Reviewer’s report

Title: Willingness to accept H1N1 pandemic influenza vaccine: A cross-sectional study of Hong Kong community nurses

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Reviewer: Michaël Schwarzinger

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The acceptability of pandemic vaccines in healthcare workers in the community received little attention so far, while attitudes and behaviours of these frontline healthcare workers towards pandemic vaccines do matter for themselves (self-protection), healthcare services (absenteeism), and their patients (advice provided about vaccination). In this study, the authors address the willingness of community nurses to accept H1N1 pandemic influenza vaccine in Hong Kong. The manuscript is clearly presented in all its sections, although I have several comments that should be addressed by the authors.

Major Compulsory Revisions:

1) Some independent variables are likely to be highly correlated (age of respondents/year of registration/working as a community nurse & Mask wearing in the past 3 days/Wash hands after taking patients in outreach service), while used simultaneously in the multiple regression. In addition, the proportion of missing data varies for each independent variable as expected from a postal survey (Table 1: from 224 to 262 complete answers per variable). The multiple regression as presented is therefore based on 224 respondents at best and at risk of multicollinearity. It may explain some unexpected results (page 10, “although the reason for this is unclear” about the negative association of washing hands and willingness to accept A(H1N1) pandemic vaccination). I strongly suggest that the authors redo the multiple regression analysis after either: a) selecting one variable for age-related variable with use of an additive score for protective behaviours; or b) use some variable selection method, although the lowest number of respondents will be used for analysis.

2) Page 7, “all questionnaires were received within a 2-week period at a time when there was widespread H1N1 in the community”. More details should be provided on the phasing of the study and the epidemics in Hong Kong, at best by use of possible information recorded from respondents such as a recent episode of influenza-like illness. Quite logically, a potential limitation of the study is that nurses having had a recent episode of influenza-like illness should be much less willing to get vaccinated.

Minor Essential Revisions:

1) Abstract: the survey period should be mentioned (06/24/2009 to 06/30/2009). Acceptance of A(H1N1) pandemic vaccination was assessed instead of ‘pre-pandemic vaccination’.
2) Page 3 “previous studies that have examined the acceptability of seasonal influenza vaccination among HCWs have generally demonstrated a low acceptance rate of vaccination in this group”. I would rather mention reports of acceptability of A(H1N1) vaccination among HCWs instead of seasonal flu vaccination: Chor BMJ 2009; Rachiotis Eurosurveillance 2009 in hospitals; and La Torre Eurosurveillance 2009; Schwarzinger Vaccine 2010 in the community.

3) Page 3 “Although it is essential for all healthcare workers to be immunized against influenza A(H1N1) to bring herd immunity to the level which will enable the healthcare work force to handle the expected increase in patient load”: the use of “herd immunity” seems inappropriate in this setting. The goal to vaccinate healthcare workers against an influenza-pandemic before other priority groups is to maintain essential healthcare services. Herd immunity relates to the indirect benefits of vaccination in the general population for unvaccinated people.

4) Page 4 “In two recent repeated cross-sectional studies [14] conducted in public hospitals in Hong Kong, we showed…” The authors could advantageously provide actual estimates and CI95% of the willingness of hospital nurses to accept either H5N1 prepandemic vaccines or H1N1 pandemic vaccines.

5) Page 8: An additional Table providing all main reasons for refusal of pandemic vaccination would be useful.

6) Overall comment on Discussion: given the timing of submission/publication as compared to the survey period (June 2009), the authors could avoid arguments such as “there is still a considerable proportion of nurses who are unwilling to take pandemic vaccination”. It would be of interest to provide official figures on the actual proportion of HCWs vaccinated in Hong Kong if available.

7) Page 11, first paragraph about seasonal vaccination in the general population: I suggest deleting the paragraph given the scope of the study to insist instead on the fact that a previous seasonal vaccination was the key driver of A(H1N1) pandemic vaccination among HCWs.

8) Page 12, “response rate higher than similar reports conducted on seasonal influenza vaccination”: please specify.

9) Table 1: add a column with the total per category and distribution.

Discretionary Revisions:
1) Page 3, Ref [4 to 7]: ref 4 and 7 would be sufficient.
2) Page 4: “Community Nursing Service”: please add CNS at first occurrence.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

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