

### Site Applicability

Applicable in all BC Children's Hospital areas where patients with implanted ports are cared for.

### Purpose

An implanted port is an area where microorganisms can enter the body and cause a local or systemic infection. Keeping the area clean, dry and covered is important in preventing catheter-related bloodstream infections. This is the procedure for accessing, de-accessing and dressing an implanted port.

### Policy Statements

Strict aseptic no-touch technique is required during vascular access procedures to reduce the risk of catheter-related infection.

Only Huber (non-coring) needles are used to access implanted vascular access devices. Other needles can cause coring of the septum with resulting damage to the device.

The Huber needle is routinely changed every 7 days.

An un-accessed port must be accessed, flushed and heparinized every 28 days to maintain patency.

An accessed port must be flushed and re-heparinized every 7 days to maintain patency.

### Practice Level/Competencies

Accessing, dressing and de-accessing implanted ports are considered **foundational nursing skills** and are practiced once the RN has:

- Watched the port accessing nursing video: [https://www.youtube.com/watch?V=si0iirtbmp8&feature=emb\\_title](https://www.youtube.com/watch?V=si0iirtbmp8&feature=emb_title)
- Attended the Vascular Access Workshop
- Practiced the procedures in the lab setting
- Been validated by the appropriate clinical support person (i.e. clinical nurse educator, clinical resource nurse, port competent RN)

### Definitions

**Aseptic no-touch technique (ANTT)** a standardized technique that is used during clinical procedures to identify and prevent microbial contamination of aseptic key parts and key sites by ensuring that they are not touched either directly or indirectly. A 'key part' is the part of the equipment that must remain sterile and must only contact other key parts or key sites. Or it is the area on the patient such as a wound, or IV insertion site that must be protected from microorganisms. Aseptic key parts can only contact other aseptic key parts/sites. If it is necessary to touch key parts/sites, sterile gloves are to be worn to ensure asepsis is maintained.

**Huber needle** a non-coring needle specially designed for inserting into the septum of an implanted port.

### Equipment

- Hospital grade surface disinfectant wipe (ie: Caviwipe®)
- 2% Chlorhexidine and 70% alcohol swab stick
- Dressing tray
- Mask and sterile gloves
- 10 mL sterile pre-filled normal saline syringes x 2\*
- Needleless connector\* (Neutron cap)
- Sterile gauze 2x2" (omit if line is to be infusing)
- Band-aid (omit if accessing port)
- Dressing if required\*
- 90° Huber needle of appropriate size with extension tubing\*

## DOCUMENT TYPE: PROCEDURE

**NOTE:** a #22 gauge, 3/4" Huber needle is the most common size used. Other gauges and needle lengths may be needed depending on the child's weight and thickness of subcutaneous tissue. A #19 gauge is recommended for bone marrow infusion via an implanted port.

**NOTE:** If accessing a double lumen implanted port, double quantities for \*

**If heparin locking add:**

Pre-filled syringe of Heparin 10 units/mL (1 per port)

**If commencing infusion:**

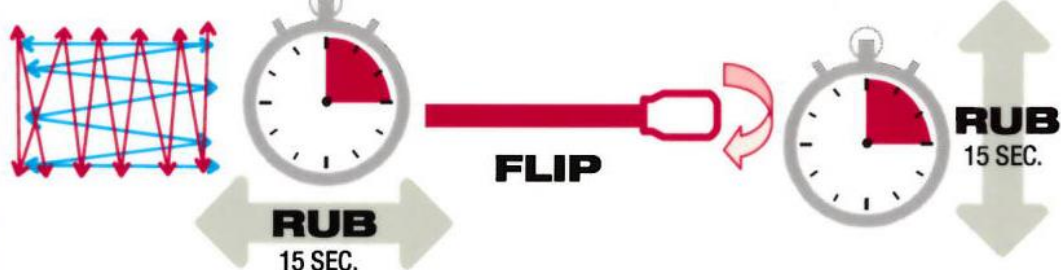
Prepare solutions and tubing as required. refer to Administration Set Priming and Loading and Initiating or Changing the Infusion Set – CV.01.05

**If drawing blood add:**

Vacutainer or syringes and appropriate blood specimen tubes, requisitions and labels  
Refer to Blood Sampling - Vacutainer Method or Syringe Method

### Procedure

Steps	Rationale
1. <b>IDENTIFY</b> patient and <b>EXPLAIN</b> procedure. <b>CONSIDER</b> use of local anesthetic cream prior to accessing device and <b>APPLY</b> to site if needed.	<i>Failure to correctly identify patients prior to procedures may result in errors. Reduces child and caregiver's anxiety. Evaluates and reinforces understanding of previously taught information and confirms consent process.</i>
2. <b>PERFORM</b> hand hygiene as per infection control standards and <b>ASSESS</b> location of port to be accessed, noting any redness or drainage. <b>REPORT</b> any of these to the physician.	<i>To assess condition of port and determine size of needle needed.</i>
3. <b>ASSESS</b> appropriate Huber needle size based on septum location and patient size (patient/caregiver member may be aware of their usual needle gauge and length.)	
4. <b>CLEAN</b> work surface with hospital grade surface disinfectant wipe (e.g. CaviWipes®) and let dry for recommended contact time.	<i>Routine infection control practices; reduces transmission of microorganisms.</i>
5. <b>PERFORM</b> hand hygiene as per infection control standards.	
6. <b>DON MASK and PREPARE</b> equipment using aseptic no-touch technique. Add sterile supplies to tray as required. Place all other "non-sterile" items on a separate clean surface (i.e. pre-filled heparin syringe, blood tubes).	
7. If patient has topical anesthetic, <b>REMOVE</b> any excess from the port site. <b>PERFORM</b> hand hygiene.	
8. Don sterile <b>GLOVES</b> .	

<p>9. <b>ATTACH</b> sterile pre-filled normal saline syringe to needleless connector. <b>ATTACH</b> needleless connector to Huber needle extension tubing. <b>PRIME</b> Huber needle and tubing to expel all air and <b>CLAMP. PLACE</b> on sterile tray.</p>	<p><i>Facilitates completion of task in a timely manner.</i></p>
<p>10. <b>PLACE</b> sterile drape below the port access area.</p>	
<p>11. <b>CLEAN</b> skin over port with the swab stick using a back-and-forth motion with light friction for 15 seconds. <b>FLIP</b> the swab stick and moving in opposite direction, <b>CLEAN</b> skin using a back-and-forth motion with light friction over the site for another 15 seconds.</p>	<p><i>This action promotes binding of the chlorhexidine to the layers of skin and improves efficacy. Flipping the swab stick allows for maximum dispensing of antiseptic solution from the sponge.</i></p>
<div style="text-align: center;">  <p><b>RUB 15 SEC.</b>      <b>FLIP</b>      <b>RUB 15 SEC.</b></p> </div> <p>Flipping the swab during the application allows for maximum dispensing of the antiseptic solution from the sponge.</p>	
<p>12. <b>ALLOW</b> chlorhexidine/alcohol solution to air dry for at least 1 minute or for 3 minutes if using swab sticks without alcohol.</p>	<p><i>Provides time for optimal efficacy and decreases risk of skin irritation or burn.</i></p>
<p>13. <b>REMOVE</b> the safety cover of the needle. With your non-dominant hand, <b>STABILIZE</b> the port with thumb and 2 fingers.</p>	<p><i>Stabilizes port to ease insertion.</i></p>
<p>14. With other hand, grasp the wings of the needle and <b>INSERT</b> Huber needle at a 90°, through the skin into the septum of the port until the needle contacts the base of the port. Do not twist or rock needle once inserted as this may cause coring to the septum.</p>	
<p>15. <b>UNCLAMP</b> extension tubing and withdraw until blood return is seen. If blood sampling is to be done proceed with sampling procedure Vacutainer Method or Syringe Method.</p>	<p><i>Verifies successful port access.</i></p>
<p>16. <b>FLUSH</b> the port with appropriate volume using a turbulent flush. Refer to Assessment and Routine Care of Patient with Vascular Access -CV.03.38 reference guide.</p>	<p><i>The turbulent (start-stop) technique is recommended in order to create turbulence during flushing to clear the internal reservoir and has been shown to have a more effective cleansing action than passive injection.</i></p>
<p>17. <b>OBSERVE</b> for swelling around the device. If swelling and/or resistance is encountered <b>STOP</b> flushing, <b>REMOVE</b> needle and <b>RESTART</b> at step #11 using a new Huber needle.</p>	<p><i>Swelling may indicate leakage from the device. Resistance may indicate improper placement of the needle or occluded catheter.</i></p>
<p>18. <b>CLAMP</b> extension tubing.</p> <ul style="list-style-type: none"> <li>If continuing with infusion, <b>APPLY</b> dressing over entire access site; <b>REMOVE</b> normal saline syringe and <b>CONNECT</b> to new IV tubing, <b>UNCLAMP</b> extension tubing, <b>TURN</b> on infusion</li> </ul>	

<p>pump; <b>SECURE</b> the tubing to clothes using tape tab and safety pin.</p> <ul style="list-style-type: none"> <li>• If <b>Heparin Locking</b>, <b>PROCEED</b> with heparin locking procedure.</li> <li>• If <b>De-Accessing</b>, <b>PROCEED</b> with heparin locking procedure. <b>REMOVE</b> old dressing and <b>DISCARD</b>. With non-dominant hand, <b>STABILIZE</b> finger tabs. With your dominant hand, <b>HOLD</b> the wings of the needle with your thumb and finger. Gently <b>REMOVE</b> Huber needle by pulling wings straight up and out. <b>APPLY</b> gauze and a Band-aid if required.</li> </ul>	
<p>19. <b>DISCARD</b> used supplies and gloves and <b>PERFORM</b> hand hygiene. <b>REMOVE</b> mask and <b>PERFORM</b> hand hygiene.</p>	<p><i>Routine infection control practices; reduces transmission of microorganisms.</i></p>

**DOCUMENTATION**

**DOCUMENT** on appropriate record(s) (i.e. Central Venous Line Flowsheet for all routine procedures):

- Date of procedure
- gauge and length of Huber needle used
- heparin locking if applicable
- complications with accessing or flushing if applicable
- patient's response to procedure if unusual

**References**

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### Developed By

BCCH Hematology/Oncology – Clinical Nurse Educator

### Version History

DATE	DOCUMENT NUMBER and TITLE	ACTION TAKEN
18-Dec-2019	C-05-12-60456 Accessing, Dressing And De-Accessing An Implanted Port	Approved at: C&W Best Practice Committee

### Disclaimer

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