Reviewer's report

Title: The Clarus Video System (Trachway) and Direct Laryngoscope for Endotracheal Intubation with Cricoid Pressure in Simulated Rapid Sequence Induction Intubation: A Prospective Randomized Controlled Trial

Version: 0 Date: 24 Nov 2018

Reviewer: Martin Schlaepfer

Reviewer's report:

Summary:

The authors compare the first attempt success rate within 30 and 60 seconds, as well as the time to successful intubation of three different intubation techniques in rapid sequence induction when cricoid pressure is applied: the Clarus video stylet used as video-endoscope, used as lightwand system, and direct laryngoscopy.

They describe, that direct laryngoscopy and videolaryngoscopy are faster, than the lightwand method, but that overall success rate did not differ among the three techniques.

Strengths and limitations:

The methodology has been planned and described carefully, the main message of the manuscript is clear and structured.

The statistical approach does not allow the conclusion as it is presented in the manuscript and has to be reassessed. In addition, a short discussion on the relevance of cricoid pressure would be desirable.

Major comments:

Lines 137ff: The statistics as described do not allow the statement of the authors. If authors want to identify a difference among the three groups, a post hoc analysis with correction for multiple comparisons (e.g. Bonferroni, Holm Sidak etc.) have to be applied. The current statistical approach does only allow the statement, that the three groups are statistically different.

Lines 154ff: The results section and tables have to be corrected. If the authors assume normal distribution of their data, they need to present their data as mean plus minus standard deviation.
If non-normal distribution is assumed, they have to be presented as mean and interquartile range or mean and 95% confidence intervals.

Standard error of the mean is appropriate for estimates, but not for study results. Please revise the manuscript accordingly.

Table 2 and results section: the statistical approach, as it stands now does only allow the statement, that e.g. the first attempt within 30 seconds is different (p=0.006), but the differences between the groups have to be calculated with a p-value for each comparison (which has to be corrected and indicated accordingly, either in the table or in the result's section). Most likely, only first attempt within 30 seconds will remain significant. This needs to be addressed.

Figure 2 and statement (line 157), that videolaryngoscopy was faster, than the other two methods: also here, the log rank test has to be calculated for each comparison and multiple comparison corrections have to be applied.

Minor comments:

Line 27 ff: The reason why this manuscript should be published in BMC Anesthesiology… This entire section should be removed, as it is more a letter to the editor, than a component of the manuscript.

The value of cricoid pressure should be discussed, as the use of this technique is debatable (Cochrane Database Syst Rev. 2015 Nov 18).

The use of a videostylet, used as a lightwand system but simultaneously as a videosystem should be discussed. I don’t quite understand, why one should have a video stylet and use it as a lightwand syst
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?
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No

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