



# REGIONAL ADULT PARENTERAL DRUG MONOGRAPH

GENERIC NAME

**potassium chloride**



**Effective Date:** Dec 2012

CLASSIFICATION  
**Electrolyte**

OTHER NAMES  
**KCl**

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**Revised Date:** January 2025

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**ADMINISTRATION POLICY:**

IV Infusion - Large volume - May be administered by a nurse

Small volume - **Administration restricted to ED/CARDIAC ROOM/ICU/PACU**

IV Bolus - *DO NOT give by direct bolus*

IM Injection - *DO NOT give*

Subcutaneous - *DO NOT give*

IV Injection - *DO NOT give*

**RECONSTITUTION/DILUTION/ADMINISTRATION:**

*All KCl infusions must be controlled by an infusion pump.*

**LARGE VOLUME:** (for peripheral or central venous access lines)

**Availability of pre-mixed potassium chloride infusion\***

Potassium chloride concentration	NaCl 0.9%	NaCl 0.45%	D5W	D5W and NaCl 0.45%	D5W and NaCl 0.9%	Ringers Lactate
20 mmol/L	X	X	X	X	X	X
40 mmol/L	X	N/A	X	X	N/A	N/A

\*Availability of individual solutions may vary per site.

Administration not to exceed maximum concentration and rate.

**SMALL VOLUME:** (for **central** venous access only)

Supplied as: Pre-mixed 20 mmol in 100 mL sterile water for injection

See dosing table for rates of continuous infusion.

**Pharmacy Only**

- 10 mL vial containing 20 mEq/10 mL KCl
- Concentrated Electrolyte – must be diluted prior to use.
- All compounding of KCl solutions from concentrated requires double independent checking
- Concentrations greater or equal to 60 mmol/L will be prepared by Pharmacy during regular pharmacy hours.
- If deemed necessary, dilutions of 20 or 40 mmol/L KCl not available as premixed solutions will be prepared by Pharmacy during regular pharmacy hours.
- Nursing can prepare after pharmacy hours following High Alert Medication Management

**IV Potassium from all sources greater than 15 mmol/hour requires continuous cardiac monitoring.**

**Maximum rate:** Peripheral 20 mmol/hour

Central 40 mmol/hour

**Maximum concentration:** Peripheral 80 mmol/L

Central 200 mmol/L (with a maximum volume of 100 mL aliquots)



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## DOSAGE:

**NOTE:** 1 mmol = 1 mEq potassium chloride

Physician orders for continuous IV infusions of KCl are standardized and automatically substituted as follows:

KCl concentration ordered by physician	KCl automatic substitution
1 to 30 mmol/L	20 mmol/L
31 to 59 mmol/L	40 mmol/L

\*Rate will remain as ordered

**Usual:** 20 to 60 mmol/day

**Maximum daily dose:** 360 mmol/day (clinical areas without cardiac monitoring)  
500 mmol/day (ICU, ED and areas with continuous cardiac monitoring)

## STABILITY/COMPATIBILITY:

**Stability of Final Admixture:** As determined by pharmacy for pharmacy prepared admixtures

**Compatibility:** Compatible with D5W, normal saline, combination dextrose-saline solutions, Lactated Ringer

## PRECAUTIONS, POTENTIAL ADVERSE REACTIONS:

- Hyperkalemia, cardiac arrest
- Extravasation may cause pain and tissue necrosis
- Administration of high concentrations in small veins may cause pain

## ADDITIONAL NOTES AND NURSING CONSIDERATIONS:

- Monitor serum potassium until rate of potassium delivery, serum potassium and serum creatinine are stable for at least 48 hours.
- Do not give IM or subcutaneous
- Cardiac monitoring may be considered for potassium infusion rate between 10 to 15 mmol/hour, dependent on the patient's medical condition. **Greater than 15 mmol/hour** requires cardiac monitoring
- Baseline potassium level is recommended prior to initiation of therapy with ongoing monitoring until therapeutic levels are achieved.
- **ANTIDOTE:** Calcium gluconate 1000 mg IV, given as 10 mL of 10% solution over 5 minutes, repeat in 5 minutes as required.