

**POLICY AND PROCEDURE MANUAL  
 PHARMACY SERVICES**

 SECTION: **I.V. ADMIXTURE PROGRAM**  
 SUBJECT: **POTASSIUM CHLORIDE GUIDELINES**

 CODE: 5.09.7  
 DATE: 10/14/98  
 REVISED: 4/19/22, 9/27/23  
 APPROVED: Thinh Tran, Pharm.D.  
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POLICY

The Inpatient Pharmacy will prepare all orders for potassium chloride diluted admixtures. Administration will follow specific guidelines, as regards concentration, rate of administration, and required patient settings at the Facility. In the event of a critical need for relatively rapid infusion of potassium chloride, the following areas are permitted to store the so-called “K-riders” in concentrations of 20 meq/100 ml and 40 meq/100 ml in designated care units: ICU/PCU/PACU. Appropriate quantities are based upon what is deemed appropriate by the Critical Care and Pharmacy and Therapeutics Committees. Administration of “K-riders” are allowed peripherally in all care units and centrally in monitored care units.

PROCEDURE

- A. Potassium chloride “K-rider” is to be administered at a controlled rate (see “C” below); under no circumstances is potassium to be administered I.M. or I.V. push.
- B. All I.V. potassium chloride admixtures must be administered via a volumetric infusion pump.
- C. Cardiac monitoring is required at an administration rate **above** 10 meq/hr. up to the maximum of **20 meq/hr.**<sup>α</sup>
- D. In critical potassium replacement therapy it is recommended that the potassium chloride be infused in saline solution, in that high dextrose administration may stimulate insulin release, resulting in a shift of potassium into the cells. This would result in a falsely depressed serum potassium level.
- E. Central venous administration of potassium chloride solutions directly into the right atrium should be avoided.
- F. Close monitoring of the ECG and plasma potassium concentrations is essential during I.V. administration of potassium chloride solutions. Oral administration of potassium supplements should replace I.V. potassium therapy as soon as possible.

## GUIDELINES FOR POTASSIUM INFUSION

SERUM K <sup>+</sup>	MAXIMUM INFUSION RATE	MAXIMUM CONCENTRATION	MAXIMUM 24 HOUR DOSE
Greater than 2.5 meq/liter	10 meq/hr.	40 meq/liter	200 meq
2 - 2.5 meq/liter	10 meq/hr - 20 meq/hr	40 meq - 60 meq/liter	200 meq
Less than 2 meq/liter	20 meq/hr.	80 meq/liter*	400 meq

\* “K-riders” have a concentration of up to **400 meq/liter** (40 meq/100 ml bag)

<sup>α</sup> Patients to receive potassium at these rates exclusively in the SCU

G. Stat chemistry for potassium **four to eight** hours after beginning of I.V. infusion

Reviewed: 4/29/14bj, 6/8/15ll, 4/19/2022 TT, 9/27/2023 TT

 Approved by: 

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SECTION: **INTRAVENOUS ADMIXTURE PROGRAM**

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**MAXIMUM POTASSIUM CHLORIDE CONCENTRATIONS AND INFUSION METHODS**

METHOD OF ADMINISTRATION	I.V. PIGGYBACK (AK Rider@)	MAINTENANCE I.V. INFUSION	MAX. POTASSIUM $\alpha$ INFUSION RATE
Peripheral line (no cardiac monitor)	10 meq/100 ml	40 meq./1000 ml	10 meq/hour *
Central line (cardiac monitor)	20 meq/100 ml (40 meq/100 ml) <small>(ICU or Fluid restricted patients)</small>	80 meq/1000 ml (except in T.P.N.)	20 meq/hr. $\gamma$

$\alpha$  The maximum potassium must include potassium from all sources, e.g. peripheral I.V., central I.V., T.P.N.

\* The maximum recommended dosage of potassium replacement via a peripheral vein is 200 meq/24 hrs.

$\gamma$  The maximum recommended dosage via a central line with cardiac monitoring is 400 meq/24 hrs.