Reviewer’s report

Title: Recognition and treatment of severe sepsis in the Emergency Department: retrospective study in two French teaching hospitals

Version: 0 Date: 20 Mar 2017

Reviewer: Katia Donadello

Reviewer's report:

Dear Authors,

I read with interest the manuscript you submitted to BMC Emergency Medicine on the recognition and treatment of severe sepsis in the ED.

The background of the study, as well as the idea at the basis of it are interesting and could be without doubts useful in the clinical practice.

Nevertheless, endpoints are not clear, methodology cannot be fully parted, discussion is limited with regards to the limitations of this retrospective two-centre-study and an whole improvement in editing would be warranted.

- EDITING: Please check for adequate English expression (singular and plural forms, articles and prepositions, abbreviations, etc) throughout the whole manuscript.

- ABSTRACT: please correct the study type as this is not a survey but a retrospective study made on recorded charts. preceed every acronym with a full form. The method section is not clear and the result presentation needs editing.

- KEYWORDS: I would amend the selection made or implement it

MAIN MANUSCRIPT

- INTRODUCTION: The bibliographic support of this part is quite old and might need to be refreshed. I can understand that the study was conceived quite a long ago but it is submitted now and I would add some comments about the new definitions (SEPSIS-3) and the new guidelines (CCM and ICM 2017), at least to clearly describe and context the situation that the paper depicts. As you correctly describe the cut of your study at the end of the introduction, please change the title. Primary and secondary outcomes should be straightforward clear.
- MATERIAL AND METHODS: STROBE Statements should be either supported by references or described in a synthetic way. Please better introduce the 2 ED sites. Please declare if your Ethical Committee waived the need for informed consent or their attitude toward the use of sensitive data, as this is not an epidemiological study but a retrospective one made on patients afferring to 2 different hospitals. Inclusion and exclusion criteria are too scarse; furthermore, it is difficult for me to understand why only patients with severe sepsis were included as this was not stated previously.

How was the delay between admission and sepsis recognition identified? This part should be better explained. Furthermore was it possible to record the differences between ED admission diagnosis and ED exit diagnosis?

- STATISTICAL ANALYSIS: It is not clear to me if you choose the period of time for inclusion a priori or if you stopped after getting to the number obtained by the sample size calculation.

- RESULTS: Please insert all patient characteristics in a table in order to have a straightforward picture of the population and to slim the text. The part on outcomes is not clear to me, please rephrase to be simpler and clearer.

- DISCUSSION: Differently from the introduction this part is more updated and recent. Nevertheless I find it too scarse with regards to the importance of the reported results and I would work on it more.

Tables are clear and quite complete; I would just add more data about patient’s characteristics.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

No

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.
I am able to assess the statistics

**Quality of written English**
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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