Reviewer’s report

Title: Clinical Diagnostic Value of Simultaneous Amplification and Testing for the Diagnosis of Sputum-scarce Pulmonary Tuberculosis

Version: 0 Date: 22 Mar 2017

Reviewer: Laura Forsberg White

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Clinical diagnostic value of simultaneous amplification and testing for the diagnosis of sputum-scarce pulmonary Tuberculosis

This is an interesting paper with a generally well-designed study. I am struck by the large number of clinically diagnosed individuals, which makes me question the generalizability of these results. Additional stratified analysis might help in interpreting the test diagnostics in other settings. As I was asked to assess the statistics in this paper, I will comment on these issues.

1. The power calculation given does not really make any sense for the results presented for multiple reasons. First, what is a power test at the 95% level? What test is being done? This is not clear at all and it is impossible to determine if this calculation is appropriate for the results presented. Further it is not clear why the authors state that only 100 people were necessary, but then enroll over 700 people.

2. In reporting the sensitivity values on page 10, the authors should also include n/N for these values. It is also not necessary, or customary, to report the X^2 statistic value. Usually a p-value alone is reported. Reporting confidence intervals for these values is also warranted.

3. In general, I would like to see an AUC analysis to compare the performance of the tests. This is generally better since it takes in to account both sensitivity and specificity. It is fine to report the individual test characteristics (sensitivity, etc), but AUC is also important.

4. The kappa results reported are a bit confusing. There is n=382; 76.44% agreement. What are these numbers?
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?
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Unable to assess

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I am able to assess the statistics

Quality of written English
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