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 (SpO_2/ ECG/ BP) – 12 lead ECG
- ☐ URGENT IV access - obtain blood venous U&E/ FBC clotting/blood gas /glucose/iCa^{+2}
- ☐ 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 in emergency)
- Give if ECG changes (tall T waves, loss of P or wide QRS) or K^+ is significantly raised/rising or in cardiac arrest
- Unless emergency, dilute as per BNFC. Onset of action minutes. Duration of action ≈1 hour, repeat after 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

Preparation : Add 5 Units of soluble insulin (Actrapid®) to 500ml bag of 10% Dextrose 0.9% Saline
Dosage: Give 5ml/kg of Insulin + Dextrose solution over 30min and STOP to recheck K (repeat as necessary)
- Maintain blood glucose >5mmol/L
- Must measure blood sugar frequently (15 mins after commencing)
- Severe hyperkalemia may require repeat doses
- Begins to work in 20-30mins - Insulin drives potassium into cells and glucose prevents hypoglycaemia

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.

This is a menu of options – not all need to be used