

## Blood Sampling on Haemodialysis Patients

### General Points

1. Before taking a blood sample from a patient it is essential that you have gained patient consent, and have the completed request form and necessary sample bottles(check expiry date) and equipment.
2. If there is a risk of infection then the appropriate risk of infection labels must be applied to sample bottle and form if required. These samples must be teletracked and NOT put in pod.
3. It is the responsibility of the nurse taking the blood sample to ensure that all details on the form and bottle are correct and double-checked by asking the patient for their DOB before sending to the lab.
4. When taking blood for Group & Save or Cross-Match the form must be printed before going to the patient. The patients ID must be checked against name band or photo identity sheet in dialysis notes .The nurse taking the sample must ensure both bottle and form are completed correctly. Blood must be prescribed on the dialysis Drug Prescription chart.
5. As with all renal procedures, it is the operators responsibility to wear the necessary PPE and ensure safe dispose of needles / sharps in the appropriate container post procedure.
6. Monthly Bloods MUST be taken on the first Wednesday or Thursday dialysis session of each month. Chronic patients should have their bloods checked monthly and Home dialysis patients 1 – 3 monthly as required.
7. Only URGENT blood samples should be taken at weekends.
8. **All Pre Monthly bloods to be taken directly from access.(ensures accuracy with Straight Hook Up procedure)**
9. **INR`s should be taken PERIPHERALLY either from fistula needle or from a peripheral blood draw. If patient has a neckline and there is difficulty drawing blood – arrange for patient to attend phlebotomy for his INR checks.**
10. **Post bloods to be taken from dialysis circuit(arterial port)**

### **Pre-dialysis blood sampling from a fistula/graft (clean procedure)**

- Explain procedure to patient. Ensure you have pre-printed blood request form available to check patient ID either with patient or photo identity sheet.
- The fistula needle should be dry and not primed with saline
- As soon as fistula needle has been inserted, tape to secure, unclamp and bleed to end, reclamp, attach vacutainer adapter and barrel, unclamp and push in labelled bottle until full, reclamp and remove vacutainer.
- Place sample on table and dispose of needle and adapter into sharps box. Flush needle and continue
- When patient has commenced dialysis and all dialysis checks completed, ensure details on blood bottle and form are correct and signed/dated before sending to lab.

### **Pre-dialysis blood sampling from dialysis catheters (sterile procedure)**

- Prepare as per hook up procedure.
- Aspirate 5mls blood from one limb of dialysis catheter to remove clots, then take the appropriate amount of blood necessary for the required blood samples, using a sterile syringe. Flush with saline and continue to prepare other dialysis limb before hooking up to dialysis machine.
- Once the patient has been connected to the machine, tip syringe gently to ensure blood has not separated before adding to sample bottles using a sterile green needle.
- When patient has commenced dialysis and all dialysis checks completed, ensure details on blood bottle and form are correct, signed /dated before sending to lab.

### **Taking blood sample DURING dialysis (clean procedure)**

- Check patient identity with blood form details and gain consent.
- Reduce blood flow rate to 100 mls/min (and stop re-infusion on HDF machines)
- Clean arterial blood sampling port with a chlorhexidine 2% in 70% isopropyl wipe, leave to dry and take sample using either a sterile syringe and 21g needle or a vacutainer needle, barrel / adapter and an appropriate blood sampling bottle with patients details on.
- Do not forget to return blood flow and HDF pump rate back to required settings.
- Send sample to path lab.

**Post-dialysis blood samples are collected by the ‘Slow-flow method.**

- At the end of the dialysis time turn the blood pump speed down to 100ml/min (and stop re-infusion on HDF machines)
- Wait 15-30 seconds, then clean `arterial line sampling port` with chlorhexadine 2% and leave to dry before taking samples using vacutainer needle, barrel/adaptor.
- If more than one blood sample is required, the sample for urea should be the first one taken.

This method of measuring dialysis dose requires accurate measurement of pre-dialysis and post-dialysis urea concentrations on a mid week dialysis session. It is important that everyone follows this method remains consistently within the unit.

**MONTHLY BLOODS**

**FBC**  
**Pre Dialysis Profile**  
**LFT`s**  
**Glucose (if diabetic)**

**THREE MONTHLY BLOODS**

**Ferritin**  
**PTH (monthly if on cinacalcet)**  
**Cholesterol**  
**BBV Screen**  
**Glucose**  
**HBA1C (if diabetic)**  
**TFT`s (if on thyroxine)**  
**Digoxin (if on Digoxin)**

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