Reviewer's report

Title: Key bottlenecks to the provision of safe obstetric anaesthesia in low-income countries; a cross-sectional survey of 64 hospitals in Uganda

Version: 0 Date: 21 Feb 2017

Reviewer: Jill Mhyre

Reviewer's report:

This manuscript presents results from a survey of 64 hospital directors representing 60 delivery facilities in Uganda. The survey focused on institutional structural characteristics (including staffing, equipment, and medications) specified as essential for safe anesthesia care by the World Federation of Societies of Anesthesiology (WFSA). The effort seems important, but the manuscript requires substantial revision. It is not possible to provide line by line suggestions at this point. Please consider the following general suggestions.

Even descriptive survey designs benefit from a clearly articulated hypothesis that allows for structured research design, statistical comparisons, and power calculation. An example hypothesis might be that "We hypothesized that fewer than half of facilities would meet the WFSA standards." A statistical consultant can then determine statistical power to confirm or refute this hypothesis with 60 centers surveyed, and a Type I error rate of 5%. Clearly the data presented paints a stark picture of resources available.

The title should mention the study design.

The methods should provide enough information to be able to duplicate the study. In general, it is best practice to include the actual survey as supplementary digital content so that the reader can see how each question was asked. How many facilities deliver women in Uganda? How were the institutions sampled? How were the surveys delivered to the institutions, and how was the information collected? How many attempts were made to contact each institution and to receive the information back? How many surveys were distributed, and how many responded? P5L34-39 appears to have been copied directly from the IRB protocol. What was the primary hypothesis and what were the secondary hypotheses and how were these tested statistically?

The results are difficult to interpret currently. Since the unit of analysis is the institution, use Table 1 to describe the institutions rather than the survey respondents (e.g., median delivery volume, cesarean delivery rate, and the proportion of cesareans conducted under general, neuraxial, or other anesthesia (e.g., sedation with local infiltration). Interpretation of Table 2 should distinguish between the resources that are widely available (>90%) and not widely
available. Consider whether some of the equipment may be redundant (e.g., automated BP machine / manual BP machine) in the assessment of WFSA essential equipment.

The discussion can embed the findings in existing research, but also use the findings to frame priorities for development.

To improve your writing, I strongly encourage you to read:

* Essentials of writing biomedical research papers, by Mimi Zeiger

* Style: Lessons in Clarity and Grace, by Joseph Williams and Joseph Bizup

Alternatively or in addition, there are editing companies that specialize in manuscript preparation and presentation for submission to peer reviewed journals.

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.

Unable to assess

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 recommend additional statistical review
Quality of written English
Please indicate the quality of language in the manuscript:

Not suitable for publication unless extensively edited

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