



Australian Government

Department of Education, Employment and Workplace Relations

HLTRNL604B Provide support and management of the client undergoing haemodialysis therapy

Release: 1

HLTRNL604B Provide support and management of the client undergoing haemodialysis therapy

Modification History

Not Applicable

Unit Descriptor

Descriptor

This unit of competency describes the knowledge and skills required to support the client undertaking haemodialysis and to use current technologies in haemodialysis including the safe administration of medications via dialysis

Application of the Unit

Application

The unit involves application of specialised skills and knowledge by Enrolled/Division 2 nurses or Aboriginal and/or Torres Strait Islander health workers, for clinical assessment and follow up of client care plans under direct supervisory arrangements in line with jurisdictional and regulatory requirements.

For Enrolled/Division 2 nurses the knowledge and skills described in this unit of competency are to be applied within jurisdictional nursing and midwifery regulatory authority legislative requirements. Enrolled nursing work is to be carried out in consultation/collaboration with registered nurses and under direct supervisory arrangements in line with jurisdictional regulatory requirements.

For Aboriginal and/or Torres Strait Islander health workers, this unit of competency addresses the delivery of renal health care services in Aboriginal and/or Torres Strait Islander communities. Work performed by Aboriginal and/or Torres Strait Islander health workers is to be carried out in consultation/ collaboration with registered nurses and/or medical practitioners under direct supervisory arrangements in line with jurisdictional regulatory requirements.

Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Pre-requisite units

This unit must be assessed after successful achievement of the following related unit of competency:

- HLTRNL601B Support the client with chronic kidney disease

AND one of the following units:

- HLTEN519B Administer and monitor intravenous medication in the nursing environment

OR

- HLTAHW606B Manage medicines in Aboriginal and/or Torres Strait Islander health care

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.

Elements and Performance Criteria

ELEMENT

PERFORMANCE CRITERIA

ELEMENT

PERFORMANCE CRITERIA

- | | |
|--|--|
| 1. Establish therapeutic relationship with <i>client</i> | <ul style="list-style-type: none">1.1 Provide the client with the opportunity to ask questions and discuss areas of concern1.2 Ask the client questions clearly and in an appropriate manner, level and pace, and in a way that encourages the client to provide full answers1.3 Provide accurate feedback and education, appropriate to the client's needs and concerns, within scope of role and responsibilities1.4 Encourage client independence throughout the procedure according to their level of capability |
| 2. <i>Assess physical health status</i> of client in preparation for haemodialysis | <ul style="list-style-type: none">2.1 Complete pre-dialysis assessment of the client through observation and interview and report to other <i>members of the health care team</i> as required within <i>scope of work role</i> and organisation guidelines2.2 Review <i>pathology results</i>, identify significant variations, and report to other members of the health care team according to organisation policies and procedures2.3 <i>Examine the vascular access site</i> to determine suitable sites for cannulation and to identify any <i>problems</i>2.4 Identify any significant physical health issues in relation to dialysis prescription and requirement for adjustments and report to other members of the health care team as required within scope of work role and organisation guidelines2.5 Recognise and refer <i>actual and potential problems</i> that vary from the client's normal health status to other members of the health care team as required in consultation with registered nurse and within scope of work role and organisation guidelines |

ELEMENT

3. Prepare equipment and the client for haemodialysis treatment

PERFORMANCE CRITERIA

- 3.1 Explain procedure to the client in accordance with legal requirements and organisation policies and procedures
- 3.2 Prepare the client for treatment and make comfortable
- 3.3 Prepare machine according to organisation policies and procedures
- 3.4 Determine dialysis settings according to the client's dialysis prescription within scope of work role and organisation guidelines
- 3.5 *Prepare other interventions, including medications*, under the direct supervision of, and as *delegated* by, the registered nurse within scope of work role and organisation guidelines
- 3.6 Prepare *consumables* for cannulation of the client and connection to machine
- 3.7 Wash hands and use personal protective equipment in accordance with standard and additional precautions
- 3.8 Prepare the client's access for cannulation according to organisation policies and procedures
- 3.9 Determine appropriate site for cannulation in consultation with registered nurse
- 3.10 Perform cannulation according to organisation policies and procedures

ELEMENT

PERFORMANCE CRITERIA

4. Perform dialysis

- 4.1 Connect the client to haemodialysis machine according to organisation policies and procedures and *infection control guidelines*
- 4.2 Monitor the client during treatment within scope of work role and refer to other members of the health care team according to organisation policies and procedures
- 4.3 Recognise and respond appropriately to machine alarms and actual and potential problems of haemodialysis
- 4.4 Assess the client's response to treatment within scope of work role and confer with supervising registered nurse
- 4.5 Assess the client's response to other interventions as administered within scope of work role
- 4.6 Recognise acute and delayed adverse reactions to other interventions and respond within scope of work role
- 4.7 Disconnect the client from haemodialysis machine in accordance with organisation policies and procedures
- 4.8 Clean equipment, dry and store in accordance with infection control and manufacturer's guidelines
- 4.9 Examine vascular access site to identify any problems

5. Assess physical health status of client at completion of haemodialysis

- 5.1 Complete the post-dialysis assessment of the client
- 5.2 Evaluate the *client's response to treatment* and report to other members of the health care team as required within scope of work role and organisation guidelines
- 5.3 *Document* and report outcomes to the appropriate members of the health care team
- 5.4 Provide feedback to the client on physical health assessment in order to maintain optimal health status within scope of work role
- 5.5 Encourage the client to voice concerns and respond appropriately
- 5.6 Incorporate referral to community services into advanced care planning strategies in consultation/collaboration with registered nurse and other members of the health care team

Required Skills and Knowledge

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:

- Application of infection control principles, including environmental hazards, relating to haemodialysis
- Common pathology tests to diagnose and monitor CKD and their interpretation
- Definition and average reference ranges of common haematological and biochemical results relating to tests for Stage 5 CKD and haemodialysis
- Dialysis machinery and consumables
- Fluid, electrolyte and acid base balance
- Health status monitoring of client undergoing haemodialysis
- Immunity and the importance of vaccinations
- Medications associated with the dialysis process such as anticoagulation, saline and local anaesthetic including basic mechanism of action, precautions, contraindications and side effects
- Medicines in common use in management of clients with Stage 5 CKD receiving haemodialysis including basic mechanism of action, precautions, contraindications and side effects
- Organisation policies, procedures and protocols relating to haemodialysis
- Pathophysiology of Stage 5 chronic kidney disease (CKD)
- Physiological principles of osmosis, diffusion, ultra filtration and convection
- Recognise the different vascular accesses used for haemodialysis
- Relevant medical/medication terminology and approved abbreviations
- Reportable limits for clients vital signs and biochemical and haematological results for clients undergoing haemodialysis dialysis
- Signs and symptoms of actual and potential problems associated with haemodialysis and the appropriate response
- Structure and function of the urinary, cardiovascular, lymphatic and immune systems
- The differences of performing haemodialysis in a variety of environments
- Understanding how to assess the adequacy of dialysis

REQUIRED SKILLS AND KNOWLEDGE

- Understanding of own role and responsibilities and those of other health care team members in the delivery of care to clients with CKD
- Water treatment standards, equipment and monitoring

REQUIRED SKILLS AND KNOWLEDGE

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 formulae for drug calculations for administration of medications via dialysis
- Apply interpersonal skills, including working with others, using sensitivity when dealing with people and relating to persons from differing cultural, social and religious backgrounds
- Assess patency of vascular access
- Cannulate haemodialysis vascular access
- Correctly prepare machine for haemodialysis
- Demonstrate accountability for personal outputs and client group outcomes
- Identify and manage different haemodialysis vascular access types as required for work role e.g. native fistula, graft, vascath and permacath
- In consultation with the health care team, contribute to effective plans of care to meet the educational needs of the haemodialysis patient
- Monitor the health status of the client undergoing haemodialysis
- Perform emergency treatment for a client experiencing an adverse response to medications administered via dialysis
- Perform haemodialysis treatment
- Perform water testing procedures
- Prepare, administer and record the administration of medications via dialysis
- Recognise and respond to actual and potential problems of haemodialysis appropriately
- Use appropriate communication skills (non-verbal, openness, sensitivity, non-judgemental attitudes)
- Use oral communication skills (language competence) required to fulfil job roles as specified by the organisation/service, including:
 - interviewing techniques
 - asking questions
 - active listening
 - asking for clarification
- Use written communication skills (literacy competence) required to fulfil job roles as specified by organisation/service at a level of skill that may range from reading and understanding client documentation to completion of written reports
- Take into account opportunities to address waste minimisation, environmental responsibility and sustainable practice issues

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 competency in this unit

- Candidates must demonstrate their ability to apply essential knowledge identified for this unit of competency before undertaking workplace application
- Observation of performance in a work context is essential for assessment of this unit of competency
- Consistency of performance should be demonstrated over the required range of workplace situations and should occur on more than one occasion
- Assessment of medication administration must include a written calculation test with 100% mastery

Context of and specific resources for assessment

- This unit of competency is most appropriately assessed in the clinical workplace and under the normal range of clinical environment conditions

Method of assessment

- Observation in the workplace
- Written assignments/projects
- Case study and scenario as a basis for discussion of issues and strategies to contribute to best practice
- Questioning - verbal and written
- Role play

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/or Torres Strait Islander communities, workers should be aware of cultural, historical and current issues impacting on health of Aboriginal and/or 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 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.

- Clients are limited to:*
- Adolescent
 - Adult

RANGE STATEMENT

Assessment of physical health status may include:

- Blood pressure pulse and respiration
- Weight
- Hydration status
- Evidence of uraemia and electrolyte imbalance e.g. lethargy, confusion, anorexia, nausea and vomiting
- Signs of fluid overload e.g. dyspnoea, tachypnoea ankle oedema, weight gain over a short period of time and high blood pressure readings
- Signs of dehydration e.g. dry mouth, dizzy, postural drop in blood pressure, low blood pressure and weight loss over short period of time
- Blood sugar levels
- Pathology results from routine testing for dialysis clients
- Haemodialysis vascular access site status

Members of the health care team may include:

- Enrolled/Division 2 nurse
- Registered nurse
- Nurse practitioner
- General practitioner
- Renal physician
- Chronic disease management team
- Dietitian
- Social worker
- Pharmacist
- Podiatrist
- Aboriginal and/or Torres Strait Islander health worker

Scope of work role refers to:

- Enrolled/Division 2 nurses
- Aboriginal and/or Torres Strait Islander health workers

RANGE STATEMENT

Pathology results may include:

- Haematological tests:
 - haemoglobin
 - iron studies
- Biochemical tests:
 - urea
 - creatinine
 - calcium
 - phosphate
- Dialysis adequacy tests:
 - Kt/Vs
 - urea reduction ratio
 - fraction reduction urea

Examine the vascular access site includes:

- Palpate fistula for thrill
- Auscultate fistula for bruit
- Observe for signs of infection
- Check last needle sites

Vascular access site problems may include:

- Decreased thrill
- High pitched bruit
- Difficulty in needling fistula
- Abnormal arterial and venous pressure readings
- Pain, swelling, redness or trauma
- False aneurysms
- Leaking around cannulation site

Actual and potential problems of haemodialysis may include:

- Blown needle
- Hypotension
- Blood leak within dialyser
- Blood leak from cannulation sites
- Clotted dialyser within the circuit
- Rapid or excess fluid removal
- Rapid or excess electrolyte removal

RANGE STATEMENT

Prepare other interventions including medications must include:

- Identification of contraindications of medications
- Confirmation of client identity and check for known allergies
- Identification of the purpose and function of prescribed medication
- 100% accurate calculation of medication doses for administration as prescribed
- Contributing to the provision of information provided to clients and carers on side effects of medication administration

Other interventions may include:

- Antibiotics
- Iron
- Erythropoiesis stimulating agents
- Anticoagulation
- Blood products e.g. concentrated albumin, packed cells

Delegation refers to:

- Conferring of authority to perform specific medication administration activities to a worker not usually authorised but who has been determined as appropriate for the task by the delegating health professional
- Delegation is within the context of a care plan or other written instruction
- Where delegation is provided verbally it must be confirmed as soon as practicable according to organisation procedures in writing and incorporated in the care plan
- The authority is specific to an individual client within a specific care context and is not transferable
- Delegation instructions must include:
 - medication and its purpose
 - dosage and related instructions
 - route
 - contraindications
 - any other relevant instructions or information, especially information specific to the client

RANGE STATEMENT

Consumables may include:

- Blood lines
- Dialyser
- Dialysate
- Priming solution
- Syringe/needles
- Anti-coagulant
- Tourniquet
- Antiseptic solution and alcohol swabs
- AV needles x 2
- Gauze and tape
- Local anaesthetic cream or subcutaneous lignocaine
- Flushing equipment - normal saline and syringes

Infection control guidelines may include:

- Standard and additional precautions
- Aseptic technique
- Access site preparation
- Waste handling and disposal

Client's response to treatment may include:

- Hypotension
- Headache
- Yawning
- Cramps
- Not achieving ideal weight

Documentation may include:

- Record of test procedures
- Complete and sign request form
- Medical record notation
- Labelling specimens and documentation
- Data entry on paper and electronically
- Client's response to treatment
- Strategies to manage client's response to treatment

Unit Sector(s)

Not Applicable