



Royal Berkshire
NHS Foundation Trust

Shared Haemodialysis Care Handbook

Name	
Hospital number:	
Shared HD Care Nurse:	
Date:	
Machine type:	
Dialysis Unit:	

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Introduction

This handbook has been developed as a shared care education and training guide to help you learn how to take part in your own haemodialysis care. Firstly you will be taught how to do some of the simple procedures involved in dialysis.

As your confidence grows, you may wish to learn more about the whole dialysis procedure.

This handbook is designed to help you to pick out only the procedures that you feel you are comfortable with, and to progress to other procedures if and when you feel ready. You will be taught by your own unit nurses at your own pace.

This handbook will become a record of your progress. Every time you attend for dialysis you can see how you are doing and what comes next. The procedures section should be signed by you and your nurse when you both feel that a level of safe practice has been achieved according to the definitions given.

Even after you have achieved a safe level of practice in your chosen procedures, you will always be under the supervision of a Qualified Nurse or level 3 Support Worker who will be there to support you and give advice.

What if I decide shared haemodialysis care isn't for me?

We realise that shared haemodialysis care doesn't suit everyone and if you no longer want to be involved, your treatment will continue to be carried out by the nursing staff. You will not be pressured into doing anything beyond your wishes or capabilities.

What if I decide I want to haemodialyse at home?

Some patients decide they'd like to haemodialyse at home, once they've gained confidence on the unit. If this is something you are interested in, please see your haemodialysis nurse for further information.

Please note that this handbook does not cover every possible task, problem or situation related to haemodialysis. Taking part in shared haemodialysis care means that staff will always be there to support you and it is important that you approach them if you have any questions, problems or doubts.

If you have any comments that you wish to make – positive or negative – please direct them to Leo Bailey, Renal Matron.

1. Functions of the kidney and principles of haemodialysis

Discussion should include:

Normal kidney function

- Filtering the blood to remove excess waste and water.
- Producing the hormone, erythropoietin.
- Keeping the bones strong by balancing calcium and phosphate.
- Keeping acid and alkaline balanced in the blood.
- Controlling blood pressure.

What happens when kidney's fail?

- There is no cure, so kidney function needs to be replaced by dialysis or transplantation.
- Dialysis is not as effective as working kidneys but enables many people to live a long and full life.

Please ask your haemodialysis nurse for written information on:

- Anatomy of the kidney.
- Fluid removal from the body and its effect on the heart.
- The principles of haemodialysis.
- Common words used on your Haemodialysis Unit.

Topic	Date	Date	Date
Anatomy of the kidney & normal kidney function			
What happens when kidneys fail?			
Principles of haemodialysis, fluid removal & effect of fluid on the heart			

Principles of haemodialysis

- Explain the blood circuit, briefly mentioning heparin/anticoagulant to stop the blood from clotting and the air detector to prevent air in blood. *(These will be elaborated on later)*
- Show / explain the water inlet and waste outlet.
- Show / explain the dialyser (artificial kidney), bloodlines and blood pump, bicarbonate cartridge / dialysate fluid.
- Blood is cleaned in the dialyser; blood flows through the middle of hollow fibres made from a semi-permeable membrane, with the dialysate fluid flowing around the outside of the fibres.

The dialysate fluid contains small amounts of the substances normally present in the blood. The membrane has tiny holes in it so that the excess fluid and wastes can be removed. At no point do the blood and dialysate fluids come into contact with each other.

Patient information

If you want to find out more about your kidneys, haemodialysis and treatment please visit:

www.kidneypatientguide.org.uk

www.kidneycare.nhs.uk

Please ask your haemodialysis nurse about Renal PatientView and how to apply. You can also visit the site below to see a demonstration of how the site works www.renalpatientview.org

Patient information					
Type					
Date					

In my opinion, I have received sufficient information and have been given the opportunity to ask questions.

Patient's signature: _____

Print name: _____

Date: _____

If you don't have access to a computer, there are a number of other sources, for example patient information leaflets and books. Please ask your nurse if you require further information.

2. Hand washing for dialysis

1. Rub palm to palm	 A close-up photograph showing a person's hands being washed in a white sink. The palms of both hands are pressed together and rubbed against each other.	5. Thumbs	 A close-up photograph showing a person's hands being washed in a white sink. The thumbs of both hands are being rubbed against the palm of the opposite hand.
2. Back of hands	 A close-up photograph showing a person's hands being washed in a white sink. The back of one hand is being rubbed against the palm of the other hand.	6. Finger tips	 A close-up photograph showing a person's hands being washed in a white sink. The tips of the fingers of one hand are being rubbed against the palm of the other hand.
3. Palms, fingers	 A close-up photograph showing a person's hands being washed in a white sink. The palms and fingers of both hands are being rubbed together.	7. Wrists	 A close-up photograph showing a person's hands being washed in a white sink. The wrists of both hands are being rubbed against the palm of the opposite hand.
4. Back of fingers to palm	 A close-up photograph showing a person's hands being washed in a white sink. The back of the fingers of one hand is being rubbed against the palm of the other hand.	8. Use paper towel to turn off taps	 A close-up photograph showing a person's hand using a white paper towel to reach up and turn off a chrome faucet in a white sink.

3. Doing my observations

Key

X = Demonstrated by qualified nurse or level 3 support worker

S = Supervised closely by qualified nurse or level 3 support worker

P = Practising to become competent under distant supervision

C = Agreed as competent by qualified nurse

Procedure definitions:

Hand hygiene:

- Washes hands in accordance with Unit/Hospital Policy using attached photo guide on page 6.
- Understands the importance of this in reducing infection risk.

Weight:

- Able to accurately weigh him/herself unaided while using the patient card correctly and to be aware of target weight.
- Able to calculate required fluid loss.

Blood pressure:

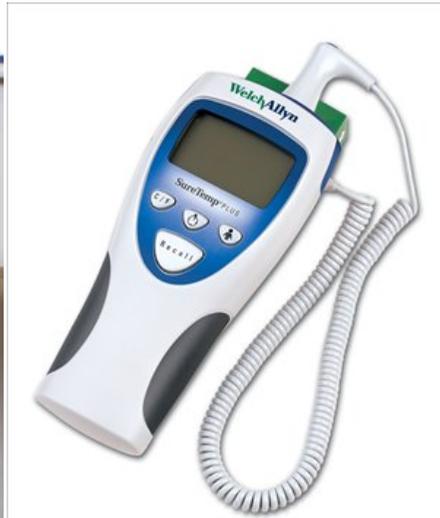
- Able to accurately record BP unaided, understand using correct cuff size on bare arm with loose fitting short sleeves, to be aware of his/her normal BP and to recognise and report any abnormality.

Pulse:

- Able to accurately record pulse and recognise and record any abnormality.

Temperature:

- Able to accurately record temperature and to be aware of what constitutes a high temperature and the possible reasons for this.



Procedure	Date	Date	Date	Date	Date
Hand hygiene					
Weight					
Pulse & BP					
Temperature					

I now feel safe and confident to do all of the above without direct supervision.

I understand that by signing this, I take responsibility for following the procedure definitions.

Patient's signature: _____

Print name: _____

Date: _____

In my opinion, a safe level of practice has been achieved in this section:

Qualified Nurse's signature: _____

Print name: _____

Date: _____

4. Preparing my dialysis machine



Procedure definitions:

Hand hygiene:

- Washes hands in accordance with Unit/Hospital Policy.
- Understands the importance of this in reducing infection risk.

Surface hygiene:

- Cleans work surface in accordance with Unit policy.
- Understands the importance of this in reducing infection risk.

Collect equipment:

- Collects correct equipment and is aware of where to locate it.

Turn on machine:

- Switches on machine correctly and selects 'haemodialysis'

Connect acid concentrate and bibag:

- Is aware of correct concentrate, checks dialysis prescription and connects safely and securely.
- Connects bibag safely and securely then sets the machine with the correct concentrate used.

Attach dialyser:

- Is aware of correct dialyser and checks dialysis prescription.
- Connects dialyser safely and securely.

Attach arterial and venous lines:

- Attach lines safely using a no touch technique.

Attach heparin syringe (if applicable):

- Understand the action of heparin, checks dialysis prescription.
- Attaches the heparin syringe safely and securely.

Prime blood circuit:

- Understands the reasons for priming blood circuit with online fluid before dialysis.
- Attaches dialysate couplings to dialyser safely and securely.
- Attaches online fluid line and drain safely and securely to start priming.
- Carries out correct priming procedure.

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C = Agreed as competent by qualified nurse

Procedure	Date	Date	Date	Date	Date
Hand hygiene					
Surface hygiene					
Collect equipment					
Turn on machine					
Connect acid concentrate and bibag					
Attach dialyser					
Attach arterial and venous blood lines					
Attach heparin syringe (if applicable)					
Prime blood circuit					

Procedure	Date	Date	Date	Date	Date
Hand hygiene					
Surface hygiene					
Collect equipment					
Turn on machine					
Connect acid concentrate and bibag					
Attach dialyser					
Attach arterial and venous blood lines					
Attach heparin syringe (if applicable)					
Prime blood circuit					

I now feel safe and confident to do all of the above without direct supervision.

I understand that by signing this, I take responsibility for following the procedure definitions.

Patient's signature: _____

Print name: _____

Date: _____

In my opinion, a safe level of practice has been achieved in this section:

Qualified Nurse's signature: _____

Print name: _____

Date: _____

5. Preparing my pack



Procedure definitions:

Hand hygiene:

- Washes hands in accordance with Unit/Hospital Policy.
- Understands the importance of this in reducing infection risk.

Surface hygiene:

- Cleans work surface in accordance with Unit policy.
- Understands the importance of this in reducing infection risk.

Collect equipment:

- Collects correct equipment and is aware of where to locate it, referring to dialysis prescription where appropriate.

Prepare “putting on” pack:

- Sets out pack correctly using ‘Aseptic Technique’.
- Understands the principles of ‘Aseptic Technique’.

Sharps Policy:

- Understands what a sharp is and how to safely handle and dispose of sharps.
- Read and signs the unit’s sharp policy.

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Procedure	Date	Date	Date	Date	Date
Hand hygiene					
Surface hygiene					
Collect equipment					
Prepare 'putting on' pack using aseptic technique					
Has read, understood and signed the sharps policy					

Procedure	Date	Date	Date	Date	Date
Hand hygiene					
Surface hygiene					
Collect equipment					
Prepare 'putting on' pack using aseptic technique					
Has read, understood and signed the sharps policy					

I understand that by signing this, I take responsibility for following the procedure definitions.

Patient's signature: _____

Print name: _____

Date: _____

In my opinion, a safe level of practice has been achieved in this section:

Qualified Nurse's signature: _____

Print name: _____

Date: _____

6. Programming my dialysis machine



Procedure definitions:

Dialysis time:

- Checks dialysis prescription for prescribed time.
- Able to programme in correct dialysis time.

Fluid loss/ultrafiltration volume:

- Understands concept of target / dry weight.
- Checks dialysis prescription for prescribed target weight.
- Understands relevance of pre dialysis weight and BP.
- Understands how to calculate ultrafiltration (UF) volume.
- Able to programme correct ultrafiltration (UF) volume.

- Identifies how much fluid is safe to remove per hour according to the current Renal Association Guidelines and their individualised safe fluid loss regime as indicated in their medical notes.

Heparin dose and stop time:

- Understands the action of heparin and its side effects. (See Section 12)
- *Checks dialysis prescription for prescribed heparin rate.*
- *Checks dialysis prescription for prescribed heparin stop time.*
- Able to programme correct heparin dose and stop time.

Anticoagulant Regime:

- Understands the action of the anticoagulant and understands its desired effects and side effects. (see section 12)
- *Checks drug prescription chart for prescribed amount.*

Automated Blood Pressure Monitor on HD machine:

- Able to correctly programme the automated Blood Pressure monitor as required.

Procedure	Date	Date	Date	Date	Date
Dialysis time					
Fluid loss / ultrafiltration volume					
Heparin dose & stop time or Anticoagulant regime					
Automated Blood Pressure monitor on haemodialysis machine (if applicable)					

Procedure	Date	Date	Date	Date	Date
Dialysis time					
Fluid loss / ultrafiltration volume					
Heparin dose & stop time or Anticoagulant regime					
Automated Blood Pressure monitor on haemodialysis machine (if applicable)					

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I have been advised how much fluid is safe to remove as recommended in the current Renal Association Guidelines and by my individualised fluid loss regime as indicated in my medical notes. I am aware of the risks to my health if I do not follow this advice.

Patient's signature: _____

Print name: _____

Date: _____

I now feel safe and confident to do all of the above without direct supervision.

I understand that by signing this, I take responsibility for following the procedure definitions.

Patient's signature: _____

Print name: _____

Date: _____

In my opinion, a safe level of practice has been achieved in this section:

Qualified Nurse's signature: _____

Print name: _____

Date: _____

7. Preparing my fistula / graft for dialysis



Procedure definitions:

Hand & Arm hygiene:

- Able to clean hands & arm according to Unit/hospital policy.
- Understands the importance of this in reducing infection risks.

Prepare 'putting on' pack:

- Able to collect items and set out pack, correctly using 'Aseptic Technique'
- Understands the principles of 'Aseptic Technique'.

Prime needles:

- Where appropriate, prime needles with normal saline according to unit procedure.

Check fistula/graft:

- Able to check fistula/graft for bruit and signs of infection.
- Understands the importance of doing this daily as well as pre dialysis.

Assess needle sites:

- Understands how to assess most appropriate sites for insertion of needles.

Clean needle sites:

- Able to clean fistula/graft according to unit procedure.
- Understands importance of this in reducing infection risks.

Remove scabs & clean:

- Removes scabs using correct technique, according to buttonhole procedure.
- Understands importance of correct technique & additional cleaning.

Apply local anaesthetic:

- Able to apply local anaesthetic, if required, according to unit procedure.

Insert needles:

- Able to insert arterial and venous needles safely according to unit procedure.

Agreed technique:

- Able to explain rationale for using a specific method i.e. buttonhole or ladder technique.

Agreed technique:

- Applies tapes to needles safely and securely according to unit procedure.

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Procedure	Date	Date	Date	Date	Date
Hand & arm hygiene					
Prepare 'putting on' pack					
Prime needles (if required)					
Check fistula/graft					
Assess needle sites					
Clean needle sites					
Remove scabs if buttonholing & clean site					
Apply local anaesthetic					
Insert needles using					

agreed technique					
Tape needles securely					

Procedure	Date	Date	Date	Date	Date
Hand & arm hygiene					
Prepare 'putting on' pack					
Prime needles (if required)					
Check fistula/graft					
Assess needle sites					
Clean needle sites					
Remove scabs if buttonholing & clean site					
Apply local anaesthetic					
Insert needles using agreed technique					
Tape needles securely					

I now feel safe and confident to do all of the above without direct supervision.

I understand that by signing this, I take responsibility for following the procedure definitions.

Patient's signature: _____

Print name: _____

Date: _____

In my opinion, a safe level of practice has been achieved in this section:

Qualified Nurse's signature: _____

Print name: _____

Date: _____

8. Preparing my tunnelled line for dialysis



Procedure definitions:

Hand hygiene:

- Washes hands in accordance with Unit/Hospital Policy, at each appropriate stage
- Understands the importance of this in reducing infection risk.

Prepare 'putting on' pack:

- Able to collect items and set out pack, correctly using 'Aseptic Technique'
- Understands the principles of 'Aseptic Technique'

Assess exit site:

- Able to check tunnelled line and decide if dressing needs changing

Remove & redress tunnelled line:

- If required, removes and disposes of old dressing according to unit procedure. Is aware of signs & symptoms of infection & action to take.
- Understands the importance of this in reducing risk of infection.

Cleans luer-lock connections:

- Able to clean connections using aseptic technique according to Unit procedure.

Remove luer-lock caps & aspirate locking solution

- Is aware of the importance of removing locking solution according to Unit procedure.

Assess patency:

- Able to fully assess the patency of the tunnelled line & is aware of the Unit protocol for a non-functioning tunnelled line.

Adhere to local standard operating procedure.

Procedure	Date	Date	Date	Date	Date
Hand hygiene					
Collect & prepare 'putting on' pack					
Assess exit site					
Remove old dressing & redress exit site if required					
Clean luer-lock connections					
Remove luer-lock caps & aspirate locking solution					
Assess patency of tunnelled line					

Procedure	Date	Date	Date	Date	Date
Hand hygiene					
Collect & prepare 'putting on' pack					
Assess exit site					
Remove old dressing & redress exit site if required					
Clean luer-lock connections					
Remove luer-lock caps & aspirate locking solution					
Assess patency of tunnelled line					

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I understand that by signing this, I take responsibility for following the procedure definitions.

Patient's signature: _____

Print name: _____

Date: _____

In my opinion, a safe level of practice has been achieved in this section:

Qualified Nurse's signature: _____

Print name: _____

Date: _____

9. Commencing my dialysis



Procedure definitions:

Stop re-circulation:

- Able to take dialysis lines out of re-circulation.

Detaching arterial and venous lines:

- Able to detach arterial line from online fluid port.
- Able to detach venous port from online fluid drain.

Attach dialysis lines to cannula needles/tunnelled lines

- Able to connect arterial line to arterial needle/port safely using correct technique in relation to access.

- Able to connect venous line to venous needle/port safely using correct technique in relation to access.
- Understands when to start blood pump & at what speed.

Check arterial & venous pressures:

- Understands when to start blood pump and at what speed.
- Able to carry out these checks correctly and understands importance of carrying out these checks at this time i.e. poor needle position, bumping/blowing etc.

Give anticoagulant:

- Gives anticoagulant using correct technique according to unit policy.
- Understands timing & need to check correct dose.

Record all pressures at baseline pump speed:

- Understands the significance of measuring all pressures at baseline pump speed.

Increase blood pump to required speed:

- Able to identify required pump speed and understands the importance of checking arterial and venous pressures & needle/connection sites.

Machine in 'Dialyse' mode

- Able to check that the machine is in 'dialysis' mode and understands the consequences of failing to do so.

Re check prescription

- Able to recheck heparin dose & stop time, anticoagulant regime, dialysate concentrates and the importance of carrying them out at this time.

Procedure	Date	Date	Date	Date	Date
Stop re-circulation					
Clamp off sodium chloride (saline)					
Attach arterial line to take-out needle/ port & prime blood out					
Attach venous line to put-back needle/port					
Start blood pump at baseline pump speed					
Check arterial & venous pressures					
Give anticoagulant (<i>see section 12</i>)					
Record all pressures at baseline pump speed					
Increase blood pump to required speed					
Put machine into 'dialyse' mode					
Re check prescription					

Procedure	Date	Date	Date	Date	Date
Stop re-circulation					
Clamp off sodium chloride (saline)					
Attach arterial line to take-out needle/ port & prime blood out					
Attach venous line to put-back needle/port					

Start blood pump at baseline pump speed					
Check arterial & venous pressures					
Give anticoagulant (<i>see section 12</i>)					
Record all pressures at baseline pump speed					
Increase blood pump to required speed					
Put machine into 'dialyse' mode					
Re check prescription					

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I now feel safe and confident to do all of the above without direct supervision.

I understand that by signing this, I take responsibility for following the procedure definitions.

Patient's signature: _____

Print name: _____

Date: _____

In my opinion, a safe level of practice has been achieved in this section:

Qualified Nurse's signature: _____

Print name: _____

Date: _____

10. Discontinuing dialysis with my fistula / graft



Procedure definitions:

Aware of completion of dialysis:

- Can identify when dialysis is complete.
- Understands importance of completing prescribed time dialysis.

Hand hygiene:

- Cleans using hand gel according to Unit/Hospital Policy.
- Understands the importance of doing this after the procedure, in reducing infection risk.

Connect online fluid to arterial line:

- Able to safely and securely attach online fluid to arterial line.

‘Wash back’:

- Able to perform ‘wash back’ to ensure all the blood is returned.
- Checks for clots/streaks.
- Understands the importance of washing back all the blood.

Disconnect blood lines from fistula needles:

- Able to safely disconnect arterial and venous lines from fistula needles.

Remove needles, apply pressure, apply dressings:

- Able to safely remove needles, apply correct amount of pressure to needle sites.
- Demonstrate safe disposal of fistula needles according to Unit / hospital sharps policy.
- Ensure bleeding has stopped and apply plasters.

Hand hygiene:

- Washes hands according to Unit / Hospital Policy.
- Understands the importance of doing this after the procedure, in reducing infection risk.

Procedure	Date	Date	Date	Date	Date
Aware of completion of dialysis					
Hand hygiene					
Connect sodium chloride (saline) to arterial line ‘wash back’					
Disconnect blood lines from fistula needles					

Remove & dispose of fistula needles, apply pressure, apply dressings					
Hand hygiene					

Procedure	Date	Date	Date	Date	Date
Aware of completion of dialysis					
Hand hygiene					
Connect sodium chloride (saline) to arterial line 'wash back'					
Disconnect blood lines from fistula needles					
Remove & dispose of fistula needles, apply pressure, apply dressings					
Hand hygiene					

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I now feel safe and confident to do all of the above without direct supervision.

I understand that by signing this, I take responsibility for following the procedure definitions.

Patient's signature: _____

Print name: _____

Date: _____

In my opinion, a safe level of practice has been achieved in this section:

Qualified Nurse's signature: _____

Print name: _____

Date: _____

11. Discontinuing dialysis with my tunnelled line

Procedure definitions:

Aware of completion of dialysis:

- Can identify when dialysis is complete.
- Understands importance of completing prescribed time.

Hand hygiene:

- Cleans hands using hand gel & applies sterile gloves according to Unit procedure.
- Understands the importance of doing this before touching tunnelled line.

Collect & prepare taking off' pack:

- Able to collect items and set out pack and correctly uses 'Aseptic Technique'.
- Understands & practises the principles of 'Aseptic Technique'.

Cleans luer-lock connections':

- Able to clean connections using aseptic technique according to Unit procedure.

Connect sodium chloride (saline) to arterial dialysis line:

- Able to safely and securely attach online fluid to arterial dialysis line using aseptic technique & according to Unit procedure.

'Wash back':

- Able to perform 'wash back' to ensure all the blood is returned.
- Can recognise any reasons for not performing a washback.
- Checks for clots/streaks.
- Understands the importance of washing back all the blood.

Disconnect blood lines from tunnelled line:

- Is able to safely disconnect arterial and venous blood lines from tunnelled line.

Flush & lock tunnelled line:

- Able to flush tunnelled line to maintain patency & is fully aware of locking guidelines.
- Able to identify correct locking solution.
- Checks drug prescription & line locking volume for correct dose.

Attach luer-lock caps:

- Able to attach luer-lock caps securely & is fully aware of rationale for doing this.

Wrapping lines with gauze:

- Able to wrap tunnelled lines with gauze and tape according to unit protocol.

Hand hygiene:

- Washes hands in accordance with Unit/Hospital Policy.
- Understands the importance of doing this after locking tunnelled line.

Adhere to local standard operating procedure.

Procedure	Date	Date	Date	Date	Date
Aware of completion of dialysis					
Hand hygiene					
Collect & prepare 'taking off ' pack					
Clean luer-lock connections					
Connect sodium chloride (saline) to arterial line 'wash back'					
Disconnect blood lines from tunnelled line					
Flush & lock tunnelled line					
Attach luer-lock caps					
Hand hygiene					

Procedure	Date	Date	Date	Date	Date
Aware of completion of dialysis					

Hand hygiene					
Collect & prepare 'taking off ' pack					
Clean luer-lock connections					
Connect sodium chloride (saline) to arterial line 'wash back'					
Disconnect blood lines from tunnelled line					
Flush & lock tunnelled line					
Attach luer-lock caps					
Hand hygiene					

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I now feel safe and confident to do all of the above without direct supervision.

I understand that by signing this, I take responsibility for following the procedure definitions.

Patient's signature: _____

Print name: _____

Date: _____

In my opinion, a safe level of practice has been achieved in this section:

Qualified Nurse's signature: _____

Print name: _____

Date: _____

12. After my dialysis



Procedure definitions:

Strip machine and dispose of all equipment:

- Able to remove lines and dialyser from machine and understands how to safely dispose of all equipment including sharps according to Unit/Hospital Policy.
- Wears appropriate protective wear according to Unit Policy.

Rinse and disinfect machine:

- Able to rinse and disinfect machine according to unit protocol.

Clean machine externally:

- Understands the importance of cleaning machine externally in reducing infection.

- Cleans machine in accordance with Unit policy.

Record weight, BP and pulse:

- Able to accurately record weight and BP and pulse unaided and understands the significance of these readings.

Record Temperature:

- Able to accurately record temperature and be aware of what constitutes a high temperature and the possible reasons for this.

Hand hygiene:

- Washes hands according to Unit/Hospital Policy.
- Understands the importance of hand hygiene before and after these procedures in reducing infection risk.

Weight:

- Able to accurately weigh him/herself unaided while using the patient card correctly and to be able to record it as post weight on the dialysis sheet.

Procedure	Date	Date	Date	Date	Date
Strip machine and dispose of all equipment					
Rinse and disinfect machine					
Clean machine externally					
Record weight, Blood Pressure and pulse					
Record temperature					
Hand hygiene					
Weight					

Procedure	Date	Date	Date	Date	Date
Strip machine and dispose of all equipment					
Rinse and disinfect machine					
Clean machine externally					
Record weight, Blood Pressure and pulse					
Record temperature					
Hand hygiene					
Weight					

Key

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I now feel safe and confident to do all of the above without direct supervision.

I understand that by signing this, I take responsibility for following the procedure definitions.

Patient's signature: _____

Print name: _____

Date: _____

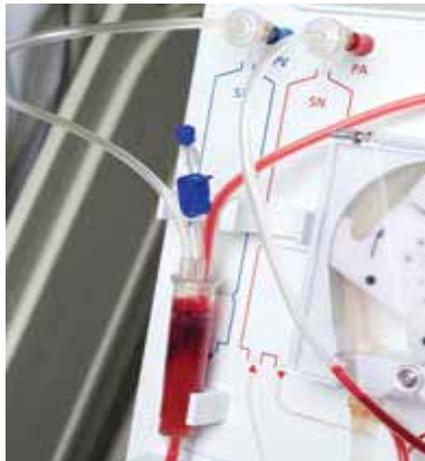
In my opinion, a safe level of practice has been achieved in this section:

Qualified Nurse's signature: _____

Print name: _____

Date: _____

13. A: Administering my Low Molecular Weight Heparin (LMWH)



Procedure definitions:

Hand hygiene:

- Washes hands before & after procedure in accordance with Unit/Hospital policy.
- Understands the importance of this in reducing infection risk.

Checks correct dose:

- Able to correctly identify prescribed dose.
- Aware of actions & side effects of LMWH.
- *Checks drug prescription chart for prescribed amount.*

Clean arterial injection port:

- Identifies correct port.
- Cleans port using Unit approved agent.

Gives LMWH:

- Gives LMWH once venous line has been connected & pressures checked at 200mls/min.

Disposes of syringe:

- Demonstrates safe disposal of syringe according to Unit sharps policy.

Checks condition of bubble trap & dialyser:

- Checks for clots & streaks post washback.
- Identifies reasons for these checks

Checks time for stop bleeding:

- Identifies time taken for needle sites to stop bleeding & recognises any changes.

Procedure	Date	Date	Date	Date	Date
Hand hygiene					
Check correct dose					
Clean arterial injection port					
Give LMWH					
Dispose of used syringe					
Check condition of bubble trap & dialyser post washback					
Check time for stop bleeding					

Procedure	Date	Date	Date	Date	Date
Hand hygiene					
Check correct dose					
Clean arterial injection port					
Give LMWH					
Dispose of used syringe					
Check condition of bubble trap & dialyser post washback					
Check time for stop bleeding					

Key

X = Demonstrated by qualified nurse

S = Supervised closely by qualified nurse

P = Practising to become competent under distant supervision

C = Agreed as competent by qualified nurse

I now feel safe and confident to do all of the above without direct supervision.

I understand that by signing this, I take responsibility for following the procedure definitions.

Patient's signature: _____

Print name: _____

Date: _____

In my opinion, a safe level of practice has been achieved in this section:

Qualified Nurse's signature: _____

Print name: _____

Date: _____

14. B: Administering my Erythropoietin (EPO/ Neorecormon /Aranesp)

Procedure definitions:

Hand hygiene:

- Washes hands before & after procedure in accordance with Unit/Hospital Policy.
- Understands the importance of this in reducing infection risk.

Measures/aware of Blood Pressure post dialysis:

- Can identify acceptable & unacceptable blood pressure measurements in accordance with current local Anaemia Management Policy.
- Understands reasons for not giving erythropoietin.

Checks syringe:

- Able to correctly identify prescribed dose, expiry date & fluid clear of contaminates.
- Aware of colour coding in identifying correct dose.
- Aware of storage advice.
- Checks drug prescription chart for prescribed amount.
- Aware of latest haemoglobin level
- Aware of signs & symptoms of anaemia.
- Aware of actions & side effects of Erythropoietin changes.

Identifies correct injection site & gives injection:

- Able to identify correct port to use when giving IV.
- Does not expel air from syringe.
- Cleans port/site using unit approved agent.
- Injects subcutaneously e.g. arm / abdomen or inject via haemodialysis circuit.

Disposes of syringe:

- Demonstrates safe disposal of syringe according to Unit/hospital sharps policy.

Procedure	Date	Date	Date	Date	Date
Hand hygiene					
Measure/aware of Blood Pressure post dialysis					
Check syringe					
Identify correct injection site & give injection					
Dispose of used syringe					

Procedure	Date	Date	Date	Date	Date
Hand hygiene					
Measure/aware of Blood Pressure post dialysis					
Check syringe					
Identify correct injection site & give injection					
Dispose of used syringe					

Key

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I now feel safe and confident to do all of the above without direct supervision.

I understand that by signing this, I take responsibility for following the procedure definitions.

Patient's signature: _____

Print name: _____

Date: _____

In my opinion, a safe level of practice has been achieved in this section:

Qualified Nurse's signature: _____

Print name: _____

Date: _____

15. C: Administering my Heparin

Procedure definitions:

Hand hygiene:

- Washes hands before & after procedure in accordance with Unit/Hospital Policy.
- Understands the importance of this in reducing infection risk.

Checks correct dose:

- Able to correctly identify prescribed dose.
- Aware of actions & side effects of Heparin.
- Checks drug prescription chart for prescribed amount.

Attach to arterial dialysis line & secure to machine:

- Understands which port to attach Heparin syringe and how to secure to the machine.

Enter correct Heparin dose into machine parameters:

- Understands how to set the heparin checking against dialysis prescription.

Disposes of sharps

- Demonstrates safe disposal of sharps according to Unit sharps policy.

Checks condition of bubble trap & dialyser

- Checks for clots & streaks post washback.
- Identifies reasons for these checks.

Checks time for stop bleeding

- Identifies time taken for needle sites to stop bleeding & recognises any changes.

Procedure	Date	Date	Date	Date	Date
Hand hygiene					
Check correct dose					
Attach to arterial dialysis line & secure to machine					
Enter correct Heparin dose into machine parameters					
Disposes of sharps according					

to local unit sharps policy					
Check condition of bubble trap & dialyser post washback					
Check time for stop bleeding					

Procedure	Date	Date	Date	Date	Date
Hand hygiene					
Check correct dose					
Attach to arterial dialysis line & secure to machine					
Enter correct Heparin dose into machine parameters					
Disposes of sharps according to local unit sharps policy					
Check condition of bubble trap & dialyser post washback					
Check time for stop bleeding					

Key

X = Demonstrated by qualified nurse

S = Supervised closely by qualified nurse

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I now feel safe and confident to do all of the above without direct supervision.

I understand that by signing this, I take responsibility for following the procedure definitions.

Patient's signature: _____

Print name: _____

Date: _____

In my opinion, a safe level of practice has been achieved in this section:

Qualified Nurse's signature: _____

Print name: _____

Date: _____

16. Problem solving

Procedure definitions:

Hypotension (low BP) on dialysis:

Causes:

- Removing too much fluid (usually too quickly) causing BP to drop.

Symptoms:

- Feeling faint, dizzy, nauseous, cramp, hot.

Actions:

- Ask for help.
- Stop fluid removal, lay flat and elevate feet.
- Check BP.
- Re-assess target weight.

Air detector alarm

- This is a potentially serious alarm. **Call for nursing assistance.**

Common causes:

- Blood lines not connected securely.
- Low arterial pressure (if pump restarted without dealing with problem).

Actions:

- Ask for nursing assistance.
- Check blood lines for evidence of air bubbles.
- Check all connections are secure.
- If air is visible, you may need to re-circulate (ask for help).
- If no visible air, re-set air detector.

Arterial and venous pressure alarms

Common causes:

- Clamps left on arterial or venous lines.
- Needle needs repositioning.
- Clotting.
- Needle 'blown' (see 'bumped/blown needle').

Actions:

- Check for clamps or kinks in lines.
- Reduce blood pump speed.
- Check needles and reposition if necessary (ask for help).
- Check lines and dialyser for signs of clotting (ask for help).
- Rectify problem and slowly increase blood pump speed.

Conductivity alarm

Common causes:

- Machine not picking up correct amount of acid dialysate or bicarbonate due to delivery problems e.g. water problems, empty

bicarb cartridge, empty acid bottle, wrong type of dialysate selected on the machine or acid supply problem.

Action:

- Check connections/probes/machine settings and correct as appropriate.
- Request new bicarb cartridge/acetate bottle.
- Ask for help.

'Blown' needle

Recognised by arterial or venous pressure alarm, pain at needle site and swelling at needle site.

Causes:

- Needle passing through the other side of the vein allowing blood to flow into the surrounding tissues.

Actions

- Insert a new needle (ask for help).

Blood leak alarm

Common causes:

- False blood leak: air in dialysate pathway.
- True blood leak: leak in dialyser membrane.

Actions:

- False blood leak: Check no air in dialysate pathway.
- True blood leak: Look for visual signs of blood in outflow dialysate line.
- Test with Haemastix if no blood visible.
- Ask for help to deal with the problem according to unit protocol.

Procedure	Date (Discussed, real or simulated?)	Date (Discussed, real or simulated?)	Date (Discussed, real or simulated?)
Hypotension (low Blood Pressure) on dialysis. <ul style="list-style-type: none"> • causes • symptoms • actions 			
Air detector alarm <ul style="list-style-type: none"> • causes • actions 			
Venous pressure <ul style="list-style-type: none"> • causes • actions 			
Arterial pressure alarm <ul style="list-style-type: none"> • causes • actions 			
Conductivity alarm <ul style="list-style-type: none"> • causes • actions 			
'Bumped/blown' needle <ul style="list-style-type: none"> • causes • actions 			
Blood leak alarm <ul style="list-style-type: none"> • causes • action 			

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I now feel safe and confident to do all of the above without direct supervision.

I understand that by signing this, I take responsibility for following the procedure definitions and I agree to ask for help if I am not sure what to do.

Patient's signature: _____

Print name: _____

Date: _____

In my opinion, a safe level of practice has been achieved in this section:

Qualified Nurse's signature: _____

Print name: _____

Date: _____

Notes

Content adapted from material developed by staff at Guys and St Thomas Hospitals as part of a Modernisation Initiative on Self Care Dialysis.

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