

Advice for prescribers on Vitamin D deficiency and insufficiency in adults - using appropriate available products.

Background

A 2010 BMJ article¹ highlighted the problem of vitamin D insufficiency in the UK population. The article cites a survey in which more than 50% of the adult population had insufficiency and 16% had severe insufficiency, and goes on to discuss a large body of observational evidence associating such insufficiency with an increased risk of mortality.

Diagnosis and Treatment

Patients who are diagnosed by a specialist as being 'deficient' in vitamin D (according to signs/symptoms +/- serum conc) may require a high strength oral vitamin D preparation (see below). There is no local initiative to routinely screen and treat patients in Primary Care.

For general information on diagnosis and management of vitamin D deficiency, see:

- <http://www.nelm.nhs.uk/en/NeLM-Area/Evidence/Medicines-Q--A/What-dose-of-vitamin-D-should-be-prescribed-for-the-treatment-of-vitamin-D-deficiency/?query=vitamin+D&rank=100>
- <http://www.elmmb.nhs.uk/guidelines/disease-specific-guidelines/?assetdetesct1440773=39977&assetdetesct1516557=39977>

Peanut & soya allergy:

For patients with peanut or soya allergies, this link provides information on products that do not contain peanut oil: <http://www.nelm.nhs.uk/en/NeLM-Area/Evidence/Medicines-Q--A/Is-there-a-suitable-vitamin-D-product-for-a-patient-with-a-peanut-or-soya-allergy/?query=vitamin+D&rank=31>

There are no licensed products for patients with peanut allergies, but there are products that can be bought over the counter which are free from peanut oil as per the link above.

Using an appropriate product:

If a high strength oral vitamin D product is required in primary care for deficient patients, then it should be prescribed by the brand name FULTIUM. For patients who have long term insufficiency or require maintenance therapy no licensed preparation exists and patients may be directed to purchase preparations from health food shops or via the internet (see next page).

Serum 25-OHD conc	Vitamin D status	Signs Symptoms	Drug Management	BCAP (RUH) Formulary	3Ts (GWH) Formulary	ICID (SFT) Formulary
<25nmol/l =(<10ng/ml)	Deficient	Rickets Osteomalacia	Dekristol [®] (colecalfiferol) 20,000 units caps (50) N.B. Excipients include peanut oil. (Unlicensed in UK) Dose 60,000iu weekly for 8-12 weeks, then maintenance as per table below - patient purchases themselves. GWH use Biotec [®] (colecalfiferol) 50,000IU caps; one capsule a week for six weeks for initial loading regimen.	RUH to supply full treatment course.	GWH to supply full treatment course.	SFT to supply full treatment course.
			Fultium-D3 [®] (colecalfiferol) 800 unit caps (28, 30, 56 & 60 pack sizes) Licensed in UK as a POM. N.B. Excipients include peanut oil. Dose 1-4 caps (800-3200IU) DAILY (or up to 22400u per week) for up to 12 weeks , then maintenance as per table below- patient purchases themselves.	TBC	Green	Green
25-50 nmol/l =(10-20 ng/ml)	Insufficiency or Long term maintenance	Associated with disease risk	1000iu -2000iu Vitamin D daily for three months then continue on maintenance dose of daily vitamin D.	Self treat with over the counter high strength Vit D. See table on next page of products to purchase		
50-75nmol/l =(20-30 ng/ml)	Adequate. Maintenance	Healthy	400-800units Vit D daily.	See table on next page of products to purchase		
>75nmol/l =(>30ng/ml)	Optimal	Healthy	None			

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Products for purchasing at shops and via the internet (MAINTENANCE THERAPY & INSUFFICIENCY) N.B. This list is not exhaustive.

Product	Amount of vitamin D micrograms	Amount of vitamin D IU	Quantity	Cost	Quantity	Cost
ADULTS						
Boots	12.5micrograms	500iu	90 Caps	£2.93		
Lifestyle Pharmacy	10 micrograms	400iu	120 Caps	£4.95		
Lifestyle Pharmacy	20 micrograms	800iu	120 Caps	£5.95		
Holland and Barratt	25 micrograms	1000iu	100 Tabs	£5.99		
Holland and Barratt	10 micrograms	400iu	250 Tab	£5.29	100 Tabs	£2.29
www.healthspan.co.uk	10 micrograms	400iu	360 Tabs	£4.99		
www.healthspan.co.uk	25 micrograms	1000iu	240 Tabs	£8.95		
www.lifestylenaturalhealth.co.uk	25 micrograms	1000iu	90 Tabs	£9.95		
PREGNANCY						
E.G. Pregnacare- Vitamin D (10mcg/400IU), also other vitamins but no vitamin A. <i>N.B. There are lots of other appropriate preps. Ask community pharmacist for advice.</i>						
CHILDREN						
Abidec (vitamins A, B, C & D)	10 micrograms	400iu	25ml	£1.96		
Dalivit (vitamins A, B, C & D)	10 micrograms	400iu	25ml	£2.98	50ml	£4.85

Some patients may be able to receive vitamin D replacement for maintenance on the NHS as follows:

1.) Calcium and Vitamin D product choice for patients who require long term calcium and vitamin D

Product	Wiltshire TLS	Amount of Calcium mg	Amount of vitamin D IU	Number	Cost
Calceos	First choice Green	500mg	400iu	60	£3.62

2.) Healthy Start Vitamins (contain 10mcg/400iu of vitaminD)

Healthy Start vitamins are available free of charge to eligible women and children through Children's Centres across Wiltshire. Women qualify for Healthy Start from the 10th week of pregnancy or if they have a child under four years old, **and** if she or her family receive:

- Income Support, or
- Income-based Jobseeker's Allowance, or
- Income-related Employment and Support Allowance, or
- Child Tax Credit (but not Working Tax Credit unless the family is receiving Working Tax Credit run-on only) **and** has an annual family income of £16,190 or less.

Women who are under 18 and pregnant also qualify, even if they do not get any of the above benefits or tax credits. Further information can be found on the Healthy Start website at www.healthystart.nhs.uk

For further information regarding supply contact:

Medicines Management Team at NHS Wiltshire	01380 733881	prescribing@wiltshire.nhs.uk
Medicines Management Team at NHS Swindon	01793 444615	Paul.Clarke@swindon-pct.nhs.uk

Reference:

- 1.) Pearce S, Cheetham D. Diagnosis and management of vitamin D deficiency. *BMJ* 2010; 340: b5664