Reviewer’s report

Title: Statin use and the risk of ovarian and endometrial cancers: A meta-analysis

Version: 0 Date: 14 May 2019

Reviewer: Research Square

Reviewer's report:

"STATISTICAL REVIEWER ASSESSMENT:

Is the study design appropriate for the research question (considering whether the analyzed population accurately reflects the design and whether you see any problems with control/comparison groups, e.g., likely confounders)?

No - there are minor issues

Are methodologies adequate and well implemented (considering whether assumptions are addressed and whether analyses are robust)?

No - there are minor issues

Are the analyses adequately communicated (considering whether reporting details are adequate and whether figures and tables are well labeled and described)?

No - there are minor issues

Does the interpretation accurately reflect the analyses without overstatement (considering whether limitations/bias are acknowledged and whether accurate descriptors, e.g., 'significant', are used)?

Yes - interpretation accurately reflects analyses, limitations/bias are acknowledged, accurate descriptors are used

Could an appropriately REVISED version of this work represent a statistically sound contribution?
Probably - with minor revisions

STATISTICAL REVIEWER COMMENTS:

Can the authors calculate and present Number needed to treat for their main analyses results (results presented in the abstract)....so that readers can easily understand the extent of benefit with statins. These numbers can be presented in the results section of the main text. This would be especially useful as although p values barely reached significance......the clinical significance of this data would be much higher.

Restricting publications to only English articles would lead to publication bias...especially on such an important research topic wherein there is likelihood of relevant publications in other languages.

Search strategy should have included all statin names.....rather than just 'statin'.

In methods section, please mention how quality of the 2 included RCTs was assessed. NOS scale is not appropriate for RCTs.

In pooled analyses, describe how heterogeneity was assessed. Provide description (in methods section) of how the authors intended to explore sources of heterogeneity.

There is no discussion on no statin benefit with long-term use. What may be the reason for this?

Please present study follow-up time  for each study in Table 1.

Forest plot figures have incomplete labels.

REQUESTED REVISIONS:

Please review above comments and revise accordingly.

ADDITIONAL REQUESTS/SUGGESTIONS:

None."

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No
Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

No

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

No

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 am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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Please complete a declaration of competing interests, considering the following questions:

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