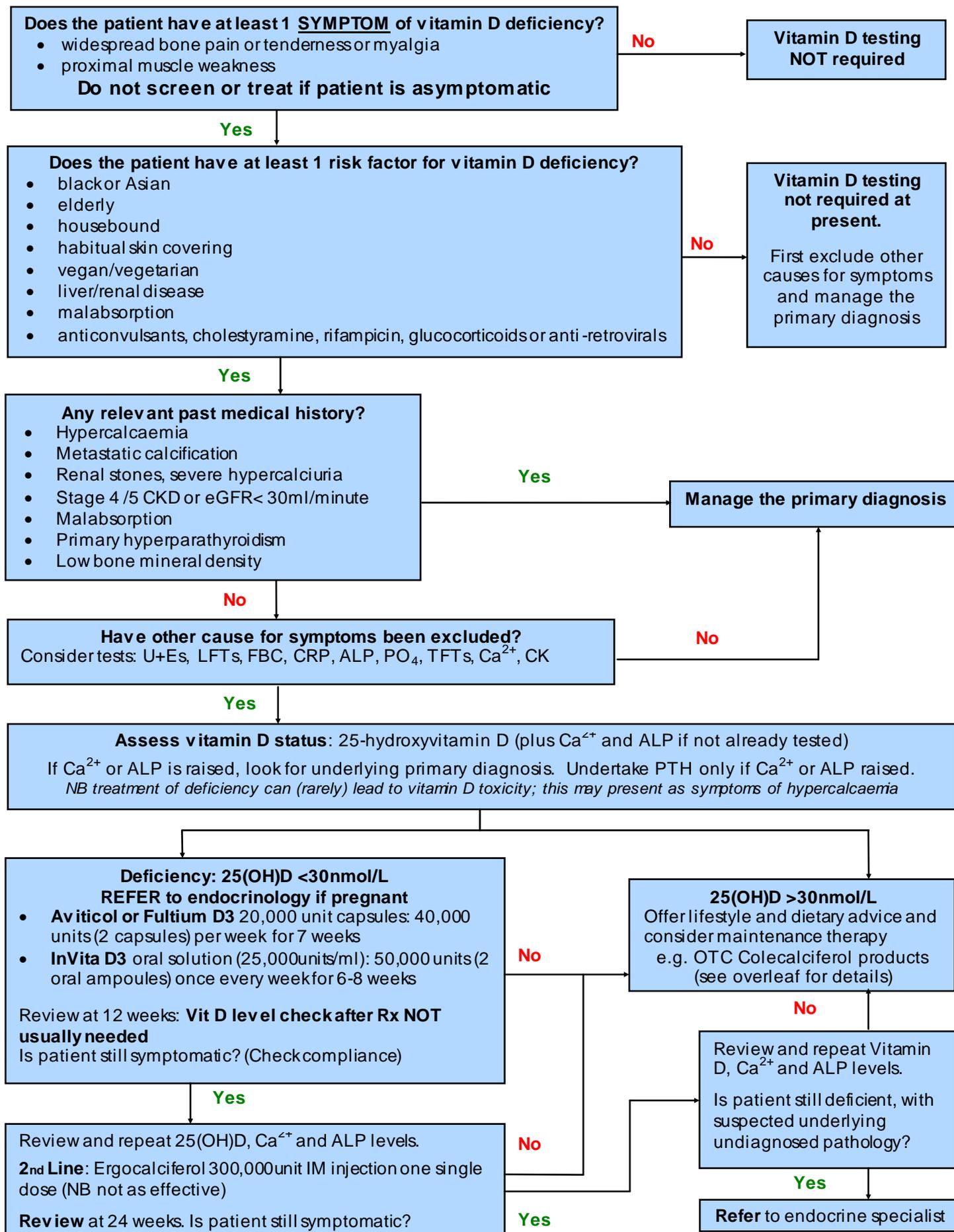


Adult Pathway for Vitamin D Deficiency in Primary Care



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 (Calderdale, North Kirklees, Greater Huddersfield and Wakefield CCGs) and secondary care (Calderdale and Huddersfield NHS Foundation Trust and The Mid Yorkshire Hospitals NHS Trust). It will be monitored and reviewed in 2018 or earlier if needed or as other licensed products come to market.

Vitamin D2 is known as ergocalciferol and Vitamin D3 is known as colecalciferol. Colecalciferol is the treatment of choice¹.

The major risk factors for Vitamin D deficiency are:

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

People at higher risk of Vitamin D deficiency should be offered advice to prevent this (see box below).

Vitamin D tests are listed as a biochemistry test. Retesting after treatment is not usually indicated (unless the patient remains symptomatic).

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}.

Prescribing Notes

Aviticol: 20,000 unit capsules. Contains gelatin. Arachis (peanut) oil free. The cost of 30 capsules is £29.00. A 7-week course (2 capsules per week) costs £13.53.

Fultium-D3: 20,000 unit capsules. Contains gelatin. The cost of 15 capsules is £17.04 and 30 capsules costs £29.00. A 7-week course (2 capsules per week) costs £13.53 or £15.90 depending on pack size used.

InVita D3: 25,000 units/ml oral solution in plastic snap top single dose ampoules. Suitable for vegetarians, gelatin-free, nut-free, lactose-free and soya free. The cost of 3 ampoules is £4.45. A 6 week course (12 ampoules) costs £17.80.

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

Examples of colecalciferol supplements which can be bought from pharmacies or health food stores for self-management of insufficiency (30-50 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.**

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
ProD3	1000-30000unit capsules	Various outlets	Nil – suitable for vegetarians
Sunvit D3	1000-50000unit tablets	Various outlets	Nil – suitable for vegetarians, Kosher and Halal users

*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

References:

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.