



Australian Government

Department of Education, Employment and Workplace Relations

HLTPAT412D Collect arterial blood samples

Release: 1

HLTPAT412D Collect arterial blood samples

Modification History

HLT07 Version 4	HLT07 Version 5	Comments
HLTPAT412C Collect arterial blood samples	HLTPAT412D - Collect arterial blood samples	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 policy and procedures for collection of arterial blood samples from clients for pathology testing

Application of the Unit

Application

Work performed requires a broad knowledge of varied activities and the ability to apply solutions to a wide range of non-routine and complex problems

Individuals will take responsibility for their own outputs, and provides some guidance and leadership to others to achieve outputs

All tasks are conducted in accordance with relevant federal, state and territory legislation and organisation policies and procedures including WHS and infection control 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. Prepare for sample collection | 1.1 Identify <i>pathology request</i> and client correctly |
| | 1.2 Explain procedure client and obtain consent in accordance with legal requirements and organisation policy and procedure |
| | 1.3 Obtain relevant clinical information and record in accordance <i>with organisation policies and procedures</i> |
| | 1.4 Calculate minimum blood volume required for test |
| | 1.5 Ensure client is correctly and comfortably positioned and prepared for the arterial blood collection procedure |
| | 1.6 Perform <i>pre-collection testing</i> to ensure integrity of arterial circulation at site of collection before proceeding |
| | 1.7 Check oxygen therapy and record to ensure client is breathing room air, specified air or <i>gas mixture</i> according to pathology request documentation |
| | 1.8 Assemble and prepare <i>equipment and disposables</i> |
| | 1.9 Maintain standard and additional precautions |
| | 1.10 Use <i>personal and protective equipment</i> correctly |

ELEMENT**PERFORMANCE CRITERIA****2. Perform arterial blood collection**

- 2.1 Prepare *collection site* according to organisation policies and procedures
- 2.2 Locate artery, insert needle at correct angle, and collect sufficient sample volume for requested test/s
- 2.3 Follow *infection control procedures* throughout collection procedure
- 2.4 Apply pressure to site immediately following collection according to *organisation policies and procedures*
- 2.5 Dispose of sharps safely using correct techniques and container
- 2.6 Fit stopper to syringe immediately after removal of needle
- 2.7 Mix sample thoroughly, label and prepare for transport in accordance with *organisation policies and procedures*

3. Perform post collection procedures

- 3.1 Dispose of *waste* in accordance with organisation policies and procedures
- 3.2 Complete *documentation*
- 3.3 Check puncture site to ensure bleeding has stopped
- 3.4 Cover puncture site appropriately
- 3.5 Leave client comfortable
- 3.6 Provide relevant information and instructions (e.g. bleeding)
- 3.7 Notify *appropriate staff* so that the client's condition can be monitored
- 3.8 Transport arterial blood sample to laboratory 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:

- Basic anatomy and physiology of the circulatory system relevant to arterial blood collection
- Basic first aid relevant to arterial blood collection
- Clinical and general waste disposal procedures
- Relevant infection control policy and procedures
- Relevant organisation policies and procedures
- Specimen transport requirements
- Standard and additional precautions

Essential skills:

It is critical that the candidate demonstrate the ability 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 standard and additional precautions
- Ask questions to obtain specific client and clinical information
- Communicate effectively with clients and with a range of healthcare professionals
- Comply with organisation policies and procedures including WHS and infection control
- Demonstrate correct pre-collection testing
- Demonstrate correct techniques for arterial blood collection
- Demonstrate knowledge of need for arterial sampling and of clinical risks of arterial blood collection procedures
- Demonstrate verification of client's oxygen therapy if applicable
- Follow documentation procedures
- Follow procedures to maintain sample integrity
- Follow relevant work health and safety (WHS) procedures
- Follow workplace instructions
- Handle, label and transport sample correctly
- Identify clinical risks and appropriate emergency response procedures
- Identify contra-indications to arterial blood sample collection
- Identify/ascertain respiratory status of client
- Maintain client confidentiality

continued ...

Essential skills (contd):

- Provide clear explanation of intended procedure and obtain consent
- Recognise boundaries of responsibilities and refer problems to supervisor, pathologist, scientist or other appropriate health professional
- Select and use appropriate collection equipment
- Take into account opportunities to address waste minimisation, environmental responsibility and sustainable practice issues
- Use oral communication skills and language competence 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
- Use reading and writing skills required to fulfil job role in a safe manner and as specified by the organisation at a level of skill that includes reading and interpreting requests for pathology specimens, completing appropriate clinical and other documentation, and comprehension of complex and relevant policies and procedures
- Use time management strategies to set priorities
- Use numeracy skills ranging from the ability to complete basic arithmetic calculations, weighing and measuring requirements, and recording data
- Use problem solving skills required including ability to use available resources and apply solutions to a wide range of non-routine and complex problems
- Work with others and display empathy with client and relatives

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
- Observation of workplace performance is essential for assessment of this unit
- Consistency of performance should be demonstrated over the required range of situations relevant to the workplace

EVIDENCE GUIDE

- 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
- Context of and specific resources for assessment:*
- Access to appropriate workplace where assessment can take place
 - Simulation of realistic workplace setting may be used for initial training and assessment
 - Artificial arm for initial training and assessment
 - Phlebotomy equipment required for the collection of arterial blood samples
 - Relevant personal protective equipment
 - Relevant waste disposal equipment
 - Relevant organisation policy, guidelines, procedures and protocols
- Method of assessment*
- Observation in the work place
 - Written assignments/projects or questioning should be used to assess knowledge
 - Case study and scenario as a basis for discussion of issues and strategies to contribute to best practice
 - 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
 - Interviewing and questioning
 - Computer-aided assessment

EVIDENCE GUIDE

- 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 can be delivered and assessed independently, however holistic assessment practice with other pathology 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.

- Pathology request may:*
- Be in writing
 - Be made by a medical or authorised nurse practitioner
 - And must be in accordance with relevant legislation

Organisation policy and procedures may relate to:

- Entry to Critical Care or Special Care (e.g. Burns, Spinal) Units for blood collection purposes
- Collection and documentation of client personal and clinical information
- Confidentiality of client information
- Preparation for arterial blood collection procedures
- Performance of arterial blood collection procedures
- Infection control
- Work health and safety (WHS)
- Consent
- Blood sample preparation, labelling, storage and transport
- Maintenance of sample integrity
- Documentation and recording keeping
- Handling of waste

Pre-collection testing may include:

- Allen's test

Gas mixture may include

- Room air
- Oxygen therapy
- Method of oxygen delivery (e.g. face mask, artificial ventilation)

Equipment and disposables may include:

- Arterial blood gas syringe
- Temperature controlled containers
- Range of needles
- Sharps containers
- Alcohol wipes
- Dressings
- Ice pack
- Iced water

Personal protective equipment may include:

- Gloves
- Gowns
- Apron
- Masks
- Protective eye wear

Collection sites may refer to:

- Radial artery (either arm)

Infection control procedures may include:

- Standard and Additional precautions
- Collection site preparation
- Waste handling and disposal

Sharps may include:

- Needles

Waste may include:

- Clinical waste
- Sharps
- Cytotoxic waste
- General waste
- Personal and confidential waste

Documentation may include:

- Record of test procedures
- Complete and sign request form
- Medical Record notation
- Labelling
- Data entry

Appropriate staff may include:

- Registered Nurse
- Nursing Unit Manager
- Nursing staff in Critical Care or Special Care Units
- Medical Practitioner
- Collection Centre staff

Unit Sector(s)

Not Applicable