

April 2019

Dear Colleague

VITAMIN D TESTING IN PRIMARY CARE (INTERIM GUIDANCE)

Please see below for an interim update to existing local guidance on vitamin D testing¹, prompted by updates to national guidelines²⁻⁵ and a review of NHS Lothian testing data. A full update will follow in due course.

CMO Guidance now recommends that all individuals in Scotland should consider taking 10 micrograms (400 units) of vitamin D, especially during the winter months. Those recommended to take supplementation year-round include:

- pregnant and breastfeeding women,
- those over 65 years,
- children under 5 years,
- anyone with limited sun exposure,
- and individuals from minority ethnic groups with dark skin such as those of African, African-Caribbean and South Asian origin⁶.

Patient information in a range of languages can be accessed at:

<http://www.healthscotland.com/documents/5274.aspx>

Vitamin D and PTH Measurement

ASYMPTOMATIC – no testing

Do not routinely measure vitamin D (or PTH) levels in asymptomatic patients, even those at high risk of deficiency* (these patients should be given advice on dietary sources of vitamin D, regular sun exposure and over the counter supplementation).

Fatigue is not an indication to check vitamin D.

SYMPTOMATIC or SPECIFIC CLINICAL CO-MORBIDITIES

Please measure vitamin D only in those **with malabsorption syndromes, abnormal bone biochemistry or features suggestive of osteomalacia or rickets**:

- bone pain / discomfort – particularly in pelvis, lumbar spine or legs
- proximal myalgia, myopathy
- symmetric lower-back pain

Do not request PTH in those with low measured vitamin D (or where vitamin D deficiency is suspected) or to stratify / monitor treatment, unless there are other abnormalities in bone biochemistry that require further investigation. Where vitamin D has been measured, please see the next page for interpretation.

*Individuals at high-risk of deficiency: individuals with dark skin, those who cover their skin for cultural reasons, institutionalised / housebound patients, chronic alcohol misusers, vegetarians / vegans, obese patients, those with medical risk factors: renal, hepatic disease (unless advised by specialist clinics), those taking specific medicines (e.g. anticonvulsants and anti-retrovirals).

VITAMIN D TESTING IN PRIMARY CARE (INTERIM GUIDANCE) cont.

Interpreting vitamin D levels

Please **do not** request PTH to stratify vitamin D replacement, or to monitor Level 1 or Level 2 replacement. (This represents a change in advice from the current local guideline.)**

25-50 nmol/L

Many patients will have sufficient levels for bone health, and strong evidence is lacking for widespread replacement in this group. Exceptions to this are patients with:

- Abnormal bone biochemistry consistent with osteomalacia (low calcium and phosphate, raised ALP). Replace as per Level 3 below.
- Malabsorption syndromes or those with chronic liver disease (but normal calcium, ALP). Replace as per Level 2 below.

<25 nmol/L

- Biochemical features of osteomalacia (low calcium and phosphate, raised ALP). Replace as per Level 3 below.
- Normal bone biochemistry. Replace as per Level 2 below.
- Patients with CKD (eGFR <30) or osteoporosis should be managed by a specialist

Recommend treatment, adapted from current guideline**

Treatment	Indication	Colecalciferol dose	Follow-up
Level 1	May be at risk of future deficiency	See CMO guidance on previous page	As clinically indicated
Level 2	Biochemical deficiency. Benefit of treatment uncertain.	800 units per day	Measure calcium, ALP in 6 months and review clinical condition. Consider stepping down to Level 1, or long-term Level 2 treatment.
Level 3	Osteomalacia. Clear benefit from treatment.	25,000 units (3x per week), for 4 weeks THEN 25,000 units per week, for 8 weeks	Repeat calcium at weeks 2 and 4. Check calcium, ALP, PTH every 12 weeks. Step down to Level 2 when ALP, PTH are reference range.

**Current guideline¹:

<https://apps.nhslothian.scot/refhelp/guidelines/ResourcesLinks/Endo%20CandB%20-%20Adult%20Vitamin%20D%20guidelines%2020115%20updated%20July%202017.pdf>

For further information regarding this interim guidance please contact:

jonathan.malo@nhslothian.scot.nhs.uk

Yours faithfully

Jonathan Malo
Interim PLIG Chair
Cons Chemical Pathologist

Clare MacRae
PLIG Secretary
General Practitioner

VITAMIN D TESTING IN PRIMARY CARE (INTERIM GUIDANCE) cont.

References

1. Edinburgh Centre for Endocrinology. Adult Vitamin D Guidelines 2012.
<https://apps.nhslothian.scot/refhelp/guidelines/ResourcesLinks/Endo%20CandB%20-%20Adult%20Vitamin%20D%20guidelines%2020115%20updated%20July%202017.pdf>
2. Scottish Government Advice on Vitamin D
<http://www.gov.scot/Topics/Health/Healthy-Living/Food-Health/vitaminD>
3. Scientific Advisory Committee on Nutrition. Vitamin D and Health 2016.
<https://www.gov.uk/government/groups/scientific-advisory-committee-on-nutrition>
4. National Osteoporosis Society. Vitamin D and Bone Health 2018.
https://theros.org.uk/media/100231/nos_vitamin_d_and_bone_health_in_adults_web.pdf
5. NICE Clinical Knowledge Summary. Vitamin D deficiency in Adults.
<https://cks.nice.org.uk/vitamin-d-deficiency-in-adults-treatment-and-prevention>
6. CMO Guidance: Vitamin D supplementation in Scotland
<http://www.communitypharmacyscotland.org.uk/media/1987/cmo-unnumbered-letter-issued-on-24-november-2017-final-new-recomme.pdf>