Reviewer's report

**Title:** Lessons from a one-year Hospital-based Surveillance of Acute Respiratory Infections in Berlin - comparing case definitions to monitor influenza

**Version:** 2  **Date:** 24 February 2012

**Reviewer:** James Fielding

**Reviewer's report:**

The authors have presented a revised version of the manuscript "Lessons from a one-year hospital-based surveillance of acute respiratory infection in Berlin – Comparing case definitions to monitor influenza" and a response to the reviewers’ comments. I am satisfied with the authors’ responses to my comments and I think the revised manuscript is a vast improvement on the original version and I commend the authors on a well-presented paper. It is much clearer and focussed. I only have several further minor comments on the amended manuscript as described below:

Minor essential revisions

1. Suggest the first sentence of the introduction be amended to reflect the formal WHO nomenclature for the 2009 pandemic strain as "influenza A(H1N1)pdm09".

2. I think the aims/objectives described in the last paragraph of the introduction could be modified slightly; perhaps by saying the study monitored/assessed the epidemiology (rather than just "number") of RI cases over time.

3. The second sentence of the 'Case definitions' subsection of the Methods isn't quite clear because while describing CD1 it refers to another "CD". It sounds like another CD but I think the authors are still talking about CD1 and the inclusion of a general 'clinical suspicion' criterion.

4. In the third paragraph of the Results section it is unclear about what variables comprise the dose-response relationship.

5. In the new text in the fourth paragraph of the Results section, the authors report that patient outcome data was missing for 23% of all included cases. Could the authors indicate (with p value) whether there were any statistically significant differences in the proportion of missing outcome data by case definition, influenza status, or whether they were in internal medicine or ICU?

6. In the new second paragraph of the Discussion section, the authors should specify what exactly it is that they suggest the spectrum of pathogens circulating during winter causes a higher proportion of severe cases. I.e. a higher proportion of RI internal medicine/ICU admissions?

7. In the new fourth paragraph of the discussion the authors have inserted new text stating that "The optimal case definition to monitor severe (hospitalized) influenza cases has been subject to repeated discussions…" Do the authors mean a syndromic case definition for influenza-like illness or S(ARI) rather than
influenza as is suggested here? The case definition for influenza (by laboratory confirmation methods) is well established.

Discretionary revisions

1. In the first sentence of the new second paragraph (I think – hard to tell in track changes) of the Methods section change "asked" to "sought" i.e. "Informed consent for nasopharyngeal swabbing was sought from all RI patients…"

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.