Reviewer’s report

Title: Association between vitamin D deficiency and sepsis: a systematic review and meta-analysis

Version: 1 Date: 15 February 2015

Reviewer: William B. Grant

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Major Compulsory Revisions
1. Line 175: Replace Ref. 24 with one of these papers and give an updated estimate of low 25OHD concentrations

2. Lines 181-8. Consider these papers. They will result in a changed conclusion regarding 25OHD and mortality for those with sepsis.

Minor Essential Revisions
3. Line 44: ultraviolet is radiation; light applies to the visible portion of the spectrum.

4. For Ref. 4, 5, consider instead or addition:

5. Figures 2-4: please state what is being compared. Is it <20 ng/mL vs. >20 ng/mL?

Discretionary Revisions
6. Line 214: Perhaps the state of the art in treating those with sepsis can be discussed in a paragraph in the discussion section.

7. This paper might be cited near the conclusion.

8. Title: The word "significant" might be added to the beginning of the title to indicate what was found in the meta-analysis.

9. Line 86; 30 ng/mL is generally considered optimal rather than normal. My understanding of normal is that it is akin to mean or average. The global mean 25OHD concentration is about 54 nmol/L.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:
I declare that I have no competing interests.