Reviewer’s report

Title: Road proximity, air pollution, noise, green space and neurologic disease incidence: A population-based cohort study

Version: 0 Date: 03 Sep 2019

Reviewer: Giulia Cesaroni

Reviewer's report:

This is an interesting paper on the association between neurologic disease incidence and exposure to road proximity, air pollution, noise and greenness. The authors investigated non-Alzheimer's dementia, Alzheimer's disease, Parkinson's disease, and multiple sclerosis.

Although I find the paper important, I think that the results are in some way overstated.

The only outcome consistently associated with proximity measures was NAD, while the only outcome associated with exposure to different air pollutants (PM2.5 and NO2) was PD. MS resulted associated to major road proximity and to PM2.5 (once greenness was taken into account).

Here follow some suggestions

Major points

1) To rephrase the main results in the abstract, result section, and discussion.

2) To avoid the replication of results in tables and figures and to simplify the report. I found that 5 tables and 4 figures are too many for a paper. I suggest to keep in the tables the results for proximity measures and to keep the figures with air pollution exposure, noise and greenness.

3) In Table 1 and Table 3 specify the comorbid conditions and keep Table 1 in one page.

4) I suggest to have a Table 2 with descriptive statistics with proximity measures for all the outcomes (NAD, PD, AD, MS)

5) I suggest a figure or a Table with air pollution, noise and green exposure for all the outcomes.

6) Discussion. Page 15. Lines 308-309. The authors should discuss all the results, including the "harmful effects" of greenness
Minor points

1) Section results, page 12, lines 230, 239, 240 use "non cases" instead of "controls"

2) Format the references according to the journal guidelines

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An article of importance in its field

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