

Flushing A VAD (Vascular Access Device)



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Heparin

Heparin is a drug that prevents blood clots from forming in the catheter. We suggest that you flush the VAD (Vascular Access Device) with Heparin solution every 4 weeks or once per month.

This is how to flush Heparin solution through the VAD. Please follow each step carefully so that your hands and all the equipment stay “clean”. Keeping everything “clean” helps prevent infections in the VAD.

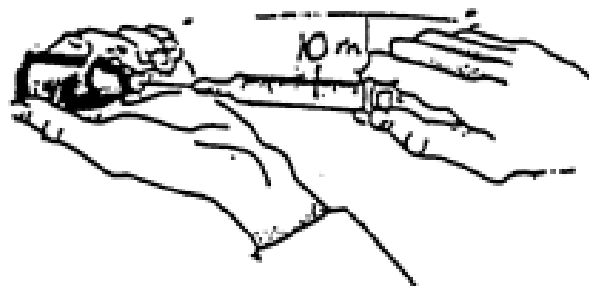
1. Gather the equipment

- Paper towels
- Chlorhexidine/alcohol swab sticks
- 3 chlorhexidine/alcohol swabs
- 2x2 gauze square
- 1 10u/ml vial Heparin lock solution
- 2 Normal saline solution 0.9% 10 ml vials or prefilled syringes
- Winged Huber point needle with tubing (use only this kind of needle - it will not damage the port).
- Syringes and needles:
 - 3 - #22 gauge 1 inch needles or blunt fill needles
 - 3 - 10ml Luer lock syringe(s)
- EMLA cream - this cream numbs the skin so the needle prick is less painful. If you use EMLA:
 - ▶ squeeze a nickel sized squirt over the VAD site
 - ▶ cover this with dressing
 - ▶ leave it for about 1 hour.



4. Draw up 10ml saline solution

- Open (2) needles and (2) 10ml syringe packages.
- Connect the needles to the 10ml syringes.
- Clean the top of the saline vials with chlorhexidine/alcohol swabs and allow to dry
- Pull the plunger back to the 10 mL mark to introduce air into the syringe. Remove the needle cover from the 10ml syringe.
- Stick the needle through the rubber top and inject the air into the vial. Slowly pull the plunger back to the 10 mL mark. This draws the saline solution into the syringe
- Put the cover back on the needle.
- If there are air bubbles in the syringe, flick the syringe lightly with your fingernail to shift the bubbles to the top, push fluid upward to expel all the air, set the syringe down.
- Fill another 10ml syringe in the same way.



2. Clean the work surface

- Use alcohol and a paper towel to wipe the counter or tray.

3. Wash your hands

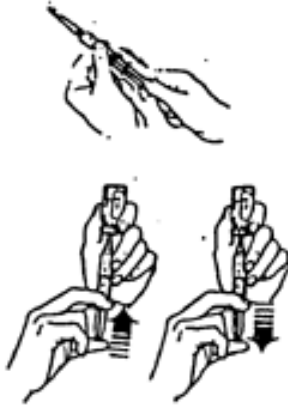
- Remove all rings and your watch. Use antibacterial soap and scrub for 1 minute, rinse well, then dry with paper towels and turn off the taps using the paper towel.

5. Connect tubing to syringe

- Twist the needle off the syringe and discard it into a sharps container (available from the pharmacy)
- Connect the Huber needle tubing to a saline filled syringe. (Leave the cover over the Huber needle).
- Push the saline through the tubing until it drips out of the needle.
- Close the clamp on the tubing.
- Set it down.

6. Prepare the Heparin syringe

- Remove the needle cover from the third 10ml syringe.
- Pull the plunger back to the 3ml mark to introduce air into the syringe.
- Clean the top of the heparin vial with a chlorhexidine/alcohol swab and allow to dry. Hold the vial upside down. Stick the needle through the rubber top and inject the air into the vial. Slowly pull the plunger back to the 3ml mark. This draws the heparin solution into the syringe.
- Remove the needle from the vial.



Air Bubbles

If there are air bubbles in the syringe, flick the syringe lightly with your fingernail to shift the bubbles to the top.

- Push very slightly on the plunger to move the air up and out of the needle.
- Put the cover back onto the needle.



7. Prepare the skin

- If you have used EMLA, clean it off the skin with a tissue.
- Wash your hands again.
- Find the VAD with your fingertips. Clean the skin over and around the VAD with chlorhexidine/alcohol swabstick. Start from the centre and move in a widening circle.
- Do this twice more using a new swabstick each time.
- Let it dry for 1 minute.



8. Insert the Huber point needle

- Remove the needle cover.
- Steady the VAD with your thumb and finger. Push the Huber needle straight into the middle of the VAD at a 90 degree angle. Open the clamp. Pull back slowly on the syringe plunger until a little blood appears in the tubing.



9. Flush the tubing

- Push 9ml of saline solution into the port.
- Clamp the tubing while still pushing the saline in when the syringe has about 1ml of solution left.
- Disconnect the 10ml syringe.
- Remove the needle from the second syringe to push another 9ml of saline through the tubing in the same way.
- Disconnect the 10ml syringe.
- Remove the needle and attach the 10ml syringe with the heparin solution to the tubing.
- Undo the clamp.
- Push almost all - 2.5ml of heparin into the tubing with 2 short pushes. Clamp before the syringe is totally empty. There should be 0.5ml left in the syringe.
- Steady the VAD with your thumb and finger and remove the needle.
- Discard the needles and tubing into a sharps container.
- Press the 2x2 gauze square over the site to stop any bleeding.

Cautions

Make sure your hands are clean.

Do not inject the solution until the needle is all the way in the port.

If the solution does not flow freely **DO NOT FORCE IT**. Withdraw the needle and call the doctor on call or the nurse working with you.

Do not reuse equipment.



Contacts

Community nurse: _____

Telephone: _____

Doctor: _____

Telephone: _____

Hospital nurse or other contact: _____

Telephone: _____

At Children's & Women's Health Centre of British Columbia we believe parents are partners on the health care team. We want you to be as informed as possible. This brochure will answer some of your questions. Please ask about things you do not understand and share your concerns.

If you have any questions, please call one of the contacts listed above.

Developed by the health care professionals of the Oncology Haematology/BMT Department and Parenteral Therapy with assistance from the Department of Learning & Development.

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