

Adult Vitamin D Assessment and Treatment Overview

Serum 25-OH Vitamin D measurement recommended for:

- 1-Patients confirmed or suspected bone disease (osteomalacia, osteoporosis, Paget's disease) or affected by clinical conditions where Vit D is required as per secondary care specialist
- 2-Patients with abnormalities in the biochemistry bone profile, eq. Low calcium, raised ALP, raised PTH.
- ns that could be attributed to vitamin D deficiency e.g. Unexplained widespread or localised bone pain and tenderness, unexplained muscle weakness and pain and at least one RISK FACTOR
- Reduced exposure to sunlight e.g. due to being housebound, having skin covered when outside or routine use of high factor sunscre
- Over 65s. (particularly with a history of falls or in care home not already prescribed Ca + Vit D)
- Pregnant + breastfeeding women, especially teenagers and younger wo Obese people i.e. BMI>30. Those who may have fat malabsorption e.g. Coeliac disease, CF, Crohns or bariatric patients
- Those taking medication that may increase vitamin D catabolism e.g. anti-epilepsy drugs, glucocorticoids, systemic anti-fungal drugs such as ketoconazole, cholestryramine, rifampicin,

4-Before starting patients on a potent antiresorptive agent, particularly IV zoledronic acid or SC denosumab.

Assesment and Management of Vitamin D levels Serum 25-OH Vitamin D under 25 nmol/l Serum 25_OH Vitamin D 25 -50 nmol/l Serum 25-OH Vitamin D over 50nmol/L May be insufficient in some people Sufficient for almost the whole population Treatment course recommended Provide reassurance and give advice on Does one of the following criteria for a treatment course apply? maintaining adequate vitamin D levels through safe sunlight exposure, diet and supplements Any risk factors stated in point 3 under "Serum 25-OH Vitamin D where indicated measurement recommended for", such as reduced exposure to sunlight, dark skin, over 65s, pregant women, etc Before starting patients on a potent antiresorptive agent, particularly IV zoledronic acid or SC denosumab If supplements indicated Yes **←** No Treatment course Long Term Supplementation Colecalciferol 20,000 unit capsules Take TWO capsules once a week for 7 weeks, with food To be purchased over the counter by the patient where possible. For all those found to be insufficient but not requiring a treatment course and people who are sufficient but at risk of deficiency (e.g. Or If vegetarian product required, nut allergy or swallowing difficulties. age ≥65 years, low sun exposure): InVita-D3 25,000 units in 1ml oral solution amps Take contents of TWO ampoules once a week for 6 weeks, with food Colecalciferol 800-2,000 units daily (OTC) Monitoring for Treatment Monitoring for Supplementation Clinical symptom review 3 months after starting treatment course and adjusted serum calcium and Vit D if the patient still symptomatic Routine repeat testing of vitamin D levels is NOT necessary Routine repeat testing of vitamin D levels is NOT necessary Long Term Supplementation Post Treatment Diet and Lifestyle Advice Consider starting 1 month after treatment course complete to prevent future deficiency Colecalciferol 800–2,000 units daily (purchased OTC) Provide advice on: Ensuring an adequate calcium intake Sources of vitamin D in the diet Exposure to sunlight

Advice- Seek advice from secondary care if:

Use usual 'advice and guidance' route.

Chronic liver or kidney isease (CKD 4 or above)

Primary hyperparathyroidism

History of renal stones

ercalcaemia / metastatic calcification

Patient with chronic granuloma forming isorders (sarcoidosis or TB), chronic fungal infections or lymphoma

Referral criteria - Consider referral if:

Consider referral to Endocrinology if:

- Patients with known METABOLIC BONE PROBLEMS, including osteoporosis, are unable to achieve 25 (OH) vitamin D levels of 50 nmol/L or greater despite
- appropriate loading and maintenance therapy for more than 6 months.

 2. Patients with malabsorption, on medication affecting VIt D catabolism or BMI > 40kg/m2 who are unable to achieve 25(OH) vitamin D levels of 50 nmol/L or greater despite appropriate loading and maintenance therapy for more than 6 months.
- 3. Patients who are UNABLE TO TOLERATE oral vitamin D3 (colecalciferol) preparations.

 4.Patients with symptoms of OSTEOMALACIA and are unable to achieve
- 25(OH) vitamin D levels of 50 mol/L or greater despite appropriate loading and maintenance therapy for more than 6 months.

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