Reviewer's report

Title: Preparedness of Hospitals in the Republic of Ireland for an Influenza Pandemic, an Infection Control Perspective: a cross sectional study

Version: 2 Date: 5 December 2014

Reviewer: Dawn Jenkin

Reviewer's report:

Major Compulsory Revisions
None

Minor Essential Revisions
1. The authors need to address questions around the questionnaire construction in order to improve the quality and relevance of the article. It is acceptable to have designed a questionnaire based on best available evidence, in an area of research that lacks useful validated existing tools. However it is not acceptable to give no clear explanation of how the questionnaire was developed and validated.

2. Some of the results are only referenced for the first time in the discussion. In particular the statistical significance of the findings should be given in the results section and interpreted in the discussion. Details of the significance tests used should be given.

3. The use of numbers (n = etc.) in addition to percentages within the narrative text of the article would be appropriate for clarity.

4. Given that the authors have stated that “the key failure in pandemic planning is the lack of standards or guidelines regarding what it means to be ‘prepared’” it would be important and relevant to provide a summary of any existing standards or guidelines, particularly given their recommendation that a standardised internationally recognised tool be used for testing hospital preparedness.

5. Give an explanation of any possible impact of non-responders on overall study results and clearly identify how the 56 hospitals were chosen to participate, and whether they constitute a complete sample of all Irish hospitals (excluding nursing homes and psychiatric hospitals as stated).

Discretionary Revisions
1. Line 85 “International studies reported similar findings…” – similar to what? Each other, or to the current study findings? If the latter, then this statement does not belong in the background section. The intended meaning of this sentence is not clear.

2. It would be useful to understand whether detailed comments were submitted by respondents to the questionnaire, and if/how these were analysed?
3. Referring to the results presented in the table for brevity would allow the authors to focus on what they perceive to be key findings within the text of the article, rather than a narrative restatement of what is easily understood from looking at the table.

Review Comments

1. Is the question posed by the authors well defined?
2. Are the methods appropriate and well described?
3. Are the data sound?
4. Does the manuscript adhere to the relevant standards for reporting and data deposition?
5. Are the discussion and conclusions well balanced and adequately supported by the data?
6. Are limitations of the work clearly stated?
7. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished?
8. Do the title and abstract accurately convey what has been found?
9. Is the writing acceptable?

1. The question posed by the authors is clear, well defined and addressing an important public health issue. The study asks whether hospitals in the Republic of Ireland can be considered to be prepared for an influenza pandemic, using the criteria laid out in a self-administered survey questionnaire.

2. The methods used are relatively well described, and cross-sectional survey is an appropriate design to address the study question, because the aim is to achieve a snapshot understanding of the prevalence of certain activities which are indicative of good pandemic preparedness. The rationale behind the focus areas for the questionnaire, the question wording and construction are not given. Neither is any approach to piloting or validating the questionnaire described. This has a significant negative impact on the perceived validity of the questionnaire tool used. The authors state under limitations that a “standardised” questionnaire was not used. This implies to me that the tool varied within the study between hospitals, which would have negative implications for reliability. If the same standard tool was used across all participating hospitals, then the word “standardised” should be removed from the description “standardised validated questionnaire was not used…” The authors need to address questions around the questionnaire construction in order to improve the quality and relevance of the article. It is acceptable to have designed a questionnaire based on best available evidence, in an area of research that lacks useful validated existing tools. However it is not acceptable to give no clear explanation of how the questionnaire was developed and validated.

3. The data appear sound. However, the authors note that their questionnaire provided room for respondents to comment. It would be useful to understand
whether detailed comments were submitted, and how these were analysed? A qualitative analytic approach would be appropriate, and the gap in reporting here leaves the reader wondering why there is no further mention of this potentially rich source for further interpretation.

4. The manuscript primarily provides percentages of hospitals reporting completion of key activities related to pandemic influenza preparedness. These are reported without reference to sample size in the text of the article. This has the potential to mislead the reader. For example “Thirty five percent of hospitals have participated in an emergency plan or infectious disease exercise in the past twelve months” (lines 145 – 146), is followed by “Forty percent of hospitals compiled lessons learned from emergency exercises carried out.” (lines 147 – 148) It is unclear whether this means 40% of the preceding 35% quoted, or whether the 2 questions are separate and unrelated. The use of numbers (n = etc.) would be appropriate for clarity. Also, referring to the results presented in the table for brevity would allow the authors to focus on what they perceive to be key findings within the text of the article, rather than a narrative restatement of what is easily understood from looking at the table. This would free up valuable word count to better address the discussion and limitations sections. Some of the results are only referenced for the first time in the discussion. In particular the statistical significance of the findings should be given in the results section and interpreted in the discussion. Details of the significance tests used should be given.

5. The discussion focusses too much on restating some of the findings from the results, without offering interpretation of the underlying reasons, importance and significance of the findings. Useful comparisons are made between existing research carried out in other countries and the current study findings. However the authors do not justify why it is appropriate to make these comparisons – was the data gathered in a similar manner, where the questions used sufficiently similar? Are the healthcare infrastructures of the various countries sufficiently similar that comparisons are valid? Given that the authors have stated that “the key failure in pandemic planning is the lack of standards or guidelines regarding what it means to be ‘prepared’” it would be important and relevant to provide a summary of any existing standards or guidelines, particularly given their recommendation that a standardised internationally recognised tool be used for testing hospital preparedness. The paper would also benefit from further interpretation of the findings – particularly around the significance and impact, for example which of the parameters examined give the most cause for concern and why? (based on evidence of effectiveness in emergency preparedness).

6. Limitations were not considered/described in sufficient detail. There was no explanation given regarding non-responders (10 out of the 56 invited to participate) and the impact of non-response on the study results. It is not clear from the study whether the population invited to participate included all hospitals in Ireland or a sample of hospitals, in which case on what basis was the sample chosen?

7. The authors clearly acknowledge the work upon which they are building. However the basis for their construction of the questionnaire used is not clear.
8. The title and abstract accurately convey what has been found.
9. The writing is of a good standard.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

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

**Declaration of competing interests:**

I declare that I have no competing interests