Reviewer's report

Title: Cytokine responses to Staphylococcus aureus bloodstream infection differ between patient cohorts that have different clinical courses and outcomes of infection.

Version: 1 Date: 20 February 2014

Reviewer: Andreas Matussek

Reviewer's report:

This is a small study of cytokine responses in S. aureus bloodstream infection.

Major Compulsory Revisions

The definition of patients in "complicated/uncomplicated" is not valid and it selects for endocarditis in this setting etc. The conclusions can therefore not be extended to severe S. aureus septicemia.

In addition, severe sepsis is not defined accurately.

Besides in this setting patients with renal diseases constitutes a high proportion. The cytokine response of this patient group should be regarded as related to the renal disease at first. Although they might have recidivating S. aureus bacteremia.

Considering the small patient subgroups the conclusions should be drawn carefully. This reduces the impact of the study.

Furthermore, impact of resistance to different antibiotics is not evaluated with regard to treatment success. This may impaire the response to treatment and it has therefore consequences for the stratification in "complicated/uncomplicated".

Minor Essential Revisions

In figure 1-3 the amount of cytokines is related to mg protein. The reason for this should be explained.

Linguistic revision of the manuscript would be valuable.

Level of interest: An article of limited interest

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 declare that I have no competing interests