Reviewer’s report

Title: Development of an algorithm using clinical tests to avoid post-operative residual neuromuscular block

Version: 0 Date: 06 May 2017

Reviewer: Stefan Soltesz

Reviewer's report:

According to my opinion this is an interesting investigation of clinical importance. In general, the manuscript is well written.

I have the following comments:

Introduction:

The primary outcome parameter should be defined.

Methods:

Page 7, line 29: What is meant with "contralateral arm? The arm without EMG? Was EMG performed in the PACU, too? If not, why did the authors change the location of the neuromuscular measurements?

Statistics: Was a sample size calculation and a power analysis performed in advance? Again, what was the primary outcome parameter?

I do not possess adequate statistical knowledge with regard to that questions. Therefore I would recommend an additional statistical review.

Results:

The rate of patients requiring reversal of the neuromuscular block is remarkably high. However, the authors address that point in the discussion.
Figure 3: The authors present one decision tree as clinical check. However, it is not clear to me, why especially this one was chosen. Swallowing water in case of insufficient recovery from a neuromuscular block poses the patients at risk for pulmonary aspiration. Therefore, according to my opinion, the combination of 3 other tests would have been less dangerous. Please explain, why this combination was used. This item has to be addressed in the discussion, too.

Page 11, line 16: The last sentence is incomplete.

Discussion:

Page 12, line 44: What is meant with "much less"

Swallowing test: As already stated, the risk of a swallowing test with regard to pulmonary aspiration should be addressed in the discussion. The authors must explain, why they preferred this test.

Tables and figures: All abbreviations should be defined in the legend, including T1/T0, TOFR etc.

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.

Yes

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:

Acceptable

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