

PERIPHERALLY INSERTED CENTRAL CATHETER (PICC) GUIDELINES

Section: Nursing

Compliance: ACHC Infusion Pharmacy

ACHC Standards:

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Approved by, Title and Date Approved: Kathleen Patrick, President, 1/1/21, 5/1/21

I. POLICY

The following guidelines will be followed for Peripherally Inserted Central Catheters (PICC).

II. PROCEDURES

- A. Peripherally Inserted Central Venous Catheters (PICCs) offer an alternate method of vascular access for short and intermediate length therapy to certain patient populations
- B. PICC lines are inserted peripherally, usually into a vein in the antecubital fossa, through an introducer needle or a peel-away plastic cannula
- C. A true PICC is one in which the tip is placed in the superior vena cava (SVC)
- D. A long arm catheter (PIC) is one in which the tip location is in the axillary or subclavian vein
- E. The catheters are radiopaque and are manufactured from a variety of materials, most commonly silicone or polymers. They come in a variety of sizes from 2.0 Fr. To 5.0 Fr. And can be single lumen or double lumen
- F. Staff Qualifications and Validation:

Because of the complexity of the insertion procedure, only registered nurses trained in PICC insertion techniques will be permitted to perform this procedure.

1. Prior to inserting a PICC line, the nurse will be trained in PICC line insertion and their technique validated by a company PICC trainer or an outside source.
2. Nurses who have been PICC validated by either a company PICC trainer or an outside source must be observed completing 3 successful insertions before being able to place a PICC independently
3. Any Registered Nurse who is PICC trained and does not use the skill routinely will be evaluated for competency as deemed appropriate by management.

4. PICC maintenance, including dressing changes, flushing, cap change, blood draw and catheter removal, may be provided by any Registered Nurse trained in PICC maintenance procedures.
- G. A physician's order must be obtained prior to insertion, and should include:
1. Desired distal tip location/position (Superior vena cava or subclavian vein).
 2. Post insertion chest x-ray to conform tip location in superior vena cava.
 3. 1% lidocaine for insertion site prep, as needed.
 4. Normal saline 3-10ml. And heparin 10-100 units/ml, 3-5 ml for flush
- H. The responsible physician must be consulted if any of the following occurs:
1. Excessive bleeding at the exit site
 2. Cardiac arrhythmia
 3. Respiratory distress
 4. Chest, neck, or ear pain
 5. Numbness or tingling of arm or hand
 6. Unsuccessful attempt at catheter insertion
 7. Arterial puncture
 8. Catheter embolus
 9. Catheter tip malposition
- I. Patient Selection Criteria (Conditions and/or Settings):
1. Intravenous therapy from (at least) five days to six months duration, or at physician discretion.
 2. Intravenous therapy requiring:
 - a. Infusion of vesicant chemotherapy or irritating drugs.
 - b. TPN or PPN. Only a true PICC may be used for TPN with a final dextrose concentration of 10% or greater
 - c. Antibiotics, antivirals, biologic response modifiers, etc.
 - d. Frequent administration of blood products or blood drawing (recommended use of any size 4.0 Fr. or larger).
 - e. Any solution with an osmolarity greater than 600 or a pH that is greater than 7.5 or less than 6.5.
 3. Patient must have adequate antecubital or another upper arm vein to be accessed as assessed by a qualified RN.
 4. For patients with severe coagulopathies, such as hemophilia or thrombocytopenia, the qualified nurse and physician should thoroughly evaluate the patient's clinical condition and appropriateness of therapy before a PICC insertion.
 5. Lack of short term peripheral venous access.

6. Patient and clinical preference

- J. Universal blood precautions must be observed, and personal protective attire must be worn by the nurse during insertion procedure
- K. If unable to successfully insert PICC after 2 attempts, the nurse will notify the supervisor and physician to determine if another attempt should be made or other action should be taken
- L. The following factors may influence the successful insertion of a PICC and should be considered prior to insertion:
 - 1. Peripheral and central vein status
 - 2. Previous catheter insertions or attempts
 - 3. Patient coagulation status
 - 4. Presence of anatomical abnormalities
 - 5. Patient ability to cooperate
- M. Cap change should occur every 7 days and/or prn.
- N. Catheter should be flushed with heparin (unless it is a Groshong PICC) every 24 hours if not in use or after each use. More frequent flushing may be performed, if needed, to maintain patency.
- O. A catheter that has migrated externally should not be readvanced.