SCBN Guidance on appropriate testing for 25-OH Vitamin D (2025)

Recommendations are based on 2022 NICE guidance (1):

Only indications for 25-OH vitamin D requesting

- **Suspected osteomalacia** – a syndrome characterised by **malaise, multifocal bone pain with tenderness and proximal myopathy**. Osteomalacia is associated with abnormal biochemistry (high ALP, low/low normal Ca, high PTH and low vitamin D).
- Suspected rickets.
- **Osteoporosis** – consider **prior to treatment with powerful anti-resorptive agents,** for example, Zolendronic acid, denosumab. NB: testing will primarily be arranged by secondary care.
- **Malabsorption syndromes.**

Do not measure 25-OH vitamin D

- **Patients on alfacalcidol or calcitriol** (not measured by assay).
- **Investigation of tiredness, chronic fatigue or non- specific aches and pains with normal bone biochemistry**.

Minimum retest interval

- Repeat testing for patients on supplementation is generally not required.
- If a repeat test is requested a minimum retest interval of one year should be applied.
- Occasional exceptions may be appropriate, for example, patients with malabsorption and suboptimal vitamin D despite replacement.

Rationale

Vitamin D request numbers continue to rapidly increase. This rise in demand is both clinician and patient led due to the widespread misconception that there is strong evidence linking vitamin D to many different health issues, especially fatigue and chronic pain. The situation is complicated by the fact that a large proportion of the Scottish population will have insufficient or deficient vitamin D status by current definitions (1), although many of these individuals have sufficient vitamin D present to ensure bone health. The clinical utility of 25-OH vitamin D testing is further limited by the seasonal variation in vitamin D status and issues with assay performance with DEQAS (2) and lab EQA returns indicating a wide spread of results.

Guidance from the Scientific Advisory Committee for Nutrition (SACN) and Public Health Scotland have recommended automatic vitamin D supplementation for groups at risk and made no reference to a requirement for checking vitamin D status prior to commencing supplementation (3,4). The aim of supplementation is to

prevent osteomalacia or rickets. SACN concluded that there was insufficient evidence to draw firm conclusions on the impact of low vitamin D status for non-musculoskeletal health outcomes.

Implementation

Implementation mechanisms include prompts at the requesting interface with a reminder of the appropriate indications for testing, auto-comments on reports, or using request intervention to block testing. Education and appropriate clinical guidance are also important. NHS Greater Glasgow & Clyde has produced guidance on the prevention and treatment of vitamin D deficiency which includes clear advice on appropriate indications for vitamin D requesting and reinforces when not to request. Other health boards may wish to adopt similar guidance (5).

References

1. NICE 2022. When should I suspect or test for vitamin D deficiency? cks.nice.org.uk/topics/vitamin-d-deficiency-in-adults/diagnosis/diagnosis/

2. Briggs LE, Whitewood JK and Williams EL. Analytical variation concerning total 25-hydroxyvitamin D measurement, where are we now? A DEQAS review of current assay performance. J Steroid Biochem Mol Biol 2023; 231: 106328.

3. Scientific Advisory Committee on Nutrition (SACN) 2016. Vitamin D and health. assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/537616/SACN_Vitamin_D_and_Health_report.pdf

4. Vitamin D | NHS inform

5. NHS Greater Glasgow & Clyde guidance on prevention and treatment of vitamin D deficiency in adults. Vitamin D Prevention and Treatment of Deficiency in Adults (024) | Right Decisions

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NOTE
This guideline is not intended to be construed or to serve as a standard of care. Standards of care are determined on the basis of all clinical data available for an individual case and are subject to change as scientific knowledge and technology

advance and patterns of care evolve. Adherence to guideline recommendations will not ensure a successful outcome in every case, nor should they be construed as including all proper methods of care or excluding other acceptable methods of care aimed at the same results. The ultimate judgement must be made by the appropriate healthcare professional(s) responsible for clinical decisions regarding a particular clinical procedure or treatment plan. This judgement should only be arrived at following discussion of the options with the patient, covering the diagnostic and treatment choices available. It is advised, however, that significant departures from the national guideline or any local guidelines derived from it should be fully documented in the patient's case notes at the time the relevant decision is taken.