Reviewer's report

Title: A comparison of microbiology and demographics among patients with healthcare-associated, hospital-acquired, and ventilator-associated pneumonia: a retrospective analysis of 1184 patients from a large, international study

Version: 2 Date: 12 August 2013

Reviewer: eva polverino

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Second Review to original manuscript titled
“A comparison of micro and demographics of HCAP VAP and HAP: a retrospective study....
Quartin et al.

As I previously suggested in my first review (“BACKGROUND When the authors say that references 12-15 describe lower frequencies of MDR infections they are possibly underestimating the differences with USA and Asia studies since in many European studies the microbiological pattern is simply CAP-like.”) I think that references 12-15 do not only report “lower MDR pathogens” but report that HCAP in Europe show a microbial etiology very similar to CAP, a quite different concept. I would appreciate to see it reflected in the manuscript despite its conclusions in order to give a fair scientific overview of the issue.

The fact that a deeper description of HCAP subgroups (% of different HCAP categories) cannot be given is an important limitation that should be addressed and discussed since I can imagine for instance patients with recent hospitalization to be potentially different from those of a nursing home.

Finally I would suggest reconsidering the conclusions (the most frequently read part of the paper) about antibiotic recommendations by clarifying that your data suggest that “in USA” HCAP should be covered as HAP. Please consider the importance of this clarification since the application of your final suggestions in Europe by inexperienced doctors would lead to a usefulness and possibly dangerous overuse of broad spectrum antibiotics.

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.