Emergency Management of Hyperkalaemia in Adults

- Assess using ABCDE approach
- 12-lead ECG and monitor cardiac rhythm if serum potassium (K+) ≥ 6.0 mmol/l
- Exclude pseudohyperkalaemia
- Give empirical treatment for arrhythmia if hyperkalaemia suspected

**MILD**
K⁺ 5.5 - 5.9 mmol/L
Consider cause and need for treatment

**MEDIUM**
K⁺ 6.0 - 6.4 mmol/L
Treatment guided by clinical condition, ECG and rate of rise

**SEVERE**
K⁺ ≥ 6.5 mmol/L
Emergency treatment indicated

**NO**
ECG Changes?
- Peaked T waves
- Flat/absent P waves
- Broad QRS
- Sine wave
- Bradycardia
- VT

**YES**
Calcium Chloride OR Calcium Gluconate IV (6.8 mmol)

**Insulin–Glucose IV Infusion**
Give 10 units soluble insulin in 25 g glucose over 15-30 min
(see Glucose regimen table)

**REDUCE THE RISK OF HYPOGLYCAEMIA**
If pre-treatment blood glucose < 7.0mmol/l, follow with glucose infusion:
10% glucose @ 50ml/hr for 5 hrs (25g)

- **Salbutamol 10 – 20 mg Nebulised**
- **Consider**

**Life-threatening hyperkalaemia**

**Consider Dialysis**
Seek expert help

**Protect the Heart**

**Shift K⁺ into cells**

**Remove K⁺ from body**

**Monitor K⁺ and Glucose**

**Prevention**

**First 15-30 minutes**

- **Na⁺**: _____
- **pH**: _____
- **K⁺**: _____
- **pCO₂**: _____
- **Urea**: _____
- **pO₂**: _____
- **Creat**: _____
- **Bicarb**: _____

**Use ABG machine to monitor K⁺**

**IV Calcium (6.8 mmol)**
- 10 ml 10% Calcium Chloride IV OR
- 30 ml 10% Calcium Gluconate IV

Use large IV access and give over 5 min
Repeat ECG
Consider further dose after 5 min if ECG changes

**Next 30-60 minutes**

**GLUCOSE REGIMEN (25g glucose)**
- 50ml 50% glucose
- = 125ml 20% glucose
- = 250ml 10% glucose

**Blood Monitoring:**

<table>
<thead>
<tr>
<th>Glucose</th>
<th>K⁺</th>
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<tbody>
<tr>
<td>Baseline</td>
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<tr>
<td>30 min</td>
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<td>60 min</td>
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<td>480 min</td>
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<td>720 min</td>
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K⁺: potassium; Na⁺: sodium; Creat: creatinine; Bicarb: bicarbonate; max - maximum

Date: _____/____/____ Time: _____

Emergency Management of Hyperkalaemia in Adults

**K⁺ ≥ 6.5 mmol/l despite medical therapy**

**Consider cause and prevent further rise or recurrence**