



**Australian Government**

**Department of Education, Employment and Workplace Relations**

# **HLTHY402D Operate multi-place hyperbaric chamber**

**Release: 1**

## HLTHY402D Operate multi-place hyperbaric chamber

### Modification History

HLT07 Version 4	HLT07 Version 5	Comments
HLTHY402C Operate multi-place hyperbaric chamber	HLTHY402D Operate multi-place hyperbaric chamber	ISC upgrade changes to remove references to old OHS legislation and replace with references to new WHS legislation. No change to competency outcome.

### Unit Descriptor

#### Descriptor

This unit of competency describes the skills and knowledge required to safely operate a multi-place hyperbaric chamber

### Application of the Unit

#### Application

Work will be performed within a prescribed range of functions involving routine and non-routine methods and procedures which require the exercise of some discretion and judgement

Compliance with industry standards and guidelines

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. Compress hyperbaric chamber for a clinical and non-clinical treatment

2. Maintain chamber environment

### PERFORMANCE CRITERIA

- 1.1 Establish door seals
- 1.2 Communicate readiness of occupants for compression
- 1.3 Complete documentation in accordance with organisation policies and procedures
- 1.4 Complete compression in accordance with the treatment table
- 1.5 Carry out stop compression routine when initiated

- 2.1 Notify Attendant to administer oxygen to clients
- 2.2 Adjust chamber pressure to maintain treatment profile
- 2.3 Maintain gas levels
- 2.4 Identify and meet occupants' needs
- 2.5 Maintain breathing gas pressures
- 2.6 Maintain chamber environment for comfort
- 2.7 Communicate with inside attendant as required
- 2.8 Identify and respond to machinery&equipment breakdowns or malfunctions in accordance with organisation policies and procedures

**ELEMENT****PERFORMANCE CRITERIA**

- |  |   |
|--|---|
| 3. Decompress hyperbaric chamber for a clinical and non-clinical treatment | 3.1 Communicate readiness of occupants for decompression<br>3.2 Complete documentation in accordance with organisation policies and procedures<br>3.3 Complete ascent in accordance with the treatment table<br>3.4 Maintain gas levels<br>3.5 Carry out stop compression routine when initiated<br>3.6 Identify decompression routine for attendant  |
| 4. Pass <i>equipment</i> through medical lock                              | 4.1 Inform inside attendant of procedure<br>4.2 Maintain chamber pressure<br>4.3 Pressurise medical lock<br>4.4 Transfer equipment into chamber<br>4.5 Depressurise medical lock  |
| 5. Transfer <i>personnel</i> into/out of chamber whilst under pressure     | 5.1 Establish door seal<br>5.2 Communicate readiness of <i>occupant</i> for decompression<br>5.3 Complete documentation<br>5.4 Complete pressurisation in accordance with the treatment table<br>5.5 Carry out stop compression routine when initiated<br>5.6 Maintain main chamber environment<br>5.7 Transfer personnel into/out of main chamber<br>5.8 Depressurise transfer lock in accordance with organisation policies and procedures<br>5.9 Decompress personnel in accordance with treatment table |

## 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:

- Basic first aid
- Contraindications for attendants and clients undergoing compression
- Correct valve alignment on chamber and control panel, compressors and storage cylinders
- Decompression/treatment tables
- Function of a compression chamber and equipment
- Function of electrical and communication systems
- Function of gas analysing systems
- Function of valves and regulators
- Infection control policies and procedures
- Interpret pressure gauge increments
- Legal and regulatory requirements
- Medical terminology related to clients who may be undergoing compression relevant to operating a compression chamber
- Operational procedures relating to compression chambers
- Pathophysiology and the interrelationship with compression and decompression relevant to operating a compression chamber
- Relationship between 100% oxygen and metals/non metals under pressure
- Safe manual handling practices
- Safety procedures/actions in event of an emergency related to compression chambers

### *Essential skills:*

It is critical that the candidate demonstrate the ability to:

- Comply with industry standards and guidelines
- Comply with organisation policies and procedures including those of work health and safety (WHS) and infection control
- Safely operate the hyperbaric chamber
- Identify and respond correctly to contraindications for compression during compression

- Identify the steps that must be taken to ensure that equipment and environment is safe
- Identify and respond correctly to emergency situations

In addition, the candidate must be able 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 the ability to:

- Apply confidentiality requirements in relation to client information
- Communicate with people from diverse cultural and linguistic backgrounds
- Deal with conflict
- Interpret gas systems diagrams
- Operate all compression chamber systems
- Operate the built in breathing system
- Solve problems flexibly including the ability to use available resources
- Supervise the safe operation of a compression chamber
- Take into account opportunities to address waste minimisation, environmental responsibility and sustainable practice issues, including appropriate practices to ensure efficient use of resources
- 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
  - effective verbal and non verbal communication with a range of internal and external persons
  - competence in English or a community language, depending on client group and organisation requirements
- Use reading and writing skills required to fulfil job roles in a safe manner and as specified by the organisation at a level of skill required for reading and documenting clinical information and understanding complex policy and procedure manuals
- Work with others and display empathy with clients and relatives

## 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 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:*

- Knowledge of legal and regulatory requirements
- Relevant organisation policy, guidelines, procedures and protocols

*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 operating multi-place hyperbaric chamber
- Observation of simulation and/or role play when operating multi-place hyperbaric chamber
- 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 a operating multi-place hyperbaric chamber (Documentation associated with performance reviews, supervisor/co-ordinator evaluations of work performance)
- Training records associated with First Aid, WHS 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



*Related units:*

This unit should be assessed in conjunction with the following units:

- • HLTHY401D Prepare multi-place hyperbaric chamber
- • HLTHY403D Conduct post compression routines
- • HLTHY404D Implement emergency procedures for hyperbaric chambers
- 

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

## 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.

*Communication methods may include:*

- Visual
- Headsets
- Intercom
- Sound powered telephone

*Occupants may include:*

- Nurses
- Doctors
- Clients
- Technicians

- Documentation may include:*
- Treatment tables
  - Databases
  - Time record sheets
  - Standard operating procedures
- Treatment tables must include:*
- Decompression tables (as per AS/NZ 2299 )
  - Hospital treatment tables
- Initiation of stop dive routine may include:*
- Malfunction of equipment
  - Safety of occupants
- Methods of administration of oxygen may include:*
- Hoods
  - Built In Breathing System
- Gas levels must include:*
- Oxygen
  - Carbon dioxide
- Occupants needs may include:*
- Sanitation needs
  - Medications
  - Reading material
  - Food and fluids
- Breathing gases may include:*
- Oxygen
  - Air
  - Gas mixtures eg oxygen/helium
- Maintenance of chamber environment may include:*
- Temperature
  - Humidity
  - Oxygen percentage levels

*Equipment may include*

- Medications
- Client records
- Food/fluids
- Blankets
- Built In Breathing Systems/hoods
- Sanitary needs

*Transfer of personnel may include:*

- Nurses
- Doctors
- Client
- Technicians

## **Unit Sector(s)**

Not Applicable