Reviewer’s report

Title: The impact of repeated vaccination on influenza vaccine effectiveness: a systematic review and meta-analysis

Version: 0 Date: 03 Sep 2018

Reviewer: Allen Cheng

Reviewer’s report:

I commend the authors on re-submitting the article. A mention about the previous retraction, and a note of how this review differs from the retracted article is warranted.

I note the search only was performed to 2016 - could the search be repeated to include studies between 2016 and 2018?

It isn't completely true to say that the results are only relevant for policy makers rather than individuals. For example, individuals could choose to get vaccinated only every second year, or (perhaps less likely) skip vaccination if early season surveillance shows H3N2.

Were there any indications that the effect of repeated vaccination may be influenced by vaccine coverage? One potential confounder is natural infections (those not vaccinated in the previous year may have had influenza infection, whether symptomatic or asymptomatic, and may be better protected than if they had had vaccine). Indirect evidence of this might be found in the elderly who generally have a higher vaccine coverage than younger age groups.

VE, and delta VE have an awkward statistical distribution. Wouldn't it be simpler to use a model that pooled estimates of the OR of vaccination (or differences in OR) to infer VE and delta VE, rather than trying to pool VE and delta VE directly?

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?
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I am able to assess the statistics

Quality of written English
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