Reviewer’s report

Title: Diagnostic Accuracy of the Xpert MTB/Rif Ultra for tuberculosis adenitis

Version: 1 Date: 18 Sep 2019

Reviewer: Mikashmi Kohli

Reviewer's report:

This is an important paper that looks at the diagnostic accuracy of Ultra in lymph node specimens. The data presented by the authors is clear and also important with the global roll-out of Ultra cartridges.

There were a few concerns regarding the paper and analysis done by the authors.

a. The authors use both "probable TB" (line 30 on page 7) and "possible TB" (line 23 on page 9) in the manuscript. I am assuming it is the same thing for this paper? However, it would be good to restrict to one term only as it starts getting confusing.

b. The definition of probable TB is not clear. It looks like the microbiologically confirmed TB (even by Ultra) is also included in this category? Could you explain this category in detail. Which diagnosis were considered "probable TB"?

c. The authors state that if a patient provided both aspirate and tissue, the culture was done only on biopsy? So, the diagnostic accuracy of the aspirate has Ultra done on the aspirate specimen but the culture is done on tissue, especially for the 56 patients that provided both the specimens? If so, I would consider this as a limitation worth mentioning in the paper. as the specimen that was taken from one site is used for Ultra, however the culture was performed on a separate specimen. This could affect the diagnostic accuracy. This should be mentioned in the discussion.

d. The authors state that the invalids by Ultra were taken as negative. how many of these were culture positive or negative? Maybe the authors should mention the number of invalids by Ultra and exclude them from the analysis rather than taking them as Ultra negative. This will also help assess the error/invalid rate by Ultra.

e. Of the AFB positive in both aspirate and tissue, how many were MTB positive by MTBDRplus. This analysis could help in understanding that the "definite TB" category had only MTB species.
The discussion could be made stronger where the authors can discuss the strengths and limitations more carefully.

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

No

**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.

No

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

**Quality of written English**
Please indicate the quality of language in the manuscript:

Acceptable

**Declaration of competing interests**
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?
5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests.

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal