Reviewer's report

Title: Characteristics of neonates with culture-proven bloodstream infection who have low levels of C-reactive protein (<10 mg/L)

Version: 3 Date: 15 June 2015

Reviewer: Evelien Verstraete

Reviewer's report:

Discretionary Revisions (which are recommendations for improvement but which the author can choose to ignore)

RESULTS
1. Table 1: add median (Q1-Q3) for birth-weight and gestational age
2. For me, data in the tables 1 and 2 are repeated too much in the text.
3. Statistics: I am interested in the association with sepsis attributable mortality for all three CRP groups and if you find an association for a particular CRP group, you do can execute a Cox regression analysis. This analysis can be stratified by birth-weight, for example for birth-weight groups 1500g or less and >1500g.

DISCUSSION
1. Line 241: extremely pre-term infants are defined as #28 weeks of gestational age; your mean is 30.2 weeks for low CRP group, so I really recommend to provide median gestational age (and median birth-weight); or change extremely into very-low gestational age.
2. The article I suggested for comparison, i.e. Modi et al. (2009), is indeed entitled ‘A Case Definition for….. ‘; I do see some elements you can use for comparison, but your focus is indeed different.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

ABSTRACT:
1. Line 47: I wanted data on the elevated CRP-levels and the p-value but I do realize that this is much info for an abstract; for me, you can drop the percentages; I don’t like the term ‘tended to have’: they have elevated CRP or not; when the elevation is not significant I propose you say ‘a non-significant elevated CRP’….
2. Line 49: more common compared to who (which group)?
3. Line 56: please rephrase ‘tended to occur’

RESULTS
1. Table 2 check: Enterococcus spp. belong to group D Streptococcus; you mean non-enterococcal group D?
DISCUSSION

1. Line 244: Although CoNs….., app ¼ of them are infected with…: grammatically ‘¼ of them’ refers to the CoNS episodes, so for me this is not clear/correct.

2. Line 247: same problem …. ‘30% of them’….

3. 267-268: if I do interpret well, you cannot conclude that there is a strong association between CRP and ‘severity of illness’ (do you mean ‘infectious complications’?) and ‘treatment outcomes’ (do you mean ‘sepsis attributable mortality’?) because you only looked at the difference between the 3 CRP groups; you can rephrase by: Although we found that significant more infectious complications and sepsis attributable mortality occur in the CRP group >100 mg/L,…..

If you want to find an association between CRP level and ‘infectious complications’ and between CRP and ‘mortality’ you have to examine (univariate analysis) the proportion of neonates with and without the characteristic; for example for the low CRP group: n (%) alive and n (%) death and calculate the p-value etc., further you can execute cox regression analysis as I already proposed.

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

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