Reviewer's report

Title: Risk factors for multidrug resistance not included in the definition of healthcare-associated infection and their impact on antibiotic therapy and hospital outcome

Version: 1 Date: 11 September 2012

Reviewer: Anna Levin

Reviewer's report:

Major revisions:

This is a potentially interesting study on factors associated with community-acquired infections caused by resistant organisms.

The main problem is that the English needs an extensive review. I feel that even the title is difficult to understand.

There are other points that require clarification:

1- The introduction should be reviewed as I considered it a bit confusing.

2- Probably the objective -to evaluate the implications of the community-acquired resistant infections- should not be stated as an objective in itself. To evaluate whether resistance is a prognostic factor would require an extensive analysis taking into account factors such as age, delay in starting adequate therapy, severity of clinical condition, etc, and would thus require a multivariate analysis. As this is not the main objective of this study, I suggest it be left out of the stated Objective. The last paragraph of the Results is interesting and should be maintained.

3- The definition of MDR is a bit confusing. If the bacterium is resistant to one of the classes of drugs, can it be considered multi-resistant? For example, if Acinetobacter was resistant only to ciprofloxacin was it considered MDR or if a gram-negative rod was resistant only to amoxicillin-clavulate was it considered to be MDR? Please clarify the definition.

4- On page 8 the authors defined "immunossupression" on line 2, and then changed the definition on line 15. I did not understand. The same occurred for cancer. Maybe this could be simplified.

5- In the section "Statistical analysis", the authors listed statistical tests used but in no part of the manuscript did they describe how the study was performed. There should be a section in which the outcome studied should be stated and in which there is a description of what groups were compared.

6- In Table 2, it is not clear what groups were compared. It seems that only community-acquired infections were included but this was not stated in
Methods. In Methods the analyses should be described.

7- In Table 1, the 5th variable in column 1 is "Infection". To present an infection seemed to be an inclusion criterium, thus should have been present in all patients. Please clarify.

Minor revisions:
Many grammatical errors should be corrected with an extensive review of the manuscript by a native English speaker.

**Level of interest:** An article of importance in its field

**Quality of written English:** Not suitable for publication unless extensively edited

**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.