



## Higher National Unit specification

### General information

**Unit title:** Renal Dialysis Care (SCQF level 8)

**Unit code:** HE3M 35

**Superclass:** PB

**Publication date:** June 2016

**Source:** Scottish Qualifications Authority

**Version:** 01

### Unit purpose

This Unit will develop knowledge and understanding to enable learners to assist with and perform care related to Renal Dialysis. Through the completion of clinical competencies, this will include the structure and function of selected body systems; the psychological and social impact of Haemodialysis and Peritoneal Dialysis therapies and the clinical management of both. Learners will identify and apply health and safety legislation relating to the patient undergoing Haemodialysis and Peritoneal Dialysis creating an environment that enhances the patient experience and ensures patient safety. Learners will demonstrate the competencies to implement an appropriate plan of care for a patient receiving Haemodialysis and Peritoneal Dialysis.

### Outcomes

On successful completion of the Unit the learner will be able to:

- 1 Explain the structure and function of the selected body systems.
- 2 Analyse the principles, psychological and social impact of Haemodialysis and Peritoneal Dialysis therapies.
- 3 Analyse the clinical management of a patient undergoing Haemodialysis and Peritoneal Dialysis
- 4 Evaluate the health and safety legislation in relation to the patient undergoing Haemodialysis and Peritoneal Dialysis.
- 5 Demonstrate the competencies required to care for a patient receiving Haemodialysis and Peritoneal Dialysis.

## **Higher National Unit specification: General information (cont)**

**Unit title:** Renal Dialysis Care (SCQF level 8)

### **Credit points and level**

2 Higher National Unit credits at SCQF level 8: (16 SCQF credit points at SCQF level 8)

### **Recommended entry to the Unit**

Learners should have good communication skills both written and oral; ideally the learner should have achieved a relevant qualification equivalent to SCQF level 7 (SVQ3/HNC) to ensure they have the underpinning knowledge to work at SCQF level 8. Exemplary learners may still be considered through the completion of a pre course interview part of which could take the form of a written assessment. The skills to undertake this Unit could also be demonstrated through an employer's reference or the process of application and interview in the absence of certified learning.

### **Core Skills**

Opportunities to develop aspects of Core Skills are highlighted in the Support Notes for this Unit specification.

There is no automatic certification of Core Skills or Core Skill components in this Unit.

### **Context for delivery**

If this Unit is delivered as part of a Professional Development Award Renal Dialysis Practice, it is recommended that it should be taught and assessed within the subject area of the Professional Development Award to which it contributes.

### **Equality and inclusion**

This Unit specification has been designed to ensure that there are no unnecessary barriers to learning or assessment. The individual needs of learners should be taken into account when planning learning experiences, selecting assessment methods or considering alternative evidence.

Further advice can be found on our website [www.sqa.org.uk/assessmentarrangements](http://www.sqa.org.uk/assessmentarrangements).

## Higher National Unit specification: Statement of standards

**Unit title:** Renal Dialysis Care (SCQF level 8)

Acceptable performance in this Unit will be the satisfactory achievement of the standards set out in this part of the Unit specification. All sections of the statement of standards are mandatory and cannot be altered without reference to SQA.

Where evidence for Outcomes is assessed on a sample basis, the whole of the content listed in the Knowledge and/or Skills section must be taught and available for assessment. Learners should not know in advance the items on which they will be assessed and different items should be sampled on each assessment occasion.

### Outcome 1

Explain the structure and function of the selected body system.

#### Knowledge and/or Skills

- ◆ Structure function of renal, cardiovascular and endocrine systems
- ◆ Impact of end stage renal failure on these systems
- ◆ Vascular access routes

### Outcome 2

Analyse the principles, psychological and social impact of Haemodialysis and Peritoneal Dialysis therapies.

#### Knowledge and/or Skills

- ◆ The principles of Haemodialysis/Haemodiafiltration/Haemofiltration/Ultrafiltration and Peritoneal Dialysis
- ◆ Physical effects of renal replacement therapies on the individual both short and long term
- ◆ Complications of renal replacement therapies
- ◆ Psychology of illness and health social impact of chronic illness
- ◆ Family dynamics

## Higher National Unit specification: Statement of standards (cont)

**Unit title:** Renal Dialysis Care (SCQF level 8)

### Outcome 3

Analyse the clinical management of a patient undergoing Haemodialysis and Peritoneal Dialysis.

#### Knowledge and/or Skills

- ◆ Signs and symptoms of various clinical presentations:
  - Fluid overload and dehydration.
  - Dehydration
  - Anaemia
  - Normal blood pressure, pulse and respirations parameters
  - Thermoregulation
  - Local infection
  
- ◆ Normal blood results of:
  - Biochemistry
  - Haematology

### Outcome 4

Evaluate the health and safety legislation in relation to the patient undergoing Haemodialysis and Peritoneal Dialysis.

#### Knowledge and/or Skills

- ◆ Policy, national guidelines and legislation related to Haemodialysis and Peritoneal Dialysis practices
- ◆ Health safety and security practices during Haemodialysis and Peritoneal Dialysis practices
- ◆ Patient dignity privacy and confidentiality.
- ◆ Communication strategies
- ◆ Scottish Patient Safety Programme
- ◆ Quality Improvement methodologies

## Higher National Unit specification: Statement of standards (cont)

**Unit title:** Renal Dialysis Care (SCQF level 8)

### Outcome 5

Demonstrate the competencies required to care for a patient receiving Haemodialysis and Peritoneal Dialysis.

#### Knowledge and/or Skills

- ◆ The principles of Water Treatment processes
- ◆ Check prepare and prime a machine prior to use
- ◆ The renal replacement therapy process
- ◆ Individual alarms signify and how to rectify them
- ◆ Blood Volume Sensor
- ◆ Different types and sizes of dialysers
- ◆ Different types of electrolyte components in dialysate concentrates.
- ◆ Machine temperature and bicarbonate settings
- ◆ Differing weight parameters
- ◆ Patient monitoring during dialysis
- ◆ Peritoneal Dialysis exchange
- ◆ Different types of types and sizes of Peritoneal Dialysis Bags

#### Evidence Requirements for this Unit

Learners will need to provide evidence to demonstrate their Knowledge and/or Skills across all Outcomes by showing that they can:

##### Outcome 1

- ◆ identify the main organs of two of the selected body systems.
- ◆ explain the structure and functions of the three selected body systems.
- ◆ explain the impact of renal failure on the three selected body systems.
- ◆ identify the different vascular access routes.

##### Outcome 2

- ◆ analyse the principles of Haemodialysis, Haemodiafiltration, Haemofiltration, Ultrafiltration and Peritoneal Dialysis.
- ◆ explain the physical effects of renal replacement therapies both long and short-term.
- ◆ critique the complications of renal replacement therapies.
- ◆ critically reflect on the psychological impact of chronic illness on the client.
- ◆ critically reflect on the psychological impact of chronic illness on the family and wider social group.

## Higher National Unit specification: Statement of standards (cont)

**Unit title:** Renal Dialysis Care (SCQF level 8)

### Outcome 3

- ◆ analyse the physical signs and symptoms of various clinical presentations.
- ◆ assess and manage renal replacement therapy effectively.
- ◆ evaluate the impact of abnormal biochemistry and haematology.

### Outcome 4

- ◆ analyse the policies, national guidelines and legislation related to Haemodialysis and Peritoneal Dialysis.
- ◆ explain the use of quality improvement methodologies to promote patient safety.
- ◆ analyse the use of non-technical skill, team working and communication strategies.

### Outcome 5

Learners will need to provide evidence to demonstrate their Knowledge and/or Skills by showing that they can perform procedures in accordance with organisational policy. The learner must recognise areas of competence and the parameters of their role. Learners will be observed by a mentor. Learners will demonstrate a holistic approach when carrying out competencies this will include:

- ◆ Demonstrate a range of clinical procedures and skills delegated by a registered practitioner in keeping with organisational policy, legislation and codes of practice
- ◆ Contribute to the safe use of Haemodialysis machines in the clinical Environment
- ◆ Assist the registered practitioner in the delivery of nursing care and monitoring of the patient whilst receiving Haemodialysis/HDF therapies
- ◆ Water Treatment
- ◆ Connect water and drainage pipes and switch on HD machine in and without the renal unit
- ◆ Line and prime a single, double pump and HDF circuit
- ◆ Commence Haemodialysis/HDF therapies
- ◆ The blood flow through the extracorporeal circuit
- ◆ Discontinue Haemodialysis/HDF therapies
- ◆ Re-circulation process
- ◆ Alarms:
  - Air detector alarm
  - High and low venous pressure alarm
  - High and low arterial pressure alarm
  - Blood leak
  - High and low conductivity
- ◆ High and low Trans Membrane Pressure
- ◆ Clotting venous chamber and dialyser
- ◆ Blood Volume Sensor
- ◆ Types and sizes of dialysers
- ◆ Electrolyte components in dialysate concentrates
- ◆ HD machine temperature and bicarbonate
- ◆ 'Target' weight, 'Dry' weight or 'Ideal' weight

## Higher National Unit specification: Statement of standards (cont)

**Unit title:** Renal Dialysis Care (SCQF level 8)

- ◆ Normal and abnormal BP parameters
- ◆ Mandatory HD machine checks
- ◆ The importance of patient monitoring during dialysis
- ◆ Perform Peritoneal Dialysis exchange
- ◆ Types and sizes of Peritoneal Dialysis Bags



## Higher National Unit Support Notes

**Unit title:** Renal Dialysis Care (SCQF level 8)

Unit Support Notes are offered as guidance and are not mandatory.

While the exact time allocated to this Unit is at the discretion of the centre, the notional design length is 80 hours.

### Guidance on the content and context for this Unit

This Unit is mandatory within the Professional Development Award (PDA) in Renal Dialysis Practice: Assistant Practitioner at SCQF level 8 and is designed to meet the range of skills required of learners to develop as Health Care Support Workers in care of patients receiving renal replacement therapy and allows them to practice skills in a supervised environment. It will support learners in the provision of a Health Care Support Worker clinical role within a defined scope of practice. The knowledge and skills gained will enable learners to provide safe and effective care to patients as part of an agreed treatment plan and undertake a range of duties delegated by the mentor.

Health Care Support Workers studying this Unit as part of the PDA in Dialysis Practice at SCQF level 8 will be working with patients in a clinical environment. In this environment, learners will be under direct supervision by a registered practitioner who will identify patients undergoing renal replacement therapy that are suitable for the learner's level of training.

#### Outcome 1

Looks at three body systems, many deliverers of health related programmes all of the specified systems must be taught regardless of progression or employment. The learner is expected to have a knowledge and understanding of the structures and functions of each system and will be assessed on all three systems.

The learner is expected to have a knowledge and understanding of the organs, structures and functions of each system and will be assessed on all three systems.

**Cardiovascular system:** structure of the cardiovascular system, the heart, to include structure of cardiac muscle, chambers, septum, tendons, valves and conduction system. Blood Vessels, to include structure of arteries, veins and capillaries, identify the vascular routes utilised in the dialysis process.

**Urinary System:** structure of the urinary system to include ureters, bladder, urethra and kidney including structure of nephron.

**Endocrine System:** structure of the endocrine system to include pituitary, thyroid, parathyroid, thymus, adrenals, pancreas.



## Higher National Unit Support Notes (cont)

**Unit title:** Renal Dialysis Care (SCQF level 8)

### Outcome 2

The aim of this Outcome is to assess the learner's underpinning knowledge relating to the principles of Haemodialysis, Peritoneal Dialysis and the long-term effects on the body and their social situation.

The learner is expected to differentiate between the various types of renal replacement therapies. They will be required to relate the knowledge of the cardiovascular, renal and endocrine systems to the principles of Haemodialysis, Haemodiafiltration, Haemofiltration, Ultrafiltration and Peritoneal Dialysis. This should include diffusion, osmosis and convection and the long term effects of renal replacement therapy, on the identified body systems. The learner should be able to analyse the psychological, social and familial impact of renal replacement therapy.

### Outcome 3

The aim of this Outcome is to assess the learner's underpinning knowledge relating to the clinical management of a patient undergoing haemodialysis and peritoneal dialysis.

Learners must be aware how to identify signs and symptoms of various clinical presentations and treat them simultaneously. Learners must know about using communication and observational skills as vital components of assessment. In relation to the assessment process tutorial should include:

- ◆ Homeostasis — temperature control
- ◆ Fluid Balance — fluid overload and dehydration
- ◆ Breathing — look, listen feel, respiratory rate, the use of a pulse oximetry
- ◆ Circulation — recording patients pulse, blood pressure and use of monitoring equipment.  
Normal parameters
- ◆ Local Infection — look, feel assess
- ◆ Biochemistry and Haematology — learner must explore the role of electrolytes, and haemoglobin in the renal patient and to recognise an abnormal result

### Outcome 4

The emphasis of this Outcome should be on the way in which quality management systems, legislation and policy supports clinical practice. It is recommended that learners should be aware of the main features of legislation and policy in relation to the following areas:

- ◆ Patient identification and documentation
- ◆ Legislation and institutional policy for minors and incapacitated patients
- ◆ Ethical principles underpinning Informed consent
- ◆ Patient dignity privacy and confidentiality
- ◆ Team working
- ◆ Communication strategies
- ◆ Non-technical skills
- ◆ Conflict management
- ◆ Scottish Patient Safety Programme
- ◆ Quality Improvement methodologies

## Higher National Unit Support Notes (cont)

**Unit title:** Renal Dialysis Care (SCQF level 8)

The list is intended to indicate areas that should be considered but others can be added. Specific Acts or policy documents are not named to prevent advice becoming outdated due to ongoing political development and change. Learners should be introduced to the most recent and relevant legislation in relation to the areas indicated. Learners are expected to name particular quality management systems, pieces of legislation and policy and be aware of the main points and should be aware that legislation and policy has a focus on improving clinical practice.

### Outcome 5

The aim of this Outcome is to assess the practical application of clinical skills relating to the care for the patient receiving Haemodialysis and Peritoneal Dialysis. Learners will be able to demonstrate safe and effective clinical practice within scope of practice in a variety of clinical areas.

The acquisition of skills should be seen as a process and a Record of Achievement can demonstrate that learners have:

- ◆ underpinning knowledge/an evidence base relating to procedures.
- ◆ safe practice which complies with employer's policies and procedures.
- ◆ observed the procedure being carried out correctly (this may be on one or more occasions depending on learner competence).
- ◆ demonstrated the procedure under supervision (this may be on one or more occasions depending on learner competence).
- ◆ judged to have carried out the procedure competently on a minimum of three occasions when supervised by a qualified member or members of staff, preferably the named mentor.

Learners should aim to demonstrate ability in relation to these procedures on a minimum of three occasions. Learners should be observed on each occasion. Evidence can be compiled in the form of checklists, completed recording sheets and reflective accounts. Where learners are unable to provide evidence for all the procedures, simulation may be used for up to two procedures.

Learners should demonstrate awareness of the impact of supportive communication skills such as ensuring a person centred approach, active listening, positive body language, tone, stance, etc. On occasion, a patient may become anxious or upset during the treatment session and learners should be able to recognise the features of distressed behaviour and demonstrate a supportive and caring approach to help manage that distress.

Clinical emergencies may arise at any time and learners should be able to recognise the signs and symptoms associated with cardiac arrest, major haemorrhage or anaphylaxis. Learners should be able to seek appropriate assistance and provide support for the patient in accordance with local guidance.

At the end of the patients treatment learners should demonstrate the ability to clear and clean the clinical area to an acceptable standard. All waste including sharps should be disposed of in accordance with local guidelines.

## Higher National Unit Support Notes (cont)

**Unit title:** Renal Dialysis Care (SCQF level 8)

### Guidance on approaches to delivery of this Unit

This Unit is most likely to be studied by learners undertaking the Professional Development Award (PDA) in Renal Dialysis Practice at SCQF level 8; however, it could also be studied as part of a Group Award. It is primarily designed to equip Renal Senior Healthcare Support Workers with the underpinning knowledge and skills to work with patients undergoing a surgical procedure.

This Unit is mandatory within the Professional Development Award (PDA) in Renal Dialysis Practice at SCQF level 8. In terms of sequence of delivery it is recommended this Unit is delivered after or concurrently with the *Principles of Professional Practice* Unit (FN2C 34). Each Outcome is mutually supportive of each other and builds on knowledge and skills in a sequential way. An understanding of each of the Outcomes will be required in order to evidence all the Outcomes of this Unit.

### Guidance on approaches to assessment of this Unit

Evidence can be generated using different types of assessment. The following are suggestions only. There may be other methods that would be more suitable to learners.

Centres are reminded that prior verification of centre-devised assessments would help to ensure that the national standard is being met. Where learners experience a range of assessment methods, this helps them to develop different skills that should be transferable to work or further and higher education.

This Unit could be assessed using a range of assessment instruments and strategies and these could be integrated for all the learning Outcomes where possible. These could include observation in practice, multiple choice and extended response questions, clinical presentations and review of the learner's portfolio and competency record.

In order to achieve this Unit, learners are required to submit sufficient evidence to demonstrate they have met the knowledge and skills requirements for each Outcome.

An understanding of the both theory and its application to clinical practice is a requirement for all five Outcomes.

Learners will be required to submit evidence of participation in at least 450 hours of clinical work in a renal unit.

Ongoing assessment can be carried out through practice observation by the mentor. Competences will be formally assessed and recorded by the mentor with practice undertaken in a range of clinical settings where possible.

Learners should be encouraged to complete a reflective log for all learning activities and to maintain this within a portfolio of evidence. This portfolio can be used to support the Evidence Requirements of the learner's knowledge and skills in relation to all Outcomes.

## Higher National Unit Support Notes (cont)

### Unit title: Renal Dialysis Care (SCQF level 8)

Assessment of application within a clinical practice setting will be carried out in a live or simulated clinical setting.

Evidence can be generated using different types of assessment. The following are suggestions only. There may be other methods that would be more suitable to learners.

#### Outcome 1

The assessment could be extended or restricted response questions and should be completed under closed-book supervised conditions.

#### Outcome 2

Assessment of Outcome 2 could be integrated with Outcomes 3 and 4 and take the form of an integrated case study generated from the learners work setting and should be approximately **2,500 +/- 10% words**. This report should be academically referenced and submitted by an agreed date.

#### Outcome 3

Assessment of Outcome 3 could be integrated with Outcomes 2 and 4 and take the form of an integrated case study generated from the learners work setting and should be approximately **2,500 +/- 10% words**. This report should be academically referenced and submitted by an agreed date.

#### Outcome 4

Assessment of Outcome 4 could be integrated with Outcomes 2 and 3 and take the form of an integrated case study generated from the learners work setting and should be approximately **2,500 +/- 10% words**. This report should be academically referenced and submitted by an agreed date.

#### Outcome 5

An integrated assessment in the form of a record of achievement should be used for recording evidence of the learner's ability. A mentor will observe the learner carrying out competencies, learners will provide evidence of:

- ◆ using appropriate interpersonal skills when carrying out competencies.
- ◆ promoting safe practice which complies with employer's policies and procedures.
- ◆ identifying the appropriate equipment and demonstrating the correct procedure for the practical technique/competencies.
- ◆ having been signed as satisfactory when observed by a mentor.

Learners should aim to demonstrate ability in relation to these procedures on a minimum of three occasions. Learners should be observed on each occasion. Evidence can be compiled in the form of checklists, completed recording sheets and reflective accounts. Where learners are unable to provide evidence for all the procedures, simulation may be used for up to two procedures.

## Higher National Unit Support Notes (cont)

**Unit title:** Renal Dialysis Care (SCQF level 8)

### Opportunities for e-assessment

E-assessment may be appropriate for some assessments in this Unit. By e-assessment we mean assessment which is supported by Information and Communication Technology (ICT), such as e-testing or the use of e-portfolios or social software. Centres which wish to use e-assessment must ensure that the national standard is applied to all learner evidence and that conditions of assessment as specified in the Evidence Requirements are met, regardless of the mode of gathering evidence. The most up-to-date guidance on the use of e-assessment to support SQA's qualifications is available at [www.sqa.org.uk/e-assessment](http://www.sqa.org.uk/e-assessment).

### Opportunities for developing Core and other essential skills

There are opportunities to develop the Core Skills of *Communication* at SCQF level 5, *Numeracy* at SCQF level 5 and *Problem Solving* at SCQF level 6 in this Unit although there is no automatic certification of Core Skills or Core Skills components.

## History of changes to Unit

Version	Description of change	Date

© Scottish Qualifications Authority 2016

This publication may be reproduced in whole or in part for educational purposes provided that no profit is derived from reproduction and that, if reproduced in part, the source is acknowledged.

Additional copies of this Unit specification can be purchased from the Scottish Qualifications Authority. Please contact the Business Development and Customer Support team, telephone 0303 333 0330.

## General information for learners

### Unit title: Renal Dialysis Care (SCQF level 8)

This section will help you decide whether this is the Unit for you by explaining what the Unit is about, what you should know or be able to do before you start, what you will need to do during the Unit and opportunities for further learning and employment.

*Core Skills they will develop, how they will be developed and whether they will be certificated.*

This section will help you decide whether this is the qualification for you by explaining what the qualification is about, what you should know or be able to do before you start, what you will need to do during the qualification and opportunities for further learning and employment.

The PDA Renal Dialysis Practice: Assistant Practitioner at SCQF level 8 is a new award and has been designed to meet the range of skills and knowledge required to develop and improve practice. This award has been developed for those who are currently working in a renal setting or for those who wish to pursue a renal career.

The PDA Renal Dialysis Practice: Assistant Practitioner is suitable for those who are:

- ◆ currently working as a support worker in a relevant field.
- ◆ have successfully completed the HNC Care and Administrative Practice.

**In order to achieve this award, all learners, except those who have completed the HNC Care and Administrative Practice, must undertake the mandatory 'Understanding Personal and Professional Development' Unit.**

### Guidance on assessment

This Unit could be assessed using a range of assessment instruments and strategies and these could be integrated for all the learning Outcomes where possible. These could include observation in practice, multiple choice and extended response questions, clinical presentations and review of the learner's portfolio and competency record.

In order to achieve this Unit, you are required to submit sufficient evidence to demonstrate they have met the knowledge and skills requirements for each Outcome.

An understanding of the both theory and its application to clinical practice is a requirement for all five Outcomes.

You will be required to submit evidence of participation in at least 450 hours of clinical work in a renal unit.

Ongoing assessment can be carried out through practice observation by the mentor. Competences will be formally assessed and recorded by the mentor with practice undertaken in a range of clinical settings where possible.

You should be encouraged to complete a reflective log for all learning activities and to maintain this within a portfolio of evidence. This portfolio can be used to support the Evidence Requirements of the learner's knowledge and skills in relation to all Outcomes.

Assessment of application within a clinical practice setting will be carried out in a live or simulated clinical setting.

## **General information for learners (cont)**

**Unit title:** Renal Dialysis Care (SCQF level 8)

### **Renal Dialysis Care**

This Unit has been designed to meet the range of skills you will require to develop as an Assistant Renal Practitioner and support you to practice clinical skills in a supervised environment provision of an Assistant Renal Practitioner clinical role within a defined scope of practice. The knowledge and skills gained will enable you to provide safe and effective care to patients in the renal settings who are undergoing renal replacement therapy and undertake a range of duties delegated by the mentor.