# ACUTE HYPERKALEMIA MANAGEMENT GUIDELINE

**Stop K+ intake**
- **Diagnosis - Lab Potassium**
  - 5.5 – 6.0mmol – mild
  - 6.0 – 6.5mmol – moderate >6.5 - severe
  - Full monitoring (SpO₂/ ECG/ BP) – 12 lead ECG
  - URGENT IV access - obtain blood venous U&E/ FBC clotting/blood gas /glucose/iCa²⁺
  - Maintain strict input output fluid balance chart

**Initial Considerations**
- Causes - high K⁺ intake, high production or low excretion
- Check fluids being infused & enteral intake
- Omit drugs that can cause hyperkalaemia: ACEI, Angiotensin II blockers, K sparing diuretics and β blockers
- Senior /Specialist Renal physician/NECTAR support
- Consider nil by mouth – may need GA & central venous access

**Stabilise myocardium**
- **10% Calcium Gluconate** - 0.5ml/kg iv over 5 minutes, max 20ml, give undiluted peripheral IV or IO
  - Give if ECG changes (tall T waves, loss of P or wide QRS) or K⁺ is significantly raised/rising or in cardiac arrest
  - Onset of action within minutes. Duration of action ≈1 hour, repeat within 5-10 min as necessary

**Shift K+ into cells**
- **Nebulised Salbutamol** - 2.5mg <2 year or 5mg ≥2 years, repeat hourly as necessary
  - Onset of action: within 30 minutes, max effect at 60-90 minutes

- **Sodium Bicarbonate** (1ml=1mmol) 1-2mmol/kg over 30min - dilute 1:10 in 5% dextrose, give peripheral IV or IO
  - Consider if acidotic - can be given peripherally with caution at above dilution
  - Onset of action: 30-60 minutes and continue to work for several hours

**Shift K+ into cells**
- **Dextrose + Insulin** (run simultaneously for 20min and stop)
  - Peripheral access: 10% Dextrose 5 – 10ml/kg over 10-20min
  - Central access: 20% Dextrose 2.5 – 5ml/kg over 10-20min
  - Make up a syringe of 50 Units Actrapid in 50ml 0.9% NaCl & commence infusion at 0.05-0.1ml/kg/hr for 10-20min
  - Maintain blood glucose >5mmol/L
  - Begins to work in 20-30mins - Insulin drives potassium into cells and glucose prevents hypoglycaemia.
  - Must measure blood sugar frequently (15 mins after commencing or increase in dose)

**Remove K+ from body**
- **Furosemide 2mg/kg iv (max dose 80mg) over 5-10min**
  - Ensure patient is intravascularly well filled – if not 10ml/kg fluid bolus should be considered initially

- **Calcium Resonium**
  - By rectum: 250mg/kg (max 15g) 6 hourly, repeat if expelled within 30 minutes.
  - By mouth: 250mg/kg (max 15g) 6 hourly
  - Limited role for oral route as it is unpalatable
  - Takes 4 hours for full effect.

- **Dialysis** – Will need early transfer to GNCH, especially the oligo/anuric patients.