SydPath
ST VINCENT'S PATHOLOGY

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PHOSPHATE INFORMATION SHEET

CAUSES OF HYPERPHOSPHATAEMIA

Factitious: Delay in separating red cells; paraprotein interference in measurement

Physiological: Neonates (up to 2.8 mmol/L) and infants (up to 1.8 mmol/L)

Increased intake: Oral, intravenous, vitamin D overdose (rare)

Release from cells: Tissue destruction (eg rhabdomyolysis, tumour lysis syndrome), starvation, acidosis, insulin deficiency, malignancy

Decreased renal excretion: Renal failure (creatinine > 0.30 mmol/L), hypoparathyroidism, growth hormone excess

Miscellaneous: Tumour calcinosis, hypothyroidism, post-menopause.

CAUSES OF HYPOPHOSPHATAEMIA

Decreased phosphate intake**:** Starvation, malabsorption, vomiting, antacids (aluminium hydroxide)

Increased cell uptake**:** High carbohydrate intake, insulin therapy, alkalosis (especially respiratory)

Increased renal loss**:** Diuretics, magnesium depletion, Fanconi syndrome, hyperparathyroidism. Iron infusion with ferric carboxymaltose (Ferinject)

Multiple causes**:** Alcoholism, diabetes mellitus, burns, hyperalimentation

Other**:** Inherited causes, paracetamol overdose