Reviewer's report

Title: Maternal cortisol and stress are associated with birth outcomes, but are not affected by lipid-based nutrient supplements during pregnancy: an analysis of data from a randomized controlled trial in rural Malawi

Version: 1 Date: 8 September 2015

Reviewer: Hermann LANOU

Reviewer's report:

- Major Compulsory Revisions: None
- Minor Essential Revisions

Line 44: 'Lower newborn' may be replaced by 'shorter newborn'
Line 136: this should be ‘a tool that has...’ instead of ‘at tool that has...’
Line 140: 'home during the 28 week visit' may be replaced by 'during the 28 week home visit'
Line 266: 'Lower newborn' may be replaced by 'shorter newborn'

- Discretionary Revisions

In this paper, Christine Stewart and colleagues have examined the association between LNS supplements during pregnancy maternal salivary cortisol and whether maternal cortisol and stress are associated with birth outcomes. The question posed by the authors is well defined, the methods are appropriate, but some additional explorations could be done. Limitations of the work are clearly stated and the discussion and conclusions are well balanced and adequately supported by the data.

1. Is the question posed by the authors well defined? YES
2. Are the methods appropriate and well described? YES. In addition the authors could also explore the effects of LNS supplement on the salivary cortisol trajectoires as an overall increase in cortisol during pregnancy has been demonstrated and 3 time points cortisol assessment during pregnancy are available in this study.
3. Are the data sound? YES
4. Do the figures appear to be genuine, i.e. without evidence of manipulation? YES
5. Does the manuscript adhere to the relevant standards for reporting and data deposition? YES
6. Are the discussion and conclusions well balanced and adequately supported by the data? YES.
7. Are limitations of the work clearly stated? YES
8. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished? YES
9. Do the title and abstract accurately convey what has been found? YES
10. Is the writing acceptable? YES

**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