COMMON COMPLICATIONS:
- Aortic Mechanical Phlebitis
- Catheter Occlusion
- Cellulitis
- Infection/Fracture of Catheter
- Drainage from Insertion Site
- Malposition / Migration
- Pinch-Off syndrome
- Thrombosis

POTENTIAL COMPLICATIONS:
- Air Embolism
- Brachial Plexus Injury
- Cardiac Arhythmia
- Cardiac Tamponade
- Exit Site Infection
- Extravasation
- Hematoma
- Subcutaneous hematoma of the vessel
- Subclavian hematoma
- Subclavicular hematoma
- Vascular Thrombosis

Prior to the continuation of the treatment.

To prevent accidents, assure the security of all caps and connections prior to treatments.

The patient’s body size is insufficient to accommodate the size of the implanted device.

The patient is known or is suspected to be allergic to materials contained in the device.

Past irradiation of prospective insertion site.

Local tissue factors will prevent proper device stabilization and/or access.

Do not use catheter or accessories if any signs of product damage is visible.

Do not use high-pressure injectors for contrast medium studies. Excessive pressure may damage the catheter.

This is not a right atrium catheter. Avidly positioning the catheter tip in the right atrium. Placement or migration of the catheter tip into the right atrium may cause cardiac arrhythmia, myocardial erosion, or cardiac tamponade.

Note: Discard biohazard according to facility policy.

Do not use sharp instruments near the insertion site.

If difficulty and/or bunching of the catheter is observed in the patient’s chart, flushing and locking may damage catheter.

The presence of skin related problems should any of them occur.

The long saphenous veins of the ankle may also be used.

This catheter is not suitable for insertion through non-superficial veins.

DESCRIPTION:
This catheter is manufactured from soft radiopaque polyurethane material.

STERIC HD
- Do not use catheter or accessories if package is opened or damaged.

- The medical techniques and procedures described in these instructions for use do not represent all medically acceptable procedures, nor are they intended as a substitute for the physician’s experience and judgment in treating any specific patient.

- Use standard hospital protocols when applicable.

- Urinary tract infection.

- The patient is known or is suspected to be allergic to materials contained in the device.

- In the rare event that a hub or connector around the insertion site (infection, phlebitis, scars, etc.)

- The presence of device related bactereemia or sepsisemia.

- Precise history of venous/subclavian thrombosis or vascular surgical procedures at insertion site.

- Fever of unknown origin.

- The patient’s body size is insufficient to accommodate the size of the implanted device.

- The patient is known or is suspected to be allergic to materials contained in the device.

- Past irradiation of prospective insertion site.

- Local tissue factors will prevent proper device stabilization and/or access.

DIRECTIONS FOR SELDINGER INSERTION
- Read instructions carefully before using this device. The catheter should be inserted, manipulated, and removed by a qualified, licensed physician or other qualified health care professional under the direction of a physician.

- Holding the needle stationary, advance the introducer sheath into the vein by pushing forward.

- Caution: Never reinset the needle into the catheter, as this could shear or sever the introducer.

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

- Withdraw the needle from the introducer sheath. Dispose of any unneeded items immediately.

- Insert distal tip of the catheter into and through the introducer sheaths until the catheter tip is correctly positioned.

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

- Remove the tear-away sheath by slowly pulling it out of the vessel while simultaneously applying the sheath by grasping the tabs and pulling them apart with a gentle twisting motion (if 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 few centimeters at a time.

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

- Caution: Never clamp the lumen of the catheter. Clamp only the external cannula(s). Do not use the serrated ferrules, use only the in-line clamp(s) provided.

- 6. Remove the stylet by applying gentle pressure with one hand above the insertion site while grasping the stylet with the other. Do not forcibly pull during sheath insertion.

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

- 4. Remove the needle from the catheter. Ten (10cc) or larger syringes are recommended. Aseptic Mechanical Phlebitis

- 3. Withdraw stylet back beyond the point where the catheter is to be trimmed by at least 1/8 inch (1.3cm). Cut catheter.

- Caution: Never attempt to cut stylet. Caution: Hold the catheter with the stylet in place prior to insertion. Caution: Always withdraw stylet back beyond catheter tip prior to insertion.

- The patient is known or is suspected to be allergic to materials contained in the device.

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- The medical techniques and procedures described in these instructions for use do not represent all medically acceptable procedures, nor are they intended as a substitute for the physician’s experience and judgment in treating any specific patient.

- Use standard hospital protocols when applicable.

- Prior to Placement
- Identify insertion site and vein, taking into account the following variables:

  - Age and size of patient

  - Anticoagulant and chemotherapeutic variables

  - Type and purpose of IV therapy

  - Anticipated dwell time of catheter

  - Apply tourniquet to arm above insertion site.

  - Select vein based on assessment.

  - Release tourniquet.

- Technique Using Twisted Wire Stylet and Sideport Adapter

- Prepare Catheter
- Preflush catheter, sideport adapter, and needleless access port, if included.

- Attach saline filled syringe to luer of sideport adapter and flush catheter. Assure the handle of the twisted wire stylet is firmly attached to the adapter.

- Caution: Never clamp lumen of the catheter. Clamp only the external cannula(s). Do not use the serrated ferrules, use only the in-line clamp(s) provided.

- Excessive blood loss may lead to patient shock.

- Caution: The needleless access port should not be used with needles, blunt cannula, or other non-luer connectors, or luer connectors with visible defects. If needles are used, the needleless access port must be replaced immediately. Do not use with any other non-luer connectors.

- 2. Determine the length of the catheter needed to reach the final position, using a measuring tape.

- Length of the catheter should be recorded in the patient’s chart.

- 3. Withdraw stylet back beyond the point where the catheter is to be trimmed by at least 1/8 inch (1.3cm). Cut catheter.

- Caution: Never attempt to cut stylet. Caution: Always withdraw stylet back beyond catheter tip prior to insertion.

- Insertion
- 1. Maintain sterility, access target vein with introducer needle/catheter.

- 2. Apply tourniquet to arm.

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

Infection

Caution: Due to risk of exposure to HIV or other blood borne pathogens, health care professionals should always use Universal Blood and Body Fluid Precautions in the care of all patients.

• Sterile technique should always be strictly adhered to.
• Clinically recognized infection should be treated promptly per institutional policy.

CATHETER REMOVAL

Warning: Only a clinician familiar with the appropriate techniques should attempt the following procedures.

Caution: Always review facility protocol, potential complications and their treatment, warnings, and precautions prior to catheter removal.

1. Wash hands, gather equipment.
2. Remove old dressing and inspect insertion site for redness, tenderness, and drainage.
3. Grasp catheter near insertion site and using a slow steady motion, remove catheter from vein.
4. If resistance is felt - STOP. Retape the catheter and apply a warm compress to the extremity for 20-30 minutes.
5. Resume removal procedure. If catheter remains "stuck" follow institutional policy for further intervention.
6. Apply pressure, if necessary, until bleeding stops and dress site following institutional policy.

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

### 1.9F & 2.6F PICC's

<table>
<thead>
<tr>
<th>Catheter Size</th>
<th>Gravity Flow</th>
<th>Full Length Priming Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.9F X 20CM SINGLE LUMEN VASCU-PICC®</td>
<td>0.50 ml/min</td>
<td>0.17cc</td>
</tr>
<tr>
<td>1.9F X 50CM SINGLE LUMEN VASCU-PICC®</td>
<td>0.73 ml/min</td>
<td>0.21cc</td>
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<tr>
<td>2.6F X 20CM DUAL LUMEN VASCU-PICC®</td>
<td>2.33 ml/min</td>
<td>0.90 ml/min</td>
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<tr>
<td>2.6F X 50CM DUAL LUMEN VASCU-PICC®</td>
<td>1.03 ml/min</td>
<td>0.40 ml/min</td>
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</tbody>
</table>

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