Reviewer’s report

Title: Developmental Fluoride Neurotoxicity: An updated review

Version: 1 Date: 09 Nov 2019

Reviewer: Christine Till

Reviewer's report:

The author has answered my comments satisfactorily. This is an excellent review.

I have one additional comment regarding the addition of two new important studies that have been published over the past month. On lines 380-391, null findings are reported by a Canadian study examining fluoride exposure and learning disabilities [and ADHD] using data from Cycles 2 and 3 of the CHMS. A new study was published in October 2019 (Riddell et al., Env Internat, 2019) that used the same cohorts, but found a strong association between fluoride exposure and a diagnosis of ADHD among youth aged 6-17 years. It is possible that the first study missed the association because they restricted the study to children aged 3-12 and it is rare for children aged 3-6 to have a diagnosis of learning disorder or ADHD. The second study relates to a recent paper (Wang et al, Env Internat, 2019) showing that changes to thyroid function may modify the association between fluoride and child IQ scores. I think the findings of this study are very relevant to the discussion on lines 485-495 regarding the potential role for thyroid dysfunction as an underlying mechanism.

The author may wish to consider the findings of these new studies, but I do not feel strongly about whether or not he chooses to add the new studies to his comprehensive and thoughtful review of the literature.

Level of interest

Please indicate how interesting you found the manuscript:

An exceptional article

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 declare that I have no competing interests.

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/). 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