Reviewer’s report

Title: BabyGel Pilot: a pilot cluster randomised trial of the provision of alcohol handgel to postpartum mothers to prevent neonatal and young infant Infection-related morbidity in the community

Version: 1 Date: 23 Mar 2018

Reviewer: Nuhu Min

Reviewer's report:

Major comments:
This article reports results from a pilot cluster randomised trial of the provision of alcohol handgel to postpartum mothers to prevent neonatal and young infant infective morbidity in the community. This is an important paper and has public health implications for further use.

Although, the concept of the paper is innovative and evaluated household level acceptability and feasibility of an ABHR, due to some weakness of the paper require some extensive edits in all sections.

Background:
1. The background is not written concisely.

Here the author should clearly mention about the current state of knowledge on specific study question i) Not a general review, but tightly focused on study question, ii) Cite key literature. The author should also emphasize on the specify the gap in current knowledge using the ABHR in the community settings and describe the relevance of the study question. Why should readers/funders care?

Currently, the background is too long and also have some irrelevant study citation. For example: This paper is primarily focusing on the reduction of morbidity of young infant but the author focused on <5 mortality (line 18). The author should focus on the Young infant mortality in relation to the use of ABHR/handwashing/handhygiene/overall personal hygiene etc. Line 46-53 is also irrelevant to this discussion.

My suggestions are, first provide the global burden of diseases (young infant mortality) followed by regional and then situation in Uganda with recent citation. Then the knowledge gaps (what other people did to overcome this important issues but not resolve this issues u highlighted) in relation to the main research question and how to overcome the problem.

The author also should put clear picture why he chose BabyGel as ABHR for this study since there are many other ABHR available? The author also did not provide clear picture of overall handwashing/handhygiene practice of Uganda and why BabyGel is superior to other currently available handhygiene products (soap and Chlorhexidine based hand rub/ABHR)?
Objectives:
There are 2 main objectives which are already mentioned on page 7 (line 57). The section "Trial specific objectives" seems irrelevant in my point of view. If this is a mandatory section of this specific journal these should be followed SMART criteria.

2. Methods:

The author put too much detailed explanation of each method section and could not overcome repetition of sentences between sections. Most importantly, the method section is not organized chronologically.

The Methods section in this manuscript typically involves explaining a number of interrelated activities. A common error in this manuscript is a disorganized series of sentences that jump back and forth between various activities. This risks confusing the reader. The order that is generally easiest for a reader/reviewer to understand is chronological order. The first part of the Methods section for a public health paper is commonly a brief description of the study site and population to explain the context. Then, the method section explains in detail the study activities that were performed in sequential chronological order. The author nicely put the study flow diagram in Figure 1 but fail to organize the text according to the Figure 1.

3. Outcome measurements (Page 12): The author should clearly mention the primary and secondary outcomes clearly within few sentences and should avoid additional unnecessary statements/justification.

4. Sample size: The author fails to put sufficient evidence to support the sample size. This is important that the author put proper justification for the prevalence estimation of the primary outcome with appropriate citation.

5. Results:
Similar to the other sections, the results also need substantial revision. Currently, the result section is not following the chronological order. Once the author revised the method section then the results should follow accordingly. There are many ways to write the result section. One option could be: Demographic information of the respondents/households, Baseline status of primary and secondary outcomes, uptake of different interventions (acceptability, feasibility etc), and finally some analytical results (differences/regression/correlations) to see significant changes of the intervention uptake.

   The bullet points (Bold paragraph titles) are also not clear where readers can clearly interpret the sections. These should clearly mention in the result section. For example, on Page 16 line 10 the author mention 'Primary outcome" which fails to clarify what is the section about and which primary outcome this is talking about. Similar comments for all BOLD points. The result tables are also not organized according to its serial number. For Example, after Table 1, results from Table 5 appeared suddenly on Page 15. This is difficult for a reader to go through the result section and linked with the method section.
Discussion:
My suggestion is, once the methods and results sections revised the discussion section needs to be revised according to them. The discussion section should review by someone who is experienced on handhygiene related trials in hospital based/community base non-soap (hand sanitizer/chlorhexidine/ABHR) trial.

Minor comments:
Page 6, Line 35: E. Coli is wrongly used. This should be italicized and "C" should not be upper case.
Page 7, Line 19: "$" US or other countries. In line 22, you mentioned ABHR is low cost but you never provided the comparison "low-cost compared to what?" In addition to this, it is very important to put detail cost comparison of ABHR compared to other hand hygiene products which have similar efficacy. You can describe this in the discussion section.
Page 9 Study Timeline: Timeline is not clear and you mention the Ethical approval in this section. If the timeline is critical then you can use Gantt chat as supplemental information.
Tables and figures:
In a biomedical manuscript the figures and tables should stand alone. A reader should be able to look at the table or figure, read the title, and understand it. It should not be necessary to refer to the narrative methods or results to understand the table or the figures. Thus a typical heading will need to include person, place, and time characteristics. The number of study subjects and statistical methodology needs to be clear. You may need to use footnotes to explain apparent discrepancies or other issues in the table/figure.
For most of the tables, the headings are not appropriately followed standard format. Footnotes did not use appropriately. "(n, %)" can be shifted to the top of the column to clean the table. Table 1 is too long, the "0" and low values can be replaced/removed by "other" variable to make the table short and concise.

Figure 2: Mention if the instruction is provided in local language or in English?

CONSORT statement did not attach to the PDF. Reviewers might be interested to look at how the author addressed the CONSORT CHECK-LIST?

Level of interest
Please indicate how interesting you found the manuscript:

An article of importance in its field

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

Not suitable for publication unless extensively edited
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