

potassium

100mg (1.33mmol)/mL, 10% oral mixture
75mg (1mmol)/mL 7.5% ampoule

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This is a high risk medication

An overdose can be rapidly fatal.

Premixed bags with added potassium and sodium are commercially available and generally avoid the need to prepare solutions at the bed-side using concentrated potassium chloride ampoules.

Do not administer concentrated intravenous potassium chloride (1mmol/mL) solution directly unless administered into a central line and under consultant direction.

Intravenous potassium chloride ampoules should be restricted to the pharmacy department or intensive care areas and should only be considered where the standard premixed potassium containing solutions are unable to meet the clinical need of the patient

Synonyms

KCI (this is not an acceptable abbreviation in South Australian Hospitals)

potassium

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Dose and Indications

Hypokalaemia

Always prescribe as millimol (mmol) of elemental potassium

Intravenous infusion

1 to 3mmol/kg/day

Correct deficits slowly and reassess plasma potassium levels at regular intervals

Higher doses up to 6mmol/kg/day may be needed for severe depletion

Correct any true deficit slowly over 1 to 2 days and adjust dose according to clinical requirements for potassium.

Oral

1 to 2mmol/kg/dose daily

Daily dose can be given in divided doses or mixed with the daily feed volume, depending on the unit specific procedures

Preparation and Administration

Oral

The 10% **oral** solution contains 100mg (1.33mmol)/mL potassium

Oral Dose	1mmol	2mmol	4mmol	6mmol	8mmol	10mmol
Volume	0.75mL	1.5mL	3mL	4.5mL	6mL	7.5mL

Give oral doses with feeds to minimise gastric irritation.

Intravenous infusion

Use standard strength potassium solutions where possible. Commercial solutions include:

- > 10% glucose with 0.225% (or 0.038 mmol/mL) sodium and 0.02mmol/mL potassium (500mL bags)

Administer potassium solutions at 0.2mmol/kg/hour or slower.

- > **Always** dilute potassium ampoules prior to intravenous administration

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- > **Always** control infusion with a syringe/IV pump
- > **Never flush.**

Concentrated potassium chloride ampoules (1mmol/mL) should only be used to produce intravenous solutions at the bed-side in intensive care situations and with consultant advice.

Compatible Fluids

Glucose 5%, glucose 10%, glucose/sodium chloride solutions and sodium chloride 0.9%

Adverse Effects

Common

Oral: Vomiting, diarrhoea, abdominal pain

Intravenous: Thrombophlebitis, pain, necrosis at injection site

Symptoms of hyperkalaemia (large doses or rapid IV administration) include hypotonia, flaccid paralysis, cold skin, grey pallor, hypotension, cardiac arrhythmias (heart block, peaked T waves) and asystole

Monitoring

- > Observe intravenous site closely for signs of extravasation when using concentrated solutions
- > Continuous ECG monitoring is mandatory when administering potassium by the intravenous route in neonates
- > Plasma potassium levels should be measured regularly with frequency determined by the clinical situation.

Version control and change history

PDS reference: OCE use only

Version	Date from	Date to	Amendment
1.0	November 2012	current	Original version