Management of Hyperkalaemia in Adults

**MILD**
5.5-5.9mmol/l

Identify and treat cause promptly. Consider long term management strategies.

At this stage, acute hyperkalaemia treatment is **not** required.

**MODERATE**
6.0-6.4mmol/l

Assess rate of change – was rise in potassium level significant? Is a further rise of potassium anticipated?

Identify and treat cause promptly. Consider long term management strategies.

**SEVERE**
≥6.5mmol/l

Perform urgent medical assessment: ABCDE

Urgent ECG – Look for: prolonged PR interval or QRS duration, tall, tented T-waves, any new arrhythmia (e.g. AF, VT), 2nd degree AV block or complete heart block. [Compare with baseline ECG]

Protect the heart:
10ml of IV calcium gluconate 10% administered over 2-3 minutes

Monitor cardiac rhythm with ECG or continuous cardiac monitor

Shift potassium into cells - administer:
1. IV Actrapid® 10units in 50ml of glucose 50% over 30 minutes
2. 10mg of nebulised salbutamol

Recheck potassium level in **2 hours** and **6 hours** after treatment. If unable to obtain blood sample, an arterial gas sample would suffice.

Capillary glucose (BM) **MUST** be monitored:
Every 15 minutes in the first hour
Every 30 minutes in the second hour
Every hour thereafter for a total of six hours

**IMPORTANT POINTS TO CONSIDER**

- Contact the Renal team for advice if hyperkalaemia persists after initial treatment. Discuss with a senior member of your clinical team **first**
- Calcium gluconate 10% should be administered by medical staff or Advanced Nurse Practitioners. Duration of action is anticipated to be 30 to 60 minutes – repeat if required. Please check patency of IV access prior to administration
- Peak effect of insulin glucose is usually seen within 30 to 60 minutes after the infusion. This effect may last for several hours with a **rebound in potassium** anticipated
- The effect of nebulised salbutamol can happen within 30 minutes of administration and may last for 2 hours
- Dialysis patients should be treated as above but the on-call Renal Registrar or Consultant **must** be contacted as urgent dialysis may be required
- Administration of sodium bicarbonate 1.26% infusion may cause sodium and fluid overload therefore is not a routine treatment strategy unless metabolic acidosis is a concern

**LONG TERM MANAGEMENT STRATEGIES**

- Maintain treatment of underlying cause(s) of hyperkalaemia as clinically indicated
- All medications which can cause hyperkalaemia should be withheld or stopped
- Cation-exchange resins (eg: Oral calcium resonium 15g three times daily) may be considered in some slow resolving cases and should always be prescribed with lactulose
- Consult the Dietetics team for low potassium dietary advice

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(Developed by the Renal Unit in partnership with the Emergency Department, Critical Care, Cardiology and Endocrinology)

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**CAUSES OF HYPERKALAEMIA**

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**NO**