

## How to identify the PORT-A-CATH® or P.A.S. PORT T2 POWER P.A.C. system

### 1 Check the patient's medical record

A PORT-A-CATH® or P.A.S. PORT® T2 POWER P.A.C. implant record sticker should be in the patient's medical record (lists the type of system implanted, location, and product reference and lot numbers)



### 2 Talk with the patient

Your patient should have the following identifiers of a PORT-A-CATH® or P.A.S. PORT® T2 POWER P.A.C. system:

- › Patient identification card
- › Key ring card

(includes implanted system's reference and lot numbers)



### 3 Confirm power injection is applicable

PORT-A-CATH® and P.A.S. PORT® T2 POWER P.A.C. systems with CT identifier embedded in the port septum are visible under CT scan



### How to identify a GRIPPER PLUS® POWER P.A.C. safety huber needle

- › Easily recognisable blue tubing
- › Labeled clamp
- › POWER P.A.C. logo on packaging



## How to power inject the PORT-A-CATH® POWER P.A.C. system

**When accessing the system for power injection ALWAYS use a power-injectable, non-coring needle**

- Verify** that the patient has a PORT-A-CATH® or P.A.S. PORT® T2 POWER P.A.C. system implanted by one of the methods mentioned above.
- Access** the PORT-A-CATH® or P.A.S. PORT® T2 POWER P.A.C. system and determine system integrity (see sidebar).
- Attach** the power injection device to the GRIPPER PLUS® POWER P.A.C. or other power-injectable, non-coring needle and the extension set per the manufacturer's recommendations.

NOTE: When using the GRIPPER PLUS® POWER P.A.C. needle with a needleless access connector Y-site on the extension set, the power injection device can be connected to either the distal end of the extension set or to the needleless access connector Y-site.

- Instruct** the patient to notify the clinician immediately if there is any pain or abnormal sensation during the power injection.

WARNING: Stop the injection immediately if local pain, swelling, or signs of extravasation are noted.

- Complete** the power injection study taking care to not exceed the maximum pressure of 300 psi, or the maximum flow. Maximum flow rate for the GRIPPER PLUS® POWER P.A.C. needle is 5 ml/sec.
- Disconnect** the power injection device.
- Flush** the system with 10 ml of normal saline and give another injection; or begin the next infusion; or instill 5 ml of heparin solution (10-100 IU/ml), establishing a heparin lock. Maintain positive pressure by clamping the extension set tubing while injecting the last 0.5 ml of heparin solution.

NOTE: If using a dual lumen system, flush both lumens unless the other lumen is currently in use.

- Discard** the needles and syringes according to established protocol.
- Document** the procedure per institutional policy/procedure.

## Routine Maintenance

For venous systems, maintain system patency by flushing it with heparin solution at least once every four weeks when not in use.

More Power...More Choice

## How to access and determine system integrity

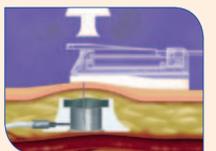
Before starting an injection or infusion therapy, it is essential to confirm system integrity and assure that no system damage exists. Note: Integrity of each lumen of a dual-lumen system must be verified.

- Inquire and/or observe whether the patient has experienced any symptoms that might warn of catheter fragmentation and/or catheter embolisation since the system was last accessed (e.g., episodes of shortness of breath, chest pain, or palpitations). If any symptoms are reported, an x-ray is recommended to determine if there are problems with the catheter.
- Examine and palpate the portal pocket and catheter tract for erythema, swelling, tenderness, or infection that might indicate system leakage. If system leakage is suspected, an x-ray is recommended to determine if there are problems with the system.
- Set up the sterile field and supplies.
- Prepare the site by cleansing the skin with antiseptic solution per institutional policy/procedure.
- Anesthetise the site for needle puncture, if desired.
- Using a 10 ml or larger syringe, prime the GRIPPER PLUS® POWER P.A.C. needle. Do not use standard hypodermic needles, as these will damage the septum and may cause leakage.

WARNING: The PORT-A-CATH® POWER P.A.C. system is only indicated for power injecting when accessed with a power-injectable, non-coring needle.

- Locate the portal by palpation and immobilise it using thumb and fingers of the non-dominant hand.
- Insert the GRIPPER PLUS® POWER P.A.C. or other power-injectable, non-coring needle through the skin and portal septum at 90° angle to the septum. To avoid injection into the subcutaneous tissue, slowly advance the needle until it touches the bottom of the portal chamber.

WARNING: Do not tilt or rock the needle once the septum is punctured, as this may cause fluid leakage or septum damage the septum.



- Attach a 10 ml or larger syringe filled with sterile saline.
- Place the patient in the same position he or she will be in during the power injection.
- Aspirate for adequate blood return and **vigorously** flush the system with the full 10 ml of sterile normal saline. Difficulty in withdrawing blood or injecting the saline may indicate catheter blockage or improper needle position.

NOTE: Do not proceed with power injection until blockage has been cleared or needle position has been corrected.

- During this saline flush, observe the portal pocket and catheter tract for swelling and inquire or observe whether the patient is experiencing burning, pain, or discomfort at the portal site. If any of these symptoms are noted and/or swelling of the portal pocket and catheter tract is observed, fluid extravasation into the portal pocket or catheter tract should be suspected.

NOTE: If accessing a dual-lumen system, repeat these steps for both portal chambers.

If system integrity is in doubt as result of any of these steps, further verification will be required. This may consist of radiography (fluoroscopy, x-ray).