



Australian Government

Department of Education, Employment and Workplace Relations

HLTHY505D Manage the maintenance of hyperbaric systems

Release: 1

HLTHY505D Manage the maintenance of hyperbaric systems

Modification History

HLT07 Version 4	HLT07 Version 5	Comments
HLTHY505C Manage the maintenance of hyperbaric systems	HLTHY505D Manage the maintenance of hyperbaric systems	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 manage the maintenance of the hyperbaric systems for safe operation

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 discretion and judgement

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

Learner must comply with industry standards and 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

PERFORMANCE CRITERIA

1. Develop planned maintenance program for the *hyperbaric system*

1.1 Identify required maintenance procedures by utilising *documentation* in accordance with current standards, regulations and manufacturer's guidelines

1.2 Complete risk assessment with reference to quality control documentation

1.3 Identify maintenance to be performed by external contractor

1.4 Determine user maintenance to be performed by hyperbaric chamber operators

1.5 Develop and document maintenance schedule

2. Implement the hyperbaric system's planned maintenance

2.1 Complete supervision of performance of user maintenance in accordance with the maintenance plan

2.2 Ensure maintenance to be performed by external contractors is completed in accordance with the maintenance plan

2.3 Document results of implemented maintenance

2.4 Review and update maintenance records in accordance with current standards, regulations, manufacturer's guidelines and organisation policies and procedures

ELEMENT	PERFORMANCE CRITERIA
3. Audit the hyperbaric system's planned maintenance	<p>3.1 Design audit tool to provide information on adequacy of system's maintenance</p> <p>3.2 Complete regular audits and document results</p> <p>3.3 Review results and identify any inadequacies in planned maintenance schedule</p> <p>3.4 Promptly provide resources enabling implementation of required maintenance</p>
4. Evaluate equipment utilised within the hyperbaric system	<p>4.1 Develop and maintain procedures for evaluation of performance of current equipment and selection of new equipment</p> <p>4.2 Document and implement recommendations for replacement of equipment</p>

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:

- Calibration of equipment
- Function of a compression chamber and equipment
- Gas sampling routines
- Hazards related to oxygen systems
- Legal and regulatory requirements
- Operational procedures relating to compression chambers
- Procedures for cleaning oxygen systems
- Procedures/actions in event of faulty equipment related to compression chambers
- Relevance of operational test on all equipment
- Storage of oxygen compatible equipment
- Systems diagrams
- Use of appropriate tools, lubricants

Essential skills:

It is critical that the candidate demonstrate the ability to:

- Adhere to manufacturer's instructions
- Comply with industry standards and guidelines
- Comply with organisation policies and procedures including those of work health and safety (WHS)
- Identify the steps to be taken to rectify equipment faults
- Plan maintenance according to current standards to ensure the safety of the hyperbaric system

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
- Calibrate equipment
- Communicate with people from diverse cultural and linguistic backgrounds
- Deal with conflict
- Develop and implement a planned maintenance system
- Find faults within equipment and complete minor repairs
- Read schematic and electrical diagrams
- Solve problems including an ability to use available resources
- Take a gas sample
- Take into account and promote 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

- information and understanding complex policy and procedure manuals
- Work with others and display empathy with client 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:

- Relevant organisation policy, guidelines, procedures and protocols
- Knowledge of industry standards and guidelines

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 managing the maintenance of hyperbaric systems
- Observation of simulation and/or role play when managing the maintenance of hyperbaric systems
- 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 managing the maintenance of hyperbaric systems (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 unit:

- HLTHY506C Identify and respond to risks associated with hyperbaric therapy

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.

Hyperbaric system must include:

- Hyperbaric chamber
- Compressors
- Storage cylinders
- Electrical systems
- Gas analysis systems
- Breathing systems
- Hull
- Environmental conditioning system
- Filtration systems
- Fire deluge systems
- Communications equipment for inside chamber
- Client hoods/Built In Breathing System
- Client monitoring equipment
- Client ventilator
- Fire fighting equipment
- First aid kit
- Seating and bedding for chamber
- Chamber observation equipment (eg CCTV)

Documentation may include:

- Relevant standards, regulations and references
- Planned maintenance schedule
- Defect reporting forms
- Hazardous, damaged or faulty equipment labels
- Manufacturer's manuals/instructions
- Organisation policy documents
- Equipment upgrade forms

Unit Sector(s)

Not Applicable