Hypophosphataemia in Primary and Secondary Care

Hypophosphataemia is commonly asymptomatic, but can cause muscle weakness, respiratory failure, seizures, confusion, hypotension and arrhythmias.

Urgent Action Required:

- Consider IV phosphate where serum PO4 is <0.3 mmol/L, in symptomatic patients, or if oral route not available when PO4 <0.6mmol/L
- IV dose: **20mmol sodium glycerophosphate in 500ml 5% dextrose over 12 hours**.
- Check phosphate, renal function, calcium and potassium after 12 hours. Patients with normal renal function may need a further 20mmol over 12 hours.

Further Investigation:

- Consider underlying causes:
  - Poor oral intake
  - Refeeding syndrome (discuss with dietetic team)
  - Malabsorption or after GI surgery
  - Vitamin D deficiency or resistance
  - Hyperparathyroidism
  - Oncogenic osteomalacia
  - Over-dialysis (discuss with renal team)
  - Drugs e.g. thiazides, acetazolamide, tenofovir, phosphate binders (lanthanum, sevelamer)

Interpretation and Further Action:

- Treat underlying cause where possible
- Slightly low levels of 0.6 – 0.7 mmol/L, without symptoms, often require no active intervention
- For asymptomatic patients with serum phosphate concentrations 0.3 – 0.6 mmol/L consider oral replacement using **Phosphate Sandoz® 1-2 tablets three times daily**. This can cause diarrhoea and each tablet should be taken with 100ml water.
- Further information is available from Medicines Information on 01355 584 879 or medicines.information@lanarkshire.scot.nhs.uk.