Reviewer’s report

Title: Elucidating the impact of the pneumococcal conjugate vaccine programme on pneumonia, sepsis and otitis media hospital admissions in England using a composite control

Version: 0 Date: 26 Jun 2017

Reviewer: Peter McIntyre

Reviewer's report:

This is a well written account of a meticulously conducted analysis of a large and challenging database of coded hospitalisation data. I agree with both the methodological approach and the interpretation of the data by the authors and given the size of the data base, the duration of experience covered and the robustness of the analysis I believe it makes a valuable contribution to the previous literature on this topic.

There are a few refinements which I believe would add value:

1. acknowledgement in limitations that inability of the authors to identify which of the identified coded cases were IPD cases means that the age-limited findings made may be largely attributable to IPD effects driving reductions in these younger age groups.

2. With respect to their critique of ref 18, the authors could usefully refer to the paper by Menzies et al in Clinical Infectious Diseases which provided a more detailed critique and analysis of the differences between ref 18 and their data

3. comment on whether the authors examined separately the impact of PCV 7 using relevant time periods prior to PCV 13 reduction viz a viz post PCV 13 and if not some rationale as to why this was thought unnecessary. Most of the other studies the authors reference (and the attribution is by no means comprehensive) were evaluating PCV7 impact and this difference would be worthwhile to highlight
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I recommend additional statistical review

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 HAVE AUTHORED OTHER PAPERS RELATED TO THIS TOPIC. I DECLARE 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