Reviewer's report

Title: Pharmacokinetics of a single oral dose of vitamin D3 (70,000 IU) in pregnant and non-pregnant women.

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Reviewer: Adekunle Dawodu

Reviewer's report:

This is an interesting study comparing pharmacokinetics of a single oral dose of vitamin D3 in pregnant and non-pregnant women. The manuscript is well written and the results of the study are appropriately presented. However, I suggest some revisions.

Essential revisions

1. The authors provided data and discussed safety issues related to a single dose vitamin D3 supplementation. However, since the main aim of the study is to inform antenatal vitamin D3 supplementation regimen in future trials, the authors need to discuss how the results will help in defining dosing regimens of future antenatal vitamin D3 supplementation trials.

2. It is important to clarify why the dose of 70,000 IU of vitamin D3 was chosen and describe how the sample size was calculated.

3. Abstracts: Paragraph 3. The authors noted differences between pregnant and non-pregnant women in the rate of rise of 25(OH)D on days 2 and 21 and provided data on the overall 25(OH)D increase above the baseline in the first month. However, it was not clear whether these results were based on the 61 subjects in the study.

4. Did the authors examine the effect of total body fat on pharmacokinetics of vitamin D3?

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests.