

## **1. Introduction**

Both the Renal Association and the DOQI guidelines make recommendations that haemodialysis units should have a unified sampling technique to measure post dialysis blood urea. Incorrect sampling may effect significantly the post dialysis urea concentration and thereby the urea reduction ratio. To ensure this occurs across the haemodialysis unit in the Leicester Renal Network, the simplified 'stop-flow' method has been adopted. This method (developed by Lindley et al) of taking post urea sample of blood takes into consideration that a low blood flow compensates partially for cardiopulmonary recirculation.

## **2. Scope**

All Haemodialysis nurses, both registered and non-registered who are competent in haemodialysis, or under direct supervision of a haemodialysis competent nurse.

## **3. Recommendations, Standards and Procedural Statements**

### **3.1 Target Population**

All maintenance haemodialysis patients.

### **3.2 Recommendations**

#### **3.2.1 Equipment required**

- Adapter
- Non-sterile gloves
- Blood bag

#### **3.2.2 Procedure**

- Wash hands with liquid soap and water, put on non-sterile non-powdered gloves.
- Assemble equipment.
- When ready to take sample reduce the blood pump speed to 50ml/min. Once the blood flow is at 50ml/min count to five; if blood pump not already stopped, then stop it.
- Clamp and disconnect arterial line.
- Take sample from arterial needle/lumen within 20 seconds of reducing the pump to 50ml/min (For tunnelled HD catheters, clamp venous lumen prior to taking sample).
- If more than one sample required, then urea should be the first taken.
- Release venous clamp on HD catheter if relevant
- Continue with wash-back as normal.

#### **4. Education and Training**

All haemodialysis nursing staff should be familiar with this guideline during induction and training

#### **5. Monitoring and Audit Criteria**

Key Performance Indicator	Method of Assessment	Frequency	Lead
Renal Registry returns/NHS England dashboard returns	% of patients with URR >65%	quarterly	Bev Pearce/ James Medcalf
Spot audits of post dialysis blood sampling	Spot checks	Ad hoc	HD matrons

#### **6. Legal Liability Guideline Statement**

See section 6.4 of the UHL Policy for Policies for details of the Trust Legal Liability statement for Guidancedocuments

#### **7. Supporting Documents and Key References**

- Renal Association. Clinical guidelines:Haemodialysis\_ <http://www.renal.org/guidelines/modules/haemodialysis#s6>
- Lindley E, Osborne V, Sanasy S, Swales D and Wright The Leeds Teaching Hospitals NHS Trust (unpublished reference).

#### **8. Key Words**

Post dialysis sampling, urea, urea reduction ratio

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DEVELOPMENT AND APPROVAL RECORD FOR THIS DOCUMENT			
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<b>Reviewed by:</b>	Richard Baines		
<b>Approved by:</b>	Richard Baines		<b>Date Approved:</b> 22.4.19
REVIEW RECORD			
Date	Issue Number	Reviewed By	Description Of Changes (If Any)
22Apr2019	1	Richard Baines	No Changes
DISTRIBUTION RECORD:			
Date	Name	Dept	Received