

POTASSIUM ALGORITHM

The normal range for potassium is 3.5 – 5.3mmol/l. There are many reasons for an elevated serum potassium which should be investigated first before advising a patient to reduce potassium in their diet. Patients may already have been commenced on a potassium binder (Lokelma or Veltassa) and/or insulin/dextrose as treatment for hyperkalaemia.

Consider whether it is a false result eg; due to a haemolysed specimen.

- Look at the trend
- Is it a one-off result?
- Consider repeating the blood test.

Check whether the patient is dehydrated.

- Check for other abnormal U&E's.
- Discuss with medical team.

CONSIDER EXTRACELLULAR SHIFTING OF POTASSIUM

Check whether the patient has a metabolic acidosis.

- Look for a serum bicarbonate level between 22-30mmol/l.
- If not measured request the result.
- Below the normal range requires oral supplementation of sodium bicarbonate (discuss with medical team).

Check whether the patient is diabetic or constipated.

- If the blood sugars are not well controlled (insulin deficiency) then potassium is likely to be elevated.
 - Discuss with medical team.
- Constipation can contribute to hyperkalaemia – consider dietary and/or medical management.

Is the patient on any of the following drugs?

These drugs can cause an elevated potassium so discuss this with the medical team

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| ▪ ACE inhibitors (eg. Ramipril, lisinopril). | ▪ β blockers (Atenolol). |
| ▪ Non steroidal anti inflammatory drugs (NSAIDs). | ▪ Trimethoprim. |
| ▪ Potassium sparing diuretics (Amiloride, Triamterine). | ▪ Digoxin when levels toxic |
| ▪ Aldosterone antagonists (Spironolactone, Eplerenone). | ▪ Heparin |
| ▪ Angiotensin receptor blockers (ARBs or Sartans – eg. losartan). | |
| ▪ Laxatives (macrogol, movicol) | |
| ▪ Calcineurin Inhibitors (Ciclosporin, Tacrolimus). | |

Is the patient catabolic/malnourished?

- Consider whether it is muscle breakdown (look for evidence of weight loss – signs could be physical, or biochemical – eg. Low albumin) causing the increase in Potassium.
- If 'yes' recommend nutritional support

IF ALL ABOVE REASONS HAVE BEEN EXCLUDED AND/OR IF STILL UNSURE CONTACT A RENAL DIETITIAN IN YOUR AREA

If all the above reasons have been excluded, consider lowering potassium in patient's diet.

In order to not compromise nutritional status, look firstly for low nutrient sources of potassium, eg; fruit juices, coffee, chocolate, crisps, salt substitutes or foods containing potassium additives. Then consider cooking methods eg boiling rather than steaming, microwaving or air frying. If needed, provided Kidney Care UK leaflet, Lowering Potassium.