Reviewer's report

Title: Sleep duration and incidence of lung cancer in ageing men

Version: 2 Date: 9 December 2013

Reviewer: Cheryl Thompson

Reviewer's report:

Overall this is a very well written and well designed study of sleep duration and lung cancer incidence. This topic is of great interest and the prospective nature of the study design is good. However there are a few moderate concerns I have.

Major compulsory revisions:

1. The authors did a stratified analysis on smokers but didn't really justify why. Is there an hypothesis on why you think that there would be a difference among smokers and non-smokers? Are these "current" smokers or "ever" smokers? Also, is there a statistically significant interaction with this smoking status? How do you explain the findings?

2. The categories for sleep (< 7, 7-7.5 and 8 or more) were not justified. Most sleep researchers consider 8 hours good and more like 9 (or at least 8.5) as the start of "long" sleep in a negative way. I'd like to see the referent category be 7-8 hours, as that is more commonly recommended and would be better to compare to other literature, especially since there seem to be a large enough N in the long sleep group. In other words, right now you are saying about 40% of your patient population are "long" sleepers.

3. Pack years of smoking was adjusted in the statistics as it is associated with risk of lung cancer. However, current smoking status is important too -- nicotine is a stimulant and affects sleep habits. It is an important confounder in a study of sleep and lung cancer risk that should be adjusted for.

4. There are additional weaknesses that were not noted in the discussion. These include a single time point measurement of sleep (a major limitation) and a very small number of lung cancer cases (especially for the fully adjusted models).

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests