



Australian Government

Department of Education, Employment and Workplace Relations

HLTSTE303D Sterilise loads

Release: 1

HLTSTE303D Sterilise loads

Modification History

HLT07 Version 4	HLT07 Version 5	Comments
HLTSTE303C Sterilise loads	HLTSTE303D - Sterilise loads	Unit updated in V5. 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 follow correct procedures to choose and operate sterilisation equipment, interpret steriliser function and parameters in the provision of sterilised medical equipment, appropriately load items for sterilisation and release of sterilised items for distribution

The range of functions is prescribed around known standards, guidelines, policies and procedures

Application of the Unit

Application

The application of knowledge and skills described in this competency unit could take place in a range of health settings, including hospitals and specialist sterilisation facilities

The application of knowledge and skills takes place around standards, guidelines, policies and procedures and under the supervision of a qualified person

The application of knowledge and skills relates to steam sterilisers, low temperature sterilisers and dry heat sterilisers

The use of bench top sterilisers is covered by:

- HLTIN302C Process reusable instruments and equipment in health settings

This competency unit does not deal with ethylene oxide sterilisation

Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Pre-requisite unit

This unit must be assessed after successful achievement of pre-requisite:

- HLTIN301C Comply with infection control policies and procedures

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. Prepare sterilisation equipment

- 1.1 Clean and check steam steriliser, low temperatures steriliser, dry heat steriliser and accessory equipment according to AS/NZS 4187, manufacturer's recommendations and organisation policies and procedures
- 1.2 Conduct performance test cycles according to AS/NZS 4187 and maintain documentation
- 1.3 Follow regular maintenance program and documentation according to organisation policies and procedures
- 1.4 Observe safety precautions to ensure sterilisers function safely
- 1.5 Interpret and document results from physical, chemical and biological tests

2. Load *steriliser*

- 2.1 Assign appropriate cycle and batch control number and complete documentation according to AS/NZS 4187 guidelines
- 2.2 Check packaging, sealing and labelling for compatibility with organisation policies and procedures
- 2.3 Check load content and configuration for compliance with annual steriliser performance qualification
- 2.4 Select sterilisation method appropriate to the load
- 2.5 Load steriliser to ensure sterilant contact and according to AS/NZS 4187 and manufacturer's recommendations
- 2.6 List and assign load description documentation to the correct cycle and according to AS/NZS 4187 and organisation policies and procedures

ELEMENT**PERFORMANCE CRITERIA****3. Operate steriliser**

- 3.1 Check steriliser function for sterilant availability eg steam to chamber, chemical sterilant container
- 3.2 Check function of physical process recording accessories
- 3.3 Select appropriate cycle in accordance with organisation policies and procedures
- 3.4 Identify, report and action faults according to manufacturer's recommendations and organisation policies and procedures

4. Unload and release sterilised loads

- 4.1 Check sterilisation cycle physical and biological *monitoring* according to AS/NZS 4187 and organisation policies and procedures, and record results on completion of cycle
- 4.2 Remove sterilised load immediately on completion of cycle, according to AS/NZS 4187, WHS guidelines and organisation policies and procedures
- 4.3 Remove compromised items (damaged, wet), dismantle for reprocessing and record according to AS/NZS 4187 and organisation policies and procedures
- 4.4 Unload cooled load using appropriate handling techniques in accordance with AS/NZS 4187 requirements
- 4.5 Complete the documentation of the sterilising cycle for parametric release

5. Follow WHS procedures

- 5.1 Use ergonomic safe practices when loading and unloading a steriliser
- 5.2 Utilise appropriate precautions for sterilant/sterilising methods in accordance with manufacturer's recommendations and organisation policies and procedures

ELEMENT**PERFORMANCE CRITERIA****6. Comply with *quality management* requirements**

- 6.1 Adhere to operational monitoring and testing, performance qualification and maintenance of sterilisers and associated equipment and document in accordance with AS/NZS 4187 and organisation policies and procedures
- 6.2 Comply with documentation requirements for sterilising cycles, batch control and load release control in accordance with AS/NZS 4187 and organisation protocols and procedures
- 6.3 Report and document all steriliser faults/malfunction and load non-conformance/non-compliance in accordance with AS/NZS 4187 and organisation policies and procedures
- 6.4 Store and archive documentation in accordance with organisation policies and procedures

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:

- Air removal test
- Applicable quarantine protocols
- Cleaning protocols and special requirements for sterilisers and trolleys
- Conditions and parameters for successful sterilisation
- Dry heat sterilisation (where required), including:
 - cycle stages and physical parameters that influence sterilisation outcomes
 - significant mechanical components of dry heat sterilisers
 - the biocidal action of steam heat conduction and the impact on sterilisation outcomes
- Environmental conditions required for efficient functioning of a sterilisation area
- Fundamental knowledge of infection control principles as it affects the sterilisation work environment

- Fundamental knowledge of microbiology as it affects the sterilisation work environment
- Leak rate test
- Low temperature sterilisation, including:
 - cycle stages and physical parameters that influence sterilisation outcomes
 - differences between methods of low temperature sterilisation processes including hydrogen peroxide plasma, peracetic acid and ethylene oxide
 - significant mechanical components of low temperature sterilisers
 - the biocidal action of chemical sterilants and impact on sterilisation outcomes
- WHS policies, guidelines and symbols and their relevance to working in the sterilisation area
- Organisation policies and procedures for sterilisation
- Physical, chemical and biological monitoring devices The importance of sterilisation technology as a contribution to client safety
- Process challenge device
- Range of sterilisation tests as noted in AS/NZS 4187
- Relevant standards, including AS/NZS 4187, AS/NZS 4815 and all relevant infection prevention guidelines
- Relevant state/territory guidelines for sterilising services
- Specific monitoring equipment and procedures for each method of sterilising
- Standards for record maintenance

continued ...

Essential knowledge (contd):

- Steam sterilisation, including:
 - cycle stages and physical parameters that influence sterilisation outcomes
 - principles of steam generation and steam quality that impact on sterilisation outcomes
 - significant mechanical components of steam sterilisers
 - the biocidal action of steam under pressure and the impact on sterilisation outcomes
- Sterilisation methods current in use in Australia
- Terminology used in sterilising
- The legal responsibilities providers of health care in relation to confidentiality, client rights, duty of care and implications of negligence

Essential skills:

It is critical that the candidate demonstrate the ability to:

- Accurately complete all documentation
- Address relevant WHS, infection control and manual handling requirements
- Apply fundamental knowledge of microbiology as it affects the sterilisation work environment
- Apply knowledge of the importance of sterilisation technology as a contribution to client safety

- Comply with AS/NZS 4187 and AS/NZS 4815 for sterilisation purposes
- Demonstrate consistency of performance over a number of trials

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:

- Complete documentation of tests, cycles and items
- Follow organisation policies and procedures for problem solving in relation to steriliser maintenance and service
- Identify problems with test results
- Interpret test results of different types of sterilisation methods
- Prepare, operate, load and unload sterilisers
- Take into account opportunities to address waste minimisation, environmental responsibility and sustainable practice issues, including appropriate practices to ensure efficient use of resources
- Use literacy, numeracy and oral communication skills required to fulfil the position in a safe manner as specified by the health care facility
- Use problem solving skills - the ability to use available resources and prioritise workload

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 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

EVIDENCE GUIDE

Context of and specific resources for assessment:

- Assessment should replicate workplace conditions as far as possible
- Simulations may be used to represent workplace conditions as closely as possible. Acceptable simulation requires:
 - use of steam, dry heat and low temperature sterilisers
 - using a full range of monitoring processes
- Resources essential for assessment include access to:
 - relevant workplace or appropriately simulated environment where assessment can take place
 - Australian standards, government and organisation policies and procedures
 - sterilisation and monitoring equipment and accessories

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

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

RANGE STATEMENT

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.

Sterilisers may include:

- Pre-vacuum steam
- Downward displacement steam
- Dry heat
- Hydrogen peroxide plasma
- Peracetic acid
- Bench top sterilisers

Monitoring and accessory equipment may include:

- Physical parametric process recorders, including:
 - print outs
 - graphics and chart recorders
 - information technology data systems
- Batch control labelling guns
- Computerised systems, including:
 - label printers
 - scanners
 - workstations
- External chemical indicators
- Internal chemical indicators
- Biological indicators and incubators, and enzymatic indicators
- Dryness testing
- Process challenge devices
- Performance qualification equipment, including:
 - computerised data loggers
 - thermocoupling devices
- Leak rate test
- BowieDick type air removal test

RANGE STATEMENT

*Quality management
documentation may include:*

- Cycle, batch control and load description documentation
- Steriliser usage and utilisation
- Volume of sterilised items by defined category
- Cleaning, monitoring, testing, fault analysis and maintenance of sterilisers and associated equipment
- Dispatch/distribution by destination
- Non-conformance/non-compliance reporting
- Archiving and filing of steriliser records
- Validation report

Unit Sector(s)

Not Applicable