Reviewer's report

Title: Risk factors for multi-drug resistant Acinetobacter baumannii bacteremia in patients with colonization in the intensive care unit

Version: 2 Date: 20 June 2010

Reviewer: Saad Nseir

Reviewer's report:

The authors provided a revised version of their manuscript. I still have several major concerns regarding this manuscript.

1. In the revised manuscript, authors stated that the study was performed during an outbreak period. Although this might explain the very high rate of AB bacteremia, this statement is confusing and merits further comment. I am not sure that risk factors for AB bacteremia during an outbreak period could be generalized to ICUs without outbreak related to this bacterium. Further, how comes that this outbreak was present during a 2-year period? What was the source, and what were the actions taken to try to stop it? Moreover, authors should clearly state in the abstract that the study was performed during an outbreak of AB.

2. It remains unclear, at least to me, how patients were included. What were inclusion criteria, and when screening for AB was performed to detect ICU-acquired AB colonization? Authors stated that screening for AB was performed on ICU admission, that no screening was performed during ICU stay, and that microbiologic examination was performed when infection was suspected. Therefore, how colonization related to AB was identified? According to methods described by the authors only infection related to AB could have been diagnosed. Inclusion criteria should be clarified, and a figure with study profile should be provided.

3. Authors should add a comment on how invasive procedures could simply reflect a higher severity, and may not be a risk factor per-se.

4. Authors stated that trans-tracheal aspirate was performed at ICU admission and during ICU stay to diagnose infection. Trans-tracheal aspirate is an invasive procedure and is not currently recommended. Do they mean endotracheal aspirate?

5. Definition of colonization should be given.

6. Statistical methods: authors should state that distribution of continuous variables was tested, and that normally and non-normally distributed variables are presented as mean ± Sd, and median (interquartile range), respectively.

7. Page 14, line 15: the paragraph on tracheostomy is out of the scope of the
article and should be deleted.

8. Table 1: OR for APACHE II: per point?, OR for duration of MV: per day?

9. Table 5: percentage of patients with antimicrobial treatment should be provided in the two groups.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I declare that I have no competing interests