Reviewer's report

Title: Impact of Routine PCV7 (Prevenar) Vaccination of Infants on the Clinical and Economic Burden of Pneumococcal Disease in Malaysia

Version: 2 Date: 25 May 2011

Reviewer: Paolo Castiglia

Reviewer's report:

The question posed by the authors is well defined, the methods are appropriate and the data are sound.
The manuscript adheres to the relevant standards for reporting and data deposition.
The discussion and conclusions are quite balanced and adequately supported by the data.
Some limitations of the work need to be better stated. In particular assumption on the 3 doses schedule (see below).
The authors should update work upon which they are building, both published and unpublished (see below)
Title and abstract accurately convey what has been found.
The writing is acceptable.
It is an article of importance in its field, that does not need to be seen by a statistician, but the following points should be addressed, including a language revision:

Minor Essential Revisions

Background
1) The reference of the first line as well as the following ones (particularly 1 to 4) should be updated;
2) The second and the third line should be supported by adequate references; furthermore, the third line should be re-worded because it seems that a verb is missing;
3) If it is feasible, Malaysian epidemiological data should be updated;
4) It would be better to identify a sentence linking the first section with that describing the vaccine;
5) The acronym IPD as well as OM should be cited in the first part of the Background section when "Invasive
Pneumococcal Diseases" and "Otitis Media" were quoted for the first time;
6) Reference for Prevenar should be included;
7) The description of the herd protection phenomenon should be supported by sound references;
8) "Several other studies...": brief description of their main findings should be done;

Methods
9) Definition of IPD is not adequate: it would be better to underline "pneumococcal bacteraemic pneumonia" than "pneumococcal pneumonia". Do they mean "pneumococcal bacteraemic pneumonia"?
10) The numbers of ECs' approvals should be included in the text;
11) The assumptions should be referenced (for instance, the provision of treatment for 50% of cases);
12) What do they mean with "medication" in the second paragraph of “Cost estimation”?
13) More details on the CCM software should be given;
14) Cost of pre-admission and post-discharge management were described in table 3 and not 1;
15) In the second line of the Cost-effectiveness Analysis paragraph the verb "are" should be deleted;

Results
16) Prevented hospitalizations should be better detailed (only 3 items in the text);
17) Outcomes, first paragraph: 2,037 cases of IPD + 2,289 cases of all-cause pneumonia and 149 cases of severe otitis media is 4,475 paediatric hospitalizations and not 4,474 as reported both in the text and in tab 5.
18) A 3-dose schedule scenario has been evaluated in the sensitivity analysis: did the authors evaluate the consequences of such a scenario as regards an immunization before or soon after the year of life? If yes, it should be explained both in the methods and in the results paragraphs. If not, i.e. they have simply changed the cost to a 3 doses regimen, it should be clearly specified.
19) Table 7 could be summarized in the text;

Level of interest: An article of importance in its field
**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

The reviewer declares the following potential conflict of interest: was sponsored to attend conferences and has received speaking honoraria and as consultant by GlaxoSmithKline, Sanofi-Pasteur, Pfizer and Novartis within the past 5 years.