

Guidance on Rationalising Vitamin D testing

Over recent years, an increase in the awareness of the importance of Vitamin D for musculoskeletal health led to an exponential increase in the number of serum 25-OH Vitamin D requests received by the STHK Pathology department. In 2017, the department produced and circulated guidance to improve the appropriateness of Vitamin D requests. After a recent reagent supply problem, we revisited the appropriateness of the vitamin D requesting in our locality. Data from GIRFT and EQA surveys suggest we are an outlier within our locale and lie on the 90th centile for number of requests for patient population receiving >5000 requests/month. Approx. £144,000 p.a. is still spent on Vitamin D testing. In 2019, 55% of requests showed patients were either deficient or insufficient and our data indicated that the pre-test probability of vitamin D deficiency in our local population will be high, nullifying the point of measuring it in the majority of cases. Of the 16 samples with vitamin D >250 nmol/L, hypercalcaemia was not a feature of any.

The local Medicines Management groups offer detailed guidance on the diagnosis and treatment of Vitamin D deficiency for Primary Care ([Pan-Mersey](#) and [Lancashire and South Cumbria](#)). We also examined the current [National Osteoporosis Society Guidelines on Bone Health](#) and the Royal College of Pathology [Minimum Retesting Intervals](#) guidance. In 2019, approximately 15% of requests were repeats within 6 months, which is an inappropriate time frame according to local and national guidelines.

Key Recommendations from the Local and National Guidelines.

Testing for Vitamin D deficiency:

- In healthy patients, or in those at risk but with NO symptoms, **routine testing of 25-OH Vitamin D levels is NOT required nor recommended.** Simply offer lifestyle advice and consider an appropriate OTC or prescription treatment strategy as per the [Pan-Mersey guidance](#).
- In symptomatic patients with risk factors and musculoskeletal and/or bone pain, consider serum 25-OH Vitamin D measurement **once**, and if low then advise treatment/supplements and recheck after **6 months**.

Monitoring Vitamin D therapies:

- Serum calcium should be checked 3 months after starting vitamin D supplementation in case primary hyperparathyroidism has been unmasked.
- If patients are prescribed calcitriol or alfacalcidol therapy, 25-OH Vitamin D measurement is unnecessary.
- If a patient is prescribed cholecalciferol or ergocalciferol therapy, re-testing is not required if the baseline concentration is adequate, with the exception of when it is clinically indicated i.e. sick coeliac or Crohn's patients. If the baseline is low and there is an underlying condition which may affect absorption, levels should be repeated 3-6 months after commencement of therapy.
- In renal impairment (CKD 3 -5) 25 OH vitamin D should be measured at baseline only.

Taken together, these points question the clinical utility and cost effectiveness of measuring Vitamin D levels for either the diagnosis, treatment or monitoring of deficiency. As a result we are implementing a new 25 OH vitamin D testing strategy for primary care. **From 1st February 2021** there will be a vitamin D pre-request question in ICE, to highlight the clinical question being addressed. Based on the guidelines serum 25 OH Vitamin D will only be measured in the following circumstances:

- Hypocalcaemia
- Bone disease or disorders
- Malabsorption
- CKD stage 3-5
- Oncology patients on/due to start anti-resorptive therapy

- Muscle weakness and waddling gait

NB Paediatric requests will be allowed.

As Vitamin D levels can take up to 6 months to return to normal following initiation of treatment, a minimum retesting interval of 6 months will be implemented. Monitoring of Vitamin D is generally unnecessary: allow **6 months** before re-measuring *and only* if indicated.

If you have any comments or queries pre-implementation of this policy or regarding a specific patient circumstances please contact a member of the clinical team on 0151 290 4520 or via email.

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