**POWER INJECTION**

1. The clinician should first review the patient chart to ensure that the patient has a Smart Port implanted port that is indicated for power injection of contrast media. The patient should have a Smart Port Patient Identification Card, Smart Port Patient Information Guide or Smart Port Key Ring Card. Note: The completed patient identification card should be given to the patient, who should be instructed to carry it at all times.

2. The Smart Port Implanted Port should be accessed with a 19 or 20 gauge non-y site LifeGuard Safety Infusion Set for injection of contrast media. The tubing on the safety needle should be clamped.

3. Remove the injection cap attached to the end of the LifeGuard Safety Infusion Set.

4. Attach a 10 ml or larger syringe to the luer hub end of the LifeGuard Safety Infusion Set, release the clamp and aspirate to confirm blood return. Note: Absence of blood return or a poor blood return can be a sign of a potential complication such as occlusion, kinking, breakage, Pinch-Off Syndrome, fibrin formation, thrombosis or malposition. This should be evaluated prior to catheter usage. A blood return should be present prior to usage of device. Note: Testing aspiration for simulated blood return is 0.5 ml/sec.

5. Flush the Smart Port Implantable Port with 10–20 mL 0.9% normal saline. The device should flush without resistance. Warning: Not assessing patency may result in device failure.

6. Close the clamp of the LifeGuard Safety Infusion Set tubing.

7. Remove the syringe from the LifeGuard Safety Infusion Set.

8. Attach the power injection machine per manufacturer’s recommendations to the luer hub end of the LifeGuard Safety Infusion Set. Release the clamp.

9. Set the power injection machine per manufacturer’s recommendations for a maximum pressure of 300 psi.

10. Perform the study. Do not exceed 5 mL/sec or 3–5 mL of 10–100 units/mL heparinized dye. Actual amount and strength depends on facility policy.

11. Close the clamp. Disengage the power injection tubing from the luer hub end of the LifeGuard Safety Infusion Set.

12. Place a new injection cap on the LifeGuard Safety Infusion Set luer hub.

13. Flush the Smart Port Implantable Port with 10–20 mL 0.9% normal saline.

14. Flush the Smart Port Implantable Port with 3–5 mL of 10–100 units/mL heparinized saline. Actual amount and strength depends on facility policy.

**USE AND MAINTENANCE**

After each delivery of medications or fluid: Flush with at least 20 mL of normal saline followed by 3–5 mL of heparinized saline solution.

After blood withdrawal: Flush with a minimum of 10 mL of saline followed by 3–5 mL of heparinized saline solution.

After power injection of contrast media: Flush with 10–20 mL normal saline, followed by 3–5 mL of heparinized saline solution.

**OPERATING LIFEGUARD SAFETY INFUSION SET**

**Access the Port**

Grasp the wings with thumb and middle finger, placing your index finger on top of the needle head. Insert needle perpendicular to the port. Advance needle through the skin and the septum until it makes contact with the bottom of the reservoir.

**De-Access the Port**

Raise the needle trap to a 90° angle. Using your non-dominant hand, grasp the needle stick guard and hold down firmly (Figure 2).

While holding the needlestick guard firmly, grasp the flexible wings and pull upward until the needle is completely encapsulated in the needle trap. Note: The needle trap allows for visual confirmation that the needle is fully encapsulated and safe. Additionally, you may feel or hear it lock into the safe position (Figure 2a).

**Figure 1**

Access the Port

**Figure 2**

De-Access the Port

**Figure 2a**

**Figure 2b**

**Note:** Use of non Y site LifeGuard Safety Infusion Set (size = 20Ga or 19Ga) is indicated for power injection of contrast media. The patient should have a Smart Port Patient Identification Card, a Key Ring Card and Patient ID Bracelet. The patient should receive these items at the time the port is implanted.