### POLICIES & PROCEDURES

**Title:** HEMODIALYSIS - VASCULAR ACCESS  
**Number:** 2410 (4-432)

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<tr>
<th>Authorization</th>
<th>Source: Renal Services</th>
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<tr>
<td>[x] Renal Services Policy &amp; Procedure Committee</td>
<td>Date Initiated: January, 1982</td>
</tr>
<tr>
<td>[x] SHR Nursing Practice Committee</td>
<td>Date Revised: May 2012</td>
</tr>
<tr>
<td></td>
<td>Date Reaffirmed: May 2015</td>
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<td>Scope: Northern Saskatchewan Renal Services</td>
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1. **PURPOSE**

   1.1 To provide information on vascular accesses used for hemodialysis.

2. **POLICY**

2.1 Types Of Accesses

   2.1.1 Arterio-venous fistula (AVF) - Surgical anastomosis to join a native artery and a vein. AVF’s may be in the forearm, on an upper arm or upper leg.

   2.1.2 Arterio-venous graft (AVG) - Surgical anastomosis of artery to vein using a synthetic tube. Can be a loop in the lower forearm, a straight tube in the upper arm, a loop on the interior aspect of the thigh, or possibly a necklace graft across the chest.

   2.1.3 Hemodialysis Catheter (permcat, hemocath) - a short term, or tunneled CVC used for the purpose of dialysis/apheresis.

2.2 Definitions

   2.2.1 Bruit- The sound you hear when auscultating the fistula. Should have a constant whooshing sound. If high pitched squealing heard, report to Nephrologist.

   2.2.2 Thrill- The “buzzing” feel of the access, felt the best over the anastomosis of the artery to the vein (usually near the scar from the surgery). Feels similar to a cell phone vibrating. Trails off the further away from the anastomosis you get.
3. **PROCEDURE**

3.1 **AVF/AVG - Immediate Post-operative Care**

3.1.1 Equipment:
- Dressing tray
- Stethoscope
- Dressing (dry gauze dressing such as mepore)

3.1.2 Auscultate for bruit through the dressing q4h x 48 hours, then O.D. If no bruit notify surgeon.

3.1.3 Keep arm slightly flexed and elevated.

3.1.4 Instruct patient not to lie on affected arm.

3.1.5 Do not allow B.P.’s, venipunctures or name bands on access arm. As well, patients should avoid tight, restrictive jewelry and clothing.

3.1.6 If patient on Hemodialysis (HD): leave on all dressings until their next HD treatment. If not currently on HD: Keep dressing dry and intact x 3 days. On the 4th day, the patient may remove the dressing and shower/bathe and pat the wound dry. If wound is draining, may reapply dressing, otherwise, may leave incision line open to air.

3.2 **Hemodialysis CVC (Permcath) - Care of in Immediate Post-insertion Period**

3.2.1 Monitor dressing, reinforce if saturated. Use manual pressure to stop the bleeding. May use pressure dressings and absorbable gelatin sponge (gelfoam/surgifoam) to assist in the case of uncontrollable bleeding. If excessive bleeding, notify nephrologist immediately. Initial dressing change is done per Hemodialysis staff 24 hours post insertion.

3.3 **Care Of Established Accesses:**

3.3.1 **AVF/Graft**

3.3.1.1 Palpate for thrill and auscultate for bruit daily. If no thrill/bruit, notify nephrologist immediately.

3.3.1.2 Patients may have more than one access. Assess all working accesses.

3.3.1.3 An order must be received from the nephrologist for BPs/venipunctures to be done on failed access arms.

3.3.1.4 Monitor for bleeding post HD. Wraps and bandaids should be removed from AVF/AVG within 12 hours post HD.

3.3.2 **Hemodialysis CVC (Permcath)**

3.3.2.1 Inspect catheter and site daily. Ensure clamps are closed.
REFERENCES


