Reviewer’s report

Title: The relationship between mild alcohol consumption and mortality in Koreans: A systematic review and meta-analysis

Version: 2 Date: 7 April 2015

Reviewer: Yaoyue Hu

Reviewer’s report:

Major Compulsory Revisions

1. Please provide a summary table of essential information of all the studies included in this review and meta-analysis, especially the measures of alcohol consumption and categorisation/definition of ‘mild’ drinking in these studies.

2. It’s not clear how comparable the ‘mild’/‘moderate’ drinking in this review is with other widely used gender-specific categorisations of light-to-moderate drinking in literature. Please add it in the paper. Also, is ‘mild’ drinking equivalent of ‘moderate’ drinking in this paper? Please be consistent.

3. Does the ‘mild’ drinking in this review/meta-analysis include other categories of alcohol consumption? For example, a) did the three studies used drinking status contain a category of ‘mild’ drinking? If study subjects were only divided into non-drinkers and current drinkers, it would not be appropriate to include these studies in the meta-analysis as they failed to separate ‘mild’ drinkers from heavier drinkers; and b) in studies only measured drinking frequency, the drinking volume is unknown and the ‘mild’ drinking is not applicable. It is possible that those ‘mild’ drinkers based on drinking frequency may be heavy drinkers who consume alcohol infrequently.

4. Please discuss how this study is influenced by: a) use of non-drinkers as reference group; and b) inclusion of ‘sick quitters’ (former drinkers who quit drinking because of health reasons) in the category of non-drinkers.

5. Please give some possible explanations of population heterogeneity found in the meta-analysis.

6. Please discuss in more detail regarding: a) possible gender difference in drinking behaviour or drinking pattern in Korea, and how it is related to mortality; and b) residual confounding (e.g. differences between non-drinkers and moderate drinkers) and the potential of Mendelian Randomisation to explore alcohol consumption and mortality.

7. In background, 2nd paragraph, it was stated that ‘the effect of alcohol might be different by health status’. Please discuss how health status may affect the results in this paper.

Minor Essential Revisions

1. Results, 2nd paragraph, ‘drinking criterion’=measure of alcohol consumption?
2. Results, section of cancer-related mortality, please add references to the four studies examined all cancer morality, as well as those investigated specific types of cancer.

3. Discussion, 2nd paragraph, it is confusing that 2-4 drinks per day for men=6-42 g/day? 2 drinks=6 g of alcohol?

4. Discussion, 3rd paragraph, please add the reference to the total alcohol per capita in Korea.

Discretionary Revisions

None

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