Reviewer's report

Title: Per oral Substitution with 300000 IE Vitamin D Reduces Bone Turnover Markers and Increases 25-OH Vitamin D Levels in HIV-positive Patients

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Reviewer: Emanuele Focà

Reviewer's report:

This paper aims to explore the effect of 300,000 IU Vitamin D on bone turnover markers and on 25-OH vitamin D levels among HIV-infected patients compared to HBV or HCV mono-infected patients. I commend the Authors for their work, however there are several criticisms that are displayed below:

MAJOR COMPULSORY REVISION:

Knowledge on vitamin D deficiency in HIV medicine is wide and is increasing in the last years: I found the cited references as poorly updated and focused on HIV-uninfected people, while I believe that we have a good knowledge also in HIV-medicine

Title: It is really expected that per oral substitution of vitamin D could increase vitamin D levels: I suggest to concentrate the title on bone turnover markers modification.

Vitamin D supplementation is intended as cholecalciferol supplementation, I suppose, therefore I suggest to use “cholecalciferol” throughout the text.

Authors should better explain why they compared HIV-infected patients only with hepatitis (B or C) mono-infected patients, and not to general population.

The introduction section is poor of information particularly on hepatitis mono-infected patients. Actually, osteoporosis in an important topic in hepatitis too, therefore the work could be interesting also for clinicians involved in hepatitis care.

Tables are confusing and difficult to read. Efavirenz-based regimens should be underlined and EFV use should insert as variables in the logistic regression model.


The article is well written, nevertheless, some periods are difficult to read due to
incidental phrases (eg: second period of introduction section).

The circannual rhythm formula needs to be better clarified; I underline that vitamin D variability is due to seasonality and not to fixed annual convention.

MINOR ESSENTIAL REVISION

- Authors used the term “postulated” too much and often improperly (sometimes is too strong): please substitute with “suggested”, “demonstrated”, “observed” etc.
- Please, use the term “HIV-infected patients” instead of HIV-positive patients
- Authors, for consistency, should maintain the same abbreviation throughout the text: i.e. 300,000 IE (in the title and in the abstract) became IU in the rest of the article.
- Have the Authors data on 1,25 OH Vitamin D? It would be interesting to compare 25 OH vitamin D with the final product
- “we actually recommend…” in the discussion section, please substitute the word recommend with “suggest”. Is difficult to draw a recommendation as conclusion in a study that is not a RCT and not so powerful.
- In the discussion section, authors must be more quantitative when they compare their work to the literature.

Level of interest: An article whose findings are important to those with closely related research interests

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