Reviewer's report

Title: Association of smoking with amyotrophic lateral sclerosis risk and survival: a prospective study

Version: 1 Date: 2 November 2009

Reviewer: Freya Kamel

Reviewer's report:

This study of smoking and ALS incidence and survival makes a significant contribution to an area previously characterized by limited and inconsistent findings. The case-control study is nested in a large population-based cohort in the United Kingdom with over 1100 cases of ALS. Smoking was associated with increased ALS in women although not in men, and with shorter survival, again only in women. The study is well done and the paper is well written. Limitations, including a lack of verified diagnoses and limited information on potential confounders, are acknowledged and discussed by the authors. The gender difference in the association of smoking with ALS risk is mostly consistent across studies, and this paper extends this to survival. Future studies should attempt to identify reasons for this difference.

- Major Compulsory Revisions

The author must respond to these before a decision on publication can be reached. For example, additional necessary experiments or controls, statistical mistakes, errors in interpretation.

- Minor Essential Revisions

The author can be trusted to make these. For example, missing labels on figures, the wrong use of a term, spelling mistakes.

1. In Table 1, the time (in relation to index date) at which age and BMI were measured should be identified.

What next?

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Based on your assessment of the validity of the manuscript, what do you advise should be the next step?

- Accept without revision
- Accept after discretionary revisions (which the authors can choose to ignore)
- xxxxx Accept after minor essential revisions (which the authors can be trusted to make)
- Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions
- Reject because scientifically unsound
- Reject because too small an advance to publish (note that BMC Neurology will publish all sound studies including sound negative studies)

Level of interest
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BMC Neurology has a policy of publishing all scientifically sound research whatever its level of interest. However if you choose one of the first three categories below, we may ask the authors if they would like the manuscript considered instead for the more selective journal BMC Medicine.

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- An article of outstanding merit and interest in its field (of the kind that might be found in the leading specialist journal in its field, such as Immunity, Development, Journal of Clinical Investigation, Gastroenterology)
- An article of importance in its field
- An article whose findings are important to those with closely related research interests
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Quality of written English
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As we do not charge for access to published research, we cannot undertake the costs of editing. If the language is a serious impediment to understanding, you should choose the first option below, and we will ask the authors to seek help. If the language is generally acceptable but has specific problems, some or all of which you have noted, choose the second option.

- Not suitable for publication unless extensively edited
- Needs some language corrections before being published
- Acceptable

Statistical review
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Is it essential that this manuscript be seen by an expert statistician?
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- Yes, and I have assessed the statistics in my report.
- Yes, but I do not feel adequately qualified to assess the statistics.
- xxxxx No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests
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I declare that I have no competing interests.