Reviewer’s report

Title: An economic analysis of human milk supplementation for very low birth weight babies in the USA

Version: 0 Date: 16 Oct 2018

Reviewer: Reviewer 2

Reviewer's report:

PEER REVIEWER ASSESSMENTS:

OBJECTIVE - Full research articles: is there a clear objective that addresses a testable research question(s) (brief or other article types: is there a clear objective)?

Yes - there is a clear objective

DESIGN - Is the current approach (including controls and analysis protocols) appropriate for the objective?

No - there are major issues

EXECUTION - Are the experiments and analyses performed with technical rigor to allow confidence in the results?

No - there are minor issues

INTERPRETATION - Is the current interpretation/discussion of the results reasonable and not overstated?

No - there are minor issues

OVERALL MANUSCRIPT POTENTIAL - Could an appropriately REVISED version of this work represent a technically sound contribution?

Maybe - with major revisions
PEER REVIEWER COMMENTS:

GENERAL COMMENTS: This paper addresses an important research question: is the exclusive human milk diet (EHMD) cost effective compared to the cow milk-based products among very low birth weight (VLBW) infants. The authors improved the decision models by including more complications and life-time costs. Using the clinical evidence from randomized controlled trial improves the model estimation. Sensitivity analyses also have been conducted. The results can have direct implications for VLBW infants care in NICU and other clinical settings.

REQUESTED REVISIONS:

The decision model in Figure 1 is very simple. More details are needed to illustrate the transition of the states of VLBW infants with two different milk products. Moreover, the paper does not include any validation exercise of the model, which is necessary for conducting further simulations. The results in Table 3 are puzzling. The incremental benefits are number of cases or the percentage? If it is number of cases, then the results are too good to be true. For example, among 1,000 infants, human milk diet can reduce mortality by 131 cases, which is hard to believe. Therefore, the authors need to demonstrate the validity of the decision model with extensive calibration exercises.

Note: This reviewer report can be downloaded - see attached pdf file.

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.

No

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.

Not relevant to this manuscript
Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable

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