



Australian Government

HLTCAR004 Perform electrocardiography (ECG)

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Modification History

Release	Comments
1	This unit of competency was first released in HLT Health Release 10.0.

Application

This unit describes the skills and knowledge required to prepare for and conduct electrocardiography (ECG) procedures, producing traces that are suitable for diagnostic purposes. It does not include interpretation of the ECG.

This unit applies to any health worker conducting ECG procedures. ECGs are performed in medical centres, hospitals and cardiologist rooms.

The skills in this unit must be applied in accordance with 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)

N/A

Unit sector(s)

Pathology

Elements and Performance Criteria

Element	Performance criteria
<i>Elements define the essential outcomes of a unit of competency.</i>	<i>The Performance Criteria specify the level of performance required to demonstrate achievement of the Element.</i>
1. Prepare ECG machine for use	1.1 Retrieve ECG machine from storage area and check cleaning records

	1.2 Visually inspect ECG machine, leads and accessories to confirm compliance with infection control requirements and organisational procedures 1.3 Prepare ECG machine leads and accessories to confirm compliance with manufacturer's specifications and organisational procedures
2. Prepare for ECG procedure	2.1 Greet client courteously and identify self 2.2 Consult with client and cross-reference patient records to confirm client identity 2.3 Obtain, interpret and record client information according to organisation procedures 2.4 Explain the ECG purpose, procedure and risk to the client 2.5 Provide client with the opportunity to ask questions and discuss areas of concern 2.6 Obtain informed consent following ethical and legal requirements
3. Prepare client for ECG procedure according to procedures	3.1 Maintain client privacy and dignity during ECG preparation 3.2 Implement and monitor infection control practices according to infection control, work health and safety (WHS) requirements and organisational procedures 3.3 Provide positioning instructions according to manufacturer's specifications 3.4 Communicate with client to check and confirm client's comfort 3.5 Assess and prepare client's skin for electrode placement 3.6 Attach leads and verify placement according to manufacturer's specifications and organisational procedures
4. Produce an ECG trace	4.1 Produce ECG trace according to manufacturer's specifications 4.2 Check ECG trace against technical criteria for diagnostic use including increased amplitude and repeat ECG procedure where criteria are not met 4.3 Forward trace to required recipient according to organisational procedures 4.4 Document ECG procedure details according to organisational procedures

5. Complete ECG process	5.1 Remove ECG leads and electrodes from client maintaining client privacy and ensuring skin integrity 5.2 Check client to identify and provide assistance 5.3 Dispose of waste in accordance with waste management procedures 5.4 Store ECG machine in accordance with manufacturer's specifications and organisational procedures
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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.

Skills	Description
Oral communication skills to:	• interact with clients using some specialised vocabulary
Writing skills to:	• complete familiar and unfamiliar documentation
Reading skills to:	• interpret request information in client records, technical and procedural documents, infection control policies and manufacturer guidelines
Problem solving skills to:	• respond to situations requiring repeat traces
Teamwork skills to:	• work effectively as a link between client and health care providers
Technology skills to:	• use digital devices and forwarding test recording to health care professionals

Range of conditions

N/A

Assessment Requirements for HLTCAR004 Perform electrocardiography (ECG)

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 manage contingencies in the context of the job role. There must be evidence that the candidate has:

- followed established technical, infection control and safety requirements and produced at least 3 different ECG traces on 3 different individuals, satisfactory for diagnostic purpose, including:
 - adherence to legal, ethical considerations and relevant current Australia and New Zealand standards in relation to ECG equipment
 - identified and responded appropriately to situations of interference, increased amplitude or wandering baseline

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:

- legal requirements, ethical considerations and organisational procedures relevant to performing ECG's, including:
 - children in the workplace
 - duty of care
 - infection control requirements
 - informed consent
 - mandatory reporting
 - privacy, confidentiality and disclosure, records management
 - waste management
 - work health and safety (WHS)
 - work role boundaries
- requirements of relevant current Australia and New Zealand standards in relation to ECG equipment
- general factors that affect ECG, including:
 - physical limitations
 - respiratory function
- features, function and use of ECG equipment, including:

- pre-checking procedures
- electrical safety requirements
- common problems and how to respond
- routine maintenance requirements
- sources of interference, including:
 - client
 - equipment
 - environment
- technical criteria and quality requirements for ECG tracing
- anatomy and physiology of the heart
- normal and abnormal ECG rhythms

Assessment Conditions

All aspects of the performance evidence must be demonstrated using simulation prior to being demonstrated in a clinical workplace setting or an environment that reflects a real workplace.

The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources, including:
 - ECG machine and associated leads/electrodes
 - client furniture suitable for ECG procedures, including a chair or examination table
 - documented organisational procedures for the candidate to follow
- modelling of industry operating conditions, including:
 - interactions with individuals with varied needs
 - presence of situations requiring problem solving

Assessors must satisfy the Standards for Registered Training Organisations' requirements for assessors and must hold this unit or demonstrate equivalent skills and knowledge to that contained within this unit.

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
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HLTCAR001 Perform electrocardiography (ECG)	Equivalent	Minor changes to performance criteria, clarification of performance evidence and assessment conditions. Foundation skills made explicit.
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Links

Companion volumes, including implementation guides, are found on the national training register - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ced1390f-48d9-4ab0-bd50-b015e5485705>.