

ARROW

Peripherally Inserted Central Catheter (PICC) Product – Seldinger Conversion Set

Safety and Efficacy Considerations:

Do not use if package has been previously opened or damaged. **Warning:** Prior to use read all package insert warnings, precautions, and instructions. Failure to do so may result in severe patient injury or death.

The product is designed for single use only. Do not resterilize or reuse. Do not alter any kit/set component during insertion, use or removal.

Procedure must be performed by trained personnel well versed in anatomical landmarks, safe technique, and potential complications.

Indications for Use:

The Seldinger Access Conversion Set permits venous access using the Seldinger³ or modified Seldinger¹ technique in preparation for insertion of a PICC.

Contraindications:

None known.

Warnings and Precautions: *

- Warning:** Practitioners must be aware of complications associated with peripheral spring-wire guide insertion including air embolism, guide wire embolism, inadvertent arterial puncture, nerve damage, hematoma, and hemorrhage.
- Warning:** Do not apply excessive force in placing or removing spring-wire guide. If placement or withdrawal cannot be easily accomplished, an x-ray should be obtained and further consultation requested.
- Warning:** The practitioner must be aware of potential air embolism associated with leaving open needles or sheaths in puncture sites.

- Warning:** Due to the risk of exposure to HIV (Human Immunodeficiency Virus) or other blood borne pathogens, health care workers should routinely use universal blood and body-fluid precautions in the care of all patients.
- Precaution:** The indications for use in children are the same as adults; however, insertion techniques are often modified according to the age and size of a child. If the practitioner is inexperienced in utilizing this product in a child, appropriate consultation should be sought.

Carefully read all warnings and precautions throughout procedure instructions.

A Suggested Procedure:

Use sterile technique.

- Follow PICC instructions for pre-insertion preparations.
- Locate vein with introducer catheter/needle and syringe and aspirate. **Precaution:** The color of the blood is not always a reliable indicator of venous access.²
- Withdraw needle from introducer catheter and check for pulsatile flow. Pulsatile flow is usually an indicator of inadvertent arterial puncture. If no free flow of venous blood is observed after needle is removed, attach syringe to catheter and aspirate until venous blood flow is established. **Precaution:** Do not reinsert needle into introducer catheter.

Alternate Technique:

Introducer needle may be used in standard manner as alternative to catheter/needle assembly.

4. Insert floppy tip of spring-wire guide through introducer catheter or needle into vein. Advance spring-wire guide in routine fashion to desired depth. **Warning: Do not cut spring-wire guide to alter length. Do not withdraw spring-wire guide against needle bevel to minimize the risk of severing or damaging spring-wire guide.**
5. Hold spring-wire guide in place and remove introducer catheter or needle. **Precaution: Maintain firm grip on spring-wire guide at all times.**
6. Thread tapered tip of peel-away sheath/dilator assembly over spring-wire guide. Grasping near skin advance assembly with slight twisting motion to a depth sufficient to enter vessel. Dilator may be partially withdrawn to facilitate advancement of sheath through tortuous vessel. **Precaution: Do not withdraw dilator until sheath is well within vessel to minimize the risk of damage to sheath tip. Precaution: Sufficient guide wire length must remain exposed at hub end of sheath to maintain a firm grip on guide wire.**
7. Advance peel-away sheath over dilator into vessel, again grasping near skin and using slight twisting motion.
8. To check sheath placement, hold sheath in place and withdraw spring-wire guide and dilator sufficiently to allow venous blood flow.
9. Holding sheath in place, remove guide wire and dilator as a unit. **Warning: Do not leave vessel dilator in place as an indwelling catheter to minimize the risk of vessel wall perforation. Warning: Although the incidence of spring-wire guide failure is extremely low, practitioner should be aware of the potential for breakage if undue force is applied.**
10. Follow PICC instructions for catheter insertion.

References:

1. Blitt CD, Wright WA, Petty WC, Webster TA. Central venous catheterization via the external jugular vein. *JAMA*. August 12, 1974;229:817-818.
2. Jobs DR, Schwartz AJ, Greenhow DE, Stephenson LW, Ellison N. Safer jugular vein cannulation: recognition of arterial punctures and preferential use of the external jugular route. *Anesthesiology*. 1983;59:353-355.
3. Seldinger SI. Catheter replacement of the needle in percutaneous arteriography. *ACTA Radiologica*. 1953;39:368-376.

Arrow International, Inc. recommends that the user be acquainted with the reference literature.

*If you have any questions or would like additional reference information, please contact Arrow International, Inc.