Reviewer’s report

Title: The influence of prenatal exposure to trans-fatty acids for development of childhood haematopoietic neoplasms (EnTrance): a natural societal experiment and a case-control study

Version: 2 Date: 06 Nov 2017

Reviewer: Jessy Abraham

Reviewer’s report:

1. Regarding Reply to query #2: Although measuring iTFA levels in the blood of neonates is a more direct exposure measure for the outcome in question than measuring the iTFA levels in the blood of mother (reply to query 2), it may give insufficient evidence to implicate any one prenatal factor (in this case exposure to TFA) in hematopoietic cancer aetiology, unless the levels in the mothers (antenatal) are also shown to be changed.

2. There can be number of confounding factors that cannot be accounted for and can influence the results and cause spurious association if cases are selected among children between 1998 to 2008 and controls born between 2009 to 2017. To control for this variation, cases and controls should be selected equally among neonates born before and after the legislative ban.

3. Regarding Reply to query #3: 'In Objective 2 we measure the exact TFA levels in neonatal blood regardless of the TFA law"- Does it mean that authors plan to measure TFA levels in only specific cases (children born between 1988-2008) and matching controls (children born between 2009-2017) or in all children born in the years 1988 to 2017 regardless of whether they got haematopoietic cancers or not?

4. In line 176, the authors wants to use cases and controls sharing the "exact date of birth". It is not clear if the year too will be matched. For example, for a case with a birth date of say January 1st, 1988, the control will be born on January 1st, 1988 or on January 1st falling in the years 2009 to 2017?

Level of interest
Please indicate how interesting you found the manuscript:

An article of importance in its field

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.