Reviewer's report

Title: Evaluation of work-based screening for early signs of alcohol-related liver disease in hazardous and harmful drinkers: the PrevAIL Study

Version: 2

Date: 23 March 2015

Reviewer: Ken Pidd

Reviewer's report:

This is a well written paper that addresses an important topic and has the potential to make a valuable contribution.

However, in its current form the paper adds relatively little to existing knowledge concerning alcohol related liver disease or the workplace as an intervention/screening setting. The results largely describe the prevalence of possible and probable fibrosis in a working population and the regression adds little to an understanding of causes. The reader is very much left with the thought "so what?"

Despite this, I think a rewrite of the introduction and discussion could realize the full potential of the paper and 'value add' to knowledge in this area.

Major Compulsory Revisions

1. The rationale for undertaking the study is not clearly set out in the introduction and it is unclear to the reader why the study is being conducted and how it advances knowledge in this area. A more forceful argument could be made that there has been a dramatic increase in the prevalence of liver disease (and alcohol consumption) in the UK over the past few decades and that there is an imperative for early detection/screening for liver disease in community settings and that the workplace may offer advantages over other community settings for a range of reasons. It could be further argued that biomarker screens are necessary as self reports of drinking severity/problems are unreliable indicators of liver disease. As few studies have used such clinical biomarkers in the workplace, a rationale for the current study would be to examine the utility-validity of such an approach.

2. The discussion needs revision to place more emphasis on the finding that despite the small sample size and low response rate, response rates were higher than for those achieved in other community settings, indicating the workplace may be a more efficient setting (while the discussion mentions this, more emphasis is need on this point, together with discussion concerning barriers to engaging workplaces and strategies to overcome these barriers. These are hidden in the discussion, but need to be made more prominent. for example, focusing on other health factors associated with liver disease such (as obesity) instead of alcohol, focusing on improving safety and productivity as well as worker health/wellbeing. In this regard the finding that frequency of
Physician/nurse visits was associated with a positive screen (while not surprising) is important to highlight as it provides evidence of the impact on workplace productivity and worker wellbeing.

**Minor points**

There is evidence of possible selection bias (workers that did not participate had lower alcohol consumption levels) and this should be pointed out in the limitations as it may artificially inflate the prevalence rate of positive screens.

The odds ratio for the regression of alcohol dependence on a positive screen is approaching significance (.069) not sig.

**Level of interest:** An article whose findings are important to those with closely related research interests

**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'