Department Policy
Code: D: PC-5575

Entity: Fairview Pharmacy Services

Department: Fairview Home Infusion


<table>
<thead>
<tr>
<th>Category:</th>
<th>Home Infusion</th>
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<tr>
<td>Subject:</td>
<td>Peripheral Venous Access</td>
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<tr>
<td>Purpose:</td>
<td>Fairview Home Infusion qualified staff who is responsible for maintenance of peripheral venous access systems will follow established policies and procedures to provide safe and appropriate patient care.</td>
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| Policy:         | I. The nurse shall be competent in peripheral-short catheter placement, use and maintenance, including identification of potential complications and appropriate nursing interventions, including patient and caregiver education.  
                    II. A peripheral-short catheter will be inserted with an aseptic technique.  
                    III. FHI RN will make two attempts; if unsuccessful the RN will offer a second RN to attempt placement unless the patient agrees to have the first RN make one additional attempt.  
                    IV. The patient/caregiver may perform site care/insertion of PIV when there is a prescriber order and after demonstrating competency.  
                    V. For additional information related to possible complications and management of complications review the following policies:  
                       A. Complications With Intravenous Catheters—FHI  
                       B. Central Line Protocol – Management of Site Complications  
                       C. Intravenous Catheter Complications |
| Points of Information: | I. General guidelines for device access  
                       A. Use of steel winged devices are for single-dose administration only, do not leave these devices in |
**Procedure: Short Peripheral Catheter Placement**

I. The decision to place a short peripheral catheter as the most appropriate vascular access device. The smallest gauge peripheral catheter that will accommodate the prescribed therapy will be chosen.

II. Perform hand hygiene

III. Verify the patient’s identity using 2 independent identifiers.

IV. Explain procedure to patient.

V. Gather supplies
   A. Don mask
   B. Gloves, nonsterile (sterile gloves are needed for site palpation after skin antisepsis).
   C. Short peripheral catheter with safety mechanism
   D. IV start kit
   E. Vein visualization device, if needed
   F. Local anesthetic, as indicated/ ordered
   G. Extension set with needleless connector and any add-on devices
   H. Preservative-free 0.9% sodium chloride prefilled syringe(s) and/or primed administration set
   I. Sharps container
   J. Waste receptacle
   K. Alcohol pads

VI. Place patient in sitting or recumbent position, as appropriate.

VII. Place tourniquet on the upper extremity.

VIII. Assess vasculature of the upper extremity, and identify potential sites that are easily seen and/or palpated.
   A. Use the following principles to guide vein selection:
      1. Assess appropriate veins on both dorsal and ventral surfaces of the hand and forearm
      2. Avoid the following:
         a) Areas of flexion
         b) Areas of pain upon palpation
         c) Bruised, phlebitic, infiltrated,


sclerosed, corded veins
d) Areas near valves
e) Areas where there are planned procedures
f) Areas of lymphedema
g) Extremities affected by stroke or injury
h) For patient with chronic kidney disease, avoid forearm and upper arm veins

IX. If no venous sites are visible or easily palpated, use technology to improve cannulation success:
A. For visible light devices, use only cold light sources designed for vascular visualization to reduce risk for thermal burns. Darken the room to remove ambient light levels when using these devices; ensure adequate light to observe blood return from the cannula or catheter.
B. For ultrasound devices, assess depth of intended vessels’ diameter. Select a catheter with a catheter-to-vein ratio of 45% or less. RATIONALE: Smaller vessels should be avoided to prevent thrombosis
1. With at least 50% of the catheter to reside in the vessel, reducing potential for complications.

X. Remove tourniquet.

XI. Prime extension set/needleless connector with preservative-free 0.9% sodium chloride (USP) prefilled syringe

XII. Prepare insertion site:
A. If visibly soiled, cleanse with antiseptic soap and water
B. Remove excess hair, if necessary, by clipping.

XIII. Administer local anesthesia if needed

XIV. Perform hand hygiene

XV. Don gloves.

XVI. Cleanse insertion site with antiseptic solution; allow to dry completely.
A. Chlorhexidine solution (preferred): apply using a back-and-forth motion for at least 30 seconds.
B. Povidone-iodine: apply using applicator and allow to remain on the skin for 1.5 to 2 minutes or longer to completely dry for adequate antisepsis.

VII. Reapply a tourniquet above the intended venipuncture site, or
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<tr>
<td>VI.</td>
<td>Use alternative method to promote venous distention.</td>
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<tr>
<td>VII.</td>
<td>Use vein visualization technology, if needed.</td>
</tr>
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<td>IX.</td>
<td>Remove gloves and perform hand hygiene.</td>
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<tr>
<td>X.</td>
<td>If vein palpation is necessary after application of skin antiseptic, apply sterile gloves.</td>
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<tr>
<td>XI.</td>
<td>Stabilize the selected vein below the intended venipuncture site by stretching the skin taut with the nondominant hand.</td>
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<td>XII.</td>
<td>Align the short peripheral catheter on top of the vein at a 10-15-degree angle from the skin. Puncture the skin and anterior vein wall, taking note of blood in the catheter and/or flash chamber of the short peripheral catheter.</td>
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<td>XIII.</td>
<td>While continuing to hold skin taut, use the push-off tab to separate the catheter from the needle stylet and advance the catheter into the vein. Do not push from the open catheter hub, as this will contaminate the lumen.</td>
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<tr>
<td>XIV.</td>
<td>Release tourniquet.</td>
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<tr>
<td>XV.</td>
<td>Activate the safety mechanisms according to manufacturer’s directions for use.</td>
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<tr>
<td>XVI.</td>
<td>Attach primed extension set/needleless connector.</td>
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<td>VII.</td>
<td>Observe site for signs of swelling, or if patient complains of discomfort or pain, removing catheter if present.</td>
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<td>VIII.</td>
<td>Stabilize the catheter, preferably with an engineered stabilization device. If not available, use only sterile tape.</td>
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<td>XIX.</td>
<td>Apply a TSM dressing over the insertion site.</td>
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<td>XX.</td>
<td>For added securement, curl the extension set to the side, and tape to the arm.</td>
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<tr>
<td>XXI.</td>
<td>Discard used supplies in the appropriate receptacles.</td>
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<tr>
<td>XII.</td>
<td>Remove gloves, perform hand hygiene.</td>
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<td>XIII.</td>
<td>Label dressing</td>
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**Site Rotation**

| XIV. | Site rotation is performed when clinically indicated. Patient/caregivers are taught to check VAD site with medication administration and/or flushing for signs of complications and to report signs/symptoms or dressing dislodgement immediately to their health care provider. |

**Site Care and Dressing Change**

| I. | Dressings shall be changed at established intervals immediately upon suspected contamination or when integrity of dressing is compromised. Gauze dressings shall be changed every 48 hours on peripheral and central catheters. Transparent semi-permeable membrane dressings shall be changed every |
seven (7) days.

Site Care and Dressing Change

XV. Perform hand hygiene.

VI. Gather supplies
   A. Gloves, nonsterile
   B. IV start kit

VII. Explain procedure to patient.

III. Don nonsterile gloves

IX. Assess insertion site for absence of redness, tenderness, swelling, or drainage. If present, the catheter should be removed.

XL. Remove existing dressing, beginning at device hub and gently pulling the dressing perpendicular to the skin toward the insertion site. Avoid inadvertently dislodging the catheter, as it may be adhered to the dressing. Use an alcohol pad or other adhesive removal solution if required.

XLI. Remove stabilization device according to manufacturer’s directions for use.

LII. Remove gloves and perform hand hygiene

LI. Don sterile gloves

IV. Cleanse skin with antiseptic solution; allow to dry completely.

LV. Apply skin barrier solution, if indicated

LVI. Apply stabilization device, if indicated

VII. Apply TSM (or gauze and tape) dressing to insertion site.

IX. Discard used supplies in appropriate receptacles.

L. Remove gloves, and discard.

LI. Perform hand hygiene

Label dressing with date performed

General Flushing Information

LII. Flushing is performed to ensure and maintain patency of the catheter and to prevent mixing of medications and solutions that are incompatible.

III. Routine flushing shall be performed with the following:
   A. Administration of medications or solutions
   B. According to manufacturer’s guidelines.

Flushing Procedure – Maintenance flushing

IV. Perform hand hygiene

LV. Verify the patient’s identity using 2 independent identifiers.

VI. Explain the procedure to the patient
VII. Gather supplies
   A. Nonsterile gloves
   B. Alcohol pads
   C. Preservative free 0.9% sodium chloride (USP) prefilled syringe(s).

III. Don nonsterile gloves

IX. Disinfect needleless connector with alcohol pad using friction and a scrubbing motion for approximately 15 seconds; allow to dry completely.

X. Attach syringe of preservative-free 0.9% sodium chloride (USP) to needleless connector.

XI. Open clamp on extension.

XII. Slowly inject preservative-free 0.9% sodium chloride (USP) using a “pulse flush” technique, into the device, noting any resistance, swelling at insertion site or sluggishness of flow.
   A. Never inject against resistance

XIII. Close clamp on extension

XIV. Remove gloves and perform hand hygiene

XV. Document procedure in patient’s permanent medical record.

XVI. Catheter Removal - A catheter will be removed when therapy is completed as ordered by a licensed independent practitioner, when contamination or complication. Follow manufacturer’s labeled use and directions for catheter removal

Catheter Removal - Procedure

VII. Obtain and review prescriber orders

III. Verify patient’s identity using 2 independent identifiers.

IX. Explain procedure to patient.
   A. What to report to the clinician: signs or symptoms of increasing redness, pain, or swelling within the 48 hours after the catheter was removed.

XX. Perform hand hygiene.

XI. Gather supplies
   A. Gloves, nonsterile
   B. Gauze, sterile
   C. Tape
   D. Band-Aid, if indicated.
   E. Sharps container

XII. Don gloves

XIII. Discontinue all infusates and/or clamp extension set.

XIV. Place patient in sitting or recumbent position.
XV. Remove dressing from insertion site.

VI. Remove stabilization device if present; use appropriate solution as indicated to loosen dressing and securement device adhesive.

VII. Inspect catheter-skin junction.

III. Hold gauze gently to insertion site with nondominant hand. With dominant hand, slowly remove catheter using gentle, even pressure and keeping catheter parallel to skin.

IX. Apply pressure to site with gauze until hemostasis is achieved for a minimum of:
   A. 30 seconds – short peripheral catheter

XX. Apply gauze and tape or Band-Aid to shorter peripheral catheter site.

XI. Change or remove dressing as indicated.

XII. Discard used supplies in appropriate receptacles.

XIII. Remove gloves.

XIV. Perform hand hygiene.

XV. Document in patient’s permanent medical record.

Documentation

   I. Use of visualization technology as appropriate

   II. Date and time of insertion, number of attempts, functionality of device, local anesthetic, if used.

   III. Identification of the insertion site by anatomical descriptors, laterality, landmarks, or appropriately marked drawings

   IV. Patient response to the procedure

   V. Patient education.

   VI. Medication/solution administration


Internal Ref: Joint Commission applicable standards

Source: FHI Clinical Managers; Quality Department

Approved by: Director of Operations, Medical Director

Date Effective: 01/01/1990

| Date Reviewed: | 11/2014, 3/2017 |
## PIV Attachment – Weight Based Dosing IV

### >10kg to adult

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<thead>
<tr>
<th>Device/Catheter</th>
<th>Routine Flush w/Medication Administration</th>
<th>Flushing w/Blood draws</th>
<th>Flushing w/No therapy</th>
<th>Dressing Change chlorhexidine-impregnated disc</th>
<th>Cap and/or Extension Set Chance Clamping vs Non-clamping</th>
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<tr>
<td>Peripheral Venous Catheter (PIV)</td>
<td>-0.9% Sodium Chloride 10mL &lt;br&gt;-Medication &lt;br&gt;-0.9% Sodium Chloride 10mL</td>
<td>N/A* (Not used for blood draws)</td>
<td>-0.9% Sodium Chloride 10mL every 12 hours</td>
<td>TSM-with every PIV restart; and PRN Gauze- not recommended due to catheter dislodgement and unable to visualize site. &lt;br&gt;No chlorhexidine-impregnated disc</td>
<td>Ext set- with every PIV restart &lt;br&gt;Either-anytime the device is compromised &lt;br&gt;-Use clamp to prevent reflux of blood</td>
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### ≤10kg

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<td>Peripheral Venous Catheter (PIV)</td>
<td>-0.9% Sodium Chloride 3mL &lt;br&gt;-Medication &lt;br&gt;-0.9% Sodium Chloride 3mL</td>
<td>N/A* (Not used for blood draws)</td>
<td>-0.9% Sodium Chloride 3mL every 8 hours</td>
<td>TSM-with every PIV restart; and PRN Gauze- not recommended due to catheter dislodgement and unable to visualize site. &lt;br&gt;No chlorhexidine-impregnated disc</td>
<td>Ext set- with every PIV restart &lt;br&gt;Either-anytime the device is compromised &lt;br&gt;-Use clamp to prevent reflux of blood</td>
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