

The New Zealand Board of Dialysis Practice

**A CURRICULUM FOR THE TRAINING OF
CERTIFIED HAEMODIALYSIS
TECHNICIANS IN NEW ZEALAND**

To be reviewed not later than December, 2005

CLINICAL HAEMODIALYSIS TECHNICIAN TRAINING COURSE

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BACKGROUND

The primary focus of the Clinical Haemodialysis Technician role is to undertake haemodialysis treatment for patients with acute and end stage renal failure and to provide technical expertise, equipment monitoring and machine maintenance.

The one year training course is designed to prepare trainees for the role of Clinical Haemodialysis Technician (CHT). It provides a clinically focused educational opportunity that fosters the development of the clinical and theoretical knowledge and skills necessary to undertake haemodialysis.

This course requires trainees to apply theory to practice, particularly in regard to the management of dialysis patients and the maintenance and monitoring of dialysis and water treatment equipment. The course meets the requirements of the New Zealand Board of Dialysis Practice (NZBDP) and prepares trainees to undertake the Board of Nephrology Examiners Nursing and Technology (BONENT) Clinical Haemodialysis Technician examination This is the currently recognised haemodialysis technician certification examination in New Zealand.

Graduates of the course are expected to develop the ability to assess their own practice using the NZBDP 'clinical dialysis technician competencies' as the guide for practice development. The NZBDP 'levels of practice' for clinical dialysis technicians provides a career development pathway by which practice development is supported, recognised and valued.

COURSE OUTLINE

The course prepares trainees for the role of Clinical Haemodialysis Technician with the aim of developing safe, competent practitioners in a supportive environment.

On successful completion of the course the trainee will:

- Have a basic knowledge of haemodialysis principles and practice
- Be able to undertake haemodialysis treatment on patients with end stage and acute renal failure.
- Provide care that is patient centred, culturally sensitive and evidence based
- Be able to undertake operational and preventative maintenance and troubleshooting of dialysis and water treatment equipment

COURSE STRUCTURE

Length of course

12 months

Award

A certificate of course completion will be awarded on successful completion

Approval

The course has been approved by NZBDP

Classroom study days

84 hours

Tutorials

120 hours

Workshop practicum

120 hours

Self directed study

60 hours

Entry criteria

- Minimum 7th form and 20 years of age
- A good command of written and spoken English
- The following pre-requisites or equivalents from a recognised tertiary educational institution:
 - Anatomy and physiology – level 5A and 5B
 - Biophysics - level 5

OR

NZBDP assessment of and recognition of equivalent prior learning

Selection process

Applicants will be interviewed and placements made according to:

- suitability for the clinical haemodialysis technician role
- academic ability
- references and evidence supporting work and character

Trainee status

A trainee entering into the course will be employed on a one year programme. While contributing to staffing numbers in the haemodialysis unit the trainee will be additional to normal staffing levels for at least the first 3 months. The exact length of time will vary depending on the ability and confidence of the trainee and the clinical complexity of the area

Completion Criteria

For a certificate of course completion to be issued the trainee must present to NZBDP evidence of:

- Successful completion of all aspects of the clinical and theoretical components of the course
- A satisfactory standard of clinical performance as documented by the 10 week and 6 month clinical appraisals and 12 month performance appraisal
- Meeting the unit specific standards of practice
- Successful completion of competency workbooks

Programme Co-ordination

The trainee's course will be co-ordinated by a 'course co-ordinator' who may be a clinical charge nurse, educator, preceptor, trainer or as approved by NZBDP

COURSE SUMMARY

1 – 3 months

Aim

To familiarise to the unit, local unit policies and dialysis process in a supernumerary capacity with an assigned Preceptor

Requirements

- Familiarisation competency book
- IV, CPR, fire & disaster training
- Attend Bicultural/Treaty of Waitangi study days
- Attend haemodialysis and renal study days
- Where appropriate attend Healthcare assistant 4 week training module for:
 - Infection control
 - Documentation
 - Legal issues

Completion

- Clinical appraisal at 10 weeks
- Peer review

3 – 9 months

Aim

To develop proficiency in haemodialysis under the supervision of the course coordinator

Requirements

- Attend intermediate haemodialysis and renal study days, and basic PD and transplantation study days
- Attend workshop series and tutorials
- Orientation to paediatric and acute dialysis
- Completion of level 1 competency book

Completion

- Clinical round
- Case study
- Peer review
- Clinical appraisal at 6 months

9 – 12 months

Aim

To consolidate skills in haemodialysis under the direct supervision of the Unit coordinator

Requirements

- Attend 'challenging behaviours' study day

Completion

- Performance appraisal at 12 months
- Clinical review by course coordinator utilising peer review form
- Clinical portfolio

TEACHING AND LEARNING

The course will comprise both theoretical and clinical components.

During the first three months of the course the trainee will develop competence and safety to practice in the clinical environment in a supernumerary capacity with an assigned preceptor. This is followed by 6 months of haemodialysis practical and theoretical training under the supervision of the course coordinator. The remaining three months of the course provides for the consolidation of skills under the supervision of the haemodialysis unit charge nurse/manager/coordinator.

Theoretical component

The theoretical component will include 12 classroom study days (84 hours) and 120 hours of tutorials.

The classroom study days are a combination of information, skill practice and discussion that will focus on the course curriculum. The tutorials focus on the clinical issues, problems and questions that can be explored in a small group facilitated by the course coordinator.

The workshop practicum focuses on haemodialysis technology.

It is expected that all trainees will undertake additional self-directed learning.

Clinical component

Clinical learning and practice is an integral part of the course. As the course progresses trainees will be required to show initiative in planning patient care and managing an acceptable dialysis workload.

Preceptoring

The trainee will be preceptored during their clinical experience by a preceptor who has, where possible, completed preceptorship, supervision and delegation training. Preceptorship begins with maximum contact progressing to indirect and then minimal contact over the duration of the course.

ASSESSMENT PROCESS

Feedback is critical to the development of practice and the process of learning and is a consistent feature of the course

The formal assessments include:

- 10 week - clinical appraisal
- 6 months - clinical appraisal
- 12 months – performance appraisal
- Completion of competency workbooks
- Patient case study
- Clinical round
- Clinical portfolio
- Any other service specific requirements.

All assessments will be completed prior to the last day of training

Appeals

Appeals concerning the course curriculum or its execution will be made in writing to NZBDP.

Appeals concerning course delivery, assessment and completion will be made in writing to the clinical charge nurse/unit manager.

Cultural Support

Cultural support resources must be available to assist trainees in their practice development.

COURSE CURRICULUM

Learning Objective 1

The normal functions of the human kidney and the impact of renal impairment

Learning Outcomes

- Describe the structure and functions of the kidney
- Introduce the pathophysiology of acute, chronic and end stage renal failure
- Outline the major renal diseases
- Describe the systemic impact of renal impairment

Teaching Method

- A combination of:
 - Classroom study days
 - Tutorials

Content

- Anatomy and Physiology of the kidney
- Acute, chronic and end stage renal failure
- Pathophysiology of the major renal diseases
- Systemic impact of renal impairment
- Fluid and electrolyte imbalance
- Acid base balance
- Uraemic toxins
 - Blood pressure
 - Renal bone disease
 - Anaemia
 - Pharmacology

Assessment Criteria

- A combination of:
 - Clinical round
 - Case study
 - Competency work book
 - Clinical appraisal and portfolio
 - Other unit specific requirements

Learning Objective 2

The diagnosis, management and treatment of acute and chronic renal failure

Learning Outcomes

- Describe the diagnosis of acute and chronic renal failure
- Describe the management of acute and chronic renal failure
- Describe the role of allied health professionals management and treatment of patients with renal impairment

Teaching Method

- A combination of:
 - Classroom study days
 - Tutorials

Content

- Diagnostic tests of renal function and their interpretation
- Signs and symptoms of renal failure and their management
 - Fluid and electrolyte imbalance
 - Acid base balance
 - Uraemic toxins
 - Blood pressure
 - Renal bone disease
 - Anaemia
 - Pharmacology
- Role of allied health professionals
 - Social worker
 - Dietician
 - Occupational therapist
 - Physiotherapist
- Renal replacement therapy
 - Conservative
 - Haemodialysis
 - Peritoneal dialysis
 - Transplantation

Assessment Criteria

- A combination of:
 - Clinical round
 - Case study
 - Competency work book
 - Clinical appraisal and portfolio
 - Other unit specific requirements

Learning Objective 3

Principles and practice of haemodialysis in acute and chronic renal failure

Learning Outcomes

- Define the principles of haemodialysis
- Describe dialyser function and criteria for selection
- Identify dialysis blood tests and their interpretation and relevance
- Describe target weight, its assessment and management
- Describe the concept of dialysis adequacy and prescription
- Demonstrate competence in the dialysis process
- Develop an understanding of related extracorporeal modalities
- Develop an understanding of pharmacology related to haemodialysis

Teaching Method

- A combination of:
 - Classroom study days
 - Tutorials
 - Clinical teaching

Content

- Principles of haemodialysis
 - Diffusion
 - Osmosis
 - Convection
 - Ultrafiltration
 - Reverse Osmosis
- Dialyser
 - Function
 - Membranes
 - Selection
 - Reprocessing
- Blood test interpretation and management
 - Biochemistry
 - Haematology
 - Serology/virology
 - Microbiology
- Target weight
 - Concept of fluid balance
 - Definition of target weight
 - Assessment
 - Management
- Dialysis adequacy and prescription

- Definition of dialysis adequacy
- Estimation of dialysis adequacy
- Formulation of dialysis prescription

- Undertaking the haemodialysis process
 - Set up
 - Initiation
 - Monitoring
 - Troubleshooting dialysis complications
 - Discontinuation
 - Patient assessment pre and post dialysis

- Related extracorporeal modalities
 - Hi flux
 - Haemoperfusion
 - Haemodialfiltration
 - Continuous therapies
 - Apheresis

- Pharmacology
 - Medications in renal failure management
 - Drugs used for haemodialysis
 - Anticoagulants
 - Local anaesthetic

Assessment Criteria

- A combination of:
 - Clinical round
 - Case study
 - Competency work book
 - Clinical appraisal and portfolio
 - Other unit specific requirements

Learning Objective 4

Vascular access for haemodialysis

Learning Outcomes

- Identify the different types of dialysis vascular access, temporary and permanent
- Describe the formation and/or placement of the different types of access
- Describe the indication, advantages and disadvantages for each
- Describe the assessment and care for each type of vascular access
- Demonstrate appropriate cannulation technique
- Recognise problems and complications of vascular access and demonstrate appropriate interventions
- Demonstrate the connection and disconnection procedure for both temporary and permanent vascular access

Teaching Method

- A combination of:
 - Classroom study days
 - Tutorials
 - Clinical teaching

Content

- Temporary and permanent vascular access
 - Types
 - Formation/placement
 - Advantages and disadvantages
 - Assessment and care
 - Cannulation technique
 - Problems, complications and interventions
 - Connection and disconnection procedures

Assessment Criteria

- A combination of:
 - Clinical round
 - Case study
 - Competency work book
 - Clinical appraisal and portfolio
 - Other unit specific requirements

Learning Objective 5

Operation and maintenance of haemodialysis and related equipment and consumables

Learning Outcomes

- Describe the layout and functions of the haemodialysis machine
- Describe utility requirements for haemodialysis machines
- Describe and demonstrate appropriate concentrate selection and use
- Demonstrate set up and preparation of machine for dialysis
- Demonstrate competence in machine handling during initiation of dialysis
- Monitor equipment function, interpreting and utilising information provided
- Demonstrate and describe patient and machine related alarm conditions with appropriate interventions
- Demonstrate competence in machine handling during discontinuation of dialysis
- Demonstrate competence in cleaning and disinfection procedures
- Demonstrate competence in dialysis equipment troubleshooting
- Demonstrate competence in use of electrocardiogram, activated clotting time, oxygen saturation and blood glucose monitoring equipment

Teaching Method

- A combination of:
 - Classroom study days
 - Tutorials
 - Clinical teaching
 - Workshop practicum

Content

- Dialysis machine
 - Layout and function
 - Utility requirements
 - Set up and preparation
 - Handling during set up, initiation, and discontinuation
 - Monitoring, alarms, troubleshooting
 - Cleaning and disinfection
- Concentrate
 - Selection and use
- Related equipment usage
 - Electrocardiogram
 - Activated clotting time
 - Oxygen saturation
 - Blood glucose
 - Other unit specific equipment

Assessment Criteria

- A combination of:
 - Clinical round
 - Case study
 - Competency work book
 - Clinical appraisal and portfolio
 - Workshop competencies
 - Other unit specific requirements

Learning Objective 6

Operation and maintenance of haemodialysis water treatment plant

Learning Outcomes

- Describe the requirement for haemodialysis water quality standards
- Demonstrate competence in water quality management
- Describe the function of pre-treatment and treatment components of the water treatment plant
- Demonstrate competence in the operation of water treatment plant
- Demonstrate competence in troubleshooting
- Demonstrate competence in disinfection procedures
- Demonstrate competence in preventative maintenance

Teaching Method

- A combination of:
 - Classroom study days
 - Tutorials
 - Clinical teaching
 - Workshop practicum

Content

- Water quality
 - Requirement for standards
 - Standards
 - Testing requirements
 - Testing methodology
 - Testing frequency
- Pre-treatment
 - Sediment filtration
 - Carbon filtration
 - Softening
- Treatment
 - Reverse osmosis
 - Deionisation
 - Distillation
 - Ultra violet
- Operation
 - Operation
 - Preventative maintenance
 - Troubleshooting
 - Disinfection

Assessment Criteria

- A combination of:
 - Clinical round
 - Case study
 - Competency work book
 - Clinical appraisal and portfolio
 - Workshop competencies
 - Other unit specific requirements

Learning Objective 7

The identification and management of haemodialysis medical emergencies

Learning Outcomes

- Describe the medical emergencies that occur on haemodialysis
- Demonstrate competence in managing medical emergencies

Teaching Method

- A combination of:
 - Classroom study days
 - Tutorials
 - Clinical teaching

Content

- Identify, manage and prevent haemodialysis medical emergencies
 - Hypotension
 - Hypovolaemia
 - Cramps
 - Dialyser blood leak
 - Air embolism
 - Chest pain
 - Cardiac arrest
 - Nausea
 - Hypoglycaemia
 - Disequilibrium
 - Dialyser membrane reaction
 - Septic shock
 - Acute blood loss

Assessment Criteria

- A combination of:
 - Clinical round
 - Case study
 - Competency work book
 - Clinical appraisal and portfolio
 - Other unit specific requirements

Learning Objective 8

Educational, cultural and social support for haemodialysis patients and family/whanau

Learning Outcomes

- Demonstrate effective patient and family/whanau education
- Demonstrate an understanding of the cultural and psychosocial needs of haemodialysis patients
- Demonstrate the effective use of resources and support for haemodialysis patients and family/whanau
- Demonstrate effective communication
- Demonstrate competence in promoting patient self care

Teaching Method

- A combination of:
 - Tutorials
 - Clinical teaching

Content

- Patient and family/whanau education
 - Utilisation of principles of adult education
 - Resources
- Psychosocial and cultural aspects
 - Concepts
 - Community support and resources
 - Referral processes
 - Promotion of self care strategies and philosophy
- Communication
 - Written
 - Verbal

Assessment Criteria

- A combination of:
 - Clinical round
 - Case study
 - Competency work book
 - Clinical appraisal and portfolio
 - Other unit specific requirements

Learning Objective 9

Quality and legal requirements

Learning Outcomes

- Identify organisational and unit policies and procedures
- Demonstrate correct procedures for obtaining patient consents
- Outline key health related legislation

Teaching Method

- A combination of:
 - Tutorials
 - Study days
 - Clinical teaching

Content

- Organisational and unit policies
- Consent process
- Health related legislation
 - Privacy Act
 - Informed consent
 - Health and Disability Act
 - Patient Code of Rights

Assessment Criteria

- A combination of:
 - Clinical round
 - Case study
 - Competency work book
 - Clinical appraisal and portfolio
 - Other unit specific requirements

ASSESSMENTS

Assessment 1 Case study

Aim

To evaluate the pathophysiology and technology underpinning the care and treatment of a haemodialysis patient.

Method

Select a patient you have recently cared for and outline the pathophysiology of this patient's condition.

Discuss the haemodialysis management of this patient in the light of current knowledge and practice guidelines.

Briefly address the medical, dietary, cultural and lifestyle issues relating to this patient.

Presentation

The specific content requirements of your presentation will be negotiated with and approved by the course co-ordinator, in collaboration with your Charge Nurse/Unit Manager where appropriate. It will be assessed against the attached criteria.

Your case study may be presented to a class tutorial or to your colleagues in the Haemodialysis Unit or as a written case study.

Verbal presentations will be followed by a time for questions and discussion on issues that arise from the case study.

Visual aids can be used to help clarify concepts e.g. overhead transparencies, slides, handouts and posters.

Presentation: 15 minutes

Questions/discussion: 5 minutes

Total: 20 minutes

Written case studies are expected to be of a sound and logical construction and referenced appropriately with a maximum of 3,000 words.

Case Study

Trainee name:.....

Date:.....

Criteria to be Demonstrated	Yes/No	Comments
1. Knowledge of patient pathophysiology and haemodialysis treatment <ul style="list-style-type: none"> • Demonstrates appropriate knowledge and understanding of the patient's pathophysiology • Describes rationale for haemodialysis treatment 		
2. Assesses and evaluates the patients management and treatment <ul style="list-style-type: none"> • Demonstrates evidence of appropriate use of recommended best practice procedures and guidelines • Outlines treatment • Documents appropriately 		
3. Describes the impact of the condition and treatment on the patient and family/whanau <ul style="list-style-type: none"> • Discusses the patient and family/whanau response and own actions to include them in care planning 		
4. Presentation. <ul style="list-style-type: none"> • Presentation is clear, logical, informative and well constructed • Language and explanation are appropriate • Supported by illustrations and audiovisual aids where needed 		

Assessor name:

Designation:

Assessor comments:

Assessor signature:

Date:

Trainee comments:

Trainee signature:

Date:

Assessment 2 Clinical Round

Aim

To demonstrate safe and effective haemodialysis treatment

Method

Select a patient that you are currently caring for and discuss the patient's condition and dialysis treatment plan.

Undertake the dialysis treatment utilising 'best practice guidelines' to support your decisions.

Presentation

The specific content of your clinical round will be negotiated with and approved by the course co-ordinator, in collaboration with your Charge Nurse/Unit Manager where appropriate.

Time

A complete dialysis treatment including set up and post dialysis procedures followed by time for discussion

Clinical Round

Trainee name:.....

Date:.....

Criteria to be Demonstrated	Yes/No	Comments and Feedback
1. Knowledge of the patient's condition in relation to dialysis <ul style="list-style-type: none"> • Establishes medical history • Identifies dialysis related issues 		
2. Management of dialysis treatment <ul style="list-style-type: none"> • Conducts a pre dialysis assessment • Interprets clinical data • Demonstrates competence in the complete dialysis process • Conducts a post dialysis assessment • Demonstrates appropriate use of recommended best practice procedures and guidelines • Documents appropriately 		
3. Describe the impact of treatment on the patient <ul style="list-style-type: none"> • Discuss the impact of this dialysis on the patient • Discuss your future plan of care 		
4. Care planning <ul style="list-style-type: none"> • Demonstrates good time management • Awareness of availability of assistance and support 		

Assessor name:

Designation:

Assessor comments:

Assessor signature:

Date:

Trainee comments:

Trainee signature:

Date:

Assessment 3 Clinical Portfolio

Aim

To develop a portfolio that demonstrates the trainee's level of practice and ability to uncover the knowledge and critical thinking within that practice.

Criteria

The material in this portfolio should show evidence of completion of the haemodialysis training course as well as analysis and reflection of your practice

Method

The portfolio should address the following areas:

- Practice development (achievement of skill competencies and completion of clinical and performance appraisals).
- Changes and advances in practice (summary of achievement of performance , goals/objectives, case study and clinical round)
- Professional development (education and professional activity summary).

The material required by the professional development programme should be sufficient for the portfolio but it may also include additional material if this demonstrates the criteria better (for example: self assessment using recognised tools, projects or work completed, journal articles, teaching plans with evaluations, etc).

Presentation

The portfolio must be compiled in a logical order and contained in a suitable folder

Clinical portfolio

Trainee name:.....

Date:.....

Criteria to be Demonstrated	Yes/No	Comments and Feedback
<p>1. Clinical practice development. Evidence produced supports achievements in the:</p> <ul style="list-style-type: none"> • Haemodialysis training course • Clinical round • Peer review • Performance appraisal • Skill competencies achieved 		
<p>2. Changes and advances in practice.</p> <ul style="list-style-type: none"> ▪ Case study • Summary of achievement of performance goals/objectives 		
<p>4. Professional development.</p> <ul style="list-style-type: none"> • Shows development of own practice over the duration of training course • Summary of educational and professional activity 		

Assessor name:

Designation:

Assessor comments:

Assessor signature:

Date:

Trainee comments:

Trainee signature:

Date:

Assessment 4 Peer review

Aim

To provide feedback and to set goals for further practice development.

Method

The peer review form should be completed by the qualified Technician who preceptored the trainee. The completed form should provide examples from practice to reinforce the ratings identified.

The Charge Nurse/Unit Manager should incorporate this feedback into the performance appraisal format utilised by their renal service

Presentation

A copy of the completed peer review goes to the trainee (the original), the charge nurse/unit manager, the course co-ordinator and the trainee's portfolio.

Peer review form

Trainee name:.....

Date:.....

Peer review is a process by which colleagues give constructive feedback to each other. Providing honest and constructive feedback is an intrinsic part of professional accountability . Please think about what you have observed of the practice of this trainee and provide feedback using examples to support your comments.

ACCOUNTABILITY 1. Professional Practice	Code 0= no opportunity to observe, 1= unsatisfactory 2= on target 3= outstanding	Circle the number	Examples of practice
1. Patient privacy 2. Maintenance of professional standards 3. Professional involvement 4. Professional development	Behaves in a manner that consistently demonstrates: • Professional conduct • Maintenance of patient privacy/confidentiality • Time management • Active participation in professional activities • Use of evidence/research to inform and improve practice • Participation in education sessions	0 1 2 3 4 5 0 1 2 3 4 5	
ACCOUNTABILITY 2. Clinical accountability 1. Service policies 2. Quality assurance 3. Documentation 4. Communication 5. Teamwork 6. Biculturalism	• Adheres to service based polices and procedures • Documents appropriately • Utilises communication effectively • Promotes teamwork • Contributes to a positive environment • Supports decisions that involve change • Uses appropriate resources when providing care for Maori	0 1 2 3 4 5 0 1 2 3 4 5	

<p>ACCOUNTABILITY 3. Pre dialysis assessment</p> <p>1. History taking 2. Assessment 3. Treatment planning</p>	<ul style="list-style-type: none"> ▪ Demonstrates competence in assessing physical, biochemical and metabolic status of patient • Integrates knowledge of, patient history and patient assessment into treatment planning 	<p>0 1 2 3 4 5</p> <p>0 1 2 3 4 5</p>	
<p>ACCOUNTABILITY 4. Preparation and initiation of dialysis</p> <p>1. Preparation 2. Treatment plan 3. Vascular access 4. Dialysis initiation</p>	<ul style="list-style-type: none"> • Competent in establishing treatment plans • Competent in the preparation and initiation of dialysis • Competent in assessment, management and care of vascular access 	<p>0 1 2 3 4 5</p> <p>0 1 2 3 4 5</p> <p>0 1 2 3 4 5</p>	
<p>ACCOUNTABILITY 5. Management of dialysis process</p> <p>1. Dialysis procedure 2. Equipment 3. Patient education 4. Documentation</p>	<ul style="list-style-type: none"> • Competent in all aspects of the dialysis procedure • Demonstrates appropriate action to prevent and manage dialysis emergencies • Monitors, adjusts and troubleshoots dialysis related equipment appropriately • Demonstrates timely and effective patient education • Documents appropriately 	<p>0 1 2 3 4 5</p>	
<p>ACCOUNTABILITY 6. Discontinuation of dialysis</p> <p>1. Discontinuation 2. Treatment</p>	<ul style="list-style-type: none"> • Competent discontinuation of dialysis • Competent in post dialysis management of vascular access 	<p>0 1 2 3 4 5</p> <p>0 1 2 3 4 5</p> <p>0 1 2 3 4 5</p>	

3. planning			
ACCOUNTABILITY 7. Post dialysis assessment 1. Assessment 2. Documentation 3. Evaluation and planning	<ul style="list-style-type: none"> • Competent at post dialysis assessment of patient • Accurately records all relevant information • Utilises relevant information for ongoing treatment planning 	0 1 2 3 4 5 0 1 2 3 4 5 0 1 2 3 4 5	
ACCOUNTABILITY 8. Water quality management 1. Monitoring 2. Treatment 3. Documentation	<ul style="list-style-type: none"> • Utilises dialysis water quality standards and treatment methods • Competent at monitoring the quality of the source and treated water • Accurately records all relevant data • Evaluates, interprets and makes decisions based on collected data 	0 1 2 3 4 5 0 1 2 3 4 5 0 1 2 3 4 5 0 1 2 3 4 5	
ACCOUNTABILITY 9. Dialysis equipment maintenance and supply management 1. Management 2. Maintenance 3. Documentation	<ul style="list-style-type: none"> • Competent in preventive maintenance of dialysis and water treatment equipment • Appropriate record keeping 	0 1 2 3 4 5 0 1 2 3 4 5	
ACCOUNTABILITY 10. Clinical pharmacology 1. Assessment 2. Administration 3. Documentation	<ul style="list-style-type: none"> • Competent in taking current medication and allergy history • Effectively administers prescribed drugs as per unit protocol • Accurately assesses patient's response to medication • Documents appropriately 	0 1 2 3 4 5 0 1 2 3 4 5 0 1 2 3 4 5 0 1 2 3 4 5	

Assessor name:

Designation:

Assessor comments:

Assessor signature:

Date:

Trainee comments:

Trainee signature:

Date:

