Reviewer’s report

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

Version: 0 Date: 12 Apr 2019

Reviewer: Alan Richardson

Reviewer's report:

1. Page 3 Line 29 "We postulated that metabolic syndrome may be related to ovarian or

2. Endometrial cancer." I am unsure of the relevance of this sentence?

3. Page 3 Line 36 There are numerous studies reporting the activity of statins in preclinical cancer models. Rather than selecting just one or two to reference, the authors would do better to refer to a review of these.

4. Page 3 Line 38 More effective than what? I don't understand the point the authors are making.

5. Page 6 line 7 and elsewhere P=0.000? Really? Use Scientific notation if necessary.

6. Page 6 line 17 Were the subgroup analyses discussed on page 6 and onwards planned before the study or is this "p hacking" or was an appropriate statistical correction performed to correct for false discovery? (sorry but I don't know a more gentle way to say this). Without this, it is difficult to assess if results support the conclusions drawn. I also simply am mystified why 2013 was chosen as a cut-off year? This seems somewhat random.

7. The authors should discuss in the discussion why a significant difference was only observed in case controlled studies and the significance of this.

8. The authors don't seem to have considered which different statins are used (which is very relevant given their different half-lives), and the dose of statin. All of these have been proposed to contribute to clinical outcome.

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.

Unable to assess

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

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I am exploring the use of statins in ovarian cancer therapy.

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