Emergency Management of Hyperkalaemia in Adults

- Assess patient using ABCDE approach
- 12-lead ECG and monitor cardiac rhythm if serum K+ ≥ 6.0 mmol/l
- Exclude pseudohyperkalaemia
- Give empirical treatment for arrhythmia if hyperkalaemia suspected

MILD
K^+ 5.5 - 5.9 mmol/L
Consider cause and need for treatment

MODERATE
K^+ 6.0 - 6.4 mmol/L
Treatment guided by clinical condition, ECG and rate of rise

SEVERE
K^+ ≥ 6.5 mmol/L
Emergency treatment indicated

Seek expert help

ECG Changes?
Peaked T waves | Flat/ absent P waves | Broad QRS | Sine wave | Bradycarcia | VT

NO

YES

Protect the Heart

Calcium Chloride OR Calcium Gluconate IV (6.8 mmol)

Shift K^+ into cells

Insulin–Glucose IV Infusion
Give 10 units soluble insulin in 25 g glucose
Give 10% glucose @ 50ml/hr for 5 hrs (25g) if pre-treatment blood glucose < 7.0mmol/l

Consider *Risk of hypoglycaemia*

Salbutamol 10 – 20 mg Nebulised

Remove K^+ from body

Consider

Calcium resonium
15g tds orally OR
30g bd per rectum

Life-threatening hyperkalaemia

Sodium zirconium cyclosilicate
10g tds for 72 hrs
OR
Patiromer
8.4g once daily

Consider Dialysis
Seek expert help

Monitor K^+ and Glucose

Monitor serum K^+ and blood glucose

K^+ ≥ 6.5 mmol/l despite medical therapy

Prevention

Consider cause and prevent further rise or recurrence

Date: ___/___/___ Time ___:____

First 15-30 minutes

Na^+: _____	pH ___.___
K^+: ____.__	pCO_2 ___.__
Urea: ____.__	pO_2: ____.__
Creat: _____	Bicarb :

Use ABG machine to monitor K^+

IV Calcium (6.8 mmol)

10 ml 10% Calcium Chloride IV OR

30 ml 10% Calcium Gluconate IV

Use large IV access and give over 5 min

Repeat ECG

Consider further dose after 5 min if ECG changes

Next 30-60 minutes

GLUCOSE REGIMEN (25g glucose)
= 50ml 50% glucose
= 125ml 20% glucose
= 250ml 10% glucose

Blood Monitoring:

	Glucose	K^+
Baseline	___.___	___.___
30 min	___.___	
60 min	___.___	___.___
90 min	___.___	
120 min	___.___	___.___
180 min	___.___	
240 min	___.___	___.___
300 min	___.___	
360 min	___.___	___.___
480 min	___.___	
720 min	___.___	___.___

K^+: potassium; Na^+: sodium; Creat: creatinine; Bicarb: bicarbonate; BM: blood glucose; max - maximum

Publication Date: 1.7.2020 Review Date: 1.7.2025 The Renal Association UK