Reviewer’s report

Title: Maternal near-miss in a rural hospital in Eastern Sudan

Version: 2 Date: 9 May 2011

Reviewer: Thomas van den Akker

Reviewer’s report:

Dear authors,

Thank for revising the manuscript, which has improved tremendously. I would recommend publication, provided that you make the following additional major and minor changes (the major compulsory revisions are 4,8,9,10,13,20,21,23,27,32-35):

TITLE AND AUTHORS:

1. Perhaps omit ‘Eastern’ from the title, to ensure understanding that the scope of this article is not ‘narrow’; I expect that the conclusions of this study will not be tremendously different in most other areas in rural Sudan: am I right? (discretionary)

2. Ensure that punctuation and format of authors and affiliations is coherent (Second names/initials included or not, Medicine versus medicine, etc)

ABSTRACT:

3. I think in the first sentence ‘fifth’ has been forgotten in relation to the MDG?
4. Indicate what exactly you compared between MNM cases and MDs in the background.
5. Clarify what you mean by ‘the nature of near-miss events’.
6. In the results section ‘mortality indexes’ should be plural. Many prefer the more common Case Fatality Rate to the mortality index (which is less often used): consider changing to CFR. Interesting is the high mortality index for infection which is similar to what we found in Malawi (article currently under review elsewhere but I could send reference later) (discretionary).
7. Change ‘at this facility level’ to at ‘the level of this facility in rural Sudan’ in the conclusion.
8. Your conclusion focuses on the frequencies of MNM and MD. In this case, best to present the results in the same manner, so MNM(-events) and deaths per … deliveries. Now, I do not read any frequency.
9. The second line of the conclusion in the abstract is on the one hand very obvious (and therefore does not add much strength), but on the other hand does not follow logically from the results presented here (no account of substandard care, also: your results may be influenced by 1st and 2nd delays rather than by
3rd delay). I suggest changing the conclusion.

INTRODUCTION:

10. The definition of near-miss in the first sentence is rather limited. Please read and refer to the definition and article of Say L et al in Best Pract & Res Clinical Obs and Gynaecol 23 (2009) 287-296
11. Second sentence: again, make clear this is directly about the fifth MDG (and indirectly about some other MDGs)
12. The third sentence: I do not at all agree that developing countries have limited experience with treating near miss cases! Please revise.
13. The last sentence of the first paragraph is not clear to me. I think this refers to reports of near miss. Please clarify.
14. First line of second paragraph should be in past tense: ‘was previously reported’.
15. Omit 2X ‘to’ before ‘calculate’ and ‘compare’ and state more exactly what was compared.
16. The second part of the last sentence is not clear: omit ‘particularly… data?’

METHODS:

17. First line of setting: leave out ‘parturient’, consider including ‘recently delivered’ or something similar (did you include postpartum near miss? Clarify).
18. The comma in the third sentence is in the wrong place: 440,491
19. The participants’ section starts with a definition of near-miss which is good, but I miss a reference.
20. Consider labelling the criteria A-H or something; ‘emergency hysterectomy’ is not a disease-specific criterion, but is ‘intervention-specific’; same goes for massive transfusion unless you use it to define major haemorrhage as a ‘disease’ (needs to be corrected).
21. Why include ‘parturient’ in second line on page 2? Did you include puerperal women or not?
22. Probably better to leave out ‘statistics’ as a separate subheading.

RESULTS:

23. There should be some measure of incidence for MNM and MD (either expressed per nr of live births or per nr of deliveries) and the incidence figures should be discussed against existing literature.
24. Typo in table 1: ruptured uterus.
25. I would like to see absolute numbers accompanying the percentages of still births and neonatal deaths.
26. Tables 2 and 3: omit all the 0’s before the actual number (e.g. not 07.5 but 7.5); I take it that jaundice here concerns ‘jaundice with unknown cause’ or
something along those lines (please clarify). I would formulate ‘dead women’ differently.

DISCUSSION

27. Although the first line of the discussion is good, I find that thereafter the discussion section is somewhat lacking. There could be much more emphasis on the importance of the findings. For instance: the comparison with other countries (three times higher? Only compared to Nigeria?) is poor. Although I understand the difficulty of applying intervention-specific criteria such as intensive care admission in low-resource setting, I find this point not clearly written up.

28. The third sentence concerning the ‘considerable percentage’ is not clear: which percentage is meant and why is it considerable?

29. Three times ‘however’ in the beginning of the discussion reads difficult.

30. The maternal mortality ratios between different studies vary a lot due to the different criteria used. In this study, mostly ‘disease-specific’ criteria were used (and not system-specific criteria as mentioned in the discussion; these are different). If it is stated that the five times higher MNM rate is comparable to other studies, I would like to read exactly to which studies. I do not find references to the studies mentioned.

31. ‘In specialized ward for high risk case’ should read ‘in a specialized ward for high risk care’

32. In the second paragraph: the blame seems to be on those in more rural areas, although more than 50% of the MNM occurs in this hospital. It seems the quality of care needs attention throughout the health system. The whole second paragraph is not clear to me: what exactly is the role of substandard care and why do you think so?

33. The third paragraph, and the first two lines in particular, are not clear to me. What do the authors intend to express?

34. The fourth paragraph: these factors (although found in Darfur) cannot be extrapolated from the study findings presented and should be deleted.

35. The final paragraph on limitations should be expanded to include issues such as underreporting. What did you do to minimize under-reporting? What would the role of under-reporting be?

Although the article has improved a lot, still a considerable amount of work is needed to get it up to a level acceptable for publication: (A) the language is much better, but there are still some typos and challenges with style and grammar (perhaps have the English editors look at a newer version once again?), (B) the introduction and methods sections have benefited from adding subheadings, clear objectives and other structural improvements, but the results and discussion sections need particularly thorough revisions still.

I wish the authors much luck with the incorporation of these suggestions and look forward to receiving the next version, to which I would happily respond again.
With kind regards,
Thomas van den Akker

**Level of interest:** An article of importance in its field

**Quality of written English:** Needs some language corrections before being published

**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 interests.