Reviewer’s report

Title: Incidence, determinants and perinatal outcomes of near miss maternal morbidity in Ile-Ife Nigeria: a prospective case control study.

Version: 4 Date: 14 December 2012

Reviewer: Birgit Reime

Reviewer’s report:

Adeoye and coworkers’ study examines the important question of incidence, determinants and outcomes of near miss maternal morbidity in Ile-Ife Nigeria. Nigeria with its population of almost 200 million people is an important country to study as it contributes a large amount of the total burden of disease in maternal and child health globally.

The manuscript is written very well and there are only few weaknesses:

Page 2, 3rd para: “which” should be “with”

In general, the background section is a little bit long but still very informative and an online journal has no need to shorten the text in order to save space.

The methods are well grounded and well described. I find it important that not only the classical near miss scenarios (hemorrhage, sepsis, unplanned hysterectomy and (pre-) eclampsia that are relevant in a high income country were included but also severe anemia (resulting from severe malaria) because in a low resource country near miss includes a different range of emergency situations than in other settings.

Page 3, last sentences. The reader wonders why women who were admitted to hospital only during the 42-days postpartum period were included in a prospective design but on page 4, 2nd para the authors explain that some of the outcomes could not be considered among these women who gave birth outside the hospital and were admitted later.

It remains unclear why the cases and controls were not matched according to parity, although a great number of women would have been eligible. Data on parity and gravidity are missing.

Results:

Tables 1 gives adequate and important information on the socio-economic background of the cases compared to the controls. Maternal education is lacking. The differences are telling. Table 2 shows the distribution of near miss cases by particular conditions with hemorrhage and hypertensive disorders being the main diagnoses.

Table 3 shows the determinants of a near miss cases. Model 2 and 3 reveal that
the marital status is not a significant predictor any more once factors such as prenatal care and knowledge are part of the model. No surprise, chronic hypertension was the strongest predictor for near miss. I just wonder whether an emergency CS is a predictor or a result of a near miss but this question was addressed in the discussion. How was the variable “husband’s education” treated in the last (full) model? This is relevant as the single women would have missings in this variable. Were they excluded from the analysis so that it was restricted to women with a partner?

In Table 4 the authors show the results of bivariate logistic regression analyses with near miss as the dependent and perinatal outcomes as the independent variables. Near miss cases were associated with a higher risk for adverse outcomes such as stillbirth and severe asphyxia. I would have preferred if the authors would have continued with the practice to use the most normal outcome as the reference category instead of macrosomia and post term birth as it would have facilitated to interpret the odds ratios.

Very few typos or words missing.

Discussion:
First para: I think the readers are aware of the advantages of a prospective study and the outline regarding prevalence and incidence can be deleted.

In general I am a little bit disappointed about the lack of acknowledgement of the restrictions that result from the living conditions in a low resource setting. Transport may not be as readily available and women may avoid healthcare seeking due to stigma, i.e. in the case of HIV/AIDS. Therefore “phase I delay” is not just a personal problem or a problem of knowledge and education. The authors should explore a little bit more of this in the discussion.

In summary, the authors should report data on parity and maternal education, if available. They should re-run the multiple logistic regression analyses using the respective most normal outcome as the reference group (1.00).

In the discussion section they should take into consideration the characteristics of the setting low resource country because this reads as if the study was conducted in a wealthy industrial country.

Level of interest: An article of importance in its field

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.