Reviewer's report

Title: Screening for cervical cancer: A systematic review and meta-analysis

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Reviewer: Sarah Feldman

Reviewer's report:

The authors address an important question which has been studied many times before. Most of the data on this issue, i.e. the effectiveness of cervical cancer screening, comes from observational data that compare incident and mortality rates between countries that have screening programs with those that do not, or in a particular country before and after screening. This manuscript, however attempts to use a systemic review to determine if there is more "objective" study data to evaluate this questions.

I have several concerns about this manuscript:

1. The paper puports to answer "three questions." These three questions are not clearly stated in either the abstract or introduction, however, so the goal of the project is unclear. Since the specific questions are not stated up front, the results do not clearly correspond to a particular question. Thus, is the goal to confirm (as is well known) that we do not have adequate well done propspective data to determine cervical cancer screening effectiveness or age or frequency? Or is the data to determine what is the effectiveness of screening, age to start and frequency? If the goal is the first, then the study does confirm that we do not have adequate prospective data to answer the questions. Clearly, confirming that there is only one short term RCT study in India that demonstrates screening is effective in that unique situation, does not then lead us to conclude that all screening in all countries with all modalities is effective. Thus, as has been discussed and shown in many other papers the effectiveness and the age and frequency are in fact based on observational studies in many locations about ages of cancer, incidence, mortalily and length of time from prior screen to increases in cancer. These studies, which provide excellent data, would not have made it into this study, given the criteria used.

2. Much of the text is jargon laden and not clear in terms of its meaning related to the potential questions addressed.

3. Inclusion criteria were arbitrary (e.g why use a history of sexual activity when including a paper in the analysis--much of the information we have on this topic comes from data on patients for whom we dont know their sexual history, and it is not relevant to our clinical care or to our health policy).

4. Only a single cohort study was found to provide data for incidence???(p. 6) This seems unlikely, and suggets that the inclusion criteria for this paper have excluded other valuable resources.
5. It should be stated that cervical cancer prevention is a program that includes some screening test (such as Pap, HPV, or VIA) that screens asymptomatic women, but that in order for the screen to become prevention, some intervention has to occur in the time before the development of cancer that prevents the progression from a precancer to a cancer. A screen with no intervention will not prevent cancer. Thus, all screening programs must contain both components and they differ from setting to setting. Grouping all the studies together (including grouping pap, HPV and VIA together) is only useful if the intervention is also discussed and compared to a non intervention arm. Thus the correct study looks at the whole program (screen and treat by some method) and compares that to no intervention or to a different set of interventions. This article does not mention, nor clarify that and makes arbitrary and not clinically relevant groupings,

Level of interest: Reject as not of sufficient priority to merit publishing in this journal

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,