Reviewer's report

Title: Procalcitonin and procalcitonin kinetics for diagnosis and prognosis of intravascular catheter-related bloodstream infections in critical care: a prospective observational study

Version: 1 Date: 10 July 2012

Reviewer: Ludo Mahieu

Reviewer's report:

Major compulsory revisions:
Comment 1. In the result section of the abstract it was stated that "PCT was the best predictor of proven infection" before any result is given. This is rather a conclusion and thus a premature statement.
Comment 2. In the abstract the AUC of the ROC curve of WBC and CRP is given but these data are not given in the results section of manuscript section.
Comment 3. For future comparison it would be nice to have the AUC of the ROC curves of CRP and WBC in the result section (page 10). What is the sensitivity and specificity of CRP and WBC at optimal cut-off and please specify that cut-off as was done for PCT.
Comment 4. Please specify the microbiology of patients with uncontrolled infections. Were they having candida or S. aureus infections?

Minor Comments:
Comment 5. Page 8. Chi square should be written with a capital letter.
Please specify which test was used to compare the AUC of the ROC curves.
Comment 6. Page 13. CRBCI should be CRBSI not?
Comment 7. Page 15. Please give an example of a therapeutic alternative.
Comment 8. Table 3. Use Gram-negative organisms instead of "Bacilli" and Gram-positive pathogens instead of "Cocci". Please explain MRSA and MSSA in the footnote of the table.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

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.