Reviewer’s report

Title: Interprofessional two-man team approach for interhospital transport of ARDS-patients under extracorporeal membrane oxygenation: A 10 years retrospective observational cohort study

Version: 0 Date: 22 Nov 2018

Reviewer: Barbara Schuba

Reviewer's report:

The paper is at best descriptive. The authors detail their single institution experience with ARDS-patient transport under extracorporeal membrane oxygenation.

The conclusion of the paper is that a interprofessional two-man team for interhospital ARDS-patient transport under extracorporeal membrane oxygenation is safely and efficient tool with good outcome.

This is an interesting paper, with a good message for the ECMO community. The experience is substantial, however there are some major deficiencies and the key message is not clearly set out. The data presented in the Abstract and the section Results are at some points confusing. Using an English native speaker, rewriting the manuscript (shorter sentences, making the message of the study more crisp) and correcting grammatical errors (such as verbs or articles missing) should help to point out the message more clearly.

Moreover, using their own statistical significances with more care, should help the authors to present their findings better. My comments follow:

1. The study was not sufficiently described. Please concretize the statistical methods being used. E.g. the authors specify using the student's t-test (in fact, no other test is mentioned). However, parametric statistics require the data to follow a normal distribution. This contradicts the results being described in median values.

   Please report percentages of discrete data and continuous data as full numbers without decimals.

2. Some sentences are very long and in a number of places it is hard to follow what the authors intended as the key message (e.g. line 193-195: there seems to be a verb missing..."after the final decision to perform an ECMO support therapy."-- better:"..therapy was made").

3. Typographic errors should be corrected (E.g. line 87;121;181(article missing)).
4. Please use units homogeneous throughout the manuscript (E.g. 173 cm ± 10 cm vs. 93.9 kg ± 34.1)

5. There are several confusing numerical values throughout the manuscript:

If 169 patients were evaluated for ECMO therapy, 4 died, how can the primary indication for ECMO treatment be 159 out of 166 patients (169-4)?

Continuing: Out of 166 patients?! 126 were cannulated at the referring site, 30 were transported to the ECMO centre and 21 subsequently cannulated. 9 patients did not receive ECMO. 166-156=10. What happened to the 10 in the calculation missing patients?


7. Line 373: "-- comparable to total mission time in our and other studies." Citation missing.

8. Conclusion, line 417-419. The authors postulate that ECMO transport by a two-men team comprising only anaesthesiological staff does not increase mortality.." however, there is no evidence in the manuscript underlying this thesis as there was no direct comparison made.

9. Line 227: "... 30 (17%) patients were transported by the ECMO team.."-Of all patients being transported, were only 30 patients transported by the ECMO team? If so, the title and key message of the manuscript does not appear to be appropriate, focusing on the described ECMO team when only a small proportion of patients were actually transported by this team.

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 recommend additional statistical review

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Please indicate the quality of language in the manuscript:

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