CENTRAL LINE FLUSHING AND LOCKING: INFORMATION FOR PEDIATRICS

HEPARIN FLUSHING REQUIRES AN ACTIVE ORDER THAT INCLUDES DOSE AND FREQUENCY

Flush: manual injection of 0.9% sodium chloride or so-called normal saline (NS) in order to clean the catheter.
Lock: injection of a limited volume of heparin following the catheter flush, for the period of time when the catheter is not used, to prevent intraluminal clot formation and/or catheter colonization.

Use the push/pause technique for flushing and locking central venous catheters.
Consideration should be given to flush CVC lumens connected to low rate infusions or so-called KVO's to promote catheter patency and prevent occlusion.
Do not flush any catheter with a syringe less than a 10 mL syringe size, as the increased pressure will raise the risk for catheter fracture.
We will no longer use 100u/mL heparin when de-accessing implanted ports.

TYPE OF CVL	CVL or PATIENT SIZE	FLUSH VOLUME 0.9% NaCl	LOCK SOLUTION AND VOLUME	FREQUENCY and NOTES
Implanted Port *Inpatient*	Less than 40 kg	3-5mL	3 mL 10 U/mL heparin	Q24H and prn after completion of infusion or blood sampling
	40 kg or more	5-10 mL	5 mL **0.9% NaCl NO HEPARIN**	Q6H and prn after completion of any infusion or blood sampling
Non-tunneled and Tunneled Central Venous catheters	Less than 40 kg	Less than 40 kg	3 mL 10 U/mL heparin	Q24H and prn after completion of any infusion or blood sampling
	40 kg or more	5-10 mL	5-10 mL **0.9% NaCl NO HEPARIN**	Q6H and prn after completion of any infusion or blood sampling
PICCs, Power Injectable PICCs	2 F Catheter	1 mL	1 mL 10 U/ml heparin	Q12H and prn completion of infusion or blood sampling
PICCs, Power Injectable PICCs	≥2.6 F Catheter	3-5 mL	2-3 mL 10U/mL heparin	Q12H or after completion of infusion or blood sampling
	40 kg or more	5-10 mL	5-10mL **0.9% NaCl NO HEPARIN**	Q6H and prn after completion of any infusion or blood sampling
ALL Pediatric Central Lines Terminal Flushing and Locking	Less than 40 kg	5 mL	3 mL 10 U/mL heparin	At discharge
	40 kg or more	5-10 mL	5 mL 10 U/mL heparin	At discharge

General information about Central Lines in the Neonatal Population are found in ellucid.

Neonatal CVC Flushing and Locking

TYPE OF CENTRAL VENOUS CATHETER	FLUSH VOLUME 0.9% NaCl	LOCK VOLUME Heparin 1OU/ml	FREQUENCY and NOTES
Non-tunneled and Tunneled Central Venous Catheters	1-2 ml	1-2 ml	Q12H and prn after completion of any infusion or blood sampling Use 1ml minimum; may increase volume as irndicated by priming volume of extension tubing
Peripherally Inserted Central Catheters (PICC)	1-2 ml	1-2 ml *Single-lumen PICCs are not locked* *Unused lumens of double-lumen PICCs may be locked in certain situations*	Q6H and prn after completion of any infusion or blood sampling Use 1ml minimum; may increase volume as irndicated by priming volume of extension tubing *Please refer to Neonatal PICC Guideline*
Umbilical Venous Catheter (UVC)	1-2 ml	1-2 ml *Unused lumens of double-lumen UVCs may be locked in certain situations*	Q6H and prn after completion of any infusion or blood sampling Use 1ml minimum; may increase volume as irndicated by priming volume of extension tubing *Please refer to Umbilical Venous Catheters Manaaement Guidelines*