Reviewer’s report

Title: Prophylactic salpingo-oophorectomy: a meta-analysis on ovarian cancer risk and all cause mortality

Version: 1 Date: 22 September 2014

Reviewer: Usha Menon

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A meta-analysis was published in 2009. The current meta-analysis extends it to include risk reductions estimates associated with all-cause mortality in two large studies. The additional data that has accumulated in the three studies previously included in the 2009 meta-analysis, also allows for separate estimates in BRCA1 mutation carriers, although numbers of events continue to be insufficient for BRCA2 mutation carriers. In addition separate risk estimates for those with and without a prior history of breast cancer are calculated. The differences between these subgroups are small in a clinical context. Notwithstanding, the meta-analysis does allow for more individualisation of counselling of mutation carriers exploring risk-reducing salpingo-oopherectomy.

Minor Essential Revisions
1. Replacement of word study (for e.g. in abstract) by meta-analysis
2. The primary end-point used was the risk of developing OC. It needs to be clarified as to how occult cancers that were detected at surgery were dealt with – were these excluded or were prevalent cancers included in the risk reduction calculation
3. Important to clarify that the outcome measure is not primary ovarian but primary ovarian, tubal and peritoneal cancer. This is what has been included correctly in the statistics though the outcome measure has not been described.
4. Reference 5 and 14 are the same.

Discretionary Revisions
1. Would suggest use of risk reducing rather than prophylactic salpingo-oopherectomy as the former better describes what can be achieved and reflects the growing understanding of ovarian cancer origins. Words like prevention/prophylactic tend to over exaggerate the impact and set unrealistic expectations in patients, the lay public and nonspecialist clinicians.
2. PSO is not an abbreviation that is in use and would suggest it is replaced by more common abbreviations such as RRSO or prophylactic BSO (bilateral salpingo-oopherectomy), if authors wish to persist with use of the term prophylactic salpingo-oopherectomy.
3. The title does not describe what was done - would suggest ‘- a meta-analysis on impact on ovarian cancer risk and all-cause mortality’ or some variation of
Quality of written English: Needs some language corrections before being published

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:
I declare that I have no competing interests