

Hyperkalaemia in Primary Care

Hyperkalaemia may be asymptomatic, but associated with ECG abnormalities. Tented T waves may be the first sign. Absent P waves and broad QRS complex are indications for emergency treatment. Sudden death due to cardiac dysrhythmia is confined to cases where the serum potassium is 7.0 mmol/L or more, particularly if there is a **rapid** increase in serum concentration.

Urgent Action Required:

- Assess eGFR, blood glucose and exclude artefact. It is unusual to have high K with normal renal function. Falsely elevated serum K may occur in 4 situations –
 - i) Haemolysed specimen – usually the laboratory will indicate this
 - ii) Delay in centrifugation of specimen – usually overnight, but may occur within a few hours in exposure of specimen in cold weather
 - iii) Contamination with EDTA from FBC container – Ca may be low
 - iv) Very high platelet or white cell count – requires repeat with Lithium Heparin tube
- If potassium is genuinely 6.5 mmol/L or greater, consider admission, particularly if there are ECG changes, acute changes in renal function or a rapid increase in potassium concentration
- Stop drugs that may cause an increase in potassium, where possible (see below)
- Consider adrenal insufficiency – clues include postural hypotension, pigmentation, hyponatraemia, hypoglycaemia. A random cortisol may suffice, although a **Synacthen test** may be required

Further Investigation:

- Review medication. Drugs that may cause hyperkalaemia include NSAIDs, ACE inhibitors, ARB blockers, cyclosporine, tacrolimus, digoxin, oral potassium, potassium sparing diuretics, trimethoprim and β -blockers. 'Lo salt' is high in potassium
- Measure blood glucose and bicarbonate to exclude diabetes and other acidosis

Interpretation and Further Action:

- Monitor U&E for changes in renal function and K concentration. Possibly avoid excessive intake of foods high in K – bananas, avocados, jacket potatoes, some yoghurts
- Consider endocrine referral if high K remains unexplained
- If urgent management required, and patient is not suitable for transfer to acute services – see “[Guideline for Emergency Management of Hyperkalaemia](#)” in First Port or contact the duty/ oncall biochemist (advice available 24/7)