques:
 - anatomical positioning
 - protective cover for broken skin with aseptic technique
 - addition
 - completion
 - converting
 - give more or less range of movement
 - reinforcing and strengthening
 - relining
 - repadding
 - tightening
 - trimming
 - re-aligning
- orthopaedic device equipment purpose, selection, safe use and maintenance:
 - allen key
 - bender
 - bracing and splinting equipment
 - eye protection equipment
 - goniometer
 - heat gun
 - saw with vacuum
 - scissors
 - screwdriver

- shears
- spanners
- spreaders
- tape measure
- vice
- orthopaedic device material purpose, selection and safe use:
 - bandages
 - dry dressings
 - felt, foam and padding
 - hinges
 - off the shelf braces and splints
 - reinforcement bars
 - synthetic materials
 - tape and strapping
- aid purpose, selection and safe use:
 - ambulation aides
 - gait aides
 - heel
 - overshoes
 - sling
- medications relevant to orthopaedic device modification and future care
- types of client advice:
 - care of orthopaedic devices and warnings
 - limb care and neurovascular warnings
 - mobilisation exercises and routines
 - oedema control
 - fitness to drive
 - weight bearing status
 - safe use of aides
- clinical record requirements
- medical terminology relevant to orthopaedic device modification.

Assessment Conditions

Skills must be demonstrated in a real workplace with real patients in a clinical environment with the addition of simulations and scenarios with real people where the full range of contexts and situations cannot be provided in the workplace.

Where simulation is used, it must reflect real working conditions in a clinical environment by modelling industry operating conditions and contingencies, as well as using suitable facilities, equipment and resources.

Assessment must ensure use of:

- procedures relevant to orthopaedic device modification
- clients listed in the Performance Evidence
- orthopaedic devices listed in the Performance Evidence
- equipment listed in the Performance Evidence
- materials listed in the Performance Evidence
- aids listed in the Performance Evidence
- personal protective equipment (PPE)
- manufacturer's instructions for all equipment and materials.

Assessors must satisfy the Standards for Registered Training Organisations' requirements for assessors; and have current clinical experience working as an Orthopaedic Technologist or Technician providing services to the general public.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ced1390f-48d9-4ab0-bd50-b015e5485705>