Hyperkalaemia in primary care

DEPARTMENT OF CLINICAL BIOCHEMISTRY

NHS Severn Pathology

Serum potassium normal range is 3.5-5.3 mmol/L

Severity of hyperkalaemia	Retesting interval and immediate actions			ECG changes
	Clinically well (no AKI)	Unexpected result	Clinically unwell or AKI	
MILD **5.5 - 5.9 mmol/L**	Repeat within 14 days	Repeat within 3 days	Consider if hospital referral is indicated	Likely none but not excluded
	Assess for cause (drugs, diet) and address in community			
MODERATE **6.0 - 6.4 mmol/L**	Repeat within 1 working day	Repeat within 24 hours	Refer to hospital	Tall tented T waves, prolonged PR interval
	Assess for cause (drugs, diet) and address in community or hospital			
SEVERE **≥ 6.5 mmol/L**	Refer to hospital for immediate assessment and treatment Assess for cause and address during hospital admission			Broadening QRS complex. As K+ goes to >7 peri-arrest arrhythmia possible

Differential Diagnosis

- Pseudohyperkalaemia (e.g. haemolysis, leukocytosis, thrombocytosis, transport delay, EDTA contamination)
- Drugs (see page 2)
- Intra-renal (AKI, CKD, aldosterone deficiency, interstitial nephritis)
- Cellular redistribution (e.g. DKA, rhabdomyolysis, tumour lysis syndrome)
- Excess intake/K+ containing laxatives

Initial investigations

- ECG essential in all those with K+ >6.0mmol/L to help assess severity
- Ensure full U&E done to assess change in renal function
- CK in those with suspected rhabdo
- Full blood count to rule out haematological disorders
- Repeat K+ as per above
- Cortisol if suspect addisons (High K, low Na)
- Paired Li-Hep & serum U&E if repeated mild hyper-K without known cause

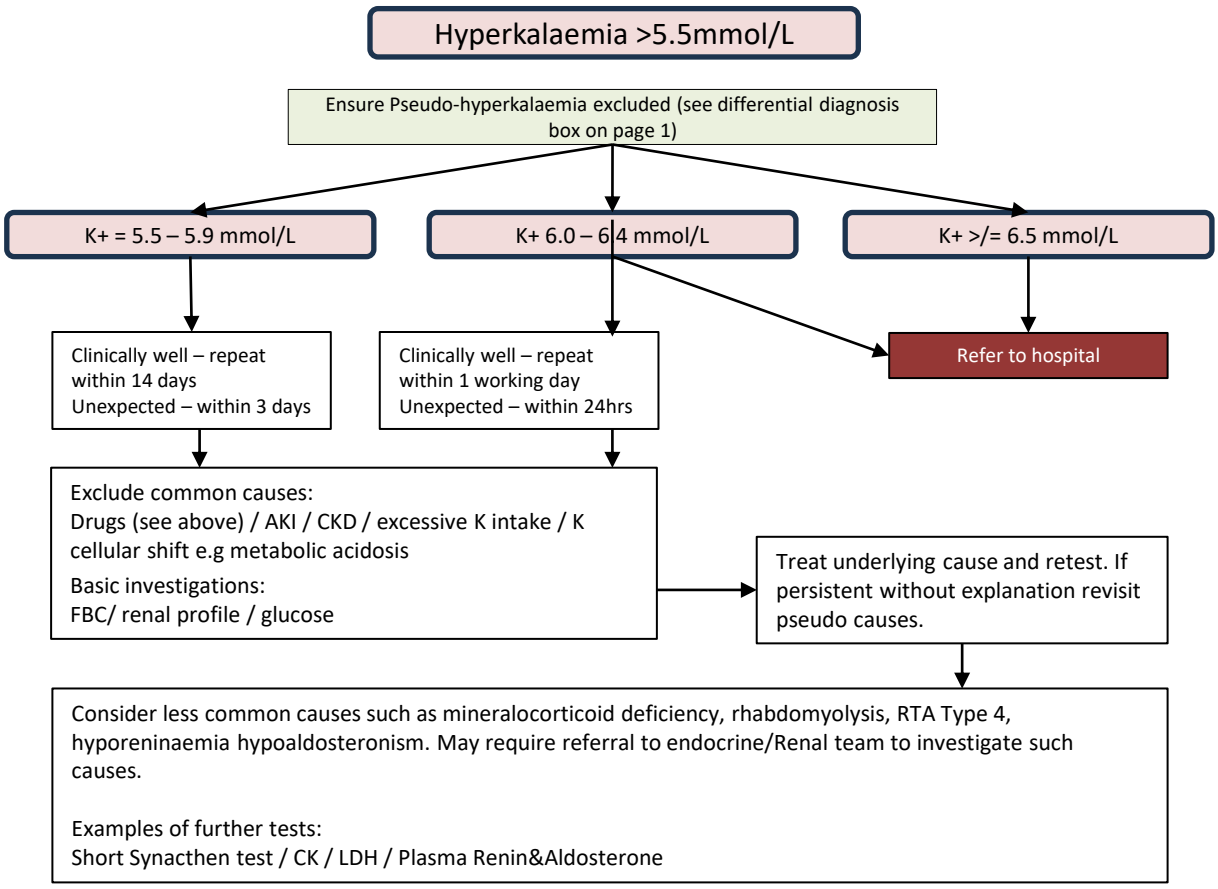
Initial management

- Assess severity - use above table using combination of ECG findings, degree of elevation and likelihood of pseudo causes
- Assess trend – rapidly rising K+ with concurrent change in renal function will need more urgent action
- Review medications as this can exacerbate any K+ rises (see page 2)
- Take appropriate action – any severe rise in K+ **not** thought to be a pseudo cause requires urgent action and is a medical emergency
- If mild hyperkalaemia – ensure appropriate retesting, assess diet and fluid status
- If considering admission for management Mon-Fri 0800-1830 use Integrated urgent care professional line for advice/to refer (01172449283)

Drugs to review

ACE inhibitors	ARBs	Calcium channel blockers
NSAIDs	Trimethoprim	Heparin
Beta-blockers	K+ sparing diuretics (spironolactone, amiloride)	Digoxin

Decision algorithm



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