CHEO

HEPARINIZING A TOTALLY IMPLANTED DEVICE (TID) AND REMOVING THE NEEDLE

Why do I need to heparinize a Totally Implanted Device (TID)?

Heparin will prevent blood from clotting and blocking the port.

How often do I need to heparinize the Totally Implanted Device (TID)?

Heparinize the port every 30 days if not accessed, after the end of Parenteral Nutrition (PN) infusion for that day, or after the daily medication for that day.

What you need

- (1) 10ml syringe
- (1) Heparin pre-filled syringe 100u/mL
- (1) Prefilled 0,9% Sodium Chloride syringe per lumen
- (1) 4 x 4 sterile gauze for each port
- (1) alcohol swab for each port
- (1) 2 x 2 sterile gauze
- Sharps Container
- Non-sterile gloves

Steps

- **1.** Assemble equipment and wash hands.
 - Maintain aseptic technique throughout the procedure to minimize risk of complications.
- 2. Check the expiry date and dose of the pre-filled Heparin syringe.
- **3.** Prepare Heparin pre-filled syringe: Hold syringe, loosen protective cap. Pull back on plunger, remove any air bubbles and discard heparin until only 3mls remain in syringe. Tighten the cap until ready to use. Place on clean work surface. Repeat step if double port.
 - Do not let end of syringe or cap become contaminated by touching any non-sterile surfaces.
 - Flick barrel of syringe or tap to get all bubbles to top of syringe which may be caught at the bottom of the syringe.
 - Verify the order for heparin, including the concentration and volume needed, and perform an independent double-check (if needed).
- **4.** Loosen the pre-filled 0.9% Sodium Chloride syringe from it's packaging. Remove the white cap and remove all air bubbles from syringe. Tighten the cap until ready to use. Add Repeat step if double port.

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- 5. Turn off the infusion pump and close clamp on the IV tubing (if applicable).
- 6. Wash your hands and put on non-sterile gloves.
- 7. Open the package of sterile gauze and the alcohol swab. Apply swab to sterile gauze.
- 8. Remove the IV tubing from TID and discard (if applicable).
 - New tubing will be primed with each start of PN/medication each day.
- **9.** Grasp needleless connector cap with 4 x 4 sterile gauze and Scrub the Hub with Chlorhexidine swab for 15 seconds. Allow to air dry for 15 seconds.
 - Alcohol needs at least 15 seconds cleaning time to be most effective.
 - Air drying prevents cleaning solution from getting into valve.
 - If CURO is being used, simply remove. No need to Scrub the Hub unless the end gets touched or contaminated.
- **10.** Remove the white cap from the prefilled 10ml 0.9% Sodium Chloride syringe. Attach it to the needleless connector cap. Flush the catheter using a turbulent flushing method ("push-stop").
 - Watch for any resistance, pain, discomfort or leakage of fluid around the TID.
 - Turbulent flushing will help to clear the TID line of any fibrin or debris from the PN which may be sticking to the wall of the catheter.
- **11.** Remove the first saline syringe and repeat with the second saline syringe (if needed for PN administrations requiring 20ml flush). Keep holding onto the TID line using the 4 x 4 sterile gauze to avoid contaminating the needleless connector cap.
- **12.** Remove second syringe (if applicable). Attach the pre-filled heparin syringe to the needleless connector cap. Slowly flush the required amount of heparin solution into the Totally Implanted Device (TID).
- **13.** Remove the syringe and dispose of all equipment into the appropriate receptacles.
- **14.** Repeat steps #7-12 if double port.

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To Remove TID Needle

- **15.** Carefully remove the transparent dressing and steri-strips from the Totally Implanted Device (TID) needle.
- **16.** With your non-dominant hand, stabilize the port by securely holding the finger tabs down on the safety infusion set with index finger and middle finger.
- **17.** Firmly pull the wings up until you hear or feel a "click."



A little bit of force is needed to remove the needle from the chamber.



- **18.** Apply pressure to the puncture site with sterile 2 x 2 gauze as needed. Hold for a minute or two until bleeding stops.
 - The bleeding is not from the port chamber but from the skin. There is usually not much bleeding from the site.
- 19. Apply a bandage to site if needed. Repeat steps #20-#23 if double TID.
 - The bandage does not need to stay in place for long.
- **20.** Document amount used to flush and amount of heparin instilled into the Totally Implanted Device (TID).
 - Notify the Home Service Provider nurse if you have any concerns or problems with the Totally Implanted Device (TID).



CHEO uses needleless connector caps which are designed to help reduce the risk of occlusions and infections.

Caution! Curos, caps from syringes, and packaging are choking hazards for children. Please ensure you remove these items from your work area immediately upon completion.