

### What is an implanted CVC?

Patients receiving treatment for various illnesses may have an implanted central venous catheter (CVC). These catheters are often called “central lines”. The CVC is placed in a large vein leading to the heart and comes out through an opening in the skin in the chest area or in the arm. This opening is called the exit site. The CVC may be used to give you medications and fluids, and to sample blood through one or more tubes, called lumens. At the end of each lumen is a needleless injection cap. A CVC implanted in the chest can stay in the body for as long as a few years. CVC care can be complicated, and often it is easier to learn by seeing and doing. This is meant to be a *very general* guide to CVC care. **Please ask your nurse for more information.**

### CVC care at home:

- If your CVC is new, small adhesive strips may have been placed over the incision. Do not remove these strips. Let them fall off. Follow additional care and use instructions given by your doctor while the site heals.
- Your nurse will show you how to care for your CVC, if you are able. If you are not able, your nurse will provide the CVC care you need.

### Signs of CVC complications: Call PPHPC at 633-3400 if any of these occur:

- Redness, tenderness, drainage, warmth, or odor around the CVC site.
- Fever of 100.5F (38C) or greater, or chills
- Swelling of the face, neck, chest or arm on the side where your CVC is inserted
- Leakage of blood or fluid at the CVC site or from the injection cap
- Inability to flush the CVC, or resistance to flushing the CVC
- Displacement or lengthening of the CVC.

### General guidelines for CVC use and care at home:

Your nurse will show you how to care for the CVC properly. The following guidelines are helpful in preventing infection when you are doing your own CVC care:

- Store CVC supplies in a clean dry place such as a shelf in a closet or drawer.
- Always clean your work area with disinfecting wipes and allow it to dry before setting up supplies, or cover the area with clean paper towels.
- Use only sterile supplies. Open all packages carefully without touching the contents. Handle dressings by the edges.
- **Never** touch the open end of the CVC when the injection cap has been removed.
- **Never** use scissors, pins, or sharp objects near the CVC or other tubing. The CVC could be damaged easily.
- If your CVC has a clamp, keep it clamped when not in use. Try to move the clamp daily to avoid creating a weak spot in the catheter.

## MANAGING AN IMPLANTED CATHETER

- **Remember to wash your hands thoroughly for 15 seconds using soap and water before and after working with the CVC.**

### **Guidelines for showering and bathing:**

- Do not submerge your CVC in water (e.g. a bathtub, hot tub, or swimming pool).
- When showering or bathing, the CVC should be protected from water. Specialty waterproof dressings are available from medical supply stores for this purpose. You can also improvise with waterproof material such as plastic wrap (i.e. Glad Press-n-Seal) taped securely over the dressing and injection caps. Remove the plastic wrap after bathing.
- If your dressing gets wet or loose it should be changed. See below for instructions on changing dressings.

### **Giving medications through a CVC, and flushing a CVC:**

At times when the CVC is not being used for medication, each lumen must be flushed regularly to keep it clear of back-up blood. You should have instructions from your physician or hospice nurse regarding how often to flush the lumens, and what solution to use for flushing.

Medications can be given continuously through the CVC, using a pump. Medications may also be drawn into a syringe as a single dose and injected into the CVC. Single dose medications will be given on a schedule and/or based on your need for the medication.

- **When injecting medication by syringe into the CVC, never use a syringe smaller than 10 ml (cc). Using a smaller volume syringe can damage the CVC.**
- Most continuous medications are managed by your PPHPC nurse. In some cases it is possible for the patient or family to help manage the continuous medications.
- Regularly scheduled or as-needed medications are usually given by the patient or caregiver.
- Some medications may need to be diluted with saline prior to injecting them into your CVC. You will receive instructions about how to use your individual medications from your nurse.
- **It is very important to minimize the risk of infection when using a CVC for medications.**

General instructions for injecting medications and/or flushing the lumens:

- Gather your equipment and assemble what you will need in the order that you will need them. Take care not to contaminate sterile supplies, like needles.
- Wash your hands thoroughly with warm water and soap for 15 seconds. Dry them with a clean towel or paper towel.
- Unclamp the CVC.
- Scrub the rubber stopper on the medication vial vigorously with alcohol for 30 seconds and allow it to dry.

## MANAGING AN IMPLANTED CATHETER

- Using a 10 ml syringe, remove the syringe cover and attach a needle (if not already attached).
- Remove the cap from the needle.
- Draw air into the syringe equivalent to the amount of medication you will be using, by pulling back on the syringe plunger.
- Being very careful not to touch the needle to any other surfaces, insert the needle into the vial, and then turn the vial upside down. Push the air into the vial and then, pulling back on the plunger, draw medications from the vial into the syringe, equal to the dose prescribed.
- Remove the needle from the vial.
- To release air bubbles from the syringe, point the needle upward and tap lightly on the sides of the syringe. Press the plunger on the syringe very gently until the air is pushed out. Carefully put the cover back over the needle until you are ready to use the medication.
- Vigorously scrub the injection cap on the end of the CVC port for 30 seconds, and allow the cap to dry. Hold the end of the CVC so that it doesn't touch anything.
- Remove the needle from the end of the syringe, being careful not to touch the injection-end of the syringe on any surfaces.
- Push the injection end of the syringe onto the injection cap and twist it to the right until the connection locks and feels secure.
- If at any time during this procedure the syringe tip or end of the injection cap is touched after being cleaned with alcohol, it is contaminated. Repeat the scrubbing procedures with alcohol on the affected parts.
- Inject the medication as instructed. Some medications need to be injected slowly. **It is critically important to follow individual medication instructions.**
- After injecting the medication, untwist the syringe from the CVC cap and throw it away.
- If you are injecting more than one medication, you must flush and clear the CVC with saline between medications in case the medications are not compatible with each other.
- **When finished using the CVC, flush the CVC with the prescribed solution (heparin or saline). This will keep clots from forming in the lumens.**
- Clamp the CVC.
- Dispose of the needle in an appropriate puncture-proof container with a lid. Your nurse can provide you with a special container for this purpose. Never put needles in the trash if they aren't properly contained.
- Wash your hands.

## MANAGING AN IMPLANTED CATHETER

### Changing a CVC dressing:

The CVC dressing is changed every 7 days when using a transparent dressing, and more often if needed. Your nurse will give you the supplies and instructions about changing a dressing. Improperly changing a dressing can expose the skin at the exit site to germs and cause serious infections. Your nurse will change your dressing when you cannot.

- **It is very important to minimize the risk of infection when changing a dressing.**
- Set up a clean work surface. Gather supplies and arrange them in the order to be used. Remove clothing that could get in the way.
- Wash your hands thoroughly for 15 seconds with soap and warm water.
- Carefully loosen and remove the old dressing: Peel the dressing toward the site without pulling on the CVC. If there is a pad under the outermost dressing, make sure to remove it and throw it away.
- Inspect the exit site and the skin around the CVC. It is easier to do this by looking in the mirror. Report any signs of infection to your nurse: raw red skin, warmth, swelling, drainage from the exit site, leakage around the catheter, or odor.
- Wash your hands again.
- Open a dressing change kit.
- Take the paper towel from the kit touching only the edges. Unfold the towel and place it on your work area. Without touching the contents, drop the remaining contents of the sterile dressing kit onto the towel.
- Find the sterile glove package and put on the sterile gloves being careful not to touch them to any surfaces. Your nurse can show you how to do this properly.
- Activate the Chloraprep sponge applicator by squeezing the tabs firmly together.
- Beginning at the exit site, vigorously cleanse a 4-inch x 4-inch area with the Chloraprep. Cleanse for 30 seconds using up and down or side-to-side motions.
- Allow the site to dry for at least 30 seconds. Do not blow on the site to speed drying.
- Apply barrier film to the edges of the cleaned area and allow it to dry completely.
- Peel the backing off the clear dressing and apply centrally over the CVC exit site. Do not stretch the dressing over the site. It takes practice to handle the clear dressings.
- Loop and tape the CVC to the skin to prevent it from dangling.
- The injection cap must also be changed every seven days. Due to the risk of infection, this technique must be performed without contaminating any internal surfaces of the cap or the CVC tubing. Your nurse can show you how to do this properly.

**Need more information or help? Call 633-3400 24 hours a day, 7 days a week to get live help. Thank you for letting us help care for you and your loved ones.**