Reviewer's report

Title: Evaluation of Simple Rapid HIV Assays and Development of National Rapid HIV Test Algorithms in Dar es Salaam, Tanzania

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Reviewer: Rajesh Kannangai

Reviewer's report:

This manuscript by Lyamuya et al. titled "Evaluation of simple Rapid HIV assays and development of National Rapid HIV test algorithms in Dar es Salaam, Tanzania" describes the performance of 5 simple rapid HIV kits and an algorithm that can be used countrywide. The study has been well planned and the data looks relevant.

Major Compulsory Revisions

1. Sample collection is well described but it is not mentioned that the samples collected for the study were consecutive or a convenient sampling.

2. The ability of the kit to detect different classes of immunoglobulin (s) should have been mentioned. It is ideal to have a table with important characteristics of the five kits used like storage temperature, ability to detect IgG/IgM antibodies, whether the kit can differentiate between HIV-1 and HIV-2 infection etc.

3. The ability to detect and differentiate HIV-2 by each kit should be addressed as this can have implication on the treatment.

4. In results section the text on table 2 can be shortened as most of the text is repetition of the table

5. Several paragraphs in the Background and the Discussion are repetitive. Remove these and make the discussion more focused.

Minor Essential Revisions

6. Will there be any change in the cost for this algorithm proposed compared to the existing one? If so that also should mentioned in the discussion.

7. The Determine HIV1/2 at present is manufactured by Inverness Medical incorporation. This change should mention in the paper

8. It would have been more useful for the readers to provide the city/state and country name along with all the company names of the kit used.

9. What is the statistical method/software used for calculating the accuracy indices?

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