Reviewer's report

Title: Prevalence of anemia before and after initiation of antiretroviral therapy among HIV infected patients at Black Lion Specialized Hospital, Addis Ababa, Ethiopia: a cross sectional study

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Reviewer: Rupak Shivakoti

Reviewer's report:
This is a study of anemia in a hospital in Addis Ababa where the prevalence and risk factors of anemia are assessed pre-ART and 6 months post-ART. The manuscript is mostly well-written and results are clearly presented. Ultimately, except for the specific setting, this study is not novel as these questions have been addressed in many studies, including in Ethiopia. As a result, the conclusions should explicitly state that the results support findings from other studies (even the type of anemia is not novel based on the Ethiopian citations in the discussion). While this is not a high impact study and has its limitations, I do think this should be published in the literature given that this could be useful data for the specific setting. While providing supporting data for past studies, there were also a few differences (e.g. prevalence by type of anemia)

If the participants were recruited at 6 months after HAART initiation where hemoglobin etc. was assessed in a cross-sectional manner, were the baseline data obtained based on clinical records? If so, there needs to be a mention of whether the methods for assessment (trained personnel, equipment, standardization, etc.) were the same during the two time points.

Also if baseline is based on clinical records, what was the prevalence of anemia in the overall population of HIV-infected adults initiating ART in the hospital during that time point (rather than just the 255 randomly selected)?

A discussion is also needed on study population - e.g. whether they are representative of HIV-infected adults in the region, or are from a more specific background. If they represent a more
specific population, then the conclusions on the prevalence should to be limited to those. Without more information on the study population, it is difficult to assess the generalizability of the findings.

In table 3 and 4, multivariable logistic regression models showing the adjusted odds of being anemic by various characteristics could be useful. In addition, were there any other variables than the ones listed in the tables also assessed? How about BMI, viral load, hypoalbuminemia, and inflammation?

Maybe I missed this, but which CD4 count (baseline or 6 months?) was used for table 4? Also why is WHO staging not shown for table 4?

p-values of 0.000 should be removed and replaced with <0.001 or the relevant number. 0.0 is not appropriate

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

Yes

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Yes

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

Yes

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