Reviewer’s report

Title: Deaths among tuberculosis cases in Shanghai, China: Who is at risk?

Version: 3 Date: 3 March 2009

Reviewer: Christie Jeon

Reviewer’s report:

· Discretionary Revisions (which are recommendations for improvement but which the author can choose to ignore)
  o The age categorization could be finer among the elderly, as there are many deaths in >60 years old category. For example, does TB-associated death or non-TB-associated death increase with age among the elderly?

· Major Compulsory Revisions (which the author must respond to before a decision on publication can be reached)
  o The authors responded adequately to my question: “Were the retreatment cases followed up for a longer period of time? If so, I think it’s important to state average time of follow-up by previous treatment, as with longer follow-up you may find more non-TB associated deaths.” I would like this see the content of their answer in the text of the manuscript.
  o The separate analysis for TB-associated death and non-TB-associated death is quite interesting; I think the results of the separate outcomes would strengthen this manuscript.
  o I’m not sure if the authors were justified in using logistic regression, which doesn’t not take the censoring and person-time into account. The fact that the proportional hazards assumption was not well satisfied is an indication that time is an important covariate, at least as an effect modifier. It would be important to investigate why the proportional hazards assumption is not met (i.e. there is interaction with time and the covariate used to investigate the proportional hazards assumption.) For example, it would be of interest to the reader to know that a certain factor X increases one’s mortality towards the beginning of the treatment period, but not later, or vice versa. I think it is possible that the proportional hazards assumption is better met if you separate by TB-associated deaths and non-TB associated deaths. For more rigorous investigation, you could construct Kaplan-Meier curves by some covariates of interest to investigate where the hazards cross.
  o The authors report only significant ORs. If a covariate had been included in the multivariate model, it would be kind to the reader to report the corresponding estimate regardless of the p-value.

Level of interest: An article of importance in its field
Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests