Reviewer's report

Title: Utilisation of malaria control measures in pregnancy and birth outcomes in Ibadan, Nigeria

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Reviewer: Ehijie Felix F Enato

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General comments

This article presents the results of what appears to be a well conducted and important study. However, the authors need to address a number of important issues. The manuscript in itself has a lot of technical and grammatical errors, which makes reading and comprehension very difficult.

Specific comments

Title: This should read “Utilization of malaria preventive measures during pregnancy and birth outcomes in Ibadan, Nigeria”

Abstract

Background should read: “Malaria remains a major public health problem in sub-Saharan Africa and the extent of utilization of prevention measures may impact on the burden of malaria in pregnancy”

Objective(s) not stated!

Methods: …Second sentence should read “Data obtained included obstetric information, including birth weight and gestational age during pregnancy”

Results: Write IPTsp in full. Was 21.7% of herbal use specifically for malaria prevention or does this also include disease management? The sentence beginning with “The mean (SD) birth weight (Line 9 from the bottom) is not clear, may need re-wording. What are the p-values for the confidence intervals and odds ratios?

No key words

Background: Not well written in its present form. Needs to be re-written, reviewing important literature on the subject matter, and providing a clear justification and objective of the study.

Materials and methods

The author recruited 800 out 1220 postpartum women in the delivery wards of the two study hospitals. I would like to know how you selected these 800 women? Any inclusion and exclusion criteria? Also, how did you arrive at the
sample size of 800, was there sample size calculation to ensure that the study is sufficient powered? Which months and year was the study done (seasonal variability may impact malaria in pregnancy). Can you briefly describe the questionnaire used for the study? How was it designed, who administered it, were they trained to do so? Was history of malaria during pregnancy taken or was there any form of parasite diagnosis for malaria in pregnancy? Just collecting history of malaria preventive measures during pregnancy and assessing birth weight and gestational age is not sufficient. By this, the authors are assuming that only malaria during pregnancy results in negative birth outcomes. Indeed, there many other medical and obstetric conditions e.g. pre-clampsia and eclampsia, etc, which can also negatively affect birth weight and gestational age.

Results

More women were recruited from Adeoyo Maternity Hospital (a secondary health care facility) than the teaching hospital (UCH, a tertiary health care facility), any explanation to this? Can you estimate the annual attendance or delivery rates for these two hospitals?

In general the descriptive headings of almost all the tables are confusing. I am hardly able to make meaning out of them!

Table 1, you need to include the number reporting in addition to the percentage frequency, Chi sq (chi-square) can simply be written as X2.

Table 2, It is not clear what you compared with chi square statistics. Also, the number of pregnancy can be grouped into 1, 2, 3 and above (i.e. primigravidae, secundigravidae and multigravid). Primigravid and secundigravid women are more susceptible to malaria during pregnancy and the burden is higher too in these groups of women.

Table 3 the percentage response is greater than 100%, and you need to state as footnote that multiple responses were allowed.

I do not think table 4 has any meaningful contribution to the paper. The recommended malaria preventive measures during pregnancy is use of intermittent preventive therapy (IPT) and insecticide treated bed net (ITN). If your respondents were not using these interventions and they also mentioned the reason for that, you can simply say so as text in the result section

Table 5. I think the authors should concentrate on use of IPT and ITN by the respondents, and compare outcomes (birth weight and gestational age) associated with their use or non-use, while controlling for confounding variables like use of other measures and age (as mentioned in page 7, paragraph 2 and line 4).

Tables 6 and 7 seem to me as subsets of table 5 and they (tables 5, 6, and 7) could be combined into one table.

Discussion: This section also need to be re-written and made more focused
Conclusion: Manuscript needs substantial revision in-line with the comments stated above