

POTASSIUM GUIDELINES PICU - RBHSC

- Normal K⁺ requirements are 2-3mmol/kg/day
- Acute potassium changes are common in PICU
- Look for possible causes of K⁺ flux e.g., GI losses, diuresis and pH (overventilation-alkalosis-hypokalaemia)
- Low potassium infusion (start IF K⁺ < 3.5mmol/L)
 1. Use 500ml maintenance fluids with 20mmols KCL⁻.
 2. Pre-prepared bags should be used where possible.
 3. If a pre-prepared bag is not available then add 20mmol KCL to 500ml maintenance fluid
 4. Check serum K⁺ 6hrly until stable.
- High potassium infusion (start IF K⁺ < 3.0mmol/L)

MAXIMUM 0.2 - 0.5mmol/KG/HR OF POTASSIUM

1. ADD 20mmol KCL to 50mls 0.9% Saline in a syringe (normally use 0.9% NaCL)
 2. Infuse @ **0.2mmol/kg/hr** initially (0.5ml/kg/hr)
 3. Check serum K⁺, Na⁺, pH hrly until stable (ABG hrly, Laboratory U&E 4hrly)
 4. The consultant in charge may decrease the frequency of sampling once the (K⁺) is seen to be stable
- IF K⁺ is less than 2.25mmol/L then increase infusion to **0.4mmol/kg/hr** (1ml/kg/hr)
 - IF K⁺ is more than 3.5mmol/L STOP high potassium infusion; continue low potassium infusion if needed

NOTES

1. Use only central venous access for high potassium infusion
 2. Do not add high potassium to burettes..... use syringe driver
 3. Send daily urine for K⁺, Na⁺ (biochemistry)
- ECG monitoring - A nurse must observe a 2-channel continuous ECG monitor at all times during the infusion. Nursing and medical staff must be aware of ST and T wave changes associated with hypo/hyperkalaemia
 - Resuscitation equipment must be kept beside the patient. In particular, calcium chloride 10% minijet should be considered early in the event of cardiac arrest or severe hyperkalaemia (0.1ml/kg boluses)
 - Nebulised salbutamol should be given if hyperkalaemia is suspected