Reviewer's report

Title: Alcohol consumption, alcohol use disorders and incidence and disease course of tuberculosis (TB) - is there a causal connection?

Version: 2 Date: 8 May 2009

Reviewer: Karen Steingart

Reviewer's report:

This is a well-researched and written paper by an expert group on an important and timely topic, alcohol as a causative factor of tuberculosis. I was asked to comment regarding the systematic review methodology. I used AMSTAR in assessing the methodological quality of this systematic review. Shea et al., BMC Medical Research Methodology 2007, 7:10 doi:10.1186/1471-2288-7-10. I have no Major Compulsory Revisions. I offer a few Discretionary Revisions and Minor Essential Revisions (spelling, word left out).

Strengths

1. This is a systematic review of a focused etiological research question. The research question is “Alcohol consumption, alcohol use disorders and incidence and disease course of tuberculosis (TB) - is there a causal connection?”

2. The databases and other sources searched, the years of coverage, and the search terms used are well described.

3. A QUORUM-like figure depicting the flow of studies in the systematic review is included.

4. The search was not limited to the English language.

5. The primary outcomes of interest are stated.

6. The authors used data from published and unpublished studies (noted in the Discussion). The authors could consider mentioning the types of included publications (i.e., published and unpublished studies) in the Methods section.

7. Data extraction was performed independently by two trained investigators. Interrater reliability was determined.

8. Tables of the characteristics of the included studies are provided.

9. There is an excellent discussion of potential confounding throughout the paper. The authors acknowledge that, “unfortunately, there is no sufficient basis for the quantification of confounding”. To be conservative, the authors addressed confounding by using a documented method associated with tobacco risks. There is an excellent discussion of heterogeneity in the current paper as well as reference to the assessment of heterogeneity of studies included in Lönnroth et al, BMC Public Health 2008, 8:289 doi:10.1186/1471-2458-8-289.
10. The authors declared they had no competing interests and acknowledged their sources of support.

Discretionary Revisions (recommendations for improvement but which the author can choose to ignore)

11. As mentioned above (#9), the authors discuss potential confounding and heterogeneity throughout the paper. However, it would be helpful if the authors could comment about the overall methodological quality of included studies.

12. The authors could mention if they used a protocol for conducting the review.

13. The authors include studies reporting a prevalence of a) TB among patients with AUD and b) alcohol abuse among TB patients. Are there additional eligibility criteria, for example, criteria based on study design? Are there inclusion criteria based on bacteriological (culture or smear) confirmation of tuberculosis?

14. How were differences in opinion about data extraction handled, by consensus and discussion?

15. Where could an interested reader view the reasons for exclusion of studies? The reasons for exclusion are not included in Figure 1.

16. If a reader were interested in a list of excluded studies, how could she or he obtain?

17. The authors could comment on publication bias. Publication bias was addressed in the systematic review mentioned above by Lönnroth 2008.

Minor Essential Revisions

18. Page 5, sentence 2, “Alcohol-attributable fractions for TB deaths were calculated based on relative risk information FROM the most recent meta-analysis....”

19. Page 15, para 1, line 3, tuberculosis is misspelled

20. Page 15, Section, Interruption of treatment, second to last sentence “These data HAVE been....”

Level of interest: An article of outstanding merit and interest in its field

Quality of written English: Acceptable

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