



NEONATAL Medication Monograph

# POTASSIUM CHLORIDE

This document should be read in conjunction with this [DISCLAIMER](#)

**IV Restricted:** For use under the direction of a Neonatologist or relevant specialist

**Oral Unrestricted:** For use as per the NCCU guidelines




**⚠ HIGH RISK Medication**

Potassium chloride infusion when given too rapidly, even when appropriately diluted can be fatal and result in death. Death can occur as a result of receiving concentrated potassium chloride as a direct push injection. Cardiac arrest may occur when potassium chloride concentrate has been added to an infusion without mixing prior to administration.

<b>Presentation</b>	<b>Ampoule:</b> Potassium chloride 0.75 g/10mL Contains: 1mmol of Potassium per 1mL <b>Oral Solution:</b> 20mmol/15mL (1mmol/0.75mL)
<b>Classification</b>	Electrolyte
<b>Indication</b>	Electrolyte supplement for treatment of hypokalaemia Potassium Level <3.5mmol/mL
<b>Dose</b>	<b><u>Hypokalaemia</u></b> <b>IV:</b> 2-4mmol/kg per day  <b>Oral:</b> 0.5mmol to 1mmol/kg/dose every 12 hours
<b>Monitoring</b>	Continuous ECG monitoring Serum potassium levels every 1 to 4 hours during infusion (while acutely correcting low potassium level) Clinical status including urine output, creatinine, electrolytes
<b>Dose Adjustment</b>	Dose adjustment required in renal impairment – increased risk of hyperkalaemia
<b>Compatible Fluids</b>	Glucose 5%. Glucose 10%, Sodium Chloride 0.9%

<p><b>Preparation</b></p>	<p><b><u>IV Infusion:</u></b></p> <p><b>Always dilute before administration</b></p> <p>Withdraw 2mmol (2mL) per kilogram of baby's weight of potassium chloride and dilute to a final volume of 25mL with a compatible fluid</p> <p><b>Concentration</b> = 0.08mmol/kg/hour = 1mL/hour</p> <p>To avoid toxicity from a large bolus dose, mix the infusion thoroughly.</p>
<p><b>Administration</b></p>	<p><b><u>IV Infusion:</u></b></p> <p><b>Always give as a diluted infusion.</b></p> <p>Run the infusion at the rate of 1mL per hour (0.08mmol/kg/hour)</p> <p>Replace deficit slowly over at least 2-3 hours and a rate not exceeding 0.2mmol/kg/hour via peripheral IV cannula.</p> <p>Faster infusion rate (up to 0.4mmol/kg/hour) may be given in very severe depletion via central venous catheter upon consultant's advice.</p> <p><b><u>Oral:</u></b></p> <p>Give after feeds. Dilute before administration with milk or water.</p>
<p><b>Adverse Reactions</b></p>	<p>Common: hyperkalaemia, hypotension, oral administration- GI disturbances, vomiting</p> <p>Concentrated solutions through peripheral IV can cause thrombophlebitis and pain at injection site.</p> <p>Rapid IV infusions may cause cardiac arrest, cardiac dysrhythmias</p>
<p><b>Storage</b></p>	<p>Ampoule: Store below 25 °C</p>
<p><b>Interactions</b></p>	<p>Use with caution in patients receiving potassium-sparing diuretics and medications that contain potassium</p>
<p><b>Notes</b></p>	<p>Correct potassium slowly over 24-48 hours.</p> <p>Observe injection site closed for signs of extravasation</p> <p>Avoid bolus infusions due to increased risk of severe complications and extravasation.</p> <p>Give via central line if available. If giving through UVC make sure the tip of the UVC is not in the heart or the liver.</p>

<b>References</b>	<p>Society of Hospital Pharmacists of Australia. Potassium chloride. In: Australian Injectable Drugs Handbook [Internet]. [St Leonards, New South Wales]: Health Communication Network; 2020 [cited 2020 July 10]. Available from: <a href="http://aidh.hcn.com.au">http://aidh.hcn.com.au</a></p> <p>Truven Health Analytics. Potassium chloride. In: NeoFax [Internet]. Greenwood Village (CO): Truven Health Analytics; 2017 [ cited 2020 July10]. Available from: <a href="https://neofax.micromedexsolutions.com/">https://neofax.micromedexsolutions.com/</a></p> <p>Takemoto CK, Hodding JH, Kraus DM. Pediatric &amp; neonatal dosage handbook with international trade names index : a universal resource for clinicians treating pediatric and neonatal patients. 24th ed. Hudson (Ohio): Lexicomp; 2401. 2,</p>
-------------------	--

Document owner:	Head of Department - Neonatology		
Author / Reviewer:	KEMH & PCH Pharmacy / Neonatology Directorate		
Date first issued:	October 2013	Version:	3.2
Last reviewed:	August 2020	Next review date:	August 2023
Endorsed by:	Neonatal Directorate Management Group	Date:	August 2023
Standards Applicable:	NSQHS Standards: 1  Governance 3  Infection Control 4  Medication Safety;		
<b>Printed or personally saved electronic copies of this document are considered uncontrolled.          Access the current version from the WNHS website.</b>			

© Department of Health Western Australia 2019