Reviewer's report

Title: Evaluation of Microscopic Observation Drug Susceptibility assay for diagnosis of multidrug-resistant tuberculosis in Viet Nam

Version: 3 Date: 15 December 2011
Reviewer: Howard Takiff

Reviewer's report:

The revised manuscript on the evaluation of MODS in Viet Nam is markedly improved from the previous version. It is now better organized and explains almost everything. It is a bit long, but as BMC ID is an online journal, this may not be too important.

Major compulsory revisions:

There are a few minor substantive problems that will be addressed below, but it is not feasible to list all the instances where the text needs work. There many places where the article “the” is left off, there’s a lack of noun/verb agreement or simply awkward phrasing. A few examples will be noted below. Careful editing by a native English speaker or a copy editor could easily and rapidly resolve these problems, which detract from the value of the manuscript.

Minor essential revisions
Ln 28 Why is Drug capitalized?
Ln 39 of which (not Of which) “which ‘is used only after a comma. If there is no comma, it is correct to use “that”.
Ln 42 None of these isolates “were” identified
Ln 45 for “detecting” RIF resistant isolates
Ln 58 “documented by the World…(WHO), with estimates of nearly …annually, and 150,000…
Ln 66 According to the WHO ……only 22 (settings means countries? Then why not say only 22 of these countries?)
Ln 76 (and other places) M. tuberculosis has a space between the M. and tuberculosis.
Ln 88 Isn’t the color of the indicator proportional to the growth of bacteria in the medium? If the bacteria are quiescent but viable, the color may not change.
Ln 112 the form is not grammatically correct. It might be better to say something like, “MDR-TB, which would be rapid, low-cost, easy to perform and highly sensitive and specific.”
Ln 163 “Daily, one…” What is meant here? Controls was mounted just once daily, or one per each plate?
Ln 164 H37Rv is not really a clinical isolate. Where were the INH and Rif
resistant control isolates obtained?
Ln 184 “PNT” was never defined
Ln 215 A reference for the 5% and 20% of resistant strains without mutations would be appropriate.

It would be good to have a table with all of the Sensitivities, Specificities, PPV NPV etc. and their respective number of isolates in each case. This is included in the abst., but it would be good in a small table.
Ln 326 – 328 The resolution of discrepant results is still not easily understood from the text or table 2, and in this table there are no INH results shown for isolates 2,3,4, although 2 and 4 were supposedly INH resistant.
Could there be a summary of the number of false positives and false negatives for each antibiotic?

Ln 356 If the samples had discrepant results, there must have been a culture and DST subculture on LJ, as well as on the original MODS, so how can there be no samples for repeating DST tests? From the responses to this question, the authors state that the strains didn’t grow on reculture. However, if they grew enough for DST testing using both methods (they were selected for discrepant results), the bacterial load in the original specimen should no longer be relevant.
Ln 365 – 369 No DST testing was performed on these one well positive strains?
Ln 377 The “average or median” time to positive with MODS” Please specify which was used.
Ln 447 – 463 Can the authors give a reference for problems with clumping affecting DST results?

Discretionary revisions:
Couldn’t clumping be overcome by vortexing, perhaps with glass beads?
Ln 447 Would the authors advocate in addition to MODS, the inoculation of LJ tubes with INH and RIF?
Could the authors estimate the cost per specimen of MODS testing for MDR?

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