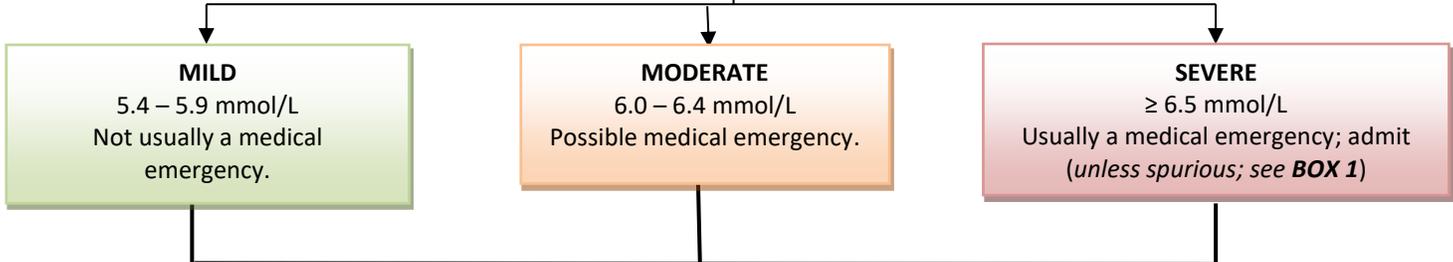


**HYPERKALAEMIA IN ADULTS**  
(K >5.3 mmol/L)

Patients with CKD, heart failure and/or diabetes, who are at risk of hyperkalaemia, should undergo regular monitoring at a frequency (2-4 times per year) dependent on level of renal function and degree of proteinuria.



- BOX 1**  
Causes of spurious/artefactual:
1. Haemolysis. A comment will be added to the results if present.
  2. Fist-clenching.
  3. Contamination from FBC tube (K-EDTA).
  4. Delayed arrival in lab (>6 hours).
  5. Cold sample storage before arrival in lab e.g. put in fridge.
  6. High platelet count.
  7. High WCC.

If causes 1, 2, 3, 4 or 5 suspected, repeat, avoiding precipitating cause.  
If causes 6 or 7 suspected, repeat using a green top sample tube sent straight to lab.

- BOX 2**  
Some causes of true:
- Drugs**
- ACE inhibitors\*
  - Angiotensin receptor blockers (ARBs)\*
  - K-sparing diuretics/MRA (spironolactone, eplerenone, amiloride, triamterene)\*
  - Beta-blockers (non-selective)
  - NSAIDs
  - Trimethoprim
  - Heparin
  - Antifungals
  - Ciclosporin
  - Tacrolimus
- \*Serum K should be measured within 1-2 weeks of initiation or increase in dose of an ACEI, ARB, or MRA*
- Renal Failure**
- Chronic (usually stage 4 or 5)
  - CKD and ingestion of foods high in potassium
  - AKI
  - Diabetic nephropathy (renal impairment may appear moderate)
- Iatrogenic**
- K-supplements
  - Salt substitutes e.g. LoSalt
  - Herbal medicines
- Metabolic Acidosis**
- Hypoaldosteronism**

Severity of Hyperkalaemia	Clinically well <sup>§</sup> (no AKI) and new result	Clinically unwell or AKI
<b>MILD</b> K <sup>+</sup> 5.4 – 5.9 mmol/l	Repeat within 14 days <sup>+</sup>	#Consider if hospital referral is indicated
	Assess for cause (see <b>BOX 2</b> ) and address in community	
<b>MODERATE</b> K <sup>+</sup> 6.0 – 6.4 mmol/l	Repeat within 24 hours <sup>+</sup>	Refer to hospital
	Assess for cause (see <b>BOX 2</b> ) and address in community or hospital	
<b>SEVERE</b> K <sup>+</sup> ≥ 6.5 mmol/l	Refer to hospital for immediate assessment and treatment	
	Assess for cause (see <b>BOX 2</b> ) and address during hospital admission	

**Suggested interval for repeat blood monitoring following an episode of hyperkalaemia.**  
<sup>§</sup>i.e. The test was done as a routine check rather than for acute illness, and there is no AKI warning stage.  
<sup>+</sup>Take steps to minimise any of the factors that can cause artefactual hyperkalaemia (see **BOX 1**)  
<sup>#</sup>Need for hospital referral (ED) will be guided by clinical circumstance and risk of further deterioration.

References and links to further information:  
[Changes-in-Kidney-Function-FINAL.pdf \(thinkkidneys.nhs.uk\)](#) Accessed 20/07/23  
[Renal Association Hyperkalaemia Guideline 2022 \(ukkidney.org\)](#) Accessed 20/07/23  
[Hyperkalemia: Practice Essentials, Background, Pathophysiology \(medscape.com\)](#) Accessed 20/07/23

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