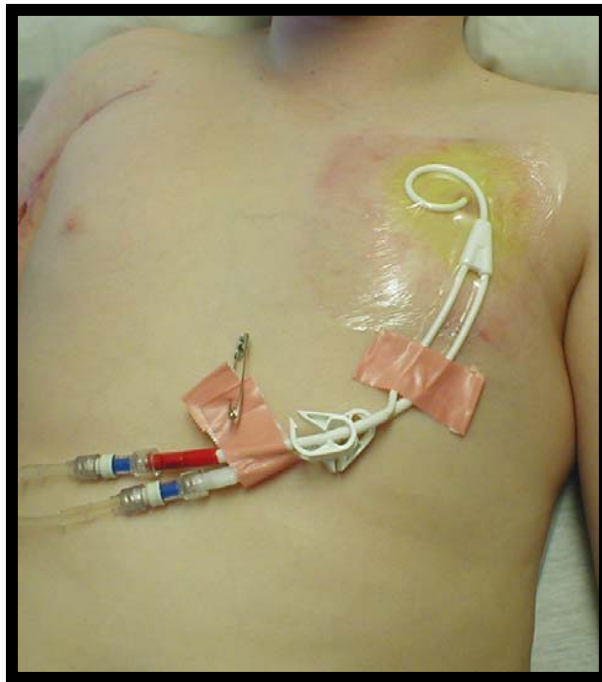


Central Venous Catheter Line Care



Stephanie Cox

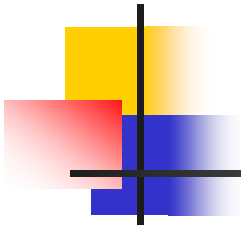
Agnes Piotrowski

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My child has a _____ lumen central
venous catheter

Dressing change day _____

Type of dressing: _____

Heparin locking 2 days a week on _____

Cap change day _____

Oncologist _____

Clinic Nurse _____

Important Phone Numbers _____

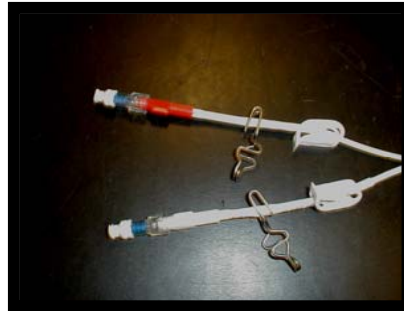
Arrange to restock your supplies at least one week before you run out by calling the Outpatient Pharmacy in Children's Hospital 604-875-2205. A prescription is not required for restocking supplies.

Emergency CVC Line Care

A break in the line is a medical emergency!

1. CLAMP!

- Use the slider clamp and/or the bulldog clamp, to clamp closer to your child than the break in the line



2. COVER!

- Use a sterile dressing to cover the break in the line



3. CALL!

- If you are in the hospital call the closest health professional
- If you are at home call the Emergency Department at your local hospital



Dressing Change



- To be done once a week and as needed for soiled or loosened dressings
- Choose a time when you will not be rushed and a place where you will not be interrupted

Needed Equipment



- 1 transparent tegaderm dressing (10X14)
- 2 chlorhexidine/alcohol swabs
- 3 packages chlorhexidine swab sticks
- 1-2 packages sterile cotton tipped applicators
- Waterproof tape
- Bottle of alcohol
- Paper towel
- Gather all your equipment before starting

Clean Surface



- Clean a non-porous surface with alcohol using a paper towel
- Allow it to air dry
- Examples of non-porous surfaces are: stainless steel cookie tray, glass tray, hard smooth plastic tray
- If you are unsure of what a non-porous surface is, check with your nurse

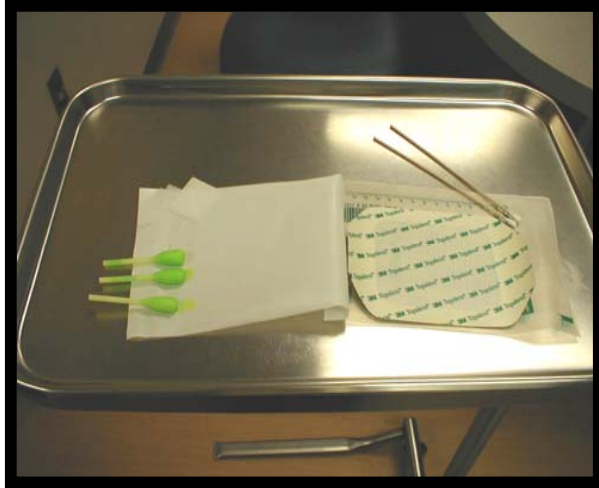
Handwashing



- Remove all rings and your watch
- Use antibacterial soap to wash your hands
- Scrub your hands for 1 minute
- Rinse well
- Dry your hands with paper towel and turn off the taps with the paper towel



Prepare Equipment



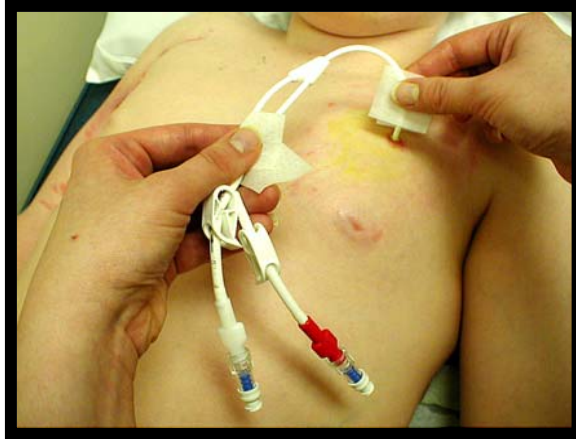
- Peel open the transparent dressing first
- Set it down as an open book to act as your sterile surface on which you lay your other equipment
- Keep all the dry equipment on one side of the package and the wet equipment on the other
- Touch only one corner of chlorhexidine/alcohol swab. The TOUCHED corner must never come in contact with the exit site
- Do not touch the cotton tipped ends of the swab sticks or applicator

Remove the Old Dressing

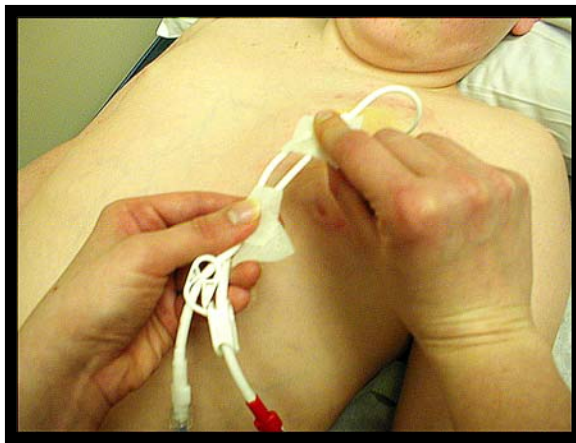


- First, take off the tape holding the catheter in place
- Peel off the transparent dressing by loosening the corners
- Carefully, lift off the entire transparent dressing at once
- Inspect the exit site for any signs of infection
- If you see any signs such as redness, swelling, drainage, unusual crusting or leaking around the catheter, finish the dressing and then call either the clinic or oncologist on call

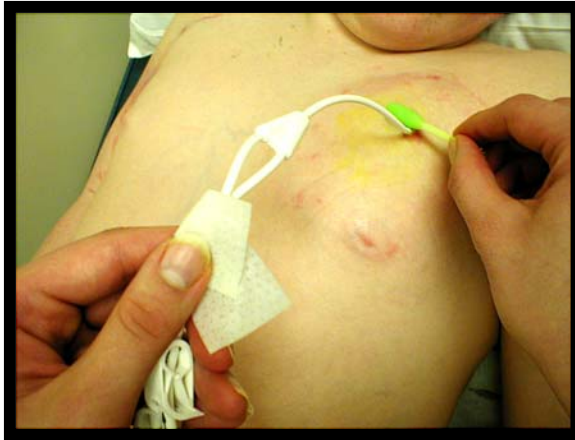
Clean the Catheter



- Fold the chlorhexidine / alcohol swab around the catheter at the exit site and pull this swab away from the exit site wiping the catheter clean
- Go over the catheter only once with the swab

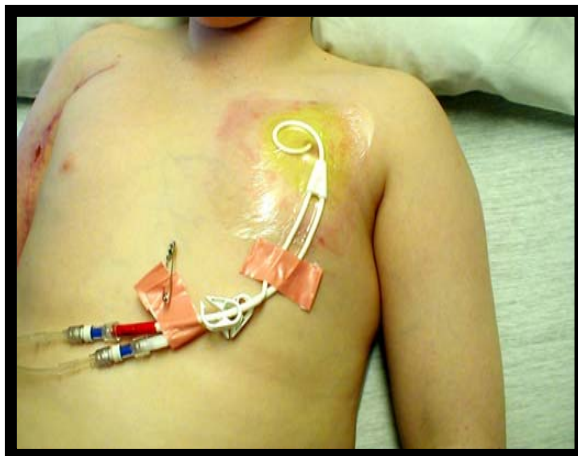


Cleaning the Exit Site



- Clean exit site with a chlorhexidine swab stick with back & forth motion. Use gentle pressure
- If necessary, use a cotton tipped applicator to remove any crusting or discharge from around the exit site. Use one or more applicators as needed to remove the crusting
- With the second and third swab sticks, clean around exit site again in a back & forth motion covering 1 inch radius around site for **at least 1 minute**

Applying New Dressing



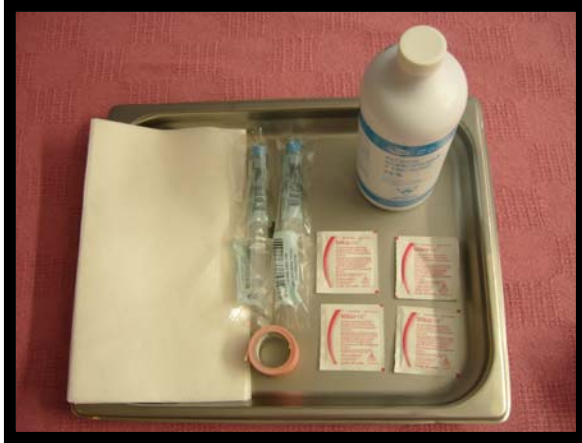
- Holding the catheter at the V-site, make a loop in order to coil the catheter under the dressing
- Be careful not to contaminate the cleaned area
- Remove the backing from the tegaderm dressing and smooth it over the catheter making sure it seals firmly
- There are different types of dressings that can be used. The nurse will show you how to apply the dressing that is best for your child
- Apply a piece of waterproof tape tab to the end of catheter and pin the tape tab to the undershirt (the pin goes through the tape not the catheter!)

Heparin Locking



- Needs to be done twice a week (eg. Monday/Thursday)
- Choose a quiet time of the day and stick to a routine
- Heparin locking ensures the patency of the line

Equipment Needed



- Bottle of alcohol
- Paper towels
- 2 pre-filled heparin syringes (10U/ml)
- 3-4 chlorhexidine/alcohol swabs
- Waterproof tape
- Gather all your equipment before starting

Clean Surface



- Clean a non-porous surface with alcohol using a paper towel
- Allow it to air dry
- Examples of non-porous surfaces are: stainless steel cookie tray, glass tray, hard smooth plastic tray
- If you are unsure of what a non-porous surface is, check with your nurse

Handwashing



- Remove all rings and your watch
- Use antibacterial soap to wash your hands
- Scrub your hands for 1 minute
- Rinse well
- Dry your hands with paper towel and turn off taps with paper towel

Prepare Equipment



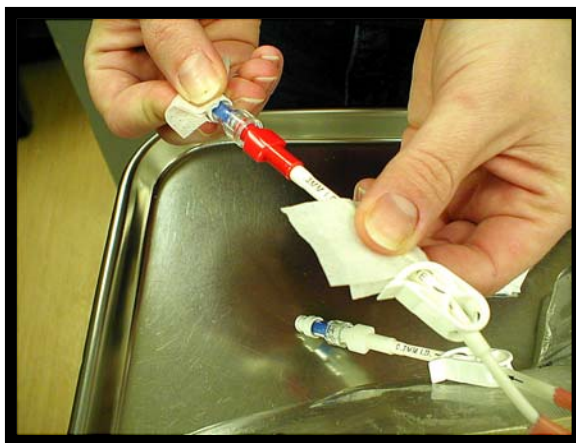
- Open the first package of chlorhexidine/alcohol swabs on 3 sides and set it down as an open book (This provides sterile surface on which to set down the next 3 swabs)
- Open the next 3 swabs and lay each one beside the next on the sterile surface.
- Touch only one corner. Put the swabs down so that these contaminated corners all face the same direction and lie off the sterile surface
- Open the pre-filled heparin syringe packages.

Removing Air Bubbles



- If there are air bubbles in the syringe, take the cap off the syringe and tap the syringe with your knuckles to shift the bubbles to the top of the syringe
- Push very lightly on the plunger to move the air up and out of the syringe

Clean the Injection Lock Cap and Catheter



- Remove the emergency clamp from the catheter
- Scrub the cap with a chlorhexidine/ alcohol swab for 1 minute
- Holding the cap with the swab, surround the catheter with a second swab and clean from the cap along the catheter, including the clamp, towards the exit site
- Do this once only and then discard the swab. Discard the swab from the end of the cap. Do not put the catheter down after you clean it
- Allow the catheter to dry for 1 minute

Injecting the Heparin



- Attach the heparin syringe onto the cap in a clockwise direction. With one hand, open the clamp
- With the other hand, do 2 quick pushes on the plunger then steadily push it in. Clamp the catheter at the 2.5 ml mark while still pushing the plunger (This prevents blood from backing into the line) If your child weighs less than 10kg clamp at 3.5ml mark.
- There should still be heparin in the syringe when you are finished
- Remove the syringe and wipe the cap with the remaining swab
- Repeat these steps for heparin locking of the second lumen
- Remember to use one syringe per catheter



Cautions



- If the solution will not enter the catheter freely, do not force it
- Check that the clamp is off, if this is not causing the problem try changing the cap
- If this is not causing the problem, remove the syringe and contact the clinic
- The blockage may be caused by a clot in the line

Cap Changing



- Needs to be done once a week
- Change the caps the same time as doing dressing changes and heparin locking

Needed Equipment



- 3-6 chlorhexidine/alcohol swabs
- 1-2 caps
- Bottle of alcohol
- Paper towels
- Waterproof tape
- Gather together all of your equipment before you begin

Clean Surface



- Clean a non-porous surface with alcohol using a paper towel
- Allow it to air dry
- Examples of non-porous surfaces are: stainless steel cookie tray, glass tray, hard smooth plastic tray
- If you are unsure of what a non-porous surface is, check with your nurse

Handwashing



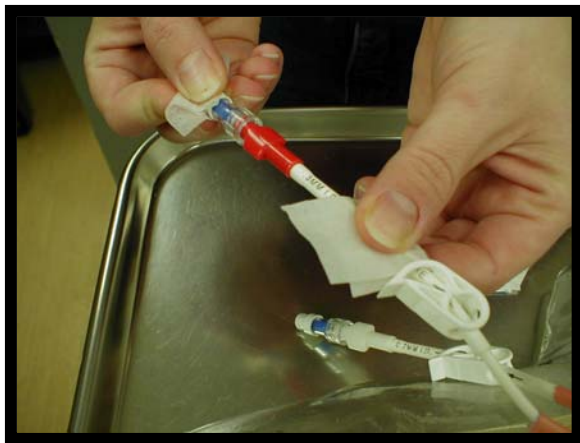
- Remove all rings and your watch
- Use antibacterial soap to wash your hands
- Scrub your hands for 1 minute
- Rinse well
- Dry your hands with paper towel and turn off taps with paper towel

Prepare Equipment



- Open the first package of chlorhexidine/alcohol swabs on 3 sides and set it down as an open book (This provides sterile surface)
- Open the next 5 swabs and lay each one beside the next on the sterile surface.
- Touch only one corner. Put the swabs down so that these contaminated corners lie off the sterile surface
- Open the packages with caps and leave caps in the package

Cleaning Around the Connection Point

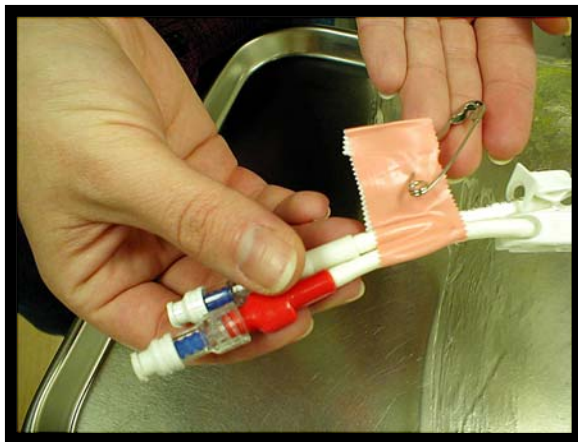


- Remove the emergency clamp from the catheter as well as any waterproof tape
- Scrub the cap around the connection site with a chlorhexidine/alcohol swab for 1 minute
- Holding the cap with the swab, surround the catheter with a second swab and clean from the cap along the catheter, including the clamp, towards the exit site
- Do this once only and then discard the swab
- With the third swab, clean the cap away from the connection and discard both swabs. Do not put the catheter down after you clean it
- Allow the catheter to dry for 1 minute

Changing the Cap



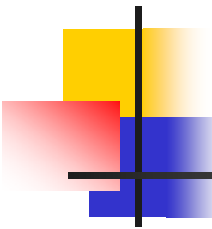
- Before changing the cap make sure that the catheter is clamped
- Holding the catheter, remove the cap by untwisting it counter clockwise
- Discard the old cap and pick up the new cap, making sure you do not touch the luerlock end
- Apply the new cap and twist clockwise
- Repeat these steps in order to change the second cap
- Apply a waterproof tape tab to the end of catheter and pin the tape tab to the undershirt (the pin goes through the tape not the catheter!)





Supplies in the CVC kit

- Isopropyl alcohol 70% (1 bottle)
- Chlorhexidine/Alcohol swabs
- Cotton tipped applicators (sterile)
- Gauze 2x2
- Caps
- Pre-filled heparin syringes
- Chlorhexidine/Alcohol swab sticks
- Tegaderm dressings
- Waterproof tape 1 inch
- Transpore tape 1 inch



Supplies to be purchased by parents

- Liquid antibacterial soap
- Paper towels
- Tray: (eg. metal, hard plastic tray, glass tray)
- Tupperware container to store the *CVC* kit (optional)