

CLINICAL PROCEDURE

IMPLANTED PORT MANAGEMENT

TARGET AUDIENCE

All Peter Mac staff responsible for the management of implanted ports and who have been appropriately credentialed (please refer to the credentialing statement below)

STATE ANY RELATED PETER MAC POLICIES, PROCEDURES OR GUIDELINES

[Hand Hygiene Procedure](#)

[Aseptic Technique Procedure](#)

[Principles of Management of Central Venous Access Devices Guideline](#)

[Blood Sampling from a Central Venous Access Device \(CVAD\) Procedure](#)

[Central Venous Access Device \(CVAD\) Dressing, Securement Device Change And Cap Change Procedure](#)

[Administration and Management of Anti-Cancer Drugs](#)

PURPOSE

This document outlines the evidence-based best practice procedure for management (accessing and deaccessing) an implanted port in adult patients at Peter Mac. The information in this document pertains to management of all implanted ports **excluding the following**:

- **Bard HighFlow Apheresis Port** as these devices can only be accessed by Apheresis Nursing staff using specific access needles
- **Intraperitoneal Ports** – information about the use of these devices can be found in the “Administration & Management of Anti-Cancer drugs” clinical procedure

CREDENTIALING

To ensure standardised management of CVADs an evidence based standard is required. Staff must undertake education, training and assessment in the management of a patient with a CVAD to be able to undertake procedures required to manage a patient’s implanted port.

This education includes a period of supervised practice as per the requirements of the Unit or Department Manager and completion of an assessment. Evidence of completion of these requirements must be submitted to the relevant manager for approval, as part of their scope of practice. Nursing staff seeking recognition of current competence must also comply with this requirement and submit their evidence to a Clinical Nurse Educator/Practice Development Nurse or Nurse Unit Manager

PROCEDURE

Accessing an Implanted Port

- Equipment required
 - EMLA Anaesthetic cream (if required) – this can be applied once without a medical order but subsequent use will require an ongoing a medical order. This is done through the EMR and documented in the medication administration record (MAR).
 - Trolley with biological hazard sharps disposal container
 - Sterile dressing tray
 - 1 x sterile gloves
 - 1 x safety non coring needle for each lumen to be accessed (Note: a power injectable safety non coring needle must be used if the device is being accessed for a CT procedure)
 - 1 x large transparent semi-permeable membrane (TSM) dressing
 - 1 x antimicrobial 2% chlorhexidine gluconate & 70% isopropyl alcohol protective barrier swab (
 - 1 x 10ml syringe per lumen (for discard) for each lumen accessed
 - 2- 3 x Posiflush syringes (1 for priming access needle/s & 1- 2 per lumen for flushing)
 - 1 x Neutral Displacement Catheter Patency Device (Neutron) for each lumen to be accessed
 - Optional: 1 x needleless access device (Clave[®] connector) for side port of non coring needle lumen, if present, for each lumen to be accessed
- Procedure
 - If EMLA cream is to be used it should be applied at least 30 mins prior to accessing the device & be removed completely before the skin is cleaned
 - Perform routine hand hygiene with alcohol based hand rub solution or soap and water if hands are visibly soiled. Refer to [Hand Hygiene](#)
 - Open sterile dressing tray and open equipment onto the tray
 - Don goggles
 - Perform hand hygiene and don sterile gloves
 - If required, replace injection cap at Y on port access device with a needleless access device (Clave[®] connector)
 - Attach the Neutron to the safety non coring needle and prime the cap and line using 10ml Posiflush syringe and repeat for any additional lumens if required prime the needleless access device (Clave[®] connector) on the side port.

- Using a 2% chlorhexidine & 70% isopropyl alcohol antimicrobial protective barrier swab, start at the intended site of needle insertion and using gentle friction, work outwards in a spiral motion to clean an area of skin approximately 5cm from the insertion site, turn the stick over and repeat the clean of the skin. Discard the swab
- Allow site to air dry completely (approx. 30 seconds)
- Stabilise the port with thumb and forefinger and insert the safety needle at a 90° angle into the centre of the port
- Push firmly until the needle makes contact with the base of the port chamber
- Attach an empty 10ml syringe to the Neutron and aspirate at least 5mls of blood to remove heparin from the port and to confirm appropriate needle placement. Discard syringe
- Using the 2 x 10ml Posiflush syringes, flush with 20ml sodium chloride 0.9%, using a pulsatile (stop start) technique (repeat these steps if accessing a double lumen port)
- If present remove safety needle insertion clip by sliding it towards the end of the needle arm and lifting
- Secure needle with a single layer TSM dressing, leaving clamps and caps free of dressing
- Discard any sharps in sharps bin and all contaminated equipment in hazardous waste bin and remove gloves and perform hand hygiene
- Label dressing with date
- Document intervention in the patients' medical record.

Deaccessing an Implanted Port

- Equipment required
 - 3 x 10ml syringes(Posiflush only used for accessing device as a sterile technique is required) Goggles
 - Non-sterile gloves
 - 2 x 10ml ampoules sodium chloride 0.9%
 - 1 x ampoule heparinised saline 50 units in 5ml (will require 2 ampoules of Heparinised Saline if a double lumen port is accessed and requires heparin locking). This must be prescribed on the patients medication administration record.
 - Sterile gauze (if required)
 - IV pressure pad/Band-Aid®
- Procedure
 - Perform routine hand hygiene with alcohol based hand rub solution or soap and water if hands are visibly soiled. Refer to [Hand Hygiene](#)
 - Don goggles and non-sterile gloves
 - Disconnect any intravenous lines

- Flush port access device with 20ml sodium chloride 0.9% (using 2 x 10ml syringes)
- Unless the implanted port is to be immediately reaccessed with a replacement needle, lock the port with 5mls of heparinised saline 50 units in 5 ml solution in a 10 ml syringe, closing access device tubing clamp as last 0.5ml of solution is injected
- Remove existing dressing, remove gloves and discard
- Perform routine hand hygiene
- Don non-sterile gloves
- Stabilise the safety needle base with your thumb and forefinger
- Remove the safety needle using the recommended approach - Gripper needles require stabilising the needle with one other hand, and placing a finger on the tip of the safety arm. Lift the safety arm straight back (the needle should come out perfectly straight). PowerLoc needles – slide the safety device to the tip of the needle and remove
- Click the needle into the locked position before releasing your securing hand
- Dispose of the safety needle into a sharps container
- Apply pressure to the site with gauze to stem any bleeding (if required)
- Apply IV pressure pad/Band-Aid® when bleeding ceased (if required)
- Discard all contaminated equipment, remove gloves and perform hand hygiene
- Document intervention in the patient’s medical record

DEFINITIONS

<p>Scrub the Hub</p>	<p>Application of a 2% chlorhexidine and 70% isopropyl alcohol swab to all access hubs on CVAD lumens and lines. Scrubbing the hub for 15 seconds in a twisting motion (sides & top of hub) and air drying for 30 seconds can significantly reduce the risk of a patient developing a Staphylococcus aureus bloodstream infection. All care must be taken to prevent recontamination of the hub once it has been appropriately cleaned</p>
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Implanted port	<p>A surgically inserted central venous access device (CVAD) consisting of a self-sealing silicone septum housed in a body of inert material. The body is connected to a silicone catheter which is inserted into the venous system, typically placed with the tip positioned in the superior vena cava (SVC). The device is used for administration of fluids, blood products and medications and blood sampling. Implanted ports may be single or double lumen.</p>
Vortex LP Implanted Port	<p>A single or double lumen central venous access device which is commonly used for Apheresis procedures. It consists of a titanium reservoir and a silicone catheter. The vortex design of the septum assists to hyper cleanse the entire reservoir, preventing sludge build up, and reducing occlusions and infections. The device is used for administration of fluids, blood products and medications and blood sampling. It is not a power injectable device and should not be used for CT contrast injections but is MRI compatible</p>
Needle free Connector (Clave)	<p>A Clave is a needle free connector for an access device used on all peripheral intravenous catheters. It can be directly accessed with a syringe or infusion line. Claves are used on tunnelled haemodialysis lines to distinguish it as a device that requires heparin.</p>
Needle free Neutral Displacement Catheter Patency Device (Neutron)	<p>A Neutron is a needle free neutral displacement device that is attached to the hub end of a CVAD lumen that can be directly accessed with a syringe or infusion line. The device has a bi-directional silicone seal which forms a swabable barrier to prevent bacterial ingress. The device can be used to either infuse or aspirate via the CVAD. In the absence of flow or forward pressure into the Neutron the valve will automatically close and prevent all types of reflux into the CVAD lumen which prevents thrombotic occlusion of the CVAD.</p>
Transparent semi-permeable membrane (TSM) dressing	<p>A sterile, transparent polyurethane dressing that allows moisture evaporation from underneath the dressing but provides a barrier from extrinsic moisture and microorganisms.</p>
Safety Non Coring Needle (Gripper Plus) Or Power Lock Max	<p>A needle designed for percutaneously accessing implanted ports that has an offset bevelled end, preventing “coring” of the silicone septum as the needle passes through the septum and allowing the tip of the needle to sit flush with the base of the port body without impeding the flow of solution. Only non-coring needles are to be used to access implanted ports. Other needles will cause damage to the port septum. Needles must be primed with sodium chloride 0.9% prior to access.</p> <p>The safety needle is a two piece system that features the needle as well as an insertion clip that is removed following insertion. The needle has a safety lift arm that allows for safe removal of the needle.</p>

	<p>Non-coring needles come in a variety of gauges and lengths to allow for patient and position characteristics. Generally, needle length is selected according to the amount of subcutaneous fat between the skin over the port site and the port septum.</p>
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LEGISLATION/REFERENCES/SUPPORTING DOCUMENTS

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- [Angiodynamics Vortex Ports \(2016\) Product Information And Instructions For Use](#)

FURTHER INFORMATION

Practice Development Nurse Ward 3A

Practice Development Nurse Ward 5A

Practice Development Nurse Ward 6A

Clinical Nurse Educators

Cancer Imaging Nursing Staff

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