Reviewer's report

Title: Incidence and determinants of severe maternal morbidity: a transversal study in a referral hospital in Teresina, Piauí, Brazil

Version: 3  Date: 27 January 2015

Reviewer: robert liston

Reviewer's report:

Major compulsory revisions:
Nil

Minor Essential Revisions:
A: Discussion, paragraph 4; "...haemmorhagic complications CONTRIBUTED to 39.5%....."
B: Introduction Paragraph 4: "Also a research group STANDARDIZED diagnostic criteria...."

Discretionary Revisions:
A: What is the time period of the study, October to February inclusive, as stated in the "design and location" section of the "methods" section, OR "6 months" as stated in the "results" section?

B: "patients were excluded in the case of maternal death" is stated in the "case selection" section of the "method", yet clearly such cases are reported. (I suspect the authors are referring to the fact that cases of death are excluded from the consideration of criteria for "severe morbidity" or "near miss", but this requires clarification in my view.)

C: The "Introduction" section could be reworded. The authors confound the confusion between the concepts of "severe maternal morbidity" and "maternal near miss" rather than clarifying the issues. For example note the 5th paragraph, beginning "The prevalence of severe morbidity....."

In addition, although the authors stress the difficulty of death ascertainment as an issue in studies of maternal mortality they do not discuss the fact that the rarity of maternal death (although all too common still!) detracts from its utility as a measure of access, timeliness and appropriateness of obstetrical care. Indeed it is just such considerations that have been in the forefront of reasoning behind consideration and analysis of "severe maternal morbidity", however defined!

D: "Inclusion of Subjects" requires clarification, as it is stated at the end of the "case selection" section of "methods" that "All the women who remained pregnant or in hospital at the end of the study were excluded." Normally the denominator for similar studies is the number of live births in the time period, thus it would be appropriate to exclude women who were undelivered but would it be
appropriate to consider a woman, who having delivered, remained in hospital, whether severely ill or not? This requires clarification and justification.

E: A "questionnaire" is mentioned in the "case selection" section. To whom, and when was this questionnaire administered? And was the pregnancy information abstracted by direct case record review, "verification with health professionals" or from the questionnaire returns from women, or from health professionals?

F: "Discussion, paragraph 3": The discussion about the progression of cases of hypertensive diseases suggests that "...a delay in the prevention of convulsions..." might have occurred. This may well be true but it MIGHT have been other things as well, including, delayed disease recognition, delayed access to care, delayed first line treatment, delayed or inadequate hypotensive therapy etc etc...!

G: "limitations": This is a small series on which to draw conclusions about antecedents of severe maternal morbidity and this is most likely why no variables of statistical significance were found to be associated with maternal near miss or death, a point that perhaps requires emphasis.

H: Table 1: identify the total number of live births on the table.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

i declare that i have no competing interest