

**Vascu-PICC**

**PERIPHERALLY INSERTED CENTRAL VEIN ACCESS CATHETER**

**NURSING INSTRUCTIONS FOR USE**

**INDICATIONS FOR USE**

- The Vascu-PICC™ Peripherally Inserted Central Vein Catheters are designed for Short or Long Term central venous catheterization (intravascular administration of fluids, medications, and/or when nutritional therapy is prescribed).

- This catheter may be inserted via the basilic, cephalic, or median cubital vein.

**DESCRIPTION**

- This catheter is manufactured from soft radiopaque polyurethane material that provides increased patient comfort and excellent biocompatibility.

- To prevent accidents, assure the security of all caps and connections prior to between treatments.
- Use only Luer Lock (threaded) Connectors with this catheter.
- Repeatedly tightening of luer lock connections, syringes, and caps will reduce connector line and lead to potential connector failure.
- Confirm catheter tip position by a-ray prior to use. Monitor tip placement routinely per institution policy.

**INSERTION SITE:**

- The basilic, median cubital, or cephalic vein may be catheterized. The basilic vein is the preferred site.

**CONTRAINDICATIONS:**

- This catheter is not intended for any use other than that which is indicated. Do not implant catheter in thrombosed vessels.
- The presence of skin related problems other than that which is indicated. Do not use catheter or accessories if any.
- The presence of device related bacteremia or septicemia.
- History of mastectomy on insertion site.
- Previous history of venous/subclavian thoracostomy or thoracocutaneous surgical procedures at insertion site.
- Fever of unknown origin.

**COMMON COMPLICATIONS:**

- Air embolism.
- Septic thrombosis/phlebitis.
- Catheter occlusion.
- Venous thrombosis.
- Damage/fracture of catheter.
- Blunt trauma.
- Infection.
- Intravascular injection site.
- Misplacement/embolization.
- Micropuncture: large bore catheters
- Septic thrombosis.

**POSSIBLE COMPLICATIONS:**

- The presence of skin related problems other than that which is indicated. Do not use catheter or accessories if any.
- The presence of device related bacteremia or septicemia.
- History of mastectomy on insertion site.
- Previous history of venous/subclavian thoracostomy or thoracocutaneous surgical procedures at insertion site.
- Fever of unknown origin.

**POTENTIAL COMPLICATIONS:**

- Air embolism.
- Septic thrombosis/phlebitis.
- Catheter occlusion.
- Venous thrombosis.
- Damage/fracture of catheter.
- Blunt trauma.
- Infection.
- Intravascular injection site.
- Misplacement/embolization.
- Micropuncture: large bore catheters
- Septic thrombosis.

**POTENTIAL COMPLICATIONS:**

- The presence of skin related problems other than that which is indicated. Do not use catheter or accessories if any.
- The presence of device related bacteremia or septicemia.
- History of mastectomy on insertion site.
- Previous history of venous/subclavian thoracostomy or thoracocutaneous surgical procedures at insertion site.
- Fever of unknown origin.

**POTENTIAL COMPLICATIONS:**

- Air embolism.
- Septic thrombosis/phlebitis.
- Catheter occlusion.
- Venous thrombosis.
- Damage/fracture of catheter.
- Blunt trauma.
- Infection.
- Intravascular injection site.
- Misplacement/embolization.
- Micropuncture: large bore catheters
- Septic thrombosis.

**CONTRAINDICATIONS:**

- This catheter is not intended for any use other than that which is indicated. Do not implant catheter in thrombosed vessels.
- The presence of skin related problems other than that which is indicated. Do not use catheter or accessories if any.
- The presence of device related bacteremia or septicemia.
- History of mastectomy on insertion site.
- Previous history of venous/subclavian thoracostomy or thoracocutaneous surgical procedures at insertion site.
- Fever of unknown origin.

**COMMON COMPLICATIONS:**

- Air embolism.
- Septic thrombosis/phlebitis.
- Catheter occlusion.
- Venous thrombosis.
- Damage/fracture of catheter.
- Blunt trauma.
- Infection.
- Intravascular injection site.
- Misplacement/embolization.
- Micropuncture: large bore catheters
- Septic thrombosis.

**POSSIBLE COMPLICATIONS:**

- The presence of skin related problems other than that which is indicated. Do not use catheter or accessories if any.
- The presence of device related bacteremia or septicemia.
- History of mastectomy on insertion site.
- Previous history of venous/subclavian thoracostomy or thoracocutaneous surgical procedures at insertion site.
- Fever of unknown origin.

**POTENTIAL COMPLICATIONS:**

- Air embolism.
- Septic thrombosis/phlebitis.
- Catheter occlusion.
- Venous thrombosis.
- Damage/fracture of catheter.
- Blunt trauma.
- Infection.
- Intravascular injection site.
- Misplacement/embolization.
- Micropuncture: large bore catheters
- Septic thrombosis.
CATHETER PERFORMANCE

- Occluded/Partially Occluded Catheter - If resistance is encountered to aspirating or flushing, the lumen may be partially or completely occluded.

Warning: Do not flush against resistance.

- If the lumen will neither aspirate nor flush, and it has been determined that the catheter is occluded with blood, follow institutional declotting procedure.

CATHETER REMOVAL
1. Remove old dressing and inspect insertion site for redness, tenderness, and drainage.
2. Grasp catheter near insertion site and using a slow steady motion, remove catheter from vein.
3. If resistance is felt - STOP. Retag the catheter and apply a warm compress to the extremity for 20-30 minutes.
4. Remove procedure cannula. If necessary, using a needle, remove guidewire from the vein.
5. Attach saline syringe to needleless access port. Apply gentle pressure to the vein proximal to the insertion site.

Note: Inspect catheter and measure length. It should be equal to baseline measurement taken when the catheter was inserted.

ALTERNATE INSERTION TECHNIQUE USING STIFFENING STYLET AND SIDEPORT ADAPTER

PREPARE CATHETER
1. Preflush catheter, sideport adapter, and needleless access ports.

- Attach saline filled syringe to luer of adapter and flush catheter and adapter. Clamp sideport adapter after flushing. Remove syringe.

- For multi-lumen catheters, attach needleless access port to remaining extension(s) and completely flush all lumens. Remove syringe from access port prior to clamping extension. Flush remaining needleless access port and set aside.

Caution: Never close clamp on catheter; stylet and catheter damage may result.

- The needleless access port should not be used with needles, blunt cannula, or other non-luer connectors, or luer connectors with visible defects. If needle access is attempted, the needleless access port must be replaced immediately. Do not exceed 100 actuations.

INSERTION
2. Strict aseptic technique must be used during insertion, maintenance, and catheter removal procedures. Provide a sterile operative field. Use sterile drapes, gown, gloves, mask, and cap.
3. Apply tourniquet to arm above anticipated insertion site to dilate the vein.
4. Insert the introducer needle with attached syringe into the target vein. Aseptically ensure proper placement. Release tourniquet.
5. Remove the syringe and place thumb over the end of the needle to prevent blood loss or air embolism. Draw the flexible end of the needle into the needle hub. Advance guidewire with forward motion into and past the needle hub into the target vein.

Caution: The length of the wire inserted is determined by the size of the patient. Monitor patient for arrhythmias throughout this procedure. The patient should be placed on a cardiac monitor during this procedure.

Cardiac arrhythmias may result if guidewire is allowed to pass into the right atrium. The guidewire should be held securely during this procedure.
6. Remove needle, leaving guidewire in the target vein. Thread sheath/dilator over the proximal end of the guidewire into the target vein. Remove the guidewire leaving the sheath and dilator in the vein. The distal tip should be positioned at the target vein. Thread sheath/dilator until the sheath tip is correctly positioned according to the length determined by the guidewire mark. Remove needle, leaving guidewire in the target vein. Thread sheath/dilator over the proximal end of the guidewire into the target vein. Remove the guidewire leaving the sheath and dilator in the vein.

Caution: DO NOT bend the sheath/dilator during insertion as bending will cause the sheath to prematurely tear. Hold sheath/dilator close to the tip (approximately 3 cm) from top when initially inserting sheath/dilator through the skin surface. To progress the sheath/dilator towards the vein, re-grasp the sheath/dilator a few centimeters (approximately 3 cm) above the original grasp location and push down on the sheath/dilator. Repeat procedure until sheath/dilator is fully inserted.

Caution: Never leave sheath in place as an introducer catheter. Damage to the vein will occur.

7. Loosen locking collar of sideport and withdraw styliot back beyond the point where the catheter is to be trimmed by at least 1/2 inch (.1 cm). Cut catheter to length determined by marked guidewire.

Caution: Never attempt to cut styliot.

- Withdraw styliot back beyond the tip of the catheter prior to insertion.

- Once proper catheter length and stylet position has been achieved, tighten locking collar to keep styliot in place.

8. Remove dilator from sheath.

9. Insert distal tip of catheter into and through the sheath until catheter is correctly positioned in the target vein.

10. Remove the tear-away sheath by slowly pulling it out of the vessel while simultaneously splitting the sheath by grasping the tabs and pulling them apart (a slight twisting motion may be helpful).

Caution: Do not pull apart the portion of the sheath that remains in the vessel. To avoid vessel damage, pull back the sheath as far as possible and tear the sheath only a few centimeters at a time.

11. Make any adjustments to catheter under fluoroscopy. The distal tip should be positioned at the level of the facial atrial junction.

Caution: Do not clamp the lumen portion of the catheter. Clamp only the extension(s). Do not use the secured forces, use only the in-line clamp(s) provided.

12. Loosen locking collar of sideport. Remove the styliot by applying gentle pressure with one hand above the introducer and slowly pulling back with a constant motion. Remove sideport adapter and repeat with needleless access port.

Attach saline filled syringe to needleless access port, aspirate lumen and then irrigate with saline. Remove syringes prior to clamping extension.

Caution: If difficulty and/or branching of the catheter lumen are experienced while removing the styliot, additional flushing of the catheter may be helpful. The catheter may need to be repositioned for removal of the styliot.

Caution: Do not attempt to reinsert styliot once it has been withdrawn.

Caution: Never leave styliot in place after catheter insertion; injury may occur.

- Attach syringe(s) to extension(s) and open clamp(s). Blood should aspirate easily. If excessive resistance is experienced, the catheter may need to be repositioned to obtain adequate flow.

14. Once adequate sepsis has been achieved, lumen(s) should be irrigated with saline filled syringe(s). Clamp(s) should be open for this procedure.

Caution: Small syringes will generate excessive pressure and may damage the catheter. Ten (10)cc or larger syringes are recommended.

- Close the extension clamp(s), and remove the saline filled syringe(s). Avoid air embolism by keeping catheter tubing clamped at all times when not in use and by aspirating then irrigating the catheter with saline prior to each use. With each change in venous connections, purge air from the catheter and all connecting tubing and caps.

17. Confirm and document proper tip placement with fluoroscopy prior to use. The distal tip should be positioned at the target vein (fetal atrial junction).

Caution: Failure to verify catheter placement may result in serious trauma or fatal complications.

Note: If there is no blood return, verify catheter position before use.

18. Continue following directions at ‘Catheter Securement and Dressing’ Section.

ALTERNATE INSERTION TECHNIQUE USING OTN OR SAFETY INTRODUCER/CATHETER

1. Maintaining sterility, access target vein with introducer needle/catheter.

- If using the safety introducer needle/catheter, remove the protective cover in a straight outward motion.

- Perform the venipuncture, and confirm the entry of the needle into the vein by observing a flashback of blood.

- If difficulties and/or branching of the catheter lumen are experienced while removing the styliot, additional flushing of the catheter may be helpful. The catheter may need to be repositioned for removal of the styliot.

Caution: Never reinsert the needle into the intravenous as this could shear or sever the introducer.

- Release the tourniquet. Support the introducer to avoid displacement. Apply digital pressure on the vessel, allow the introducer tip, to minimize blood flow.

- Withdraw the needle from the introducer sheath. Retract the needle by depressing the white button (if applicable). Dispose of any unshieldsed needles immediately.

Caution: Do not withdraw needle from introducer without depressing the white button. (If needle retraction does not occur, depress the button again.)

2. Insert distal tip of the catheter into and through the introducer sheath until the catheter tip is correctly positioned according to the length determined by the measurement taken.

3. Stabilize the catheter position by applying pressure to the vein proximal to the insertion site.

4. Remove the tear-away sheath by slowly pulling it out of the vessel while simultaneously splitting the sheath by grasping the tabs and pulling them apart (a slight twisting motion may be helpful).

- Attach syringe(s) to extension(s) and open clamp(s). Blood should aspirate easily. If excessive resistance is experienced, the catheter may need to be repositioned.

5. Following aspiration, each lumen of the catheter should be filled with 10cc of normal saline to ensure patency.

Caution: Small syringes will generate excessive pressure and may damage the catheter. Ten (10)cc or larger syringes are recommended.

6. Following aspiration, each lumen of the catheter should be filled with 10cc of normal saline to ensure patency.

Caution: Small syringes will generate excessive pressure and may damage the catheter. Ten (10)cc or larger syringes are recommended.

7. Confirm and document proper tip placement by x-ray before using the catheter.