Reviewer’s report

Title: Impact of HPV vaccination with Gardasil® in Switzerland

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Reviewer: Margaret Cruickshank

Reviewer's report:

This is an interesting and timely paper which supports the impact of HPV vaccination in terms of HPV infection in a group of young women compared in an observational pre-post study to those prior to vaccination.

The methods suggested a large cohort, although it is not clear how the marketing organisation (lines 100-102) identified the girls in the post intervention cohort. However in effect there were only 327 girls after the number of returns 690 dropped to 549 who agreed to be tested for HPV to 327 who provided a sample for HPV testing. This meant that much of the results and discussion is taken up trying to demonstrate that this small group are representative of the country e.g the higher vaccine up take rate (line 289). 18.6% response rate to a questionnaire is low (line 191) were any measures taken to improve the response rate? Never the less, the size of change does suggest that the reduction must be attributable to HPV immunisation. Line 99 should say 'before and after the introduction of HPV vaccination'. In the study design, line 104, there is no information on the catch-up vaccination to understand the results in this group.

It is not made clear that HPV vaccination is self-reported and can be unreliable. It could be that 'unvaccinated' girls had received vaccine and the size of the effect has been reduced. However with only 9 girls with an HPV infection and of these, only 4 having HPV16, the numbers are very small. The age, but also the number of years since vaccine and follow-up will also impact on risk of acquiring infection - was this adjusted for in the model?

The pre-intervention group were a higher risk group for HPV infection (although we don't know the details of how the post group were identified) because they were recruited from clinics including those with abnormal cytology or in follow-up for a low grade abnormal cytology.

Data is not provided to support the conclusion on screening modalities.

Line 337 this is a study from England (ref 30) and not the UK. However there are references from Scotland on reduction in HPV and also the impact on the performance of cytology screening which would support the authors discussion.


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.

Yes

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 recommend additional statistical review

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Please indicate the quality of language in the manuscript:

Acceptable

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