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IV: PICC CATHETER Care At Home

The PICC* catheter is a plastic tube that is placed into the arm or leg and is threaded into a larger vein in the chest (Picture 1). Your child may go to the Radiology Department to have this catheter inserted. Once the catheter is in place, you can give IV nutrition or medicines safely at home. Please make sure your nurse contacts the unit discharge planner to help you get the supplies you will need to care for the catheter. A home visit from a homecare nurse will be arranged to finish and go over the teaching and answer your questons.

At the catheter exit site there will be "wings" that will be stitched to the skin to hold the catheter in place or the catheter will be held in place by an adhesive securing device (StatLock®). These stitches must stay in or the securing device must stay on as long as the catheter is in place.

The PICC catheter needs a dressing and a cap to prevent infection. A solution called heparin is used to keep blood from clotting in the catheter.

The dressing must stay dry. Don't let it get wet from bathing or swimming.



Picture 1 The PICC catheter.

ASEPTIC (GERM-FREE) TECHNIQUE

Aseptic (aye-SEP-tik) technique is a careful and precise way to handle products in a clean place to prevent infection. These steps must be followed when caring for the PICC catheter.

- Good hand washing is very important. Washing hands correctly and often is the best way to prevent the spread of germs.
- Before handling the PICC catheter, you must wash your hands. Scrub your hands and wrists with soap and warm water for at least 15 seconds. Clean under your fingernails. Dry your hands with a clean paper towel. Turn off the faucets with the paper towel (Picture 2). Instead of soap and water, you may also use a waterless, alcohol-based product.
- After you have washed your hands, do not touch anything except the catheter and IV supplies. If you touch anything else, re-wash your hands. Remember, good hand washing is the best way to prevent the spread of germs.

Picture 2
Good hand washing is very important!

^{*}peripherally inserted central catheter

PICC CATHETER - CHANGING THE DRESSING

Some families may be taught to change PICC dressings but usually a homecare nurse will change the dressing or it will be changed if your child comes back to the hospital for an appointment. This may be done at the same time that you change the extension piece (See page 4).

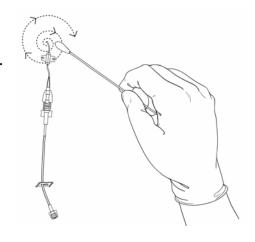
- 1. Gather the supplies:
 - Dressing change kit
 - a. Small for under 2 months of age, or
 - b. Large for over 2 months of age
 - ☐ Extra masks (optional)
- 2. Put on the mask.
- 3. Wash your hands and put on clean gloves.
- 4. Remove the old dressing including Biopatch®. Loosen the outer edges and pull toward the catheter exit site. Be careful not to pull on the catheter.
- 5. Check the exit site for redness, swelling, or drainage. Check to see if the stitches are secure. Remove gloves.
- 6. Open the dressing change kit and wash hands again. Carefully put on the sterile gloves. Do not touch anything that is not sterile with the gloves.

7. For infants under 2 months:

- Open the alcohol packet. Clean the skin with the first swab. Work in a circular motion from the exit site out, for a 2 to 3 inch area (Picture 3). Throw away the swab.
- Repeat step 7 two more times. Use a clean swab each time.
- Clean the entire area 3 more times using Betadine. Use a clean swab stick each time. Work in a circular motion as before. Let the Betadine dry for 2 minutes.
- Do not wipe off excess Betadine let it dry completely.

8. For children older than 2 months:

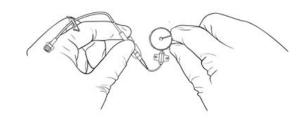
- Squeeze the wings of the Chloroprep® applicator until you hear a "pop." The solution will soak the sponge.
- Press the sponge against the skin using a back-and-forth friction scrub for 30 seconds. (Picture 4) Let dry for 30 seconds.
- Apply the skinguard solution about 1/2 inch away from the catheter exit site to the outer edges of the dressing area. Let it dry completely.
- Remove Biopatch® from package using sterile technique. Place on top of the catheter exit site with the blue/written side up. (Picture 5)
- 9. Position the catheter away from the inside of the elbow or other joint. The catheter should **never be kinked** under the dressing.
- 10. Apply the transparent dressing touching only the non-sticky side. Make sure the **entire catheter is covered** by the dressing (Picture 6).



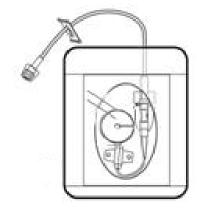
Picture 3 Work in a circular motion from the exit site out.



Picture 4 Using the Chloroprep® applicator.



Picture 5 Place the Biopatch on the catheter exit site with the blue/written side up.



Picture 6 The entire catheter is covered by the clear dressing.

OTHER IMPORTANT POINTS

- Change the dressing every 7 days.
- If the dressing gets dirty, wet, or loose, the dressing needs to be changed immediately. Do not wait until your next scheduled dressing change.
- Never use scissors near the catheter.
- If there is any sign of redness, swelling, or drainage at the catheter exit site, call your home care nurse, your doctor, or _______.

PREPARING SYRINGES WITH MEDICINE

You will be giving the following IV medicines at home:				
☐ Saline				
☐ Heparin				
Other				

Pre-filled Syringes

You may receive medicine syringes that are already filled by the pharmacy. Before using them, check to make sure it is the correct medicine and right amount, and that a sterile cap is covering the syringe cannula.

- 1. Wash your hands.
- 2. Open packages and remove plastic covers from syringes. Push the air out of syringes and carefully put the plastic covers back on top of the syringe.
- 3. Check the correct amount of medicine to be given.

FILLING SYRINGES WITH IV MEDICINE

1.	Gather the supplies:
	☐ Syringe
	☐ Vial of medicine
	☐ Alcohol swabs
	☐ Blunt needle
2.	Wash your hands.

- 3. Open all packages and keep the contents germ-free.
- 4. Remove the cap from the medicine vial.
- 5. Clean the top of the vial vigorously with an alcohol swab for 15 seconds. Clean the top of the vial again with another alcohol swab. Wait 30 seconds.
- 6. Attach the blunt needle to the end of the syringe. Do not touch the open ends of the syringe or needle.
- 7. Pull back the plunger of the syringe so that it is filled with air. The amount of air should be equal to the amount of medicine that will be drawn out of the vial.
- 8. Remove the sterile cap from the blunt needle and push the tip of the needle into the medicine vial. Inject the air into the vial.
- 9. With the needle still in the vial, turn the vial upside-down. Draw correct amount of medicine out of the vial.
- 10. Remove the needle from the vial. Carefully recap the needle.
- 11. With the sterile cap in place, squirt out any air or extra medicine in the syringe.
- 12. Throw away the vial.

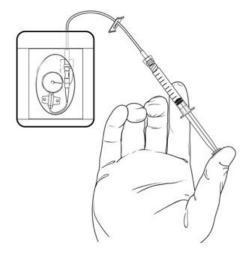
TO FLUSH THE PICC CATHETER WITH HEPARIN

When solution is not infusing into your child's PICC, blood may collect in the catheter and clot. Heparin keeps the blood from clotting inside the catheter. A small amount of heparin will prevent clotting but will not harm your child. The PICC needs to be flushed with heparin every ____ hours when it is not connected to an infusion.

Heparin amount _____ mL Heparin strength: 100 units/mL 100 units/mL

Gather the supplies: Heparin filled syringe Alcohol swabs

- 1. Wash your hands.
- 2. Check the heparin syringe to make sure it has the correct amount and there is no air in the syringe.
- 3. Unclamp catheter.
- 4. Clean the top of the extension piece or cap vigorously with an alcohol swab for 15 seconds. Clean it again with another alcohol swab. Wait 30 seconds.
- 5. Remove the protective cap from the heparin syringe, expel any air and attach the heparin syringe to the cap at the end of the extension piece or the end of the PICC by resting the threads of the syringe on the threads of the extension piece. Tip the syringe up and twist them together. Inject the heparin into the catheter.
- 6. Holding onto the extension piece or cap, untwist the heparin syringe and then clamp the catheter.
- 7. A droplet will form on top of the cap at the end of the extension piece. This tells you that the line is closed tightly. Wipe off the droplet with a new alcohol swab. You may wish to secure the catheter with tape.
- 8. Throw away the syringe in a used needle container.



Picture 7 Inject heparin into the port so the entire extension piece is filled.

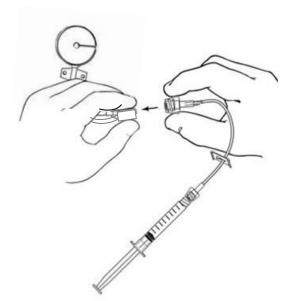
TO CHANGE THE EXTENSION PIECE AND NEEDLE-LESS CONNECTOR (CAP)

The needle-less connector is also called a "cap." The extension piece and needle-less connector (cap) on the catheter should be changed every 7 days at the time of the dressing change. Depending on the type of your child's PICC, you or the caregiver will either need an extension piece with a needle-less connector (cap) on the end OR 1 or 2 needle-less connectors (caps).

Ι.	Gather	tne	sup	pnes:
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Luer-locking extension piece	Needle-less connector (cap)	Alcohol swabs
☐ Heparin syringe	☐ Exam gloves	

- 2. Wash your hands. Put on exam gloves.
- 3. If necessary, screw the new needle-less connector (cap) onto the end of the new extension piece.
- 4. Clean the top of the connector (cap) vigorously with an alcohol swab for 15 seconds. Clean again with another alcohol swab and wait 30 seconds.
- 5. Attach the heparin syringe to the connector (cap) by resting the threads for the syringe on the threads of the extension piece. Tip the syringe up and twist them together. Inject the heparin with the cap in an upright position so the entire extension piece is filled. Clamp the tubing and leave the syringe attached to extension piece. (Picture 7).
- 6. Clean the area where the catheter joins the old extension piece vigorously with an alcohol swab for 15 seconds. Clean it again with another alcohol swab and wait 30 seconds.
- 7. Remove the extension piece from the end of the PICC catheter. Screw the new extension piece onto the end of the PICC catheter (Picture 8). Continued on page 5...



Picture 8 Screw the new extension piece onto the end of the PICC catheter.

TO CHANGE THE EXTENSION PIECE AND INJECTION CAP, continued

- 8. Unclamp and flush the remaining heparin into the PICC catheter.
- 9. Remove the syringe and clamp the extension piece.
- 10. A droplet will form on top of the extension piece or cap. This lets you know that the line is closed tightly. Wipe off the droplet with a new alcohol swab.
- 11. Secure the entire catheter and part of the extension piece under the transparent dressing.
- 12. Discard the syringe in a used needle container.

HOW TO KEEP SUPPLIES CLEAN

- Once the package has been opened sterile supplies that accidentally touch anything (fingers, clothes, non-sterile equipment) must be thrown away. Use a new sterile supply. For example, if you touch the open end of a heparin syringe, throw it away and get a new one.
- Store IV supplies in a clean area and away from children and pets.

HOW TO DISPOSE OF USED NEEDLES AND SYRINGES

- 1. Do not recap used needles. Do not bend or break off the needle. Do not remove the needle from the syringe.
- 2. Put the used syringe with attached needle into a "sharps" container.
- 3. **Do not let the container get too full**. When the container is two-thirds full, return it to your local hospital for disposal.

CAUTION: Syringes and needles should be used only once. Keep syringes and supplies out of the reach of children and others who might misuse them.

POINTS TO REMEMBER

- Never use scissors or other sharp objects near the PICC catheter.
- Never let the child or anyone else pull on or play with the catheter. Do not let your child touch the exit site when the dressing is off.
- Children with PICC Catheters should not swim.

Clotted Catheter

If resistance is met when flushing the catheter, STOP! Do not try to force the solution. The most common problem is kinking of the catheter under the dressing. This can make it difficult or impossible to flush. Check the catheter to see if it is kinked or clamped. If you still meet resistance, there may be a clot in the catheter. Call your home care nurse or your doctor.

Broken Catheter

A hole or tear may develop in the catheter or there may be a break at the catheter hub. You will know there is a crack or hole if fluid or blood leaks from the catheter. If this happens, cover the PICC catheter with a sterile dressing. Call your home care nurse or your doctor. If the catheter is accidentally pulled out, apply pressure to the site with gauze and call the doctor right away. Save all of the parts of the catheter for examination.

WHAT TO WATCH FOR

Fever

A fever is often a sign of infection. You should check your child's temperature each day. If you will be taking the temperature by mouth, make sure your child has not had anything to eat or drink in the last 30 minutes because this may change the temperature reading. Call your child's doctor if the temperature is 100.4°F or higher. Refer to the Helping Hand: *Temperature: Oral, Rectal, and Axillary,* HH-II-27.

Infection

You should suspect a *local infection* (around the exit site of the catheter) if there is:

- Redness, swelling, or warmth
- Drainage yellow or green
- Tenderness or pain

You should suspect an infection in the blood stream (systemic infection) if your child has any of the following:

- Temperature of 100.4°F or higher
- Increased irritability (fussiness)

GOING TO SCHOOL OR DAY CARE

Your child may go to school or day care with a PICC catheter. He should be able to do most of the same activities as other children. If you have a question about an activity or sport, call your child's doctor. The teacher, school nurse, and caregiver will also need information to care for your child. They should be told to contact you if there are any problems with the catheter or the dressing. Ask the school or day care center to call the Nutrition Support Service nurse for more information. Refer to HH-II-141, *IV Central Venous Care: Going to School or Child Care.*

IMPORTANT PHONE NUMBERS

If you have any questions, be sure to call us

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Department of Radiology		Phone (614) 722-2350
Doctor's Office	Phone	
Home Care Agency Nurse	Phone	