

IMPORTANT

Severe hyperkalaemia should be treated as a medical emergency and carries the risk of a cardiac event

High Potassium (K+) result received:

- Consider spurious cause if urea/creat normal, eGFR is >60mL/min, and risk factors for true hyperkalaemia NOT present
- True hyperkalaemia unusual if renal function normal, except in patients receiving multiple (and usually contraindicated) potassium-sparing drugs and/or potassium supplementation
- Most common cause spurious hyperkalaemia is delayed transport of blood samples to lab. Other causes include release of intracellular K+ resulting from cooling/refrigeration/tourniquet and EDTA contamination from FBC tube.

Causes/associations with TRUE hyperkalaemia

CKD
Obstructive uropathy
Myopathy, paralysis
Arrhythmias (particularly bradycardia)
Age >70 years and serum urea >8.9 mmol/L
Acute illness (particularly acute kidney injury and ketoacidosis)

Serum Potassium

5.4-5.9 mmol/L

Stable K+ and renal (e.g. change in K+ ≤0.5 mmol/L, creatinine <15%, eGFR <10%) since last assessment

- Repeat K+ in 1-2 weeks
- Review dietary/drug influences
- Determine monitoring frequency based on renal function and drug history

Potassium Ref Range 3.5-5.3 mmol/L

Severity of clinical effects depends not only on K+ level but also if rise is acute or chronic

6.0-7.0 mmol/L + CKD

With significant changes in K+ (≥0.5 mmol/L) & creatinine (>15%) (or >10% fall in eGFR) since last assessment

- Consider performing ECG (if available)
- **Abnormal ECG or patient receiving hyperkalaemia-inducing drugs:**
 - Seek secondary care opinion urgently
 - Stop potential hyperkalaemia-inducing and nephrotoxic drugs if possible
- **No ECG abnormality:** Seek further advice, judge urgency on individual case basis

6.0-7.0 mmol/L + CKD

Stable K+ and renal (e.g. change in K+ ≤0.5 mmol/L and creatinine concentration <15% (or <10% fall in eGFR) since last assessment

- Consider performing ECG unless chronic stable result
- Establish future action limits with local nephrology services
- Avoid drugs that have potential to increase potassium concentration
- Advise low potassium diet

6.0-7.0 mmol/L No CKD

and not receiving potentially hyperkalaemia-inducing drugs

- Consider possible causes of spurious hyperkalaemia
- Perform ECG (if available)
- Seek urgent secondary care opinion if characteristic ECG abnormality present

≥7.0 mmol/L

Immediate admission usually indicated

Drugs that can cause hyperkalaemia

ACE inhibitors
Angiotensin-II receptor antagonists ('sartans')
K+ sparing diuretics: Spironolactone, amiloride
Potassium salts, including salt substitutes (e.g. Lo Salt®)
NSAIDs