Author's response to reviews

Title: The intuitive use of laryngeal airway tools by first year medical students

Authors:

Johannes Bickenbach (jbickenbach@ukaachen.de)
Gereon Schaelte (gschaelte@ukaachen.de)
Stefan Beckers (sbeckers@ukaachen.de)
Michael Fries (mfries@ukaachen.de)
Matthias Derwall (mderwall@ukaachen.de)
Rolf Rossaint (rrossaint@ukaachen.de)

Version: 2 Date: 22 May 2009

Author's response to reviews:

Dear Mrs. Pafitis

Thank you very much for your letter of April 1, 2009 regarding our manuscript. The reviewers’ comments and suggestions are highly appreciated and in the revised version of the manuscript we were able to fully address their critiques. The changes made in the manuscript are highlighted in red. As follows we would like to respond to their comments point-by-point:

Reviewer 1:
- “Relevant literature available including comparisons of the two devices studied and on training requirements should be discussed” # re-reading the whole manuscript, we agree that relevant literature needed further discussion. This part has been completely revised and improved as suggested by this reviewer.
- “It remains unclear why the authors chose a tidal volume of < 150 ml” # We agree that a threshold of 400 ml as suggested by the ERC guidelines would have been more precisely. Re-looking at our data this threshold was achieved by all participants who were able to correctly place the device. However, we sought to determine dead space additionally as this would demonstrate completely inadequate ventilation.

Nevertheless, this might be a limitation of the study.
- “No information is provided on gastric leakage, which is a standard concern when testing supraglottic airway devices” # we appreciate this criticism. However, due to technical restraints of the manikin used, this could unfortunately not be tested. Only audible sounds were used to identify gastric insufflation. As this may only indirectly reflect gastric leakage, this is a further point we now discuss in the limitations part.

- References were revised according to the recommendations of this reviewer.
- The revised manuscript was diligently read by all authors.

Reviewer 2:

- One main criticism raised by the reviewer was a problem within the study protocol: “It would have been of major interest if the authors had re-evaluated the students after 6 and 12 months and even later, in order to gain experience not only about short time skills but, additionally, after which time period refreshment of training is necessary to maintain skills”.

We acknowledge this problem and indeed data on the re-evaluation after six months have been available and additionally analysed.

Our first idea was to lay the focus on the short term effects of the training programme. Re-reading the manuscript and regarding the reviewers' comments, we realize that the re-evaluation that we have carried out after 6 months should be additionally incorporated. Please find this additional data in Table 3. The results were interlaced into the manuscript and hence, a major part of the Discussion was revised.

- “Study protocol: Students did not inflate cuffs by themselves. Therefore, they were not able to confirm correct placement and sufficient ventilation/oxygenation”. We also agree here. Ex post, it would have been more interesting to let the students inflate the cuffs. This problem was pointed out in the limitation section.

- “For detection of distribution of data, the Kolmogorov-Smirnov-adjustment test should be performed previously in order to detect differences between groups”. We had indeed performed the Kolmogorov-Smirnov-adjustment test prior to executing statistical analysis but overlooked this in the Methods-part. This was revised accordingly.

- “Results: Statistical significant increase in tidal volumes after training when using the LMA Classic is not of interest”. We revised this accordingly

We believe to have found interesting results within these additional data and are grateful for the possibility to re-submit our revised manuscript to BMC Emergency Medicine.

Sincerely,

Johannes Bickenbach