Reviewer's report

Title: Towards new recommendations to reduce the burden of alcohol-induced hypertension in the European Union

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Reviewer: Ian Puddey

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This manuscript addresses the potential combined impact of 2 healthcare interventions - screening and treatment for alcohol use disorder and screening and treatment of uncontrolled hypertension - on mortality in the 5 largest European countries. Given the relative prevalence of these 2 disorders and the anticipated results from modelling the outcomes of appropriate therapeutic interventions, the subsequent recommendations of the authors are of major clinical relevance. The approach taken - a consensus conference based on systematic reviews, meta-analysis, clinical guidelines and experimental studies, appears reasonable. I am not able to comment on the appropriateness of the statistical modelling but it has been carefully outlined in the attached appendix and may benefit from independent statistical review.

The nature of the relationship between alcohol consumption and hypertension is described as not linear (on P7), with the association stronger at higher drinking levels, but the references quoted (ref 11-14) do not support this contention. In the first reference {alc2047} BP level is related to the severity of the alcohol withdrawal syndrome in alcoholics admitted for detoxification, not to measured alcohol intake. The second reference, also in a population of chronic alcoholics admitted for detoxification {Alc1087}, states that there was a linear relationship between the average daily intake of alcohol in the preceding 3 months and level of BP. It is stated that 46% of patients had a systolic BP > 140mmHg but the relationship to prevalence of hypertension is not described. In the third reference {alc2956} it is stated that there is a dose dependent (linear positive) relationship observed whatever the type of alcohol consumed. The final reference {alc1194} reports "a consistent and positive linear trend" for men but a J-shaped association between increasing alcohol intake and risk of hypertension in women.

On page 15, the second recommendation of the consensus conference is to increase screening and brief advice on hazardous and harmful drinking for people with newly detected hypertension from physicians, nurses and other health care professionals in primary health care. The subsequent discussion of evidence grade lists this as firstly as high and then as moderate - does this refer to the 2 levels of drinking - hazardous and harmful? It is unclear as currently laid out. Further none of the references (34, 60-64) specifically refers to alcohol interventions in people with newly detected hypertension.
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
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Yes

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