

NURSING SERVICE GUIDELINES GENERAL

Guideline: KVO Protocol

Policy Number Superseded:

Responsibility: Registered Nurse (RN)

Purpose of Guidelines: Blood and particles left within the cannula or catheter of an Intravenous (I.V.) line can lead to clot formation, blocking proper flow through the IV catheter. Flushing IV catheter lines, promotes and ensures patency. This Line Maintenance guideline promotes intravenous line patency without administration of 'keep vein open' (KVO) fluids.

Clinical research indicates there is no significant difference between the duration and function of PIV lines with or without a KVO infusion.

Equipment: 10mL syringe containing preservative-free 0.9% sodium chloride solution
Alcohol prep pad

Definition: IV flushing is defined as a method of clearing IVs of perishable liquids to keep the IV catheters clean, patent, and sterile. For flushing, a 10mL syringe needs to be used to ensure the proper amount of pressure is applied to the IV catheter.

Procedure:

1. To maintain line patency, all intravenous (I.V.) lines must be flushed at minimum every eight (8) hours during routine patient assessment.
2. Additionally, IV lines must be flushed:
 - a) Before IV medication administration
 - b) Between different IV medication administration



Effective Date:

December 2024

Initial Effective Date:

December 2024

Guideline:
KVO Protocol

2

- c) After IV medication administration
 - d) PRN
3. Refer to table below for minimum amount of volume required to maintain patency.

I.V. Line	Flush Type Preservative-free 0.9% sodium chloride solution	Minimum Frequency
Peripheral Intravenous Line (PIV)	5ml	8 hours
Central Venous Catheter (CVC)	10 ml	8 hours
Peripherally Inserted Central Catheter (PICC)	10 ml	8 hours
Midline Catheter (Mid-line)	10 ml	8 hours

4. For guidance on how to access each individual line refer to Mosby Clinical Skills Modules.
- a. Peripherally Inserted Central Catheter Insertion – CE/CCPD
 - b. Intravenous Therapy: Short Peripheral Catheter Insertion – CE/NCPD
 - c. Medication Administration: Intermittent IV Bolus or Push Using a Syringe – CE/NCPD
 - d. Peripherally Inserted Central Catheter Insertion – CE/CCPD

Approved by:
Kurt Kless, MSN, MBA, RN, NE-BC
Chief Nursing Officer

Initial effective date:
December 2024

Review/Revision Date:

Review/Revision Completed by:
Pierre Maldonado, BSN, RN, CCRN Nursing
Director Critical Care & Heather Sydes, MSN, RN,
CDP, Staff Development Specialist 12/2024
Policy & Standard Committee: 12/2024

Next review date:
December 1, 2027