Reviewer's report

Title: Maternal near miss and mortality in a rural referral hospital in northern Tanzania: a cross-sectional study

Version: 1 Date: 27 March 2013

Reviewer: Eckhart Buchmann

Reviewer's report:

This is an interesting description of severe maternal morbidity and maternal mortality at a poorly resourced rural referral hospital in Tanzania. The data is useful for researchers and health workers interested in care of pregnant women in rural Africa.

The submission is very well written. The research questions, objectives and methods are sound and the data is clearly presented in accordance with the objectives. The discussion is well balanced and thoughtful. Reference is made to relevant reviews and studies on this topic.

Discretionary revisions

In the outcome measures paragraph, prophylactic oxytocin and prophylactic antibiotics are technically not outcome measures and should not be lumped with secondary outcome measures.

The limitations paragraph should mention that interpretation of the near-miss data must consider that the definitions are not the same as the WHO recommended definitions. There is potential for overestimation of near-misses, because of lower inclusion thresholds especially because of eclampsia, any blood transfusion, and ‘sepsis’ being included. The authors’ definitions will be more sensitive but less specific for severe morbidity, compared with the WHO’s definitions.

In table 4, underlying causes lack adequate definition. The authors must have faced difficult decision in assigning underlying causes. What is an underlying cause? A postpartum haemorrhage should have an underlying cause, whether this is uterine atony, caesarean section trauma or uterine rupture. In case of uterine rupture, this is a category in the table, and so those deaths are not included in ‘postpartum haemorrhage’. I have similar concerns with uterine rupture and puerperal sepsis, which so often are the result of obstructed labour. I noticed that there were 21 uterine ruptures, but only 6 of them were ‘underlying’. Presumably the other 15 were attributable to ‘obstructed labour’ as the underlying cause. Some clarification surrounding these definitions would be helpful.

Major compulsory revisions

Near the end of the inclusion criteria paragraph, the authors add ‘uterine rupture’ and other conditions to their modified case definition of maternal near miss. Uterine rupture should be better defined – the description of ‘complete rupture of
a uterus during labour’ under Table 1 is not adequate. Detail is needed on the extent of extrusion of the fetus or fetal parts, and the meaning of ‘complete’.

**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 interests