



Department of Nursing POLICY AND PROCEDURE

POLICY NUMBER: 254
VERSION: 2

SUBJECT: KCL INFUSION ADMINISTRATION

PURPOSE: To establish a protocol to ensure the safe administration of intravenous (I.V.) potassium chloride (KCl).

POLICY: To ensure the safety of all patients receiving intravenous potassium replacement; the procedure must be performed within the guidelines established by this policy.

NOTE: **THIS PROCEDURE REQUIRES CARDIAC MONITORING AND MUST BE ADMINISTERED IN A MONITORED SETTING ONLY**

EQUIPMENT:

- I.V. start kit (unless patient already has an I.V. site established)
- Primary I.V. solution
- Primary Interlink I.V. tubing
- Premixed KCl solution of 10 mEq/100 ml sterile water
- Secondary medication I.V. tubing
- Interlock Lever Lock Cannula
- Volumetric I.V. pump

PROCEDURE:

1. Verify provider order. Order should contain:
 - A. Type of primary I.V. solution and flow rate (usually to keep open [TKO]), if applicable.
 - B. Amount of KCl solution to be infused and in what volume of fluid.
 - i. KCl shall only be mixed by pharmacy with pharmacist oversight.
 - Concentration shall not exceed 10 mEq/100 ml and no more than 40 mEq can be administered in each liter of fluid.
 - ii. KCl comes premixed as 10 mEq in 100 ml sterile water.
 - iii. Nurses shall not add/mix KCl for infusion into IV solutions or premixed bags. Concentrated KCl vial shall not be on floor stock.
 - C. Time frame over which KCl solution to be infused (no more than 10 mEq per hour).
2. Identify the patient using two identifiers.

3. Confirm allergy status.
4. Connect patient to cardiac monitor.
5. Assess for signs of hypokalemia:
 - A. Serum potassium level results
 - B. Apathy
 - C. Weakness
 - D. Cramping
 - E. Heart rhythm disturbance (electrocardiogram [ECG] showing sagging ST segments. Depression of T waves and elevated U waves)
 - F. Muscle paralysis (late sign)
6. Perform hand hygiene.
7. If patient already has an I.V., assess site for signs of infiltration and to determine if the size of the vein and the intravenous catheter are appropriate for a KCl infusion. A large vein and large bore catheter are preferable to reduce irritation during the infusion.
8. If the patient has no I.V. access, start I.V. with the primary solution as ordered using as large a vein as possible (i.e. antecubital) and an intravenous catheter no smaller than 20 gauge.
9. Once the primary I.V. has been established, set the flow rate as ordered by provider.
10. Rotate the premixed KCl solution to ensure uniform distribution.
11. Close the clamp on secondary medication I.V. tubing and spike KCl solution bag.
12. Open clamp and allow drip chamber and fluid to fill with solution. Close clamp once tubing is full and all air has been purged from tubing.
13. Remove blue cap from end of tubing and replace with Lever Lock Cannula.
14. Hang KCl solution on I.V. pole.
15. Lower primary solution by hanging it from the extender found in the secondary medication I.V. tubing set.
16. Remove cap from the needleless Lever Lock Cannula and connect to Y port of primary tubing.
17. Connect volumetric pump to the KCl infusion and set to the rate ordered.
18. Ensure clamps of both the primary and secondary tubing are open.
19. Regulate the flow of the primary solution to TKO or as ordered by provider.
20. KCl can be extremely irritating to the vein. Conduct frequent I.V. site checks to ensure site is patent and to assess patient's tolerance of the infusion.

POLICY NO: 254	SUBJECT: KCL INFUSION ADMINISTRATION	Page 3 of 3
--------------------------	--	--------------------

21. If the patient complains of discomfort to the site, slow the rate of the KCl infusion, and notify provider.
22. Label both the KCl infusion and the primary infusion with the patient's name and medical record number, type of solution, and date and time infusion initiated.

DOCUMENTATION:

1. Primary solution administered
2. Amount and concentration of KCl solution administered
3. I.V. site used and condition of site post infusion
4. Patient's tolerance of procedure

REFERENCES:

Sarasota Memorial Hospital (2008), Potassium Chloride Replacement,
www.smh.com/sections/services-procedures

Nursing 2015 Drug Handbook (34th ed.). Philadelphia; Lippincott Williams and Wilkins.

Approved By: Susan Knapp (CHIEF NURSING OFFICER I)	
Date: 02/25/2016	Original Date: 04/01/2008
Reviewed: 02/25/2016	Next Review Date: 02/25/2017
Supersedes:	