Reviewer’s report

Title: Sensitivity of direct versus concentrated sputum smear microscopy in HIV-infected patients suspected of having pulmonary tuberculosis

Version: 1 Date: 21 January 2009

Reviewer: willie githui

Reviewer’s report:

1. Is the question posed by the authors well defined?

Comment: The question is well defined: Authors are questioning whether there is "additional value" in using concentrated smear microscopy vs direct microscopy in HIV infected patients.

> 2. Are the methods appropriate and well described?

Comment: In general, the methods were appropriate and well described. However, the target sample is not indicated making it difficult to establish how a sample of 388 patients was achieved. Secondly, since the focus of the study was sputum samples from HIV infected persons, it would have been important to indicate the quality of the sputum. This is because it has been documented that most of these patients produce poor quality sputum samples which may have an effect on the bacillary load. This information may shed more light in explaining the difference noted in this study compared to previous studies.

> 3. Are the data sound?

Comment: Generally the data was OK.

> 4. Does the manuscript adhere to the relevant standards for reporting and data deposition?

Comment: Generally Yes it does.

> 5. Are the discussion and conclusions well balanced and adequately supported by the data?

Comment: Generally yes. However, Despite the small margin of difference between the direct and concentrated smears, it is important to note that five (41%) of the 12 patients that had positive concentrated smears and negative cultures (Table 3), had a final diagnosis of TB and improved on TB treatment. Taking into consideration that these were not only HIV/AIDs but also hospitalised patients, thus potential sources for nosocomial infections among other hospitalised patients and staff. Notwithstanding the statistical significance of the analysis, this observation is worthy discussing especially in reference to the study having been designed to measure a clinically relevant difference between direct and concentrated microscopy. Furthermore, in constrast to several
previous studies, this study showed no additional value of concentrated smear microscopy!

> 6. Are limitations of the work clearly stated?

Comment: The second limitation need further clarification. Furthermore, explanations for the last limitation is irrelevant since findings do not warrant change of policy!

> 7. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished?

Comment: Yes as indicated in relevant references.

> 8. Do the title and abstract accurately convey what has been found?

Comment: Since findings from this study are contrary to majority of previous studies, it may be important to indicate that this was a unique population and therefore, the Title should be revised to include "...hospitalised HIV-infected........".

> 9. Is the writing acceptable?

Comment: Yes.

> 

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

'I declare that I have no competing interests'