

Vitamin D briefing

Key recommendations

- Do not routinely test for vitamin D deficiency unless the patient is symptomatic, at very high risk of deficiency or there is a clinical reason to do so. When a test is indicated, use plasma 25-hydroxyvitamin D [25(OH)D] to measure vitamin D status.
- Self care with over the counter (OTC) licensed vitamin D supplements should be recommended, if appropriate, for those who are at risk of vitamin D deficiency, patients that are insufficient and for the general UK population as maintenance therapy, especially during autumn and winter months.
- A Reference Nutrient Intake (RNI) of 400 IU/daily (10 micrograms/daily) vitamin D, throughout the year, for everyone in the general UK population aged 4 years and above is recommended. This includes pregnant and lactating women and population groups at increased risk of vitamin D deficiency.
- A 'Safe Intake' of 340-400 IU/daily (8.5-10 micrograms/daily) for ages 0 up to 1 year (including exclusively breast fed and partially breast fed infants, from birth); and 400 IU/daily (10 micrograms/daily) for ages 1 up to 4 years is recommended. Babies receiving more than 500ml per day of infant formula do not require vitamin D supplements.
- For the treatment of vitamin D deficiency (plasma-25(OH)D < 25 nmol/L), agree local vitamin D guidelines with local clinicians based on Scientific Advisory Committee on Nutrition (SACN), NICE PH56 and the Royal Osteoporosis Society guidance to ensure that all health care professionals are recommending cost effective products, prescribed by brand name, at appropriate doses and duration for patients.
- Where a treatment course is needed this should be prescribed as an acute medication, do not prescribe this on repeat.
- The Royal Osteoporosis Society recommends that oral vitamin D3 is the treatment of choice in vitamin D deficiency and therefore oral colecalciferol should be prescribed.
- Once vitamin D deficiency has been corrected, maintenance therapy is recommended. This does not need to be prescribed; vitamin D supplements can be bought cheaply and easily. Only prescribe if self care is not appropriate, e.g. patient is not capable, diagnosed and documented long term conditions (osteoporosis).
- Review all patients on long-term high dose treatment for continued need. If a treatment course has been completed, discontinue treatment and advise patient to continue maintenance treatment as self care, if appropriate (as above).

Key recommendations

- Rapid correction of vitamin D deficiency is recommended for patients that are symptomatic or are about to start treatment with a potent antiresorptive agent, e.g. zoledronic acid, denosumab or teriparatide.
- Some people tested as inadequate (confirmed plasma-25(OH)D between 25nmol/L- 50nmol/L) may be prescribed vitamin D only if self care is not appropriate.
- Consider the risks and benefits of prescribing licensed preparations or food supplements for vitamin D deficiency. These should be prescribed by brand to ensure the correct product and dose is issued. Unlicensed specials for vitamin D should not be prescribed as there are now many licensed products available.
- Consider patient compliance and concordance when selecting a vitamin D preparation for the treatment of an established deficiency.

Savings Available

Nationally £31.8 million is spent annually on prescribing vitamin D as colecalciferol (D3) or ergocalciferol (D2); approximately £2 million of this is spent on special order products; £28.1 million on low or moderate dose ($\leq 20,000$ units) vitamin D preparations. (NHSBSA July to September 2020). The following savings on vitamin D prescribing are available including:




- Converting all low or moderate dose ($\leq 20,000$ units) vitamin D preparations to self care requiring purchasing OTC would save **£28.1 million annually across England and Wales or £44,508 per 100,000 patients.**
- Discontinuing all unlicensed vitamin D specials and recommending OTC purchase where indicated would result in **savings of £ 1,985,081 across England and Wales or £3,140 per 100,000 patients.**
- Reviewing patients at the end of their treatment loading doses ($> 20,000$ units daily) of vitamin D and switching to a maintenance dose of vitamin D which is purchased OTC in 20% of patients currently on treatment doses of vitamin D would result in **savings of £341,946 annually across England and Wales or £541 per 100,000 patients.**

Current advice on vitamin D and COVID-19

The National Institute for Health and Care Excellence (NICE) COVID-19 rapid evidence summary concluded there is no evidence to support taking vitamin D supplements to specifically prevent or treat COVID-19. However, all people should continue to follow UK Government advice on daily vitamin D supplementation to maintain bone and muscle health during the COVID-19 pandemic.^{1,2}

References

1. NICE. COVID-19 rapid evidence summary: Vitamin D for COVID-19. Evidence Summary (ES28). June 2020. <https://www.nice.org.uk/advice/es28/resources/covid19-rapid-evidence-summary-vitamin-d-for-covid19-pdf-1158182526661>
2. NICE. COVID-19 rapid guideline: vitamin D [NG187]. Published 17 December 2020. <https://www.nice.org.uk/guidance/ng187>

Additional resources available	 Bulletin	https://www.prescqipp.info/our-resources/bulletins/bulletin-275-vitamin-d/
	 Tools	
	 Data pack	https://data.prescqipp.info/?pdata.u/#/views/B275_VitaminD/FrontPage?.iid=1

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