Reviewer’s report

Title: Anemia in People on Second Line Antiretroviral Treatment in Lilongwe, Malawi: a Cross-Sectional Study

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Reviewer: Vicente Estrada

Reviewer’s report:

This manuscript is a cross-sectional study examining the factors associated with anemia in HIV patients in the second line of antiretroviral therapy. One out of three patients have anemia in this study; factors associated with an increased risk of anemia are female gender and less than 200 CD4 lymphocytes. The study is correct but in my opinion it would improve if is not purely descriptive of a general, unspecific, medical problem.

Anemia is a multifactorial problem, but the most frequent causes include deficiency causes (especially iron) and in the context of HIV, infections, drugs and renal failure. The manuscript does not go far beyond that the point that anemia is frequent. If most patients with anemia show an iron deficiency, the problem cannot be directly attributable to HIV infection or the line of antiretroviral therapy. It is also missing some comparative data with a population of similar characteristics to know the severity of the problem; for example, anemia is prevalent in general population, and it can be as high as 28% in non-pregnant women. The population studied was selected by their HIV therapy status (second line). What is the prevalence of anemia in first-line patients?. Other causes of anemia, which may be considered in this type of patients, such as the effect of drugs (apart of AZT), especially cotrimoxazole, have apparently not been studied.

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?
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Yes

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I am able to assess the statistics

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Please indicate the quality of language in the manuscript:

Acceptable

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