Emergency Management of Hyperkalaemia in Adults

- Assess patient using ABCDE approach
- 12-lead ECG and monitor cardiac rhythm if serum $K^+ \geq 6.0$ 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

**MONOTERATE**

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

**SEVERE**

$K^+ \geq 6.5$ mmol/L
Emergency treatment indicated

- **Protect the Heart**
- **Shift $K^+$ into cells**
- **Remove $K^+$ from body**
- **Monitor $K^+$ and Glucose**
- **Consider cause and prevent further rise or recurrence**

**ECG Changes?**
Peaked T waves
Broad QRS
Bradyarrhythmia
Flat/absent P waves
Sine wave
VT

**First 15-30 minutes**

- **Insulin–Glucose IV Infusion**
  - Give 10 units soluble insulin in 25 g glucose
  - Give 10% glucose @ 50ml/hr for 5 hrs (25g) if pre-treatment blood glucose < 7.0mmol/l

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

- **Sodium zirconium cyclosilicate 10g tds for 72 hrs**
  OR
  Patiromer 8.4g once daily

- **Salmeterol 10 – 20 mg Nebulised**

- **Consider cause and need for treatment**

- **Risk of hypoglycaemia**

- **Life-threatening hyperkalaemia**

- **Seek expert help**

**Next 30-60 minutes**

- **Blood Monitoring:**
  - Glucose
  - $K^+$

- **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

**GLUCOSE REGIMEN (25g glucose)**

- 50ml 50% glucose
- 125ml 20% glucose
- 250ml 10% glucose

K$: potassium; Na$: sodium; Creat: creatinine; Bicarb: bicarbonate; BM: blood glucose; max - maximum