Reviewer's report

**Title:** Predictors of pneumococcal vaccination among older adults with pneumonia: findings from the Community Acquired Pneumonia Impact Study

**Version:** 1  **Date:** 21 April 2010

**Reviewer:** Kerry'Ann O'Grady

**Reviewer's report:**

This is a largely descriptive study that aimed to identify predictors of pneumococcal vaccination amongst older adults with clinically diagnosed CAP. It appears to be a sub-analysis of data collected from a larger study. Improving uptake of vaccine amongst older adults is an important public health goal. This paper may be useful to policy makers in the area of Canada from which the study population was derived. There are some limitations to the study that would preclude broad generalisations of the study findings to other populations. It is a very small sample size from which multiple analyses were performed. You are going to get “statistically significant results” by chance alone with these types of analyses, although the authors state they did consider whether something was theoretically plausible for it to be included in the model.

The conclusions are also somewhat limited with respect to generalisability in that the data only reflect individuals with CAP, not the broader community. Predictors of vaccination amongst the elderly without “clinically diagnosed CAP” may be very different. Furthermore, there was no attempt to standardise the diagnosis of CAP in people included in the study, this can vary widely (more specific comments are below). The authors need to expand on the limitations section of the study as I do not think it sufficiently addresses the issues.

My specific comments lead to a conclusion that this paper can be accepted for publication in this journal under the category of Minor Essential Revisions.

1. Background, second paragraph, line 1. *S. pneumoniae* needs to be written in italics
2. Background, 3rd paragraph: you need to specify whether the vaccine is publicly funded in Canada as this has a major impact on uptake
3. Results: Paragraph 1. The authors must provide data on the number of people approached to enter the study, the number and % of those who consented and the number who completed the interview. This is essential as it enables a better picture of the representativeness of the study and whether some selection biases were operating. Some basic data comparing those who did and did not consent would be good. Further more, you need to present data on how many of these people had pneumonia confirmed by xray (albeit the known the limitations with this).
4. Results, Paragraph 2. As mentioned previously this is an enormous amount of
variables to add to a model with a very small sample size. You are going to need to expand on this in the discussion with respect to limitations.

5. Results, the tables: they are very cumbersome to wade through in the current format (ie with the double line spacing). This needs to be addressed in the proofs.

6. Discussion. As above, my major concern is the issue generalisability and the potential for this to be viewed as “data mining” exercise. The limitations of the study need to be more appropriately addressed, ie in the context of what they mean for the study findings.

**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