Author’s response to reviews

Title: Prehospital Cricothyrotomies in a Helicopter Emergency Medical Service: Analysis of 19,382 Dispatches

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Reply to Editor and Reviewer

First of all, we would like to thank the Editor and the Reviewer very much for their time and effort put into the review and improvement of our manuscript.

Editor Comments:

Thank you very much for your submission. I agree with the reviewers that your manuscript is basically acceptable for publication with revisions. Please see the reviewer's comments for a description of the needed revisions.

REPLY: Thank you very much indeed, and certainly we will address all suggestions made by the Reviewer, marking them within the revised manuscript.

Reviewer reports:

Hendry Robert Sawe, MD (Reviewer 2): Thank you for the opportunity to review this manuscript that provides details of a rare procedure to secure airway especially in pre-hospital settings.

REPLY: Thank you very much.
Major

1. This is a retrospective analysis with only 18 patients and hence substantially limits the statistical analysis and meaningful results interpretation. I recommend the authors to consider this as point of discussion and limitation.

REPLY: Yes, we agree that the number of prehospital cricothyrotomies of 18 limits statistical analysis, e.g., limiting any statistical sub-group analysis. We intended to stress this in the original manuscript version within the ‘Limitations’ paragraph: “[...] we omit statistical comparisons of procedural times per technique.“ and further “[...] due to the small sample size, a formal comparison of the success rate of the techniques was not performed.”

However, since this might have been not clear enough, we stressed the statistical limitation somewhat more (see revised paragraph ‘Limitations’).

2. Table 2 is not part of the authors’ methodology, and is used in discussion, which might be confusing to most readers

REPLY: Yes, we agree that ‘Table 2’ was not derived from our ‘Methods’. It was our intention to present current literature on prehospital cricothyrotomies in this table form for enhanced overview and comparability in the ‘Discussion’. However, since this might be confusing, we delete ‘Table 2’ in the revised manuscript.

Minor

1. Could authors provide details of providers involved in performing the CT procedure

REPLY: Yes, we added details of the providers performing the prehospital CT procedure into the revised manuscript’s ‘Method’ section.

2. Table 1 needs to be redesigned, as currently it appears mostly like list of items and this might be mis-interpreted or confusing

REPLY: Yes, we agree that given the rarity of the individual events, the original ‘Table 1’ partly appeared like a list of items. Since this might be misinterpreted or confusing, we redesigned ‘Table 1’ by regrouping and condensing some of the single items.
3. Could the author provide details of timing of evacuation from dispatch?

REPLY: Yes, we do have details of timing of evacuation from dispatch in our database. However, we did not analyze those data, because of the small case number not making them robust enough for a meaningful sub-group analysis, e.g., survivors versus non-survivors. Furthermore, a relevant number of patients was not evacuated from scene, because they were declared dead on scene.

4. The conclusion of high success rate is based on the comparison made in table 2, which is not part of methodology and also the study settings and populations in those other studies looks very different, this should appear in discussion.

REPLY: Yes, we agree that the former ‘Table 2’ does not derive from our ‘Method’ section, but rather was intended to present other group’s data on prehospital CTs in the ‘Discussion’. Clearly, other’s study settings and study populations are different, which has to be taken into account for comparisons. We tried to address this heterogeneity in the original manuscript by mentioning “[…] case reports with the inherent risk of a positive publication bias […]” or that “In addition, cases from combat settings may markedly differ from the civilian setting.”. In agreement with the Reviewer, since this ‘Table 2’ type may be confusing, we deleted ‘Table 2’ in the revised manuscript. Thus, our statement of a ‘high success rate’ refers to the fact that all-but-one of our CTs were successful, i.e., 94 %.

We hope that our response and manuscript changes in response to the Editor and Reviewer improved this manuscript to make it suitable for publication.

Sincerely,

Lothar A. Schwarte, on behalf of the Authors.