Electrolyte Disturbances - SDU - Summary Clinical Guideline

Reference no.: CG-STEP/2019/003

Sodium

- *A rise or fall in plasma level of ≥ 20 mmol / 24 hours is considered significant.*
  - *Slow correction ≤ 8 mmol / 24 hours is the underlying management principle.*

Potassium

- *Hyperkalaemia is classified as mild (5.1-5.9 mmol/L), moderate (6.0.-7.0 mmol/L), or severe (≥ 7.0 mmol/L).*
  - *Moderate hyperkalaemia requires glucose / insulin infusion, whilst severe hyperkalaemia requires dialysis.*
- *Hypokalaemia is classified as mild (3.0-3.5 mmol/L), moderate (2.5-3.5 mmol/L), or severe (< 2.5 mmol/L).*
  - *Mild and moderate hypokalaemia should be managed by oral supplements, or by increased intravenous maintenance KCl as appropriate.*
  - *Severe hypokalaemia should be managed with an intravenous replacement regime. Hypomagnesaemia and hypophosphataemia may co-exist with hypokalaemia.*

Magnesium

- *Hypermagnesaemia is often iatrogenic.*
- *Hypomagnesaemia is often asymptomatic.*
  - *Asymptomatic patients do not require treatment if total serum level ≥ 0.5 mmol/L.*
  - *Asymptomatic patients require treatment if total serum level ≤ 0.4 mmol/L.*
  - *Symptomatic patients require intravenous treatment at any serum level.*

Calcium

- *Decisions to treat hypocalcaemia should be based on the presence of symptoms of hypocalaemia and serum ionized calcium level measured on a blood gas machine. Do not treat corrected total plasma calcium level in the absence of symptoms.*

Phosphate

- *Hyperphosphataemia may be iatrogenic and causes symptoms via associated hypocalcaemia which may itself be severe and require intravenous replacement.*
- *Hypophosphataemia is classified as mild (0.65 – 0.79 mmol/L), moderate (0.32 – 0.65 mmol/L), or severe (≤ 0.32 mmol/L).*
  - *Intravenous phosphate replacement should not be given until plasma levels are < 0.4 mmol/L, or unless re-feeding syndrome is considered to be a significant risk factor.*

Re-feeding Syndrome

Ask for an assessment from the Nutrition Team before re-starting feeding in any patient "nil by mouth" for 5 days or more.