

Peer review comments – Vitamin D for treating COVID-19

Managing COVID-19 rapid guideline (NG191)

Peer review organisations

For a list of stakeholders invited to comment on COVID-19 guidance as part of the targeted peer review, please see the [targeted peer review stakeholder list](#) on the NICE website.

For this topic, the following stakeholder organisations were also invited to comment:

- **Scientific Advisory Committee on Nutrition (SACN)**

Peer review comments

Overarching category	Guideline section	Theme of comments	Action taken
General comments	Recommendation	8 out of 13 organisations responded to peer review. 4 had no comments. The majority of other responding organisations stated that they agreed with the recommendation and had minor comments for clarification.	No action related to this theme.
Resources	Evidence to decision	The existing resource section made the assumption that a recommendation not to use vitamin D to treat COVID-19 would not result in a large-scale change to current practice. A question was posed to organisations to check that this assumption was correct.	No action required. Neither the panel nor peer reviewers indicated that vitamin D is routinely used in practice to treat COVID-19. So it is unlikely that the updated recommendation would result in a large scale change to practice.

Date of completion: 06/07/2022

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		Respondents agreed with the assumption and that due to a lack of evidence, the treatment should not be part of current practice. They noted that if this is the case, the practice should be discouraged.	
Certainty of evidence	Evidence to decision (EtD)	<p>2 organisations made suggestions on the certainty of the evidence.</p> <p>1 organisation suggested a change to the benefits and harms section to note the high risk of bias in some available evidence.</p> <p>1 organisation suggested that rather than concluding that the evidence is uncertain, that it should be concluded that there is no clear benefit.</p>	<p>A minor change was made to the benefits and harms section within the EtD to remove reference to certainty and risk of bias, to cover this more fully in the certainty of the evidence section within the EtD.</p> <p>At several points in the EtD, rationale and summary section text was added to clarify that current evidence shows no clear benefit of vitamin D. This aligns with the conclusions of the panel as a whole.</p>
Equalities	Evidence to decision (EtD)	<p>1 organisation asked whether studies presented data by ethnicity.</p> <p>1 organisation suggested that living in the north of the UK was a potential equality issue when considering baseline vitamin D status / deficiency and that this should be added to the EtD section on equality.</p>	<p>Studies did not present data by ethnicity, and so no subgrouping could be done. The panel therefore made a research recommendation for evidence particularly in groups where it is currently lacking. People from minority ethnic family backgrounds is one of these groups. No further changes were made.</p> <p>The equality section of the EtD has been expanded to include more examples of inequalities related to vitamin D status: "including those relating to location, health and family background". Nothing further has been added as vitamin D deficiency is outside of the scope of this review.</p>
Vitamin D properties	Evidence to decision (EtD)	<p>1 organisation asked that a point made in the original review be carried forward to the EtD for this updated review.</p> <p>The point referred to was that Vitamin D is a negative acute-phase reactant. This means its serum concentration falls during a systemic</p>	<p>The fact that Vitamin D is a negative acute-phase reactant is still relevant so the text has been added to the certainty of the evidence subsection of the EtD. It forms part of the discussion about the link between vitamin D deficiency and vitamin D treatment.</p>

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		inflammatory response, which may occur with severe COVID-19.	
Vitamin D deficiency	Various	1 organisation asked that more frequent reference be made to the importance of preventing vitamin D deficiency, and existing guidance in this area.	No action taken. Preventing vitamin D deficiency is outside of the scope of this review. A remark, which sits directly under the recommendation, is already in place which links to NHS advice on vitamin D, and NICE's COVID-19 rapid guideline on vitamin D.
Statistical significance	Evidence to decision (EtD)	1 organisation queried the description of the outcome of mechanical ventilation as "a non-statistically significant reduction". They queried whether results which are not statistically significant are usually described with a direction of effect. The result in question was from a single study, the relative risk was 0.55 and the 95% confidence interval was 0.31 to 1.00.	No action taken. It is our usual process to differentiate between a) results which are not statistically significant, have wide confidence intervals and are not close to significance, and b) results which are close to achieving statistical significance and which have point estimates indicating an important or large effect. The outcome of mechanical ventilation has a point estimate showing a large effect, and is close to reaching statistical significance so it is important to mention. The write-up includes reasons the panel gave for considering the evidence insufficient, overall, to recommend vitamin D for treating COVID-19.
Research recommendation	Research recommendation	1 organisation found the research recommendation wording unclear and queried whether it was referring to treatment, prevention or both. 1 organisation suggested that all groups are of interest, rather than specifically the groups listed, which the panel identified as underrepresented in the current evidence.	The research recommendation wording has been clarified. No change has been made to the population. The panel discussed that 7 studies to date in the general population have failed to show an effect of vitamin D for treating COVID-19. They agreed that the focus of new studies should be in groups who are underrepresented in the current evidence, some of which may be disproportionately affected by COVID-19.