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: 5 March 2009

Reviewer: Agneta Öjehagen

Reviewer's report:

Minor Essential Revisions:
1) The data collection is impressing, but in Data Extraction it could be commented shortly upon the reasons for exclusion of studies and whether there were any quality ratings of studies.

2) The authors present each step in their proposal of a causal relationship between alcohol and TB, including some comments followed by at short summary, which makes the paper easy to follow. Concerning the sections of pathways – the biological/medical presentation is a bit difficult to follow for those who are not familiar with this area, some summary could be helpful for those readers. The presentation in pathway II is more easily to understand.

3) The final discussion is rather short, due to comments in each step. Are the studies included of good enough quality or is there a need for an improved quality in some of the studies?

4) The authors stress the need for more studies to clarify confounders, perhaps some suggestions could be mentioned what type of confounders that would be possible to investigate. For instance could inheritance for AUD interfere with level of consumption in society and thus TB?

5) The pattern of alcohol use, i.e. heavy use or binge drinking increases risk for AUD–development, could this be commented on some more in final discussion – this is now mentioned in the section dose-response relationship. And would it be possible to investigate pattern of use, for instance every day/nearly every day consumption in relation to risk for TB rather than average consumption?

6) The summing up with a recommendation to use current knowledge on interventions for hazardous alcohol use and treatment for AUD is important. Still this knowledge could be used much more and implementations strategies ought to be further developed, which could be underlined.

7) The concept of alcohol use is clarified in the introduction, mostly referring to heavy use or AUD, which is important. In the abstract, the last sentence of the results section states that alcohol use influences …., it probably here refers to alcohol use in society, for example in the section on reversibility referring to the Gorbachev-era and the per capita consumption and not to heavy consumption. In the title the term alcohol consumption is used.

Discretionary revisions:
1) Firstly, due to the title I got the impression that he authors had made own meta-analyses, but that was not the case, this systematic review concerns different studies using meta-analyses? 2) Could the number of studies included in meta-analyses be included besides RR and CI? 3) even if familiar to most readers, the shortened GDP could be clarified, 5) if using the figure some more should be commented upon it in the text.

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' below. If your reply is yes to any, please give details below.