Reviewer's report

Title: Clinical Outcomes of Seasonal Influenza and Pandemic Influenza A (H1N1) in Pediatric Inpatients

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Reviewer: Robert Booy

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BMC

Dear Editor

Thank you for asking me to review the paper by Tamma et al. This is a generally well written paper with an interesting premise. It falls down because of an unnecessary number of glaring errors in language and grammar.

The authors claim to have a large cohort whereas I think it would be better to be simply factual about the numbers.

The paper is not paginated.

The word fuelled is misspelt.

The abstract is unclear, particularly the first line of the results that suggests pandemic flu cases were admitted before 2009.

In the background section line 4 we are told that “concerns fuel mathematical models”. Can this be better expressed?

On line 6 there is a sentence that is badly constructed: tautologous and clumsy.

Paragraph 2 has a sentence beginning on line 4 “it is unclear” I found that sentence unclear.

In the second last paragraph of the discussion there is a sentence with missing words.

Now to issues with the research: many factors were controlled for in comparing the length of stay for pandemic flu versus seasonal flu. I am unclear why the presence of an infiltrate on CXR was adjusted for given that this is on the causal pathway of influenza (pneumonitis or pneumonia) disease and remembering that the pandemic virus has been shown to be more likely to cause pneumonitis and chest infiltrates.

A key point to know is how much disease was nosocomial. Such cases can dramatically lengthen LOS.

Many more pandemic flu cases were given antibiotics but you only adjusted for receipt of antibiotics for more than 2 days. What happens if you adjust for a shorter period?
The conclusion refers to strong media messages regarding vaccination. However, almost the entire cohort was admitted before vaccine was available. I suggest this be better nuanced.

The findings are stark and interesting. Might the fact that pandemic flu cases occurred in non-winter months have influenced the LOS? Might there have been more precautionary admissions of mild cases because of the media hype? Can the authors suggest why so many more cases with neuromuscular disease got seasonal flu and also the difference in seizure incidence?

This paper needs revision before it can be accepted for publication.

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

**Quality of written English:** Not suitable for publication unless extensively edited

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

'I declare that I have no competing interests'