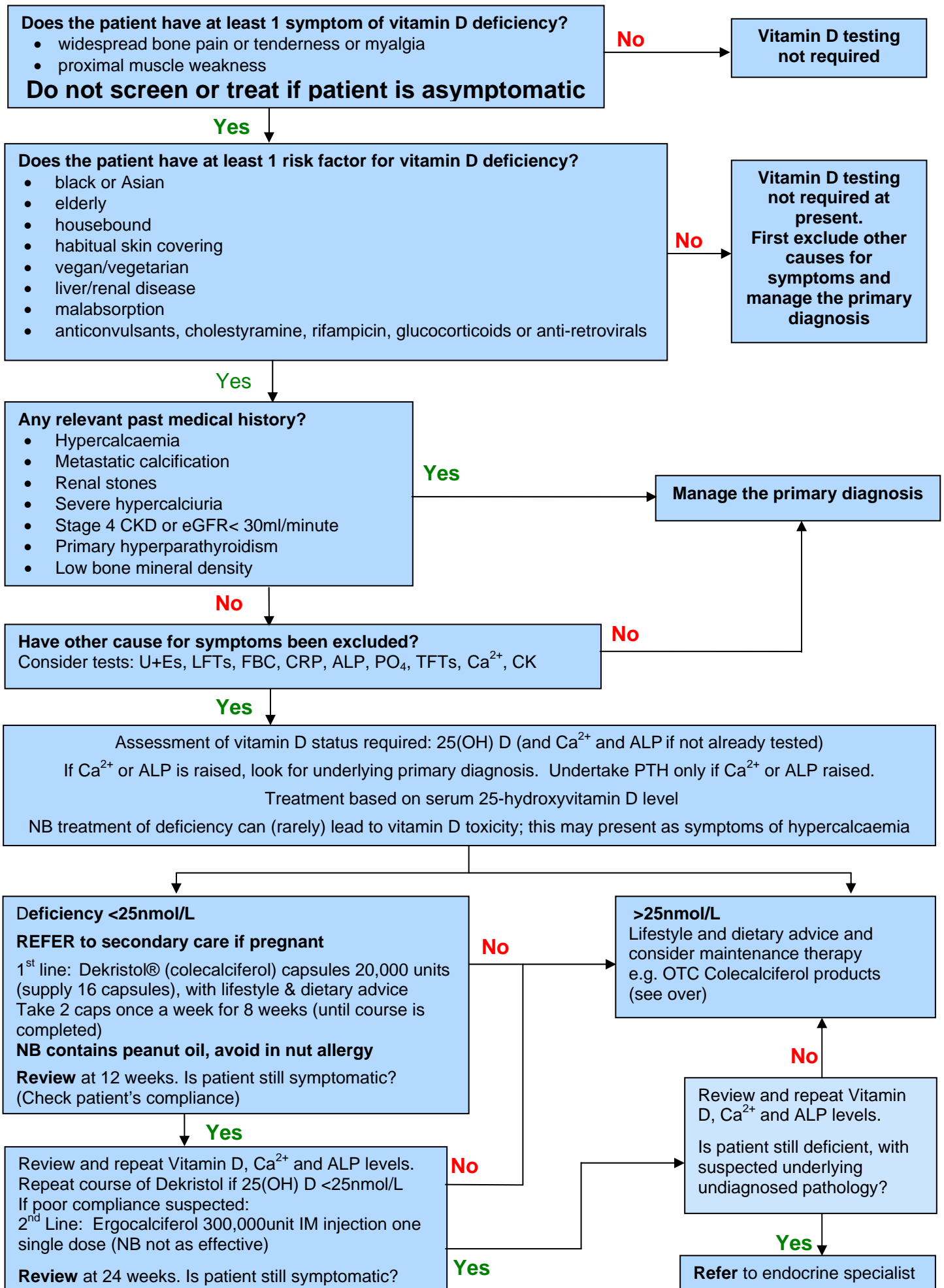


Adult Pathway for Vitamin D Deficiency in Primary Care



Further Information

This pathway is intended for use by General Practitioners for the treatment of symptomatic patients. It is not a screening pathway, and Vitamin D testing should not be used as a screening tool. It has been designed in partnership between primary care (NHS Calderdale, Kirklees and Wakefield) and secondary care (Calderdale and Huddersfield NHS Foundation Trust and The Mid Yorkshire Hospitals NHS Trust). It will be monitored and reviewed in 2013 or earlier if needed.

Vitamin D2 is known as ergocalciferol and Vitamin D3 is known as colecalciferol. Colecalciferol, although unlicensed in the UK, is the treatment of choice¹ and is licensed and widely used in Europe and the United States with no indication of safety concerns. It has also been easier to obtain colecalciferol over the last three years than it has ergocalciferol. You may wish to inform patients Dekristol is unlicensed and explain the rationale for use.

The major risk factors for Vitamin D deficiency are:

- Skin pigmentation
- Use of sunscreen or concealing clothing
- Lack of sunlight exposure

Vitamin D tests are listed as a biochemistry test.

Dekristol® capsules contain colecalciferol 20,000 units. Dekristol is the most cost-effective Vitamin D preparation available and should be prescribed by name. Caution in patients with allergies and dietary restrictions as this product contains peanut oil, glycerol, gelatin and soya. The gelatin contained in capsules is permissible for Muslims to consume, as stated in a recommendation by the WHO and the Islamic Organisation for Medical Sciences².

Dekristol® is available from Pharmarama (☎ 0208 238 6770) and IDIS World Medicines (☎ 01932 824100) and is manufactured by DB Pharma, France. The recommended dose of Dekristol is two capsules weekly for eight weeks.

NOT RECOMMENDED: Named patient liquid 'specials' of vitamin D (unlicensed) for adults in primary care should NOT be prescribed as they are not a cost effective choice, and detract from limited stock used in infants.

Lifestyle and dietary advice checklist:

Sunlight: 20-30 minutes each week between 10am and 3pm in summer (April-September) should provide adequate amounts of vitamin D for most individuals. The elderly and those of non-white ethnicity will have higher requirements³

Diet: Oily fish (but not tinned versions) such as herring, sardines, mackerel, salmon and tuna are the best dietary source of vitamin D. Egg yolks and mushrooms also contain small amounts and there are also some foods such as margarines and cereals that are fortified with vitamin D (check product labels)^{3,4,5}.

Examples of colecalciferol supplements which can be bought from pharmacies or health food stores for self-management of insufficiency (25-50 nmol/L) or as maintenance therapy for those who have previously been treated for deficiency. Recommended dose 1000 units daily. Other supplements may be available. The community pharmacist is able to provide advice on these products. **These products should not be prescribed on FP10.** Adcal D3 can be prescribed on FP10 but contains calcium carbonate and may require monitoring.

Product	Strength and form	Source	Relevant excipients for any dietary/allergy restrictions*
Sunvite Vitamin D3	400unit and 1000unit tablet	Holland and Barrett	Soya, gelatin (bovine origin)
Vitamin D3	500unit and 1000unit tablet	Boots	Soya bean oil, gelatin, glycerin
Vitamin D3	1000unit capsule	Nature's Remedy	Rice bran oil, gelatin, glycerin
Vitamin D	1000unit tablet	Nature's Remedy	Nil – suitable for vegetarians
BioLife Vitamin D3	1000unit tablet	Lifestyle Natural Health	Nil – suitable for vegetarians
Vitamin D3	1000unit softgel	Solgar	Gelatin, glycerin

*Colecalciferol in supplements is derived from wool oil (lanolin); Products with soya are not suitable for those with nut allergies

Acknowledgement: NHS Wandsworth and St George's Healthcare NHS Trust

¹ Armas L, Hollis B & Heaney R. Vitamin D2 Is Much Less Effective than Vitamin D3 in Humans. *The Journal of Clinical Endocrinology & Metabolism* 89(11):5387–5391

² http://www.ganfyd.org/images/1/11/Porcine_gelatine_medications_Islam_WHO_2003.doc

³ Pearce SHS, Cheetham TD. Diagnosis and management of vitamin D. *BMJ* 2010; 340: 142-147

⁴ Norman AW, et al. The Workshop consensus for vitamin D nutritional guidelines. *J Steroid Biochem Mol Biol* 2007; 103: 204–5.

⁵ Primary vitamin D deficiency in adults. *DTB* 2006; 44: 25-29.