

Dear SACN,

It is really pleasing for me, as a dietitian, to see SACN have taken action to review and update the 1991 Department of Health's dietary reference values on vitamin D. Such a step to address the problem of vitamin D deficiency in the UK has been long awaited.

The depth and scope of the draft report 'Vitamin D and Health' is impressive and a credit to the working group's efforts. However, whilst I appreciate the limitations in the evidence to date, the final recommendations are extremely disappointing. Most concerning is the serum 25(OH)D concentration cut off of 25nmol/L from which the Reference Nutrient Intake (RNI) of 10 micrograms has been determined. According to your report this target has been; (i) adopted from the 1998 recommendations because there is a lack of strong enough new evidence to change it; (ii) selected on a precautionary basis; (iii) chosen because the risk of poor musculoskeletal health is further increased at concentrations <25nmol/L. The report itself identifies evidence of osteomalacia and rickets presenting with serum 25(OH)D levels of <30nmol/L and <50nmol/L respectively, yet <25nmol/L has been chosen because there is a further increased risk? I fully understand that you consider the evidence insufficient to define a new optimal cut off; however using this argument, is it not also the case that insufficient evidence exists to justify readopting the 25nmol/L level? This level appears to have primarily been chosen based on case reports and cross-sectional studies, yet as highlighted by yourselves vitamin D levels are lower in case reports because presentation to hospital occurs in the later stages of disease. The evidence summaries within the report read with bias towards re-adoption of the 25nmol/L cut off. Somewhat alarmingly SACN describes the 25nmol/L level as 'population protective'; does evidence really exist to support a serum vitamin D level of 26nmol/L as being protective? I agree a level of 26nmol is better than a level of <25nmol/L but I would be very concerned about this level being referred to as protective.

We may still be years away from having convincing evidence for the benefits of higher serum 25(OH)D concentrations (>75nmol/L) but as you identified in your report the risks of toxicity are associated with extremely high levels (300-1000nmol/L). The Institute of Medicine (IOM) proposed an optimal serum 25(OH)D level of 50nmol/L and even this was described as conservative. In reading the evidence summarised within your report I was unable to identify any risks associated with vitamin D levels >50nmol/L, only potential benefits. The evidence to date may be inconclusive but it certainly does not suggest aiming for >25nmol/L is more protective and safe than aiming for >50nmol/L. Hopefully you can identify that a target of 25nmol/L is more than just precautionary; it has the potential to be detrimental. Health professionals have a duty of care to; 'act in the best interest of the patient' and 'do no harm'. With this in mind, and considering the 'precautionary' cut off of 25nmol/L, can it truly be said that turning a blind eye to a vitamin D level of 30nmol/L as long as the patient is taking 10 micrograms of vitamin D a day is fulfilling this duty of care? Many patients that present with symptomatic bone disease have vitamin D levels above 25nmol/L. I appreciate your guidance needs be interpreted together with experience and clinical judgement however many professionals referring to your recommendations will have very limited vitamin D knowledge. This recommendation, when read alone, without the depth the report provides, could leave clinicians interpreting levels of 25nmol/L as sufficient for optimal health. RNI's are taken very seriously by health professionals; having implications for the entire nation. It is our duty to ensure any recommendations are not open for misinterpretation. I feel your extensive report is unfortunately summarised by ambiguous evidence summaries and more importantly misleading final recommendations. I hope that the current SACN recommendations can be reviewed and modified in the final version to better treat the problem of vitamin D deficiency in the UK. A serum cut off raised to 50nmol/L, along with increased RNI, would increase the likelihood of actually achieving 'population protection' in terms of osteomalacia and rickets prevention, as well as also being consistent with the recommendations made by our international partners.

Yours Sincerely



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