Reviewer’s report

Title: Prevalence of Malaria and Anaemia among HIV infected pregnant women receiving Co-trimoxazole prophylaxis- A cross sectional study in One District in Tanzania.

Version: 2 Date: 14 February 2014

Reviewer: Gilbert Kongola

Reviewer’s report:

Minor essential revisions
Typographical errors
1. Background
  1.1 line 5 …..this population experiences the s is missing
  1.2 line 10 ……..advised to avoid sulpha the two words are joined in the script
  1.3 line 11……adverse reactions ….. the two words are joined in the script
  1.4 line 13…..effects particularly anaemia among …. The two words are joined in the script
  1.5 line 18 …… MRDT are made up of specific… the of is missing in the script
  1.6 line 26 The study reports the prevalence of malaria, anaemia and the associated factors among HIV infected pregnant women. What are the associated factors?
2. Methods
  2.1 Study design and study area
  2.2 line 1 The design was a cross sectional study and not across as it appears in the manuscript
  2.3 line 4 ……in-patient admissions the s is missing in the text
  2.4 Sampling procedure
  2.5 line 3 health facilities to be included the words to be are missing in the script
  2.6 Data collection methods
  2.7 line 1 …schedule was used to obtain…. the words are joined in the text
  2.8 line 2 these includes the s should be omitted
3. Results -

4. Discussion
  4.1 line 14 …..pattern showed in our study……. the word showed should be replaced by seen
  4.2 line 28 …. Kapito-Tembo et al reported a similar findings ….. the letter a
should be omitted
4.3 line 39..replace the phrase “this variation are not clear” by these variations are not clear
4.4 line 60…..other infections were therefore more vulnerable to becoming anaemic [3,4] this phrase should replace the phrase other therefore they were more vulnerable to anaemia infections [3,4] which appears at the beginning of the same line.
4.5 line 65……therefore another cause of anemia could also be ..... the two words are joined in the text. Still on the same line ......chronic illness should read chronic illnesses
5. Conclusion –

Minor essential revisions
Comments
1. The question posed by the authors has not been well defined. Use of insecticide treated bed nets (ITN) could have contributed to the low prevalence of malaria in the study group but the authors have put a lot of emphasis on prophylactic use of cotrimoxazole. Have the authors disregarded the contribution of ITN in preventing malaria infection?
2. The methods used were appropriate but inclusion and exclusion criteria for study participants were not defined and hence the low prevalence of malaria and the high prevalence of anaemia could not be adequately explained not knowing the criteria for participants. Other parasitic infections could have caused anemia and the ITN could have been the reason for the low prevalence of malaria.
3. The data as presented is sound
4. The manuscript has adhered well to the standards for reporting and data disposition
5. The role of insecticide treated bed nets has not been well discussed
6. Limitations of the work have not been well stated. Use of the insecticide treated bed nets and presence of other pathological conditions in the study patients were confounding factors in the study
7. The authors have very well acknowledged the work of other people upon which they have built their own work.
8. The abstract and title convey the results that have been obtained from the study but the interpretation of the findings is made difficult by the limitations pointed out above.
9. The writing is acceptable
Minor essential revisions
1. Methods
Study population
Inclusion and exclusion criteria were not clearly defined and this has given
difficulty in interpreting the results. Can the criteria be defined? Study participants provided blood samples for determination of hemoglobin and evidence of plasmodium infection, other parasites were not looked for. No stool was collected for examination of intestinal parasites which could be responsible for the observed anemia. Is there any reason for this omission?

2. Results
(a) Malaria: The results of the study have indicated the prevalence of malaria in the study group to be 4.5%. This low figure is said to be due to cotrimoxazole which was used prophylactically. This is hard to believe because the participants also used insecticide treated bed nets. Which of the two offered protection against malaria?
(b) Anemia: The prevalence of anemia in the study group was 54% which is quite high. This anemia could not all be attributed to malaria only since the prevalence of malaria was quite low (4.5%). Zidovudine is known to cause anemia and the participants were using zidovudine, is not right to assume that the anemia was due to the zidovudine? Folate deficiency which is common in pregnancy may also be responsible for the anemia. How many of these participants had hookworm or other parasitic infections? Can the authors give answers to the questions?

3. Conclusions
This study has shown a low prevalence (4.5%) of malaria in the study group. Cotrimoxazole prophylaxis alone could not be responsible for this on its own. The participants also used insecticide treated bed nets. The low figure could be a synergistic effect of the two measures. Similarly the observed anemia may not have been caused by malaria alone, other parasitic infections or vitamin deficiencies could also have contributed to the observed anemia.

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