| Standard operating procedure for ensuring health and safety on a dialysis unit | University Hospitals of Leicester NHS<br>NHS Trust<br><br>Trust Ref C36/2024 |
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## Introduction and Who Guideline applies to

Dialysis units deliver outpatient care to patients with established kidney failure requiring regular dialysis. They will offer haemodialysis and outpatient clinics on site and some will have community teams offering training and support for home haemodialysis and peritoneal dialysis patients. Due to the demand for renal replacement therapy increasing each year many units are sited away from hospital premises, often in industrial or business sites. Units will often be nurse led with medical staff attending once or twice per week for outpatient clinics. This guidance is to ensure a consistent approach to staff and patient well-being in this setting. UHL guidelines in regard to clinical care should be adhered to in addition to this guidance.

## 2. Standards and Procedures

### 2.1 Location

Location of the unit should be determined by post code analysis of existing patients and forecasted demand. The location should be close to public transport routes and with sufficient car parking for staff and patients. The area should be well lit and give consideration to staff and patient safety. It should have pavements leading to the unit enabling staff and patients to walk to the unit. Adjacent buildings and occupiers should be assessed to ensure this does not pose a risk. Consideration should be given to growth in demand for dialysis when determining the size of the building to ensure it will be viable for the term of the contract and beyond.

The building should be well lit and alarmed when not occupied. It should be a ground floor, stand alone, premises with good wheelchair access. Access for emergency vehicles should be considered when designing the unit.

### 2.2 Unit opening

Lone working is not permitted for UHL staff in the dialysis unit when patients are in the building. On arrival at the unit the doors should remain locked and no patient permitted to enter until there is a minimum of two staff on the premises. Dialysis must not take place unless there is a minimum of 2 registered nurses on the premises and at least three members of staff in total.

### 2.3 Locking up

At the end of the late afternoon/evening shift staff when the unit is being closed staff should ensure they leave the unit together and that no one individual is left to lock up unaccompanied. No one should be left unaccompanied to wait for a lift on the premises. The nurse in charge should ensure all staff are accounted for when locking up.

**2.3 Staffing**

Unit staffing ratio is based upon the British Renal Workforce plan. There should be sufficient staff within the budgeted establishment for each shift to have 1:3 nurse to patient ratio for patients requiring nurse support on haemodialysis. Nurse staffing should be between 70:30-60:40 registered nurse to HCA ratio. Each shift should aim for a minimum 1:4 – 1:3 nurse to patient ratio according to patient dependency. Self-care patients do not need to be factored into this requirement. Larger units may require a nurse manager or shift co-ordinator outside the numbers. All staff should have evidence of dialysis competencies before commencing dialysis unsupervised.

**2.4 Breaks**

Breaks should be staggered to ensure sufficient staff are available at all times for the patient numbers within the unit and all staff should have the opportunity for breaks as identified in Agenda for Change. Food is often not available close to dialysis units so all units should have facilities to keep staff food cool until their break and to be able to heat any food they bring in and have tea and coffee making facilities.

**2.5 Nocturnal**

Staff working a nocturnal shift are expected to assist with patients on the evening shift and with commencing early shift patients if they arrive within their working hours. Units running nocturnal shifts should have an agreed dedicated quiet time to enable patients to sleep. Quiet rounds should take place each hour. It is expected that patients be dialysed in single sex bays or side rooms during the nocturnal shift.

**2.6 Ringing in sick**

It is the staff member's responsibility to report their absence if they are unable to attend for work, as long as possible before the shift is due to commence to enable cover to be arranged. Only in exceptional circumstances such as emergency surgery may someone else may telephone to notify the manager of the absence. It is not appropriate to text, email or whatsapp. The call should be made to the line manager or nurse in charge on that day. The employee must telephone to:

• Advise on their reason for absence (nature of illness / symptoms)

• Confirm estimated duration of absence

• Confirm their contact details

• Provide details of any work commitments that need to be covered during their absence

• Mutually agree appropriate regular contact during the absence.

Local arrangements may be in place for making managers aware of absence prior to the shift starting if the unit is not open.

For further information please see the UHL Sickness and Absence Management Policy

**2.7 Starting time**

Staff are expected to be in the clinical area and ready to start work at the time of their shift starting.

**2.8 Covering shifts**

In the event of a member of staff calling in sick it is the nurse in charge's responsibility to take the call and to attempt to arrange cover for the shifts affected. Local escalation guidance should be followed should the shift not be covered despite every effort to do so.

**2.9 Nephrologist cover**

Each unit will have local nephrology cover. Nephrologist to patient ration is expected to be between 1:30-1:40. Nephrologists will hold regular patient clinics and or ward rounds on site depending upon patient preference. All patients should have the opportunity for private consultation if required.

**2.10 Out of hours advice**

Units should display arrangements for medical advice for staff to follow. Medical emergencies will require 999 paramedic attendance unless the unit is within a hospital site and has alternative arrangements.

All patients should be given a card with the dialysis unit contact details and opening hours should they need to ring for advice.

**2.11 MDT**

A monthly multi-disciplinary review of the monthly blood tests will take place. Outcomes should be documented and patients and their GPs made aware of any changes.

**2.12 Dietetics**

Patients will have the opportunity for dietetic advice and monitoring by their dietician and should be aware how to contact them should further advice be required.

**2.13 Renal Technicians**

Renal technicians should be contacted if there are any concerned with the water plant or dialysis machines. Dialysis machines should be cleaned and labelled before taking to the renal technicians. No broken machine should be left plugged in on the unit including in the technicians room. Units should have a system to ensure machines in the technicians room or other storage on the unit are checked daily and all working machines go through a heat disinfect cycle at least once every 48 hours.

**2.14 Holiday HD**

Patients should be encouraged to take holidays if desired and supported to do so. Patients will usually need to have been on dialysis for 6 months before going on holiday but exceptions can be considered if the patient is stable with suitable access. Staff should assist the patient by contacting the receiving unit and giving the information as required. Dialysis medication for the holiday period should be ordered from pharmacy in good time and dialysis consumables (dialyser. needles etc) supplied if requested and it is known they are compatible with the machines of the receiving unit. Up to 4 weeks consumables can be provided.

Patients who wish to come to the area on holiday should also be accommodated when possible. If the unit has no spare stations then patients should be encouraged to leave details and the unit will offer them a slot when one is vacated by a unit patient going elsewhere on holiday. Records should be kept of numbers of patients wishing to have a holiday who cannot be accommodated to assist in determining demand.

**2.15 Booking transport**

Patients should be encouraged to use own transport or public transport if possible to reduce time waiting on the unit before or after dialysis. Those entitled to support with travel costs (on required benefits) should be given details for applying for this. Patients requiring non-emergency patient transport (NEPTS) will be eligible for transport for their dialysis appointments but eligibility for clinic appointments differs and should be checked if relevant. Transport should be booked through the local provider and reviewed regularly to ensure the patient has the right vehicle for their mobility/dependency requirements. Patients should be given details of the transport provider and made aware of any apps which may be available to help them track their journey. Patients should be aware of the transport contract provision for waiting times to ensure they have a realistic awareness of time they may have to wait for transport. Units should make every effort to support the transport providers by giving patients living close together similar appointment times if they are on the same shift. Patient preference should be considered when determining appointment day and shift.

**2.16 Toileting**

Falls are more common when patients are toileting and also more likely if this is necessary during or immediately after dialysis. Patients on dialysis should be offered a bed pan or urine bottle in the first instance and privacy ensured by drawing curtains. If this is declined a commode at the bedside should be encouraged. If a patient does want to attend the toilet then wheelchair to the toilet should be encouraged or staff assistance. Patients should have a buzzer left with them and staff should remain in hearing range. Advice should be given not to walk back unaided. If taking a patient off dialysis for the toilet they should be washed back first to prevent postural drop.

**2.17 Falls**

Patients should be advised they must not walk to and from the scales without shoes on due to risk of slipping if walking in socks.

Patients at risk of falls should always be escorted to and from the scales and the waiting room.

All patients should be assessed for the risk of falls and reassessed regularly. If a fall should occur the UHL falls policy should be adhered to.

For further information please see the UHL Falls Management for Adult Inpatients policy.

**2.18 Scales standards**

The highest risk of falls in a dialysis unit is in the toilet or at the scales. Wheelchair scales should be enclosed on three sides to prevent patients falling when stepping off the side of the scales. All wheelchairs should have their weight displayed on them to prevent patients having to stand on the scales to get an accurate weight.

**2.19 Privacy**

All dialysis stations should have curtains offering privacy on all sides. Folding screens or alternative should be available should privacy be required away from the dialysis area (e.g. fall in the waiting room).

For further information please see the UHL Privacy and Dignity whilst receiving Haemodialysis guideline

**2.21 Shared care**

Shared care is encouraged on all units with patients offered the opportunity to participate in their care as much as they would like. Patients should pass competency assessments before being permitted to cancel alarms, insert needles or set up machines unsupervised. However with training by suitably experienced staff and competency assessments they can be offered full self-care including giving medications on dialysis.

Shared care can also take place with support of the patients' family or carers.

**2.22 Carers**

The importance of carers, friends and families in supporting people on dialysis is recognised within the dialysis unit and units follow the UHL carers' strategy and offer the UHL carers' passport. Carers are able to attend and take part in care if they and the patient wish to do so. They can also contact the unit for advice if required.

**2.23 Transfer**

If patients are referred to hospital from the unit or to another unit then a referral form and patient details should accompany the patient or be scanned across to the receiving unit or ward. Staff should take all required bloods or swabs to facilitate this.

For further information please see the UHL Adult Patient Transfer and Escort Policy

**2.24 Consent**

Written consent is not required for each dialysis session but implied by signals from the patient arriving for dialysis and sitting on the chair for treatment. Staff should be confident that patient understands the treatment and purpose of it.

For further information please the UHL Consent to Examination or Treatment Policy

**2.25 Food**

Patients are offered biscuits and drinks on dialysis units. The units do not usually have the facilities for other catering and staff is not trained in food provision. Patients should be advised of this and need to bring in any food they require. Consideration should be given to steps that can be taken to address this if a patient is on the unit for six hours or more.

**2.26 VND**

All patients should be assessed for risk of venous needle dislodgement and a blood sensor used if their needles cannot easily be viewed by staff. Steps should be taken to ensure a blood sensor or machine alarm can be heard even if the isolation room door is closed and a risk assessment completed and submitted if this cannot be resolved. Machines used in the side rooms should have the volume set at the highest setting.

For further information please see the Redsense and Hemodialert in Prevention of Venous Needle Dislodgement UHL Renal Guideline

**2.37 Visibility**

Visibility is required in dialysis units for patient safety. Design of the unit should facilitate this and nursing stations should be positions accordingly. Computers on wheels or desks may be useful to enable further visibility. Audibility is also essential and machine alarms should be set to enable them to be heard by the nurses. This may require a louder setting in side rooms and a process for ensuring changing of them occurs if a machine is moved into or out of side rooms. If alarms are adjusted for nocturnal dialysis then there must be a process to ensure they are reset at the end of the shift.

**2.28 Patient monitoring**

Patients should have a second check within 30 minutes of commencement for dialysis and then be assessed hourly during dialysis. If the patient is sleeping it is not expected they will be woken for observations but staff should be assured there are no concerns. Mid dialysis observations should be recorded if the patient is awake. Luer lock connections should be viewed at each check to assess for blood leaks.

**2.29 Appointment times**

All patients should have an individual appointment time. The earliest appointment time should not be before 7am to ensure patients don't have to leave home before 6am. Consideration should be given to patients working hours, childcare, carers responsibilities and choice when offering slots where possible. When this cannot be accommodated units should ensure the patients choice is

recorded and that a wish list is kept to enable patients to move to their slot of choice as soon as possible. Patients should be kept informed of their progression on the wish list.

Units should aim for dialysis to be commenced within 30 minutes of the patients appointment times and patients should be made aware of this to ensure they have realistic expectations of their start time.

**2.30 Patient arrival following non-attendance of more than one week (without dialysis)**

If patient appears acutely unwell follow immediate escalation process and contact 999 or local Deteriorating Adult Response Team depending on local procedure. Use all available monitoring with ABCDE approach and consider obtaining peripheral blood samples. Inform renal registrar on-call for advice on bed availability and transfer options await paramedic assessment and discuss priorities for care, i.e., A&E or ward based HD with enhanced surveillance and monitoring.

If the patient appears stable with performance status relatively unchanged then physiological parameters can be monitored, recorded and carefully assessed with support of the renal medical team. If patient parameters are close to patient baseline and following discussion with a renal doctor consider a reduced dialysis prescription replicating that of a new starter to help prevent symptoms of disequilibrium, ensure pre and post HD bloods taken. Safety netting with patient to gauge awareness of risks with regards to persistent missed dialysis, consider further supportive measures to help improve engagement with treatment if indicated.

If it is considered unsafe to provide haemodialysis because the patient has not attended the haemodialysis unit for a week and is at high risk of disequilibrium syndrome (for example those who are anuric, with poor access blood flow, etc), this has to be communicated to the renal registrar on-call with all appropriate information so the patient can have HD as an inpatient for a session before the patient can return to the their usual slot at the HD unit.

**2.31 Ventilation & Heating**

All new units should be designed to have a minimum of 6 air exchanges per hour. Older units may not yet achieve this but improvements to ventilation should be sought during refurbishments etc.

Staff should consider patient temperature may differ from theirs during treatment and unit air conditioning should not be set below $20^0$C without consultation with patients.

## 3. Education and Training

No additional training is required to use this guideline.

## 4. Monitoring Compliance

| What will be measured to monitor compliance | How will compliance be monitored | Monitoring Lead | Frequency | Reporting arrangements |
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| Datix of health and safety incidents | Monthly Datix audit | DHON. | Monthly | PRM and |

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**5. Supporting References (maximum of 3)**

HBN 07-01

**6. Key Words**

*Health & Safety, dialysis, dialysis unit, SOP*

| CONTACT AND REVIEW DETAILS | |
|---|---|
| Guideline Lead (Name and Title)<br><br>Suzanne Glover | Executive Lead |
| Details of Changes made during review: | |