Reviewer's report

Title: Weekly cholecalciferol supplementation results in significant reductions in infection risk among the vitamin D deficient: results from the CIPRIS trial

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Reviewer: Adrian Martineau

Reviewer's report:

The manuscript is stronger for the inclusion of a patient flow chart and table of baseline characteristics by arm. However, I think that the current title and the abstract still overplay the findings of a post hoc sub-group analysis conducted in a tiny number of patients (these four patients may make up 11.8% of the cohort, but this is only because the cohort is very small).

Major compulsory revisions

A non-declarative title would be more appropriate for this paper, e.g. ‘Pilot study of cholecalciferol supplementation for the prevention of acute infections’. The Results section of the abstract should present quantitative data giving the effect size of the intervention on the primary outcome, with a 95% confidence interval and a P value. If the abstract does present results of the sub-group analysis in the 4 patients with serum 25(OH)D <40 nmol/L at baseline, then the number of patients included in this analysis should be stated explicitly, and a 95% CI and P value for the effect should be stated. The reader needs to see the 95% CI in order to make a judgement re interpretation of this result. Quantitative data showing the effect size of the intervention on 25(OH)D levels attained at follow-up (with 95% CI and P value) should be presented in the abstract.

Regarding the table of baseline characteristics: the column presenting characteristics of both groups pooled can be deleted – the point of this table is just to compare characteristics of the 2 arms at baseline. Also, there is no need to present P values for comparison of these characteristics between arms.

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

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests