Reviewer's report

Title: Low birth weight contributed to increased serum IL-6 levels in infantile respiratory syncytial virus infection

Version: 1 Date: 13 Jul 2017

Reviewer: Jonathan M. Mansbach

Reviewer's report:

Despite the inclusion of a physician scientist from University of Cincinnati, the writing needs much more editing. In particular the background could be much shorter and the discussion more logical.

The authors have not conducted a multivariable analysis. The stratified analysis by weight is interesting, but this analysis does not help assess for the independent association between multiple potential confounders and the outcome of interest, IL-6. Is there any other factor beyond weight that may influence the level of IL-6? And is weight a significant factor among all enrolled patients or just those with RSV? Other variables to consider are: sex of the patient, use of respiratory support modalities, acute severity of illness, IV fluids, etc. Further, the discussion states that only low birth weight would be likely to cause an increase in IL-6. Why? Are the data about IL-6 in LRTI so clear that the authors are certain that weight is the only potential confounder? In their reply, the authors state that they made the appropriate adjustment in statistics, but they do not detail what these adjustments were. Please clarify.

The authors have not corrected for multiple testing. If the authors do not plan to make this correction they will need to justify this decision to the readers.

The authors have not listed the poor performance of their viral detection methods in the limitations section. If the authors are going to make this analysis about IL-6 in infants with RSV, it would help if their detection of RSV (32%) were closer to most other studies (65-80%). Please comment.

In Table 4, the authors discuss the infants with wheezing. However, in infant LRTI what one person calls wheezing another person calls coarse breath sounds or crackles. Was the wheezing diagnosed by one clinician or multiple clinicians? Please discuss in Methods.
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Unable to assess

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

No

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Not suitable for publication unless extensively edited

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