Reviewer's report

Title: Use of the GenoType(R) MTBDRplus assay to assess drug resistance among Mycobacterium tuberculosis isolates from patients in rural Uganda

Version: 3 Date: 11 June 2010

Reviewer: Hendrik Simon Schaaf

Reviewer's report:

Thank you for opportunity to review the resubmitted manuscript, which I think makes much more sense. I only have a few comments:

Major comments:
1. How do the authors explain the high rate of rifampicin monoresistance compared to MDR and INH resistance? Did the traditional method show no further resistance in any of the remaining 117 isolates that tested drug-susceptible by Genotype MTBDRplus method?
2. Why the high rate of resistance amongst female patients (6/50; 12%) vs males (2/75; 2.7%)? (not quite reaching significance, but looks impressive)

Other comments

Abstract:
1. Add “were” in 4th line of methods after “results”. Stop sentence after the culture comparison and start new sentence about HIV testing.
2. Results: Put (55/81) after the percentage in the current sentence. Sentence should not start with number (92.8%) but should be written in full – also 17.2% plus 92.8% = 110%? I would like to see a sentence on comparison of traditional method to new method in results to support the conclusion that Genotype MTBDRplus can be used as rapid screening method in this setting.

Introduction:
1. MDR-TB should be abbreviated already in first paragraph (not in 2nd paragraph)
2. Page 4, 2nd line: DST = drug susceptibility test (add test)
3. In my copy all symbols are blocks – please check that this is corrected (editorial team may have solution?)
4. Page 6, 9th line – please ensure use of susceptible / susceptibility throughout MS rather than mixing sensitive/susceptible
5. Page 6. Suggest placing Conventional DST paragraph BEFORE paragraph on HIV testing.
6. Page 8, Drug susceptibility test results: (I would suggest full heading). “…showed that a total of 6/125 (?) isolates were resistant to INH, 4 (?) resistant to RIF, while 2 (?) of these isolates were resistant to both INH and
RIF (MDR). Both MDR isolates were from HIV-infected female patients less than 39 years of age with new TB.” (to replace first 5 sentences)

7. Page 9, 5th line (in red): change to read: “mutations in katG gene and/or inhA promoter region…” Line 12 – RIF resistance (spelling and use either only abbreviation or full generic names – check throughout MS). Line 13: inhA promoter region

8. Last sentence page 9 – this explanation belongs in the discussion rather than results.

9. Page 10, line 8 “M. tuberculosis” (lower case t)

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Needs some language corrections before being published

**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'