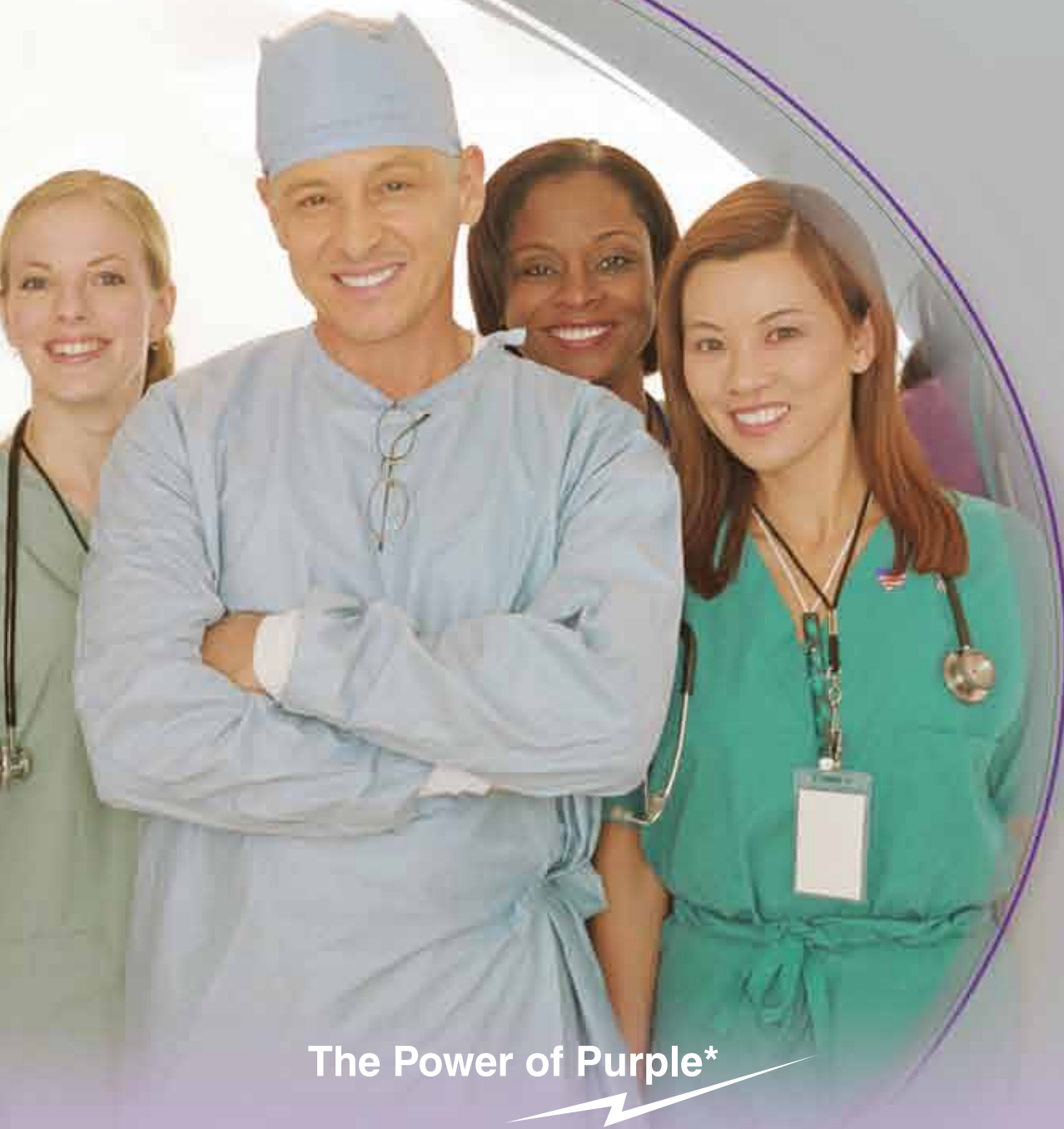


PowerPICC* catheters combine the efficacy of PICC access with the efficiency of power injection for CECT scans.



The Power of Purple*

Recommended Use and Maintenance

Maximum Injection Rates

PowerPICC* catheters allow injection of contrast media for CECT scans at a maximum rate of 5 ml/sec and maximum pressure of power injectors not to exceed 300 psi.

Central Venous Pressure Monitoring

PowerPICC* catheters are indicated for central venous pressure monitoring. It is recommended that a continuous infusion of saline (3 ml/hr) is maintained through the catheter while measuring CVP to improve accuracy of CVP results.

Power Injection Procedure

1. Remove the injection/needleless cap from the **PowerPICC*** catheter.
2. Attach a 10 ml or larger syringe filled with sterile normal saline.
3. Aspirate for adequate blood return and vigorously flush the catheter with the full 10 ml of sterile normal saline.
Warning: Failure to ensure patency of the catheter prior to power injection studies may result in catheter failure.
4. Detach syringe.
5. Attach the power injection device to the **PowerPICC*** catheter per manufacturer's recommendations.
6. Contrast media should be warmed to body temperature prior to power injection.
Warning: Failure to warm contrast media to body temperature prior to power injection may result in catheter failure.
7. Use only lumens marked "Power Injectable" for power injection of contrast media.
Warning: Use of lumens not marked "Power Injectable" for power injection of contrast media may cause failure of the catheter.
8. Complete power injection study taking care not to exceed the flow rate limits. Do not exceed the maximum flow rate of 5 ml/sec.
Warning: Power injector machine pressure limiting feature may not prevent over-pressurization of an occluded catheter, which may lead to catheter failure.
Warning: Exceeding the maximum flow rate of 5 ml/sec or the maximum pressure of power injectors of 300 psi may result in catheter failure and/or catheter tip displacement.
9. Disconnect the power injection device.
10. Replace the injection/needleless cap on the **PowerPICC*** catheter.
11. Flush the **PowerPICC*** catheter with 10 ml of sterile normal saline, using a 10 ml or larger syringe. In addition, lock each lumen of the catheter with heparinized saline. Usually one ml per lumen is adequate.

Suggested Catheter Maintenance

The catheter should be maintained in accordance with standard hospital protocols. Suggested catheter maintenance:

- **Occluded or Partially Occluded Catheter** – Catheters that present resistance to flushing and aspiration may be partially or completely occluded. Do not flush against resistance. If the lumen will neither flush nor aspirate and it has been determined that the catheter is occluded with blood, a declotting procedure per institution protocol may be appropriate.
- **Flushing** – Flush each lumen of the catheter with 10 ml of saline every 12 hours or after each use. In addition, lock each lumen of the catheter with heparinized saline. Usually, one ml per lumen is adequate.
- **Dressing changes** – Assess the dressing in the first 24 hours for accumulation of blood, fluid or moisture beneath the dressing. During all dressing changes, assess the external length of the catheter to determine if migration of the catheter has occurred. Periodically confirm catheter placement, tip location, patency and security of dressing
- **When cleaning the exit site** – **Warning:** Do not wipe the catheter with acetone based solutions or polyethylene glycol containing ointments. These can damage the polyethylene material if used over time.
 - Maintain according to hospital protocol. Avoid using acetone based solutions, or ointment. These substances are known to degrade polyurethane.
 - Use chlorhexidine gluconate or povidone iodine to clean the exit site around the catheter.
 - Allow all cleaning agents / antiseptics to dry completely before applying dressing.

PowerPICC* Catheter Configuration	Lumen Size	Usable Length	Power Injection	Maximum Power Injector Pressure Setting	Gravity Flow Rate	Priming Volume
4 Fr. SL	18	55 cm	5 ml/sec	300 psi	1272 ml/hr	0.67
5 Fr. SL	18	55 cm	5 ml/sec	300 psi	1185 ml/hr	0.66
5 Fr. DL	18/18	55 cm	5 ml/sec	300 psi	578 ml/hr	0.57/0.57
5 Fr. TL						
Red Lumen	18 Ga	55 cm	5 ml/sec	300 psi	982 ml/hr	0.76 ml
Grey Lumen	20 Ga	55 cm	N/A - No CT	N/A - No CT	982 ml/hr	0.43 ml
White Lumen	20 Ga	55 cm	N/A - No CT	N/A - No CT	131 ml/hr	0.43 ml
6 Fr. DL	18/18	55 cm	5 ml/sec	300 psi	753 ml/hr	0.62/0.62
6 Fr. TL						
Red Lumen	17 Ga	55 cm	5 ml/sec	300 psi	1163 ml/hr	0.76 ml
Grey Lumen	19 Ga	55 cm	N/A - No CT	N/A - No CT	1163 ml/hr	0.47 ml
White Lumen	19 Ga	55 cm	N/A - No CT	N/A - No CT	275 ml/hr	0.47 ml

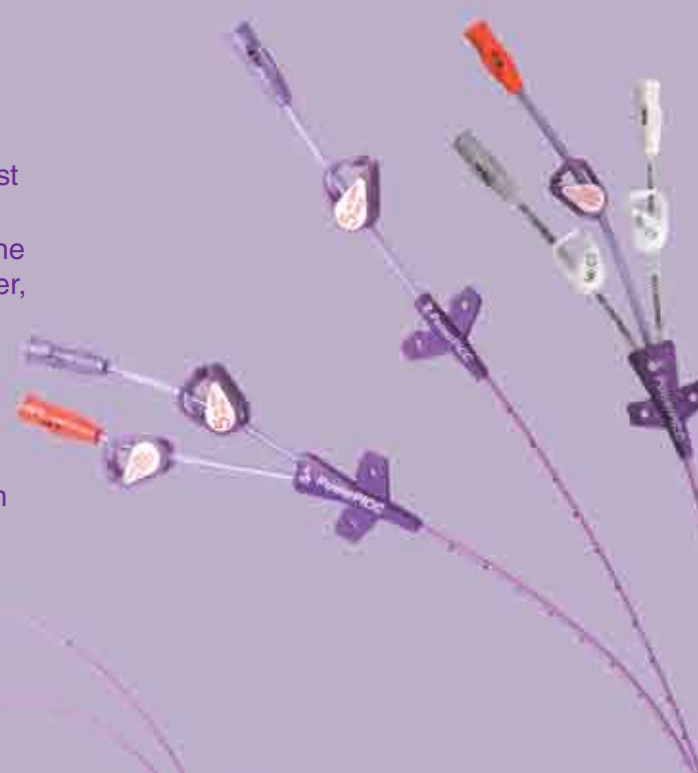
Indications

The PowerPICC* catheter is indicated for short or long term peripheral access to the central venous system for intravenous therapy, power injection of contrast media, and allows for central venous pressure monitoring. For blood sampling, infusion, or therapy use a 4 French or larger catheter. The maximum recommended infusion rate is 5 ml/sec for power injection of contrast media. For central venous pressure monitoring, it is recommended that a catheter lumen of 20 gauge or larger be used.

Important Information

- Contrast media should be warmed to body temperature prior to power injection.
Warning: Failure to warm contrast media to body temperature prior to power injection may result in catheter failure.
- Vigorously flush the PowerPICC* catheter using a 10 ml or larger syringe and sterile normal saline prior to and immediately following the completion of power injection studies. In addition, lock each lumen of the catheter with heparinized saline. Usually one ml per lumen is adequate. This will ensure the patency of the PowerPICC* catheter and prevent damage to the catheter. Resistance to flushing may indicate partial or complete catheter occlusion. **Do not** proceed with power injection study until occlusion has been cleared. **Warning:** Failure to ensure patency of the catheter prior to power injection studies may result in catheter failure.
- Use only lumens marked "Power Injectable" for power injection of contrast media.
Warning: Use of lumens not marked "Power Injectable" for power injection of contrast media may cause failure of the catheter.
- Do not exceed the maximum flow rate of 5 ml/sec. **Warning:** Power injector machine pressure limiting feature may not prevent over-pressurization of an occluded catheter, which may lead to catheter failure. **Warning:** Exceeding the maximum flow rate of 5 ml/sec or the maximum pressure of power injectors of 300 psi may result in catheter failure and/or catheter tip displacement.
- **Warning:** PowerPICC* catheter indication for power injection of contrast media implies the catheter's ability to withstand the procedure, but does not imply appropriateness of the procedure for a particular patient. A suitably trained clinician is responsible for evaluating the health status of a patient as it pertains to a power injection procedure.

Please consult product labels and inserts for any indications, contraindications, hazards, warnings, cautions and instructions for use.



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