Reviewer's report

Title: Diagnostic and prognostic accuracy of clinical and laboratory parameters in community-acquired pneumonia

Version: 1 Date: 9 October 2006

Reviewer: Vicente Ausina

Reviewer's report:

General

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

The study is very interesting and very well written, but some limitations affect the selection criteria and methods, although the authors already address them in the discussion. There is a selection bias introduced by the fact of including patients from previous studies. To establish the patient's outcome as endpoint can improve the results, but it is still not a gold standard.

About the etiological diagnosis, a description of the microbiological methods used (for example for the diagnosis of Mycoplasma infection) is missing. Importance is given to the culture of respiratory secretions when it has limitations regarding the possibility of colonization, specially when including patients with COPD or with previous antibiotic treatment.

It has been largely demonstrated that the use of biomarkers may complement and improve clinical and radiological assessment, and the results of this study confirm it. However, the fact of including patients with acute bronchitis or exacerbations of asthma and COPD, and excluding hospital acquired pneumonia or severely immunocompromised patients introduces also some bias to the favour of PCT. Measurement of biomarkers is still rather expensive, and has to be performed in the situations of difficult diagnosis, not in those that are already clinically evident.

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

In table 2 there are some typing errors in the names of microorganisms. "menigitidis" instead of "meningitidis", "pneumophilia" instead of "pneumophila"

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Discretionary Revisions (which the author can choose to ignore)

Which journal?: Appropriate or potentially appropriate for BMC Medicine: an article of importance in its field

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:

I declare that I have no competing interest