

**Always follow local guidelines and discuss with Senior if unsure  
Especially patients with significant fluid / electrolyte losses or  
those with co-morbidities such as Heart / Renal Failure**

## SERUM K<sup>+</sup> > 5.5mmol/L

If patient is oligo/anuric or has advanced CKD or severe AKI  
seek SENIOR ADVICE URGENTLY

### STOP ALL K<sup>+</sup> SUPPLEMENTATIONS

- remember K<sup>+</sup> IV fluids / avoid foods high in K<sup>+</sup> -

**STOP ALL HYPERKALAEMIA PROMOTING MEDICATION** (see below)  
ENSURE ADEQUATE HYDRATION

#### INVESTIGATE

- Full set observations
- 12 Lead ECG
- IV Access

#### EXCLUDE

**PSEUDOHYPERKALEMIA**  
- Re-check Serum K<sup>+</sup> VBG  
(but do not delay treatment)

#### K<sup>+</sup> LEVEL ECG

K<sup>+</sup> < 6mmol/L  
-and-  
No ECG Changes

K<sup>+</sup> 6-6.4mmol/L  
-and-  
No ECG Changes

K<sup>+</sup> ≥ 6.5mmol/L  
-or-  
ECG Changes

Monitor Patient  
Monitor U&E

Consider Cardiac  
Monitoring

Cardiac  
Monitoring

#### CALCIUM GLUCONATE IV 10% - 30ml

If Patient takes DIGOXIN then dilute in  
100ml glucose 5% over 30mins

If ECG changes present repeat  
**CALCIUM GLUCONATE IV**  
5-10 min intervals until ECG normalised  
- max 3 doses -

#### 10 units ACTRAPID

+

250ml 10% or 50ml 50% GLUCOSE IV over 15 mins

+/- SALBUTAMOL NEB 5mg

1 HOUR CHECK K<sup>+</sup>  
(VBG + confirm with U&E)  
12 LEAD ECG

K<sup>+</sup> < 6mmol/L  
-and-  
No ECG Changes

K<sup>+</sup> ≥ 6mmol/L  
-or-  
ECG Changes

Monitor Patient  
Monitor U&E

CALL SENIOR

Repeat as above

Dialysis / Filtration may be  
required if refractory

## ECG - HYPERKALEMIA CHANGES

### Serum K<sup>+</sup> Level - Potential ECG Changes

- > 5.5 - Tented T wave

- > 6.5 - Loss of P wave / Wide QRS

- > 8.0 - Sine wave (pre-terminal)



Tented T wave      Loss of P wave      Wide QRS      Sine wave

## HYPERTONIC KALIEMIA PROMOTING MEDICATION

- ACE Inhibitors
- ARB
- Amiloride
- Antifungals
- Beta-blockers
- Digoxin
- Spironolactone
- Eplerenone

- Heparin
- NSAIDSS
- Penicillin G (high dose)
- Trimethoprim
- Cyclosporine
- Tacrolimus

This is not an exhaustive list

Always consult BNF for dose / administration and  
contraindications for all above medications