THE UNIVERSITY OF TOLEDO MEDICAL CENTER

Nursing Service Guideline
Hemodialysis

Title: **BLOOD SPECIMEN COLLECTION FROM DIALYSIS ACCESS**

Responsibility: Hemodialysis Registered Nurse (RN)

Purpose: Ensure consistent technique to prevent infection, air embolism, catheter occlusion, or damage to the VAD.

Specific Notes: Vascular access devices provide long-term or short-term access for collection of blood specimens without the necessity for multiple venipunctures. Manipulation of the vascular access device requires strict adherence to protocol to ensure asepsis and prevent damage to the device, and to be able to recognize signs of potential complications and take appropriate action. Only specifically trained personnel may perform specimen collection from these devices.

Dialysis catheters may not be accessed and used for blood sampling without a signed order from a nephrologist including which lumen to use. If there is an order to use the dialysis catheter, blood collection will be performed by hemodialysis nursing personnel.

Equipment:
10 ml syringes (2)
Alcohol prep pads
Appropriate laboratory blood tube(s)
Clean gloves
Normal Saline flushes
Protective tip or cap (Quinton/Davol)
Vacutainer adapter for syringe

Procedure	Point of Emphasis
***Pre-Treatment Specimen Collection**	
1. Review physician order.	
2. Confirm patient's identity with two patient identifiers.	Using two patient identifiers will reduce the number of medical errors.
3. Educate patient and/or family on procedure.	Review of education will help alleviate anxiety, fears, and frustrations.
4. Assemble equipment.	
5. Perform hand hygiene and don clean gloves.	Always wear gloves and observe Standard Precautions when collecting biological specimens.
AV Fistula or Graft	
1. 1.Obtain blood specimen from the arterial needle prior to connecting the arterial blood tubing or flushing the needle following established protocol for obtaining blood samples from venous access devices Be sure that no saline and/or heparin are in the arterial needle.	If dialysis has been initiated, do **not** draw a sample for a Blood Urea Nitrogen laboratory test.
2. Proceed with treatment initiation according to protocol.	
Venous Catheter	

1. Using a 10 ml syringe, withdraw any heparin and/or saline from the arterial port of the catheter, along with blood to a total of 3 ml. Discard the contents of the syringe in a biohazardous container.	Maintain sterility.
2. Connect a new syringe or collection vacutainer device and fill to desired level of blood volume.	Obtain blood specimen following established protocol for obtaining blood samples from catheters
3. Proceed with treatment initiation according to protocol.	

***Post Treatment Specimen for AV Fistula, Graft, & Venous Catheter**

1. At the completion of hemodialysis, turn off the dialysate flow and decrease the ultrafiltration rate (UFR) to 50ml/hr; to the lowest transmembrane pressure/ ultrafiltration rate (TMP/UFR), or off.	Press bypass to turn off dialysate flow.
2. Decrease the blood flow to 100 ml/min for 15 seconds.	
3. Obtain blood specimen with syringe from arterial sample port on arterial bloodline following established protocol for obtaining blood samples from venous access devices	
4. Label specimens with patient sticker, date, time and collecting staff member's initials and send to lab.	Place in a biohazard bag.
5. Discontinue treatment according to protocol.	
6. Document flushing solution administration in the I&O section of the patient's medical record.	

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Resource Person:
Reviewed by:

Reviewed: 6/97, 7/03, 7/05, 2/11, 7/17, 5/18
Revised: 6/99, 7/02, 4/08, 5/27/2011, 3/14, 5/18, 4/21
Reviewed by Policy & Standard Committee, 5/11, 7/17, 4/21

References: ANNA Core Curriculum for Nephrology Nursing, 6th Edition, 2015
National Kidney Foundation Dialysis Outcomes Quality Initiatives 2015