Reviewer's report

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

Version: 1 Date: 27 November 2006

Reviewer: Mats Kalin

Reviewer's report:

General
The idea to use PCT and CRP and other parameters of inflammation to improve the precision of clinical assessment is appealing. For determining which patients need antibiotic therapy CURB 65 may also merit consideration.

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

P 3, line 18, Fig 3 and corresponding parts of the Results section. Concerning the aims of the study the material may be less optimized to answer the authors first question, to reflect the situation in primary care, since in that setting the bulk of patients will have viral respiratory infections with different presentations and pneumonia will account for only a small proportion. In the present study 72.7% had a pulmonary infiltrate by CXR. With a totally different prevalence of pneumonia than seen in primary care, sensitivity and specificity as well as ROC curves of different parameters will be different. In fact the patients included in this study did present to an ER (p 4), so this is the setting best reflected by the presented material.

Pp 5 and 10. The relevance of the results obtained in the study described in reference 22 to the methodology described on the bottom of page 5 and the results on page 10, line 4 is not 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)

P 5 and Table 2. An etiology was determined in only 26.3% of the cases of CAP. It is an unusually low figure, which may deserve a comment. Established methods as PCR for M.pneumoniae and C.pneumoniae and urinary antigen test for S.pneumoniae were not used. Also 20.2% of the patients were pretreated with antibiotics – a normal percentage. These facts concerning this study may have an impact on the usefulness of the definition of bacterial pneumonia accounted for at the bottom of p 5.

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Discretionary Revisions (which the author can choose to ignore)

Which journal?: Not appropriate for BMC Medicine: an article whose findings are important to those with closely related interests and more suited to BMC Infectious Diseases

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: Yes

Declaration of competing interests:
I declare that I have no competing interests.