NEONATAL MEDICATION GUIDELINE	
Potassium Chloride	
Scope (Staff):	Nursing, Medical and Pharmacy Staff
Scope (Area):	KEMH NICU, PCH NICU, NETS WA
This document should be read in conjunction with the Disclaimer.	

Quick Links

Dose	Preparation & Administration	Side Effects & Interactions	Monitoring

Restrictions

IV: Formulary: Restricted

Oral: Formulary: Unrestricted

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.

Description

Electrolyte

Presentation

Ampoule: Potassium Chloride 0.75g/10mL (contains 1mmol of potassium per 1mL)

Oral solution: 20mmol/15mL (1mmol/0.75mL)

Storage

Store at room temperature, below 25°C

Dose

Hypokalaemia, potassium level < 3.5 mmol/mL

IV:

2 to 4 mmol/kg per day

Oral:

0.5 to 1 mmol/kg/dose every 12 hours

Dose Adjustment

Renal Impairment:

Dose adjustment required in renal impairment – increased risk of hyperkalaemia

Preparation

IV Infusion

Safety Tip: Always dilute before administration

Withdraw 2mmol (2mL) per kilogram of baby's weight of potassium chloride and dilute to a final volume of 25mL with a compatible fluid

Concentration = 0.08mmol/kg per 1mL

To avoid toxicity from a large bolus dose, mix the infusion thoroughly

Administration

IV Infusion:

Safety Tip: Always give as a diluted infusion

Run the infusion at the rate of 1mL per hour (0.08 mmol/kg/hour)

Replace deficit slowly over at least 2 to 3 hours and at a rate not exceeding 0.2 mmol/kg/hour via peripheral IV cannula

Faster infusion rate (up to 0.4 mmol/kg/hour) may be given in a very severe depletion via central venous catheter, upon consultant's advice

Oral

Dilute before administration with milk or water
Give after feeds

Compatible Fluids

Glucose 5%, Glucose 10%, Sodium Chloride 0.9%

Side Effects

Common: hyperkalaemia, hypotension, oral administration – gastrointestinal disturbances, vomiting

Serious: concentrated solutions through peripheral IV can cause thrombophlebitis and pain at injection site. Rapid IV infusions may cause cardiac arrest and cardiac dysrhythmias

Interactions

Use with caution in patients receiving potassium-sparing diuretics, anticholinergic agents and medications that contain potassium.

Monitoring

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

Comments

Correct potassium slowly over 24 to 48 hours

Observe injection site closely for signs of extravasation

Avoid bolus infusions due to increased risk of severe complications and extravasation

Give via central line if available. If giving via UVC, make sure the top of the UVC is not in the heart or the liver

pH of oral solution = 2 to 3 (as per the manufacturer, Perrigo)

Related Policies, Procedures & Guidelines

HDWA Mandatory Policies:

Mandatory Standard for intravenous potassium

WNHS Pharmaceutical and Medicines Management Guidelines:

Prescribing and Administration of Medications to Neonates

References

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: http://aidh.hcn.com.au

Truven Health Analytics. Potassium chloride. In: NeoFax [Internet]. Greenwood Village (CO):

Truven Health Analytics; 2021 [cited 2021 Jun 12]. Available from: https://neofax.micromedexsolutions.com/

Takemoto CK, Hodding JH, Kraus DM. Potassium chloride. In: Pediatric & neonatal dosage handbook with international trade names index : a universal resource for clinicians treating pediatric and neonatal patients. 27th ed. Hudson (Ohio): Lexicomp; 1923-1926.

Keywords	Potassium chloride, hypokalaemia, hyperkalaemia, electrolyte supplementation				
Document Owner:	Head of Department - Neonatology				
Author/ Reviewer	KEMH & PCH Pharmacy/Neonatology Directorate				
Version Info:	Nov 2016 (full review), Aug 2020 (full review), Jun 2021 (updated links, added pH of oral solution).				
Date First Issued:	Oct 2013	Last Reviewed:	Jun 2021	Review Date:	Jun 2024
Endorsed by:	Neonatal Directorate Management Group			Date:	03/06/2021
NSQHS Standards Applicable:	☒ Std 1: Clinical Governance ☐ Std 2: Partnering with Consumers ☐ Std 3: Preventing and Controlling Healthcare Associated Infection ☒ Std 4: Medication Safety			☐ Std 5: Comprehensive Care ☐ Std 6: Communicating for Safety ☐ Std 7: Blood Management ☐ Std 8: Recognising and Responding to Acute Deterioration	
Printed or personally saved electronic copies of this document are considered uncontrolled. Access the current version from WNHS HealthPoint.					

The health impact upon Aboriginal people has been considered, and where relevant incorporated and appropriately addressed in the development of this document (insert ISD Number). (Please refer to the Aboriginal Health Impact Statement and Declaration for Department of Health and Health Service Provider Guidelines – please delete once you have completed this).

This document can be made available in alternative formats on request for a person with a disability.