PICCs and Midline Catheters

Patient’s guide to PICC (peripherally inserted central catheter) and midline catheters

What are PICCs and midline catheters used for?

- Any medicine given over several days, weeks, or months
- Long-term intravenous nutrition
- Any patient with poor veins needing long-term access
- Patients who have blood draws done often

PICCs

A peripherally inserted central catheter (PICC) is an intravenous (IV) catheter that is inserted into a large vein in the inside of your elbow. This catheter extends into the large vein that returns blood to your heart. A PICC may remain in place for as long as you need treatment. Some patients have kept them for up to a year.

Midline Catheters

A midline catheter is much shorter than a PICC. It extends to a point just below the level of your shoulder.
Follow the Aseptic Technique

Germs can enter your body through catheters. Proper care of your catheter will help to prevent a serious infection. Keep your hands and work surfaces clean when you handle your medicines, catheter, and IV tubing. The process you will follow to clean your hands and work surfaces is known as aseptic technique. Aseptic technique means to disinfect or clean each part used and to avoid touching sterile surfaces with your hands. Keep this in mind every time you do your treatment.

Wash Your Hands

Your hands carry germs. Scrub your hands very well before you begin your infusion.

1. Use antibacterial soap and warm running water to wash your hands.
2. Be sure to wash well under your fingernails and between fingers.
3. Dry your hands well with a clean paper towel.
4. Use a paper towel to turn off the faucet.

Prepare Your Workspace

Your work area should be away from family activity, small children, and pets. The bathroom should not be used as a workspace because it is full of germs. A sturdy and washable surface makes the best work area. Your workspace should be free of drafts. Close all windows and doors, and turn off fans before you begin to clean your workspace.

1. Clear your workspace of objects and papers.
2. Wash your work surface with soap and water, or wipe it off with disinfectant or alcohol.
3. Place a new clean paper towel on your workplace. Change the paper towel every day.

Inspect Your PICC Line Daily

You will need to follow these steps to monitor and maintain your catheter. These steps will help you detect any early signs of infection or vein inflammation (phlebitis). If found early, problems can likely be resolved.

1. Wash your hands.
2. Observe the area under the clear dressing for any redness, swelling, drainage, or moisture.
3. Gently feel for any swelling, tenderness, or cording (the vein feels hard or rope-like), starting at the exit site and continuing up your arm, into the armpit area. You should not experience pain as you feel your arm.
4. If you develop any of the above symptoms, call ______________ right away for instructions.

5. Check the dressing over the catheter. It should not be torn, and there should not be moisture underneath. You may need to reinforce the edges with tape.

6. The catheter and dressing should not get wet. When showering, wrap your arm with plastic wrap around the entire dressing area and secure with tape. Dry thoroughly after showering. Do not bathe in a tub unless you are able to keep your arm from getting wet.

7. Your dressing will be changed once a week unless you develop a problem before that. Never remove the dressing yourself. This may pull your catheter out or allow germs to reach the area.

8. Your dressing will be changed by _________________.

Flush Your PICC or Midline Every ___________

Prepare Your Flushes

1. Wash your hands.

2. Prepare your workspace.

3. Gather your supplies:
   - Pre-filled normal saline syringe (one for each lumen being flushed)
   - Pre-filled heparin syringe (if needed)
   - Alcohol pads
   - Gloves

4. Prepare your syringes.
   - Peel open syringe package and remove clear protective cover.
   - Remove protective cap and hold syringe upright. Push plunger on syringe to remove any air from the syringe. Recap syringe.
   - Place on clean workspace.
   - Repeat above steps for each flush needed for your infusion.

Remember:

- Use each syringe only once and then throw it away.
- If you touch the end of the syringe, or drop a cap on the floor, throw it away and start over.
**Flush Your PICC Line**

1. Put gloves on.

2. Before flushing, clean Clave cap at end of catheter with alcohol. Use friction and clean for 1 minute.

3. Attach normal saline syringe by screwing it on to Clave cap in a clockwise direction. Open clamps on PICC, if there are any.

4. Flush each lumen with 10cc of normal saline.
   - If you meet resistance, do not force. This could damage the catheter.
   - If you have any pain with flushing, do not continue.
   - If you notice any leakage anywhere on your catheter or under the dressing, stop flushing.
   - Call ________________________________ if any of the above problems occur.

5. If your catheter has clamps, close clamps before removing syringe.

6. Finally, if heparin is required, flush your catheter with heparin. This will keep your catheter from getting blocked or plugged between infusions. Follow the same steps as for flushing with saline.

   Amount of heparin: _____________________
Change Your Clave Cap Every Week

1. Wash your hands.
2. Put gloves on.
3. Prepare your workspace.
4. Gather your supplies:
   - New Clave cap
   - Alcohol wipe
   - Clean gloves
5. Wash your hands.
   - Put on gloves.
   - If there are clamps present on the PICC, close clamps before disconnecting Clave cap.
   - Screw off old Clave (counterclockwise). Throw away old Clave.
   - Continue to hold end of catheter. Clean threads on outside of open PICC hub with alcohol wipe using friction for 1 minute. **Do not** attempt to clean the inside of the open catheter. **Do not** let the end of the catheter touch anything but the alcohol wipe.
   - Screw off protective cap of new Clave.
   - Screw new Clave onto end of catheter until snug (clockwise). Do not over-tighten.
   - Remove gloves and wash hands.

**Remember:**
- Do not use pliers to remove Clave.
- Do not over-tighten when twisting on new Clave.
- Do not place anything onto end of Clave except syringe or IV tubing.
- Do not use needles with Clave caps.
Identifying Problems and Knowing What to Do

**Problems that Need Attention Right Away:**

1. **Breakage or separation of catheter**
   - **Signs:** Leakage of fluid when the catheter is flushed. Break may be visible. Blood may leak out.
   - **What to do:** Fold the catheter in half over itself above the break and tape it to your skin. Call your doctor or go to an emergency room. Your catheter will need to be repaired or replaced.
   - **How to avoid:** Do not use needles or scissors around or near your catheter. Do not tug or pull on it. Do not over-twist the hub when changing the cap.

2. **Infection**
   - **Signs:** Fever (temperature greater than ______), chills, swelling or oozing at the insertion site.
   - **What to do:** Call your doctor. You will probably need treatment.
   - **How to avoid:** Wash your hands when handling your catheter. Wear a mask if you have a cold. Don’t be around people who are sick. Make sure the dressing is not torn and is kept dry.

3. **Blocked (clotted) catheter**
   - **Signs:** Unable to flush the catheter using normal pressure.
   - **What to do:** Do not use extra pressure. Check to see if the tubing is kinked or bent under the dressing. If not, call your doctor. The catheter will need to be unplugged using a special medicine.

4. **Severe pain**
   - **Possible causes:** Your catheter may have slipped out of the vein or a blockage may be forming.
   - **What to do:** Severe pain is never normal and should be reported to your doctor. He or she may advise you to stop using your catheter.
Problems that Need to Be Reported, But Do Not Usually Need Emergency Care:

1. **Swelling of neck or arm on side of catheter.**
   - **Signs:** Swelling of the hand, arm, or neck on the side of your body where you have your catheter.
   - **What to do:** Call your doctor. He or she will need to see you soon.
   - **How to avoid:** This may happen for no clear reason. Your doctor may treat you with medicine or remove the catheter.

2. **Movement of the catheter.**
   - **Signs:** Catheter has moved in too far, or pulled out from its original position.
   - **What to do:** Never push catheter back into your arm. Call the Vascular Access Consulting Nurse or your doctor. You may need a chest X-ray to confirm proper placement.
   - **How to avoid:** Protect catheter extensions from being caught in clothing. Keep arm very still when getting dressing changes.

3. **Blood under the bandage.**
   - **Signs:** Oozing blood noticed under dressing.
   - **What to do:** A small amount of blood is not unusual. Excessive bleeding is rare and will require a new dressing. Call your doctor or Vascular Access Consulting Nurse and apply pressure to the bleeding site until the dressing can be changed.
   - **How to avoid:** Most excessive bleeding is caused by blood disorders. A small amount of bleeding is normal and can be minimized by limiting elbow and arm movement for the first 6 hours after the catheter is placed.

4. **Catheter arm aches.**
   - **Possible causes:** Some patients have general arm discomfort for the first 1 to 2 days after insertion. Pain that won’t go away may mean that your vein is not tolerating the PICC.
   - **What to do:** Talk with your doctor or a Vascular Access Consulting Nurse. Mild pain relievers or a heating pad usually relieve symptoms.
Questions?
Your questions are important. Call your doctor or health care provider if you have questions or concerns. UWMC clinic staff members are also available to help.

UWMC Vascular Access Consulting Nurse is available on pager at 206-540-9288. Pager hours are weekdays, 7 a.m. to 9:30 p.m. and weekends, 9 a.m. to 9:30 p.m.

After hours and on weekends and holidays, call 206-598-6190 and ask for the STAT nurse on call to be paged.

Or, ask for your doctor to be paged:

Dr. __________________
_____________________
_____________________

How to Call a Vascular Access Consulting Nurse
A Vascular Access Consulting Nurse can answer your questions and offer tips on how to care for and maintain your catheter.

There is a Vascular Access Consulting Nurse available by phone weekdays from 7 a.m. to 9:30 p.m. They are also available on Saturdays and Sundays from 9 a.m. until 9:30 p.m. They can be reached through their pager at 206-540-9288.

When you call this number, you will be prompted to enter your “numeric page.” Simply enter your area code and phone number and hang up. A nurse will call you back.

This handout is based on information provided by Providence Home Infusion.