

Troubleshooting Your Central Line

A central line (**CL**) is a central venous catheter (**CVC**) that is placed by a trained healthcare provider for the purpose of accessing the vascular system. CLs are used for many things, including the administration of medications like clotting factor. Some CLs also may be used to draw blood.

CLs can be placed in various locations, most commonly near the neck, upper chest or mid to upper arm. One thing they all have in common is the internal placement of the CVC “tip” in the superior vena cava. The superior vena cava is a very large blood vessel that receives all blood from the upper half of the body and flows into the top right chamber of the heart, allowing about 1½ to 2½ liters of blood per minute. This allows intravenous fluids that may irritate or damage peripheral veins to enter the body through a more diluted system.

Safety in the home

It is very important to always keep safety in mind when managing CL care and use in the home. Only patients and their caregivers who have been properly trained by qualified healthcare professionals should handle the CL, medications and fluids being used.

- Always have emergency phone numbers available. In addition to **911**, be sure to post contact information for your doctor, pharmacy and nursing providers.
- Seek 911 emergency assistance for any severe, life-threatening situation, such as uncontrolled bleeding, difficulty breathing, chest pain, severe pain, or swelling of the face or neck (with or without a rash).
- A current list of all medications, allergies and pertinent medical information should be available to home care providers and to emergency or hospital staff if needed.
- **BioRx** maintains 24/7 on-call clinical staff who are available to answer questions at **866-442-4679**.

Flushing Difficulties

One of the most common problems encountered in caring for a CL is the difficulty in flushing the line. Flushing helps to maintain the path that fluids must flow through. In nearly all cases, a CL will require routine flushing. Refer to your current training and prescription for your specific CL care instructions. Normal saline and heparin are the most common flushing fluids and are available in pre-filled single-use syringes.

How to Troubleshoot Flushing Difficulties

- Begin with a look at the entire line, from the beginning of the line to the end cap. Do you see any kinks? Is anything pinched off by clothing, tape or dressing?
- Are there any clamps on the line that are closed? If there is more than one line coming from the hub (at or near the insertion/exit site) that is not in use, leave the clamp for the unused line closed.
- What position is the arm/head/neck in? Move the arm away from the body to open up the shoulder, raise the arm above your head, and turn your neck to the left or right.
- Is the patient in pain? Any new concerns or symptoms of illness?
- Is the end cap on securely? Has it recently been changed? If the end cap is not put on correctly, consider changing it. Be sure to prime the cap first. The cap is designed to have you push and then turn to attach it to other tubing or the flush syringe.
- Before flushing, remove the air from the syringe by pulling the plunger down, while pointing the tip up, and then expelling the air in the syringe before attaching it to the end cap for flushing the line.
- Follow the gentle push-stop, push-stop flushing technique with the plunger to attempt to flush the line. If it is sluggish, with minimal resistance, continue to flush the line.
- If the flushing seems to get easier and there is no discomfort to the patient, repeat with a second flush syringe to be sure the line is in good working condition.
- If flushing is moderately difficult, ask the patient to turn his head away from the direction of the catheter and have him cough several times and attempt to flush again.
- If moderate-to-severe in difficulty, and the flush will not go in, stop the attempt.
- NEVER FORCE a flush as it may result in damage to the catheter and serious injury to the patient.
- Remember to wash your hands before and after when caring for your CL. Clean end caps with alcohol swab as instructed before using.
- After successful flushing with your prescribed medication (heparin and/or saline), remember to close the catheter clamp.
- If you are unable to flush after trouble-shooting, call your home healthcare provider or medical provider.

*Look for Troubleshooting Your Central Line-Part 2
in the August issue of Information Infusions*

Contact your BioRx representative for further information, or call us at 1-866-442-4679!