



Australian Government

HLTTHE004 Maintain and operate theatre equipment

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Modification History

Release	Comments
1	This unit of competency was first released in HLT Health Release 11.0.

Application

This unit describes the skills and knowledge required to prepare theatre equipment, provide basic maintenance support, apply infection prevention and control procedures, and disassemble, store and contribute to effective use of equipment by providing basic instruction to others on equipment operation.

This unit applies to operating theatre technicians who work under the supervision of a surgical and anaesthetic team.

The skills in this unit must be applied in accordance with current Commonwealth and State/Territory legislation, Australian/New Zealand standards and industry codes of practice.

Licensing/Regulatory Information

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite unit(s)

No pre-requisite units

Competency field(s)

Theatre Equipment

Unit sector(s)

Health

Elements and Performance Criteria

Element	Performance criteria
<i>Elements define the essential outcomes</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element</i>

<p>1. Select and prepare operating theatre equipment</p>	<p>1.1 Identify equipment and consumables requirements according to operating list and consultation with surgical and anaesthetic team</p> <p>1.2 Set up and position equipment according to surgeon preferences and check equipment and consumables according to organisational procedures</p> <p>1.3 Assemble, connect and test components according to specific equipment requirements</p> <p>1.4 Re-position equipment during theatre procedures according to specific procedure</p> <p>1.5 Document use of theatre equipment according to organisational procedures</p> <p>1.6 Withdraw from use and replace equipment according to safety procedures</p>
<p>2. Support equipment maintenance</p>	<p>2.1 Identify and correct minor equipment problems within scope of own job role</p> <p>2.2 Refer equipment maintenance to specialist according to scope, nature of problem and organisational procedures</p> <p>2.3 Maintain relevant maintenance records according to organisational procedures</p> <p>2.4 Schedule equipment for maintenance according to needs of surgical and anaesthetic team</p> <p>2.5 Maintain communication with surgical and anaesthetic team for equipment maintenance</p>
<p>3. Apply infection prevention and control procedures</p>	<p>3.1 Clean and disinfect equipment according to organisational procedures</p> <p>3.2 Dispose of waste and consumables according to organisational procedures</p> <p>3.3 Follow hand hygiene and PPE procedures when handling equipment according to organisational procedures</p> <p>3.4 Identify and report contamination risks or breaches of infection control protocols according to organisational procedures</p>
<p>4. Disassemble and store operating theatre equipment</p>	<p>4.1 Follow shut-down procedures according to manufacturer's recommendations</p> <p>4.2 Assemble and disassemble equipment according to manufacturer's recommendations and manual task risk factors</p>

	4.3 Safely store equipment according to manufacturer's recommendations and manual task risk factors
5. Contribute to operating theatre operations	<p>5.1 Provide instructions on equipment operation to individual members of surgical and anaesthetic team</p> <p>5.2 Assess equipment performance according to technical specifications and report to surgical and anaesthetic team</p> <p>5.3 Participate in team evaluations of equipment being considered for potential purchase and share information from theatre technician's perspective</p>

Foundation skills

The foundation skills essential to performance of this unit, but not explicit in the performance criteria are listed here, along with a brief context statement.

Skill	Description
Learning skills to:	Apply prior knowledge to operate and maintain theatre equipment and adapt to routine procedural and technical requirements in familiar operating theatre context.
Reading skills to:	Interpret technical and workplace information, including equipment instruction and manufacturer guidance, to support equipment use in familiar context.
Writing skills to:	Document equipment-related information using terminology and workplace convention to support maintenance and operational process.
Numeracy skills to:	Interpret numerical information related to equipment performance, including calibration indicators and operational parameters, to support safe use in routine context.
Digital skills to:	Use workplace tools and available systems to support the recording and management of equipment-related information in familiar context.

Digital literacy outcomes are included in the Foundation Skills Companion Volume.

Range of conditions

N/A

Assessment Requirements for HLTTHE004 Maintain and operate theatre equipment

Performance Evidence

The candidate must show evidence of the ability to complete tasks outlined in elements and performance criteria of this unit, manage tasks and respond to contingencies in the context of the job role. There must be evidence that the candidate has:

- followed established technical, infection control and safety procedures for set-up, shut-down, cleaning and storage of operating theatre equipment on at least 3 occasions
- performed routine maintenance procedures on at least 3 different types of equipment selected from the list below:
 - patient positioning aids
 - fluid and suction systems
 - electrosurgical units
 - operating table accessories
 - general theatre equipment
- during the above, demonstrated equipment handling and basic troubleshooting according to organisational procedures and manufacturer instructions

Knowledge Evidence

The candidate must be able to demonstrate essential knowledge required to effectively complete tasks outlined in elements and performance criteria of this unit, manage tasks and manage contingencies in the context of the work role. This includes knowledge of:

- consultation and planning, including:
 - procedures for consulting with members of the surgical team
 - methods for interpreting operating lists and surgeon preferences to determine equipment and consumables requirements
- role and responsibilities, including:
 - scope of the operating theatre technician role in working with equipment
 - limitations of the technician's responsibilities in the operating theatre environment
- medico-legal considerations, including:
 - medico-legal implications relating to the use of operating theatre equipment
 - organisational and legal obligations relevant to safe practice and compliance
- equipment types and purpose, including:

- theatre fixtures and fittings
- theatre furniture
- surgical equipment
- consumables and principles of sustainable use
- features and functions of operating theatre equipment relevant to:
 - set-up
 - assembly and connection
 - preparation for use in accordance with organisational procedures
- equipment selection and suitability, including:
 - principles for selecting appropriate equipment and consumables based on procedure type, patient needs, and organisational procedures
- manual handling and equipment movement, including:
 - safe manual handling
 - principles of safe manual handling
 - risk factors associated with manual tasks in the operating theatre
 - intra-operative safety
 - individual safety considerations relating to the location and movement of equipment during operative procedures
- routine equipment maintenance procedures, including:
 - checking and functional testing
 - calibration
 - cleaning
 - replacement of consumables
 - scheduled maintenance
- fault management and escalation, including:
 - types of problems that may occur with operating theatre equipment
 - indicators for when specialist maintenance is required
 - procedures for reporting faults and organising specialist maintenance according to organisational requirements
- basic troubleshooting, including:
 - techniques for identifying and resolving common equipment faults within the technician's scope of responsibility
 - understanding limits of troubleshooting before escalation
- standard and transmission-based infection control procedures applicable to:
 - the operating theatre environment

- operating theatre equipment
- documentation and record-keeping, including:
 - organisational procedures for documenting equipment use
 - maintenance and servicing records
 - requirements for providing technician feedback and reporting issues
- communication and team collaboration, including:
 - communication protocols for providing operational instructions to theatre staff
 - procedures for discussing equipment condition and performance with relevant personnel
 - roles and responsibilities when contributing to equipment evaluations or purchase discussions

Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions.

The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources, including access to:
 - operating theatre equipment, including:
 - operating table and lights
 - electrosurgical unit
 - instrument trolley
 - suction apparatus including mobile and wall-mounted systems
 - microscopes
 - laparoscopic stack systems
 - positioning and mobility equipment, including:
 - bean bags
 - yellowfin stirrups
 - pat slides, slide sheets, hovermats
 - lateral supports
 - head supports and head foams
 - gel supports
 - traction or orthopaedic extension frames
 - tourniquet
 - lightweight table extensions
 - hospital beds

- documented procedures and organisational protocols relevant to equipment use and maintenance
- simulated environment that replicate workplace challenges, including problem-solving related to equipment set-up, maintenance, or failure.

Assessors must satisfy the current Standards for Registered Training Organisations (RTOs) /AQF mandatory competency requirements for assessors.

Mandatory Workplace Requirements

Assessment of performance evidence may be in a workplace setting or an environment that accurately represents a real workplace.

Unit Mapping Information

Previous Code and Title	Equivalence	Comments
HLTTHE001 Handle and care for operating theatre equipment	Not equivalent	Major changes to performance criteria and performance evidence. Additions to knowledge evidence, assessment conditions and application. Foundation skills added.

Links

Companion volumes, including implementation guides, are found on the national training register - <https://training.gov.au/training/details/HLT>.