PROCEDURE

TITLE: HEMODIALYSIS PROCEDURE
A) INITATION OF THERAPY B) OBTAINING ACCESS C) ROLE of DIALYSIS NURSE

PURPOSE: To establish a process to follow when a patient requires a hemodialysis treatment.

SUPPORTIVE DATA:

1. Access for dialysis can be one of two ways, temporary or permanent.
    a. Temporary access: Double lumen catheters inserted either via subclavian, jugular or femoral vein. Subclavian and Jugular catheters can be inserted by a surgeon and femoral catheters can be inserted by physicians with hemodialysis privileges. Placement of catheters in the subclavian or jugular site must be checked by a STAT chest x-ray, with a wet reading to r/o pneumothorax and check placement. An order must be written on the chart stating that the catheter is approved for dialysis use.
    b. Temporary Dialysis catheters, such as "Quinton" or "Mahurkar" are to be used for dialysis or plasmapheresis only and are not recommended for any other use. In an extreme emergency the catheter can be used to push emergency drugs after the 10cc of blood have been withdrawn from the catheter.
    c. Permanent Access: An arteriovenous graft or fistula is a surgically created internal vascular access, usually found in the patient's arm. An arterio-venous Fistula is a surgically created access by the anastomoses of an artery and vein in a patient, usually the radial artery and a vein in the forearm is used. The forceful flow of blood through the veins causes them to become distended. Thus, allowing the cannulation by large bore needles. An AV graft is a surgically created access, which is created by implanting an artificial vessel graft. No IV's, lab work, or blood pressures should be done using the extremity with an AV graft or fistula.

A. INITIATION OF TREATMENT:

CONTENT	KEY POINTS
1. Informed consent is obtained by the nephrologists before initiation of the first dialysis treatment.	Need for dialysis and its urgency will be determined by a nephrologist.
2. Access must be obtained and confirmed, dialysis orders must be written before confirming treatment with contractor.	All patients must have a working vascular access device prior to initiating treatment arrangements.
3. Notify the Davita staff of the hemodialysis needs and document on hemodialysis treatment log.	Davita provides a listing of staff to be contact, use the contact number list (on all in-patient units) or call the house supervisor to assist.
4. Scan dialysis orders to pharmacy so that any additional medication needed for the treatment will be available.	
5. The staff from Davita will set up machine, sign off dialysis orders and document the treatment on their flowsheet. A copy of the flowsheet will be kept in the Dialysis section of the chart.	Dialysis patients may be admitted to any unit of the hospital, following admission guidelines of specific units. All patients will have dialysis treatment completed in the PCU treatment room or in their assigned room in ICU/PCU.
6. The primary RN or dialysis RN will administer albumin or any other medications that may need to be given during dialysis. Any orders for lab work prior to dialysis or blood products to be given with dialysis treatment will be given or completed by the dialysis nurse.	The primary RN caring for that patient that day will be responsible for assuring the medication, blood products and lab specimens that are designed during dialysis treatment are obtained and completed by the dialysis nurse.
7. All medication given will be documented on the patient's eMAR .	

8. Unless otherwise ordered by the physician, all cardiovascular and antihypertensive medications will be held on the day of dialysis prior to a dialysis treatment.	These medications are given post dialysis if the patient is stable.
9. Hand off communication will occur between the primary RN and dialysis nurse prior to the initiation of therapy.	This communication will include, but not limited to: vital signs, condition of access site, confirmation of access site, weight, behavioral changes, blood work that needs to be drawn, blood products or any medications that need to be given during dialysis, what medication were held predialysis.

B. OBTAINING ACCESS

CONTENT	KEY POINTS
1. Explain Procedure to patient	
2. Consent obtained for insertion of vascular access	
3. Gather all equipment Catheter Kit (which contains catheter, introducer needle, 0.038" guide wire, 10F dilator, 12F dilator, wound dressings and injection caps) #11 Scalpel Needles (18, 22,25G) NS vials Syringes: 10cc for NS (4) Syringes: 3cc for Heparin (2) Heparin 1,000units/cc vials (3) Alcohol wipes Betadine or antimicrobial agent such as chlorhexidine Lidocaine 1% or 2%, if not in introducer kit 4X4 gauze sponges, sterile Dressing supplies 2"Tape Suture material, both curved and straight needles Full barrier precautions	
4. Wash Hands	
5. Assist physician as needed	Draw up heparin (only enough to fill each lumen, look on the side of lumen for amounts) Example: If lumen of the arterial side is 1.1 ml and if the lumen of the venous side is 1.2ml, you will draw up 1.1ml of the 1,000 units per one ml concentration. That will be enough to fill the arterial lumen only; none will go into the patient. The lumen will be holding 1,100 units of heparin. The venous lumen if it is 1.2ml will be holding 1.2ml of heparin (1,200units) and that will be enough to fill the lumen only and none to go into the patient. Each lumen will vary upon manufacture. **Look at the labeling.**
6. Draw up Normal Saline flushes or use prefilled NS flushes.	
7. Call for STAT x-ray if subclavian or jugular insertion.	After access is obtained, placement confirmed and dialysis orders written, contact Davita to confirm dialysis treatment and set up time.
8. Order must be written on the chart stating the catheter is okay to use for dialysis.	

Reference:

Straight extensions			Curved Extension		
11.5 F	Red	Blue	11.5 F	Red	Blue
13.5 cm	1.0ml	1.1ml	13.5 cm	1.1ml	1.2ml
16 cm	1.1ml	1.2ml	16 cm	1.2ml	1.3ml
19.5 cm	1.2ml	1.3ml	19.5cm	1.3ml	1.4ml
24 cm	1.4ml	1.5ml	24cm	1.6ml	1.7ml

C. ROLE OF THE DIALYSIS NURSE

Content	Key Points
1. Arrange dialysis treatment in a timely manner.	
2. Receive report from the primary nurse prior to initiation of therapy.	
3. Discuss changes in treatment with physician and write orders in the physician order section to reflect new dialysis orders if warranted.	
4. Notify the primary nurse of any unexpected changes in vital signs or reportable changes in patient's condition.	Including but not limited to: Chest Pain Need for pain management Unexpected bleeding Need for prn medications Respiratory distress Change in mental status
5. Provide handoff communication with primary nurse post dialysis treatment.	This would include Post weight, fluid removal amount, medication administration, vital signs, blood products administered, blood products drawn, site condition and patient's toleration to procedure.
6. Provide documentation to PCU secretary and/or unit coordinator that treatment has been completed	
7. Document treatment and assessment on the Davita Acute Hemodialysis Flow Sheet.	
8. Review and update Interdisciplinary Plan of Care.	Paper form
9. Document patient teaching in electronic medical record.	

References:
Acute Services, Policy and Procedure Manual #1, DaVita 2010. Policies: 7-06-01,02,04,05,05A,07A, 7-04-01, 7-04-02 A,B and C.

Dialysis Policies, Procedures and Guidelines, Health and Safety Policy and Procedure Manual, DaVita Inc. Training Program.

Lynn McHale Wiegand, D and Carlson K, AACN Procedure Manual for Critical Care, 6th edition. Elsevier Saunders. 2011. Procedure 113, page 1033

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