KINGSTON GENERAL HOSPITAL

NURSING POLICY & PROCEDURE

SUBJECT	Intravenous Lock Device A. Flush Procedure B. Intermittent Medication Administration	**NUMBER**	I-5600
		PAGE	1 of 3
		ORIGINAL ISSUE	1987 January
		REVIEW	
		REVISION	2006 January*

**Only RPN and Advanced Competency revisions were made in 2008 May.*

NOTE: For intravenous (IV) lock device cannula insertion, surveillance, and additional care and maintenance see Nursing Policy and Procedure I-5500 Intravenous Access: AC for Nurses (RNs and RPNs)

Principles:

1. Intravenous (IV) lock devices are established to:
   1.1. supply a direct route to a vein for intermittent administration of IV medication; or
   1.2. provide IV access for emergency situations.

2. An order must be present for the amount and type of flush used to keep an IV lock device patent.

3. IV lock devices are not normally used for obtaining blood samples.
   3.1. Blood cultures are never drawn from an IV lock device.
   3.2. In neonates, blood samples are never drawn from an IV lock device.
   3.3. In pediatric patients, IV lock devices are occasionally used for blood sampling with the exception of blood cultures.

Policy:

Nurses (RNs and RPNs) may only flush IV lock devices following additional education (see Nursing Policies A-1250 and A-1257 for additional educational requirements and competency to perform).

A. Flush Procedure

Principles:

1. Flushing prevents thrombi and fibrin deposit formation, which may contribute to microbial colonisation.
   1.1 Studies suggest that saline is as effective as heparin in maintaining catheter patency and reducing phlebitis.

2. An order must be present for the amount and type of flush solution used to keep an IV lock device patent.
   2.1 The flush solution is normally, but not exclusively, a minimum of 1.5 mL of sterile 0.9% sodium chloride for injection (adults), or 1 mL of sterile 0.9% sodium chloride for injection (neonates and infant pediatric patients).

3. IV lock devices are normally flushed:
   3.1 after medications have been infused;
   3.2 after blood samples have been collected; and
   3.3 regularly, a minimum of once every 12 hours
   EXCEPTION: flush a minimum of once every 6 hours in neonates.

4. Limiting the use of needles to penetrate the IV lock device injection site reduces the risk of needle stick injury.

Equipment:

Alcohol Swab
3 mL Syringe
InterLink Cannula/InterLink Vial Access Cannula
InterLink Vial Adaptor
10 mL of Sodium Chloride 0.9% for Injection (**NOTE:** Type and volume of solution may vary dependent upon the patient care order. Sterile sodium chloride 0.9% only is used for neonates.)
Pediatric patients and neonates: Pre-flushed T-piece
Medication Administration Record (MAR) or unit specific flowsheet

Procedure:

NOTE: In pediatric patients and neonates, a pre-flushed T-piece is attached to the IV cannula and the pre-flushed lock device is connected to the T-piece.

1. Cleanse the InterLink injection site with an alcohol swab and allow to dry.

2. Insert the InterLink cannula with 3 mL syringe containing the flush solution into the InterLink injection site.

3. Twist syringe one-quarter turn and gently aspirate for blood. (**EXCEPTION:** In neonates, aspiration of blood is not performed to confirm patency. If the cannula is interstitial, refer to the NICU extravasation guidelines.)
   - 3.1 If no blood appears in the syringe, gently flush the IV lock device with 0.9% sodium chloride solution while assessing the IV lock device insertion site.
     - 3.1.1 Before initiating a chemotherapy infusion, it is usually necessary to observe blood return in peripheral sites.
       - 3.1.1.1 On rare occasion, the site may still be deemed patent in the absence of blood return.
     - 3.1.2 Establish a new IV lock device insertion site as necessary (see Nursing Policy and Procedure I-5500 Intravenous Access: AC for Nurses (RNs and RPNs)).

4. When the IV lock device is assessed to be patent, inject the flush solution.
   - 4.1 Use positive pressure technique.
     - 4.1.1 The positive pressure technique ensures that blood is not drawn up into the IV lock device cannula by the negative pressure produced when the InterLink cannula is pulled out of the injection site.
   - 4.2 Withdraw the IntraLink cannula from the injection site while still exerting downward pressure on the syringe plunger and injecting the last 0.5 mL of flush solution.

Reporting and Recording:

1. Document on the MAR or unit specific flowsheet:
   - 1.1 all IV lock device flushes.

2. Document in the Progress Notes:
   - 2.1 lack of patency;
   - 2.2 evidence of inflammation or infiltration;

2.3 patient complaints of pain; or
2.4 any assessment of the site indicating variation from the expected response.

B. Intermittent Medication Administration

Equipment:

Required Medication
Primary Intravenous Solution (if ordered by the physician)
InterLink Lever Lock Cannula
InterLink Threaded Lock Cannula

Procedure:

1. Follow Flush Procedure steps 1 through 3.
2. When the device is assessed to be patent:
   2.1. Connect the medication line to the InterLink injection site using a sterile InterLink Lever Lock Cannula and infuse the medication as prescribed.
      2.1.1. If a primary IV solution was ordered, connect the primary infusion to the InterLink injection site using a sterile InterLink Lever Lock Cannula or InterLink Threaded Lock Cannula, piggyback the medication line into the primary line, and infuse as ordered.
      2.1.2. For neonates, attach the medication to the InterLink injection site using the:
         2.1.2.1. InterLink Cannula and a syringe for IV push medications; or
         2.1.2.2. InterLink Lever Lock Cannula and IV tubing on a syringe pump for slow infusion medications.
      2.1.3. For pediatric patients, attach the medication to the InterLink injection site using the InterLink Threaded Lock Cannula, buretrol and infusion pump.

3. When the medication has infused, disconnect the medication line and flush the IV lock device per Section A, Flush Procedure.

Reporting and Recording:

1. Document on the MAR or unit specific flowsheet:
   1.1. medication(s) administered; and
   1.2. all IV lock device flushes.

2. Document in the Progress Notes:
   2.1. any difficulties in maintaining the IV lock device.

Related Policies & Procedures:

Nursing Policy and Procedure I-5500 Intravenous Access: AC for Nurses (RNs and RPNs)
Nursing Policy T-7000 Tubing/Equipment/Site, Solution, and Dressing Changes

References:

The Joanna Briggs Institute (1998). Management of peripheral intravascular devices. Accessed on 2005 December 15 at http://www.joannabriggs.edu.au/best_practice/bp3.php.

Authorizing Signature _____ Date _____