Reviewer's report

Title: Smoking, environmental tobacco smoke and risk of renal cell cancer: a population-based case-control study

Version: 1 Date: 18 August 2008

Reviewer: Alexander Parker

Reviewer's report:

I. Major Compulsory Revisions:
None.

II. Minor essential revisions

1. The authors should be encouraged to mention in their manuscript that renal cell carcinoma represents a histologically varied group of tumors, with the vast majority classified as clear cell histology (~85%). They have included all histologic subtypes in their case group and this could be considered a weakness given the existing data that RCC subtypes are not only morphologically distinct but also molecularly and etiologically distinct as well.

2. On page 9, second paragraph. The authors should consider rewording the second sentence in this paragraph. Currently, they state that the association was no longer significant after adjusting for packyears and that this suggests "confounding by dose". In truth, the fact that the estimate is no longer significant is more of a power issue than a confounding issue. The suggestion of confounding by dose is more evidenced by the slight attenuation in the risk estimate itself from 1.83 to 1.59. Indeed, the widening of the confidence interval (and subsequent loss of "significance") after adding another variable to their regression model is not an indication of confounding.

III. Discretionary Revisions
None.

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

Quality of written English: Acceptable

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

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