Reviewer’s report

Title: Childhood TB epidemiology and treatment outcomes in Thailand: a TB Active Surveillance Network, 2004 to 2006

Version: 2 Date: 27 February 2008

Reviewer: Dick Menzies

Reviewer’s report:

The authors have undertaken a description of 289 children with active tuberculosis. This represents two percent of the total number of active cases reported in their jurisdiction. They have described clinical characteristics including HIV testing results and treatment outcomes and perform some analysis to look at factors associated with death and default.

Major comments

1. There is no single clear or coherent message. What are the authors trying to convey? Is this paper about HIV testing? Or the impact of HIV in pediatric TB? or is it about treatment outcomes?
2. Numbers often do not add up, for example Table 1 listed 289 patients but tables 2 and 3 there are only 228 patients.
3. Program results are quite poor, only 57% of children with active TB were cured or completed treatment. This is far from WHO benchmarks.
4. A few were given another diagnosis; ideally these should have been excluded from the initial analysis, certainly from the cohort treatment result analysis.
5. Fourteen percent are still on treatment - really I would suggest that the authors wait until all members of a given cohort complete treatment so they can analyze treatment outcomes completely.
6. Patients who are transferred out without known outcomes should be considered as default particularly in the analysis of factors associated with default. In other studies it has been shown that most patients who "transfer out" actually are lost to follow up and never complete treatment.
7. The 7% whose treatment outcomes are unknown reflects either a group that has also defaulted or lost to follow up, or poor program organization. I would consider this group to be the same as default or transferred out - I would suggest they analyze them as defaulters.
8. In table 3 only 37% of children with meningitis were cured. Although I anticipated that this would reflect very high mortality, in fact it turns out that 67% defaulted or transferred out. This should be explained.
9. Table 4 could be dropped; really the only significant finding is that HIV is associated with mortality. The fact that being cared for at a tertiary care center is
associated with mortality is hardly surprising considering it reflects selection of the sickest patients who were referred there.

10. As noted above, table 5 should be reanalyzed and the default group should include patients whose outcome is unknown and patients who transferred out. This would give larger numbers of the default group providing more statistical power and thus may be helpful.

Overall the paper is flawed because there is no clear message and is a description of what appears to be a suboptimal program with significant missing information and suboptimal treatment outcomes.

Richard Menzies, Dr.
Subject: Review of BMC Infectious Diseases manuscript

- Reject because scientifically unsound
- Reject because too small an advance to publish (note that BMC Infectious Diseases will publish all sound studies including sound negative studies)

Level of interest
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- An article of insufficient interest to warrant publication in a scientific/medical journal

Quality of written English
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- Acceptable

Statistical review
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- No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests
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'I declare that I have no competing interests'