Reviewer's report

Title: Clinical and Inflammatory Response to Bloodstream Infections in Octogenarians

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Reviewer: Irene Maeve Rea

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Clinical and Inflammatory Response to Bloodstream Infection in Octogenarians.

Green et al

This manuscript has been considerably improved along the lines suggested. However a number of significant issues remain.

In the abstract
- the no and age (SD) of both the ‘younger’ comparator and the >80 year old group needs to be included.
- Consider calling the older group the >80 year old group.
- In the conclusion of the abstract consider ‘the findings of this study indicate that patients >80 years of age are more likely to present without localising features in the face of bacteraemia, though with the same likelihood of demonstrating associated fever or inflammatory markers as the younger comparator group. This study also demonstrates the importance of the Charlston Index of Co-morbidities as predictors of mortality’.

Background
- Para 4 at ref 2 add ‘and this is more likely to be demonstrated in subjects >80 years of age’.
- Para 5 do the authors mean ‘missed diagnosis and patient harm because of lack of specific symptoms of bacteraemia. If not the point should be clarified and late or missed diagnosis included as this very often contributes to mortality.

Results
Flow diagram is now included as Figure 1 and this is a substantial improvement in understanding patient inclusion and exclusion. The patient numbers now are consistent in abstract, text and Figure 1.

Mortality
The mortality results should come at the end in the Results section and hence the associated logistic regression table should become Table 4.

Discussion
Is generally much improved in clarity.
However in Limitations please
-discuss the wide comparative ‘younger’ group 18-80 years in this section.
-Further evidence about immunoscenescence in the most elderly age group
would add some weight to the argument about using the >80year old age group
and only 1 other age comparator group.
-Replication studies using larger patient numbers should be advised.

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

**Quality of written English:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**
'I declare that I have no competing interests'