

PROCEDURE FOR: Central Lines and Implanted Ports: Heparin/Normal Saline Flush

- POLICY:
1. All central lines that are not being used are flushed daily according to guidelines in Appendix A.
 2. Implanted ports that are not accessed are flushed once a month.
 3. A normal saline flush will be done immediately preceding and following administration of drugs incompatible with heparin. Consult with Pharmacist PRN for listing of incompatible drugs.
 4. Flushing of central venous access devices will be done with solutions, amounts and frequency appropriate for each device.
 5. A 10ml syringe is the minimum size to be used to prevent catheter rupture or infusion of clots.
 6. Aseptic technique must be utilized for all aspects of central line care.
 7. Handwashing immediately before performing any central line care is mandatory.

EQUIPMENT: 2 10 or 12ml syringes
Heparin 100 units/ml
Alcohol swabs or chlorhexidine gluconate
0.9% NS Solution or prefilled syringes
Gloves

PROCEDURE:

- | <u>ACTION</u> | <u>POINTS OF EMPHASIS</u> |
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| 1. Using friction, vigorously scrub catheter cap with chlorhexidine gluconate swab/pad or alcohol swab for 15 seconds. | 1. Betadine may impair the integrity of the seal. |
| 2. Let dry thoroughly. | |
| 3. Prepare syringes with appropriate solutions (normal saline solution or heparin), and label accordingly. (Refer to Appendix A for amounts of solutions.) | |
| 4. Luerlock needleless syringe into the catheter cap. | |
| 5. Unclamp the catheter, pull back to assess for blood return, and slowly instill the desired solution using a pulsatile push-stop-push-stop motion. | 5. a. The pulsatile motion is used to create turbulent flow and reduce the build up of residue on the inner surface of the catheter. |

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APPENDIX A: FLUSHES FOR CENTRAL IV ACCESS DEVICES

TYPE	ROUTINE FLUSH FREQUENCY (NOT IN USE)	FLUSH BEFORE MEDICATION*	FLUSH AFTER MEDICATION*	FLUSH AFTER BLOOD DRAWING*	COMMENTS
Percutaneously Inserted Central Catheter (PICC)	3 ml Heparin solution (100 units/ml) daily	10ml NS	10ml NS then 3ml Heparin solution (100 units/ml)	20ml NS then 3ml Heparin solution (100 units/ml)	Flush volume applies to each lumen.
Midline catheter (i.e., double lumen extended length catheter)	3 ml Heparin solution (100 units/ml) daily	10 ml NS	10ml NS then 3ml Heparin solution (100 units/ml)	10ml NS then 3ml Heparin solution (100 units/ml)	Flush volume applies to each lumen.
Single or multi-lumen Central Catheters	3 ml Heparin solution (100 units/ml) daily	10ml NS	10ml NS then 3ml Heparin solution (100 units/ml)	10ml NS then 3ml Heparin solution (100 units/ml)	Flush volume applies to each lumen. Label each lumen for preferred use: 1. Proximal = IV fluids/meds 2. Medial = Parenteral nutrition 3. Distal = Blood
Implanted Port	5ml Heparin solution (100 units/ml) every 30 days	10ml NS	10ml NS then 5ml Heparin solution (100 units/ml)	20ml NS then 5ml Heparin solution (100 units/ml)	Use only Huber non-core safety needles.
Hickman	3ml Heparin solution (100 units/ml) daily	10ml NS	10ml NS then 3ml Heparin solution (100 units/ml)	10ml NS then 3ml Heparin solution (100 units/ml)	Always clamp when not in use.
Pheresis Hickman (Large bore)	Patient-specific guidelines are needed	----->	----->	----->	Withdraw Heparin solutions and discard prior to initiating infusion or drawing blood.
Groshong PICC	5ml NS every 7 days	10ml NS	10ml NS	10ml NS unless parenteral nutrition infusing, then use 20ml NS	Do not clamp. Heparin is not needed but will not harm the catheter.
Groshong Catheter	5ml NS every 7 days Use 10ml NS if there is blood in the cap	10ml NS	10ml NS	10ml NS	Do not clamp. Heparin is not needed but will not harm the catheter.
Groshong Implanted Port	5ml NS every 30 days	10ml NS	10ml NS	20ml NS	-----

* Flush volume may need to be adjusted when fluid restriction is necessary.