# **Unit of Competency template**

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| **Unit code** | HLTCAR004 |
| **Unit title** | Perform electrocardiography (ECG) |
| **Modification History** | Release | Comments |
| Release 1 | HLTCAR004 Perform electrocardiography (ECG) supersedes and is equivalent to HLTCAR001 Perform electrocardiography (ECG)Major changes to performance criteria, clarification of performance evidence and assessment conditions.Foundation skills made explicit. |
| **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 individuals working in health settings, such as pathology collection centres, medical centres, hospitals and cardiologist rooms. They work under the supervision of an appropriate health professional and follow established clinical guidelines. 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.*No occupational licensing or certification requirements apply to this unit at the time of publication.* |
| **Pre-requisite unit** | Nil |
| **Competency field** | N/A |
| **Unit sector** | Pathology |
| **Elements** | **Performance criteria** |
| Elements describe the essential outcomes. | Performance criteria describe the performance needed to demonstrate achievement of the element.  |
| 1. Prepare ECG machine for use | 1.1 Retrieve ECG machine from storage area and check cleaning records1.2 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 ~~i~~dentify self2.2 Consult with client and cross-reference patient records to confirm client identity 2.3 Obtain, interpret and record client information according to organisational procedures2.4 Explain the ECG purpose, procedure and risk to the client 2.5 Provide client with the opportunity to ask questions and discuss areas of concern2.6 Obtain informed consent according to ethical and legal requirements |
| 3. Prepare client for an ECG procedure according to procedures | 3.1 Maintain client privacy and dignity during ECG preparation3.2 Implement and monitor infection control practices according to infection control, work health and safety (WHS) requirements and organisational procedures3.3 Provide positioning instructions according to manufacturer’s specifications3.4 Communicate with client to check and confirm client’s comfort 3.5 Assess and prepare client’s skin for electrode placement3.6 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 specifications4.2 Check ECG trace against technical criteria for diagnostic use including increased amplitude and repeat ECG procedure where criteria are not met4.3 Forward trace to required recipient according to organisational procedures4.4 Document ECG procedure details according to organisational procedures |
| 5. Complete ECG process | 5.1 Remove ECG leads and electrodes from client maintaining client privacy, dignity and ensuring skin integrity5.2 Check client to identify and provide assistance5.3 Dispose of waste according to waste management procedure5.4 Clean and store ECG machine according to manufacturer’s specifications and organisational procedures |
| **Foundation skills***Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.* |
| **Range of conditions** |
| **Unit mapping information** | HLTCAR004 Perform electrocardiography (ECG) supersedes and is equivalent to HLTCAR001 Perform electrocardiography (ECG) |
| **Links** | Link to Companion Volume Implementation Guide<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ced1390f-48d9-4ab0-bd50-b015e5485705> |

# **Assessment Requirements template**

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| **Title** | 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
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| **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
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| **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. |
| **Links** | Link to Companion Volume Implementation Guide. <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ced1390f-48d9-4ab0-bd50-b015e5485705> |