Reviewer’s report

Title: Sleep Deficiency and Motor Vehicle Crash Risk in the General Population: A Prospective Cohort Study

Version: 0 Date: 10 Dec 2017

Reviewer: Damien Léger

Reviewer's report:

The authors performed a well designed and important survey on a crucial public health topic in the field: does subjective sleepiness impact the risk of sleep-related accidents.

The methodology was carefully addressed with the sleep heart health prospective study. Subjects were recorded with polysomnography the gold standard for assessing sleep.

They concluded that both obstructive sleep apnea and sleep debt were significantly associated with the risk of sleep related accidents with no significant impact of subjective sleepiness assessed by the Epworth sleepiness scale.

I think the paper is well written and useful in the field, the limitations of the survey have been clearly discussed. However I would like the authors present several additional points which may improve the impact of the analysis:

- First additional logistic regression is needed to understand how sleep deprivation may or not increase the association between obstructive sleep apnea on accidents and reciprocally

- Secondly, based on the fact that sleep related accidents are only based on the witnesses of subjects (a major limitation of the paper) authors have to more extensively find in the literature how drivers may be trusted on this simple question.

- Finally, as subjective sleepiness did not appear to be a significant issue, authors have to discussed more largely how objective sleepiness (MSLT or MWT) has been proposed in some kind of professional drivers.

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?  
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?  
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English  
Please indicate the quality of language in the manuscript:

Acceptable

Declaration of competing interests  
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I have no financial competing interest.
I am expert in that field for the European Department of mobility and the French Government but with no financial benefits.

**Statement on potential review bias**
Please complete a statement on potential review bias, considering the following questions:

1. Did you co-author any publication with an author of this manuscript in the last 5 years?
2. Are you currently or recently affiliated at the same institution as an author of this manuscript?
3. If you can answer no to all of the above, write 'I declare that I did not publish with these authors in the last 5 years and also meet the affiliation criteria’. If your reply is yes to any, please give details below.

No

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license ([http://creativecommons.org/licenses/by/4.0/](http://creativecommons.org/licenses/by/4.0/)). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal