

## Hypokalaemia (General Wards) - Summary Clinical Guideline

Reference No: CG-T/2013/169

### Introduction

This guideline applies to the management of hypokalaemia in adult patients on general wards. It does not apply to:

- renal or critical care area patients: see appropriate protocols
- as a reversible cause of cardiac arrest: manage as per ALS course materials
- patients receiving customised parenteral nutrition at RDH site: titrate PN electrolyte content (QHB site uses off-the-shelf PN and so separate potassium supplementation may be indicated)
- diabetic ketoacidosis or hyperosmolar hyperglycaemic state: follow diabetes guidelines
- For children please see guideline available on Koha ([Intravenous fluids paediatric clinical guideline reference: CH CLIN G44](#))

### Aim and purpose

To provide guidance for safe, effective potassium replacement within the general medical or surgical ward environment.

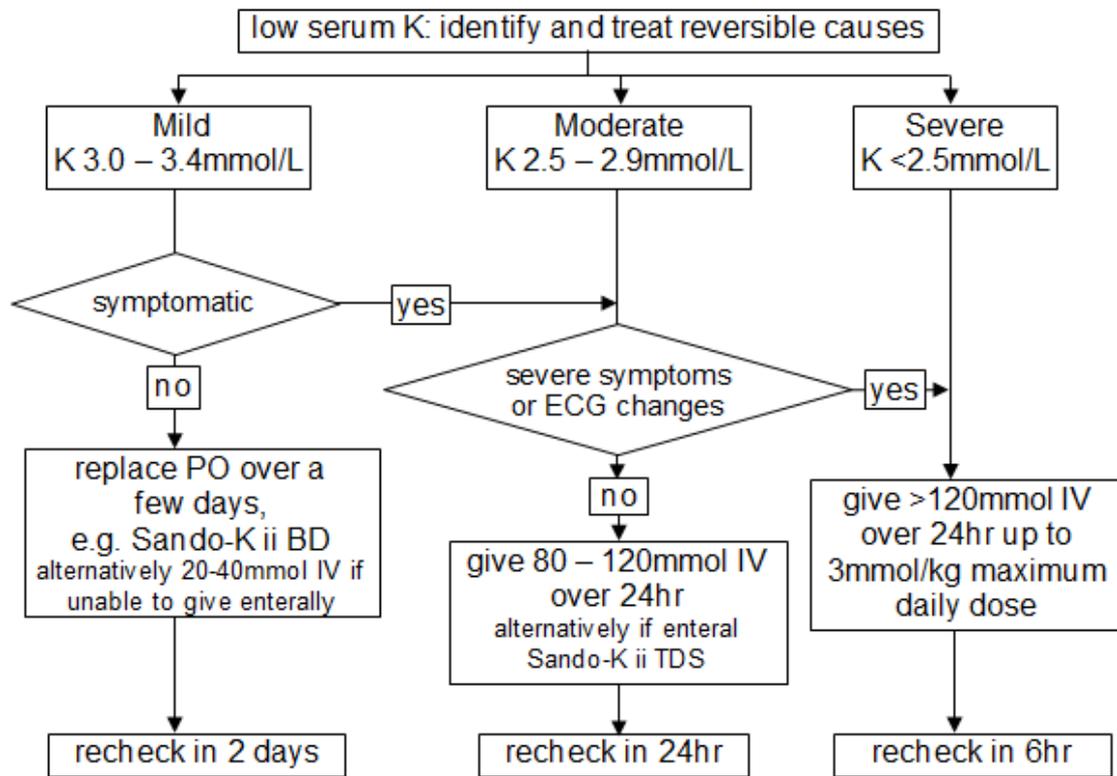
### Classification of hypokalaemia:

Serum potassium concentration	Potential symptoms
3.0-3.4 mmol/L <b>mild</b>	Usually no symptoms, *arrhythmias
2.5-2.9 mmol/L <b>moderate</b>	Generalised weakness, lassitude and constipation, *arrhythmias
2.0-2.4 mmol/L <b>severe</b>	Muscle weakness and necrosis, myocardial infarction *arrhythmias
Less than 2.0 mmol/L <b>emergency</b>	Paralysis and impairment of respiratory function, *arrhythmias
* In patients with ischaemic heart disease, heart failure, or left ventricular hypertrophy, even mild hypokalaemia increases the likelihood of arrhythmias.	

Hypokalaemia will also exacerbate digoxin toxicity.

## Treatment of hypokalaemia

Although this document offers guidance, the dose of potassium to treat hypokalaemia should be determined on an individual patient basis. Chronic hypokalaemia indicates a profound deficit in total body potassium and replacement may take several days. Failure to correct hypokalaemia despite appropriate treatment may be due to underlying hypomagnesaemia. **All patients with hypokalaemia should have a magnesium level checked.**



The **maximum daily dose of potassium for replacement is 3mmol/kg** unless significant renal impairment – use approximately half usual dose and seek renal. **In the presence of hypomagnesaemia, magnesium should ordinarily be replaced first in order to aid distribution of potassium replacement.**

The **maximum rate of infusion** in a general ward environment is **10mmol/hr**. This can be increased to 20mmol/hr provided continuous cardiac monitoring is in place. Higher rates are associated with significant risk of cardiac arrhythmia and arrest. **Potassium should be given via an infusion pump to ensure a safe rate.**

The usual **maximum concentration** for peripheral IV administration is **40mmol/L**.

**For further information see full guideline.**