

## Hypocalcaemia in Primary Care

Mild hypocalcaemia (2.0 to 2.2 mmol/L) in primary care patients is often an incidental finding following routine blood tests in an asymptomatic patient. In moderate or severe hypocalcaemia, paraesthesiae and tetany may occur, and rarely in severe acute cases, seizures. Low Ca and secondary high PTH are common in CKD and should be treated in line with [CKD guidelines](#). Other causes include Vitamin D deficiency, low magnesium and hypoparathyroidism following neck surgery.

### Urgent Action Required:

- **Symptomatic patients with serum Ca <1.9 mmol/L should have prompt investigation**
- **Consider admission if symptoms are severe, and/ or if Ca < 1.8, K <2.5 or Mg < 0.4 mmol/L**

### Further Investigation:

- Exclude artefact i.e. contamination from EDTA in the FBC tube
- Review history for obvious causes, including previous thyroid/ parathyroid surgery, malabsorption, renal impairment, treatment with bisphosphonates
- Take 2 yellow top tubes and 2 EDTA tubes for repeat Ca, U&E, Mg, phosphate, vitamin D, FBC and PTH

### Interpretation and Further Action:

- "Adjusted" calcium is reported from the laboratory, which should take account of changes in albumin concentrations
- Serum phosphate is likely to be high in CKD and disorders associated with hypoparathyroidism and low in vitamin D deficiency and osteomalacia
- Patients with low PTH concentrations should be referred to endocrinology for investigation of hypoparathyroidism
- Hypomagnesaemia should be treated before hypocalcaemia, as the calcium will often correct upon replacement of magnesium (assuming calcium >1.9mmol/L and patient asymptomatic). See guidance on [hypomagnesaemia in Primary Care](#)
- Patients with vitamin D deficiency should be treated as per [guidance on FirstPort](#)
- Patients with anaemia should be investigated for possible malabsorption