Reviewer's report

Title: Failure of available scoring systems to predict ongoing infection in patients with abdominal sepsis: a prospective outcome study

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Reviewer: Carolin Kayser

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Failure of available scoring systems to predict ongoing infection in patients with abdominal sepsis after their initial emergency laparotomy:

A prospective outcome study

A prospective outcome study was presented by the authors to evaluate standard clinical scores for critically ill patients in identifying ongoing abdominal infection after initial emergency laparotomy.

Study population was the patient cohort of the RELAP-Trial. In this study, patients were randomized into two study groups: One study group consisted of patients with a planned second look laparotomy. The second group received a re-laparotomy on demand (clinical deterioration or not improved status). After a carefully conducted statistical analysis the authors came to the conclusion that currently used clinical scores failed to identify an ongoing abdominal infection and could not determine the need for re-laparotomy. When the cut-off-points of the scores were re-defined to reach proper test sensitivity, the specificity decreased remarkably.

In conclusion, the authors emphasized the need for new and improved scores in critically ill patients to determine an ongoing abdominal infection and the indication for second look laparotomy.

The presented study is characterized by a carefully planned study design and statistical analysis of the collected data. Even missed data in the rather complex scores of critically ill patients was statistically completed and reviewed. Important clinical scores in intensive care medicine were taken into consideration.

In conclusion, the presented study is of great clinical and scientific value and I support the publication without further modifications.

Level of interest: An article of outstanding merit and interest in its field

Quality of written English: Acceptable

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