Reviewer’s report

Title: Cost-effectiveness of human papillomavirus vaccine for prevention of cervical cancer in Taiwan

Version: 1 Date: 2 October 2009

Reviewer: Anna Garcia-Altes

Reviewer’s report:

Although HPV vaccination has not demonstrated its effectiveness preventing cervical cancers, its relative importance in Taiwan could make this an important topic.

The paper will be reinforced if authors make a stronger case for the possible potential benefits of vaccination in Taiwan, where it seems that the infection rates are higher, and the compliance with cervical screening is low. Also, some more technical details should be made clear. Finally, please revise carefully all references, because it seems that they are not related to what you are mentioning on the text.

Major Compulsory Revisions:

Title. You are not assessing the cost-effectiveness of the “vaccine”. You are assessing the effectiveness of a vaccination program. Please, rephrase the title.

Background. Here is your opportunity to show readers that HPV infection and cervical cancer are important in Taiwan. It could be convenient to show infection rates, cervical screening compliance, cervical cancer mortality rates, and breast cancer mortality rates (as another important mortality cause among women).

On the second paragraph, after talking about the efficacy of the vaccine, you should be honest mentioning that the vaccine has not proven its efficacy preventing cervical cancer, but surrogate endpoints.

Methods. Decision model. References 15-17 are an example of misplacement.

Methods. Decision model. The sentence starting with “Our base case” is unnecessary here. You should move it to the “Sensitivity analysis” part.

Methods. Quality of life. The sentence starting with “Accordingly” is unnecessary. Also, it seems that those quality of life values respond to your expert criteria. You should mention that.

Methods. Quality of life. The sentence starting with “Cervical cancer costs” should be under a new heading called “Costs”. A bit more detail could me added here enumerating, at least, the costs included in the analysis: direct, indirect, short-term, long-term, etc. Reference number 17 does not include any cost. Please check, and refer the reader to the correct sources. You should also
mention the year of reference of the cost data.

Methods. Outcome measures. The “cost perspective” is commonly known as “perspective of analysis”. This should be mentioned at the very beginning of the methods section, together with the “time horizon” considered.

Methods. Sensitivity analysis. Here you should mention all the different analysis that you have really done and mentioned in the previous paragraphs: efficacy of the vaccine, different populations, different coverages, etc.

Results. Model validation. You should add numerical results to this paragraph.

Results. Base case analysis. The sentence starting by “We used” is unnecessary.

Results. Sensitivity analysis. The last two paragraphs are misleading, and should be eliminated.

Discussion. The sentence starting with “Given the limitations” is unnecessary. The sentence starting with “Although there has been” is inaccurate, and should be eliminated. The sentence starting with “This figure is not astonishing” is unnecessary. The sentence starting with “The undiscounted” is misleading and should be eliminated. Comments to undiscounted results are misleading, and should be kept only when commenting sensitivity analysis results.

Conclusions. Again, here your cost-effectiveness results could be related to the particular characteristics of the Taiwanese context (high rates of HPV infection, high mortality rates) to make a case for its usefulness in this particular context.

Table 1. Unnecessary.

Figure 2. Unnecessary.

Appendix table. This is a very important table and should be added in the main body of the paper. Please, check the references carefully.

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

None.