Reviewer's report

Title: Trials of Improved Practices approach to explore the acceptability and feasibility of different modes of Chlorhexidine application for neonatal cord care

Version: 1 Date: 14 July 2015

Reviewer: Katherine Semrau

Reviewer's report:

Summary:
Chlorhexidine has been shown to reduce omphalitis (umbilical stump infection) in several developing settings. As a broad spectrum antiseptic that is inexpensive, chlorhexidine appears to be a promising intervention. The paper presents the Trial of Improved Practices in Pemba Island in preparation for a large efficacy trial. Authors present results from a randomized cross-over design obtaining mother’s perspectives on preferred chlorhexidine packaging and delivery mode. Authors used a robust study design and data collection process to garner information from facility and home-based delivering women. Results demonstrated preference for 10 mL dropper bottles over gel and 100 mL bottles. This information will be helpful to programs looking to roll out chlorhexidine in sub-Saharan Africa.

Discretionary Revisions:
1. Title: Consider adding Pemba Island as part of the title as location is of interest.
2. Introduction: line 42, please add the proper reference.
3. Discussion: Line 216, consider adding the Clinical Trials number included as a reference.

Minor Essential Revisions:
There are minor several essential reviews to be considered:
1. Abstract: The Results in the abstract combines the preference of the TBA/Medical Staff/CHW to be 10 mL and gel. This is confusing and should be presented as the 1st preference (10 mL droppers) with the associated preference.
2. Introduction: Authors report 4%, 7.1% chlorhexidine in lines 17 and 21 respectively. It would be helpful to be consistent in terminology.
3. Table 1: The collapsing of parity seems a bit ad hoc. Were there any differences in preference based on parity? Authors may consider adding a category of primiparous women.
4. Table 2: Convenience scores are reported in the text, but only Preference scores are given in the table. It would be helpful to readers to have both score
types in the tables. Consider adding the number along with the proportions, as was done in Table 1.

5. Table 3: It is unclear from the table if this knowledge of newborn practices or implementation of these practices for the newborn in the study. Authors need to clarify in the text and table what was asked/studied. Further, can authors comment on the dramatic shifts in the sample size/denominator associated with each practice? Were there correlations of practices with chlorhexidine preference? If yes, how should that be interpreted?

6. Figure 1: It is unclear if the numbers in the figure are number or percentages? Further, the message of the figure is unclear. Authors should consider the utility of the graph and either remove it or clarify the purpose.

Major Compulsory Revisions: None.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests.