Reviewer's report

Title: Primary amputation vs limb salvage in mangled extremity: a systematic review of the current scoring system

Version: 0 Date: 17 Aug 2015

Reviewer: Mattia Loppini

Reviewer's report:

Thank you for giving me the opportunity to review this manuscript. The authors performed an interesting study evaluating the scoring systems currently available to drive the surgeon in the management of the mangled extremity. Indeed, there is no consensus about what is the best approach between primary amputation and limb salvage in these patients. Although this manuscript could be useful for clinicians and surgeons involved in the management of mangled extremities, the manuscript should be structured as a systematic review, as required by the editorial policy of the journal. For this reason, some revisions are required before publication.

TITLE
Please clarify that the article is a systematic review evaluating the current scoring systems for the assessment of mangled extremity.

INTRODUCTION
Please clarify the goal or goals of the present systematic review.
In my opinion, it could be very useful for the reader to have a description of the features of every single score and to report the performance of every single score (sensitivity, specificity, positive and negative predictive values) to decide between primary amputation and limb salvage in patients with mangled extremity.

MATERIALS AND METHODS
Please use the PRISMA checklist as required by the editorial policy of the journal.
I would suggest to clarify the inclusion and exclusion criteria.
Please also consider to use a quality assessment score (for example Coleman score) to evaluate the quality of the included studies.

RESULTS
I would suggest to add a figure showing the search algorithm and including the data reported in lines 77-78.
Please consider to divide this section including one paragraph for every single score. In this way, you could report clearly the features of the included scores, the method to calculate the final score, and the sensitivity, specificity, positive and negative predictive values.
You could also use tables to show the scoring systems and a table to report the demographic data and results of the included studies.
Please consider a separate section for the studies including a child population. It could help the reader to compare different performance of the scores in children when compared with adults.
The paragraph reporting hospital costs is interesting. It could be used to stress the role of appropriate use of scoring systems in order to provide the best management of these patients. In this respect, I would suggest to move it in the introduction or discussion section.

**DISCUSSION**
I would suggest to reorganise this section in order to highlight advantages, disadvantages and performance of the reported scores. However, you do not report your results again. This section should discuss your results and drive the reader in the choice of the best score currently available. Moreover, it should be clear when and how to use these scores to achieve the better performance.
Please mention points of strength and weakness of your study.

**CONCLUSION**
It should be a concise paragraph based only on your results.

**FIGURES and TABLES**
Please refer to previous comments.

**ABSTRACT**
Please reorganised it according with the changes of the manuscript. I would suggest to report the aims and conclusions in the abstract as they are stated in the manuscript.

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

No

**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:
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Please complete a declaration of competing interests, considering the following questions:

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