

## **Directions for Use**

B. Braun Melsungen AG · D-34209 Melsungen, Germany

# 14.9% w/v Potassium **Chloride Injection**

Composition

10 ml solution contains:

Potassium Chloride

1.49 g

Excipient

Water for Injections

1 ml contains 2 mmol potassium and 2 mmol chloride.

Theoretical osmolarity

3995 m0sm/l

рΗ

### Pharmaceutical form

Concentrate for solution for infusion

### Pharmaco-therapeutic group

Electrolyte replacement solutions

States of potassium deficiency, especially if accompanied by alkali excess and decreased chloride concentration in the blood (hypochloraemic alkalosis).

### Contraindications

14.9% w/v Potassium Chloride Injection must not be administered when there are

- an elevated potassium level (hyperkalaemia)
- an elevated chloride level (hyperchloraemia)
- disorders that are frequently associated with hyperkalaemia such as dehydration, reduced renal excretion, Addison's disease, Adynamia episodica hereditaria (Gam-storp's syndrome), sickle cell anaemia.

### Special warnings and precautions for use

14.9% w/v Potassium Chloride Injection should only be administered with caution when there is

- cardiac decompensation
- simultaneous treatment with potassium-saving diuretics, aldosterone antagonists, ACE inhibitors or potentially nephrotoxic medicaments (nonsteroid anti-inflammatories etc.).

The administration of potassium-containing infusions must be discontinued if there are signs of renal insufficiency.

There are typical changes in the ECG when the potassium balance is disturbed (hypo- or hyperkalaemia). However, there is no linear relationship between the ECG changes and the concentration of potassium in the blood.

Clinical monitoring should include checks of the serum ionogram and the acid-base balance.

It must be made absolutely sure that the solution is administered intravenously, because paravenous administration may cause tissue necrosis.

An increase in the extracellular potassium concentration reduces the effect of cardiac glycosides, a reduction increases the arrhythmogenic effect of cardiac alvcosides.

Potassium saving diuretics, aldosterone antagonists, ACE inhibitors, nonsteroid anti-inflammatories and peripheral analgesics reduce the renal excretion of potassium. Severe hyperkalaemia can occur on simultaneous administration with potassium chloride.

Severe hyperkalaemia, with adverse effect on the heart rhythm, can also occur when suxamethonium and potassium are administered simultaneously.

The dosage should be adjusted according to the analysis values of the serum ionogram and the acid base

The potassium deficit is calculated according to the following formula:

mmol potassium =

kg BW x 0.2 x 2 x (4.5 - current serum potassium [mmol/I]).

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(Body weight x 0.2 represents the extracellular fluid *Emergency treatment, antidotes:* volume.)

Maximum daily dose:

Not more than 2 - 3 mmol/kg BW/day

Maximum infusion rate:

Up to 20 mmol potassium per hour (corresponding to 0.3 mmol potassium/kg BW/hour) in adults.

### Method of administration

Intravenously, only diluted as an additive to infusion solutions. The potassium concentration in the infusion solution must not exceed 40 mmol/l. Suitable vehicle solutions are e.g. 5 % or 10 % glucose solutions, isotonic sodium chloride solution, Compound Sodium Lactate solution, or complete electrolyte

14.9% w/v Potassium Chloride Injection should only be added immediately before setting up the infusion and strictly aseptic technique should be observed. The infusion bottle should then be gently shaken.

As a matter of principle, infusion pumps should be used for the infusion of potassium in the setting of correction therapy.

### Overdose

Symptoms:

Overdose may cause hyperkalaemia, in particular in the presence of acidosis or kidney insufficiency.

The symptoms of hyperkalaemia are primarily cardiovascular disorders. There can be bradycardia, AV blockade and ventricular fibrillation and cardiac arrest. In the ECG there are high, sharp, symmetrical T-waves and, at very high potassium levels, broadening of the QRS complex. The vascular effects are hypotension and centralisation.

The neuromuscular symptoms encompass fatigue, weakness, states of confusion, heaviness of limbs, muscle twitching, paraesthesia, and ascending para-

Plasma potassium concentrations greater than 6.5 mmol/l are dangerous, over 8 mmol/l often lethal.

The first measure is immediate stop of infusion. Further corrective measures include slow intravenous administration of 10 % calcium gluconate, infusion of glucose together with insulin, increase of diuresis, oral or rectal administration of cation exchangers, correction of acidosis, if necessary.

In cases of severe intoxication haemodialysis may be necessarv.

### Undesirable effects

Administration of potassium chloride may be accompanied by nausea, acidosis, an elevated concentrations of chloride in the blood.

Too rapid infusion may lead to heart arrhythmia.

Patients are advised to inform their doctor or pharmacist if they notice any adverse effect not mentioned in this leaflet.

### **Expiry date**

Do not use after the expiry date stated on the label-

### Instructions for storage / use / handling

Only to be used if solution is clear and container undamaged.

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