Reviewer's report

Title: Serum procalcitonin for the early recognition of nosocomial sepsis in the critically ill patients: a preliminary report

Version: 3 Date: 15 March 2009

Reviewer: Corsino Rey

Reviewer's report:

In my opinion the article was improved in the new version but some points are still problematic, specially the patients inclusion criteria and the lack of a clear differentiation between VAP and sepsis.

MAJOR COMPULSORY REVISIONS

1) Sepsis criteria should be included and explained in the section of definitions in the same way that VAP and bacteremia criteria were explained.

2) Response of the authors: “5. We do not think that sepsis and VAP should be considered as different disease”. In my opinion sepsis is a disease with well defined criteria (SCCM criteria, reference 12) and VAP is a different disease with well defined criteria (reference 13).

3) Section of Results (Patients). I have still doubts about the relationship between proven nosocomial sepsis and VAP. I suppose that all the septic patients reached SCCM conference criteria for sepsis, but reading the text the impression is that patients that met inclusion criteria for VAP were included in the septic group, and patients that did not meet inclusion criteria for VAP were included in the unproven nosocomial septic group, independently if they met SCCM criteria for sepsis.

4) Figure 2. PCT levels decrease from D-1 to D0 in the group without nosocomial sepsis. Is statistically significant this decrease? Which could be the reason of this decrease?

MINOR ESSENTIAL REVISIONS


…as detailed “above” … should read …as detailed below
(see definition “above”) … should read (see definition below).

DISCRETIONARY REVISIONS

1. The objective of the study is not clear in the abstract section. PCT is not a marker of bacterial nosocomial sepsis “risk”. PCT permits an early diagnosis of sepsis. The patients with sepsis “risk” that will not develop sepsis have low PCT
values. Perhaps is better to establish as objective: “To asses PCT value for the early diagnosis of sepsis in a cohort of critically ill patients with high risk of bacterial nosocomial sepsis.

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

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I had received speaker honoraria from Brahms (the manufacturer of procalcitonin assays) to attend meetings related to procalcitonin and sepsis