Author’s response to reviews

Title: A single-centre, randomised controlled feasibility pilot trial comparing performance of direct laryngoscopy versus videolaryngoscopy for endotracheal intubation in surgical patients

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To the Editor

Re: A single-centre, randomised controlled feasibility pilot trial comparing performance of direct laryngoscopy versus videolaryngoscopy for endotracheal intubation in surgical patients

Thank you for your review of the above manuscript. We have highlighted the reviewer comments below and inserted a point by point comment of our own. Our comments are highlighted in red in our letter, please see attached documents with manuscript submission. Changes to the manuscript can be seen in as highlighted text and where content has been deleted this is marked.

Reviewer # 3 Abstract: No feasibility outcomes are listed in the method section. Also, no statistical methodology discussed in the method section. Unit of time needs to be reported. Wondering whether the conclusion be scope of larger trial or it is feasible to conduct larger trial?
Response: We have included feasibility outcomes in the methods section of abstract. Statistical methodology is not itemised on the CONSORT 2010 abstract checklist for pilot and feasibility trials- both reviewer 3 and 4 have suggested this checklist be followed. We have reported unit of time in abstract.

Main body: Background: The first line does not make sense. Also, it does not look good to start a manuscript with this type of sentence. If these studies were adequately powered to detect a meaningful difference sample size is not an issue. Why the outcomes are reported in the background section? Overall, the background section is poorly phrased.

Response: We have amended the first line and reworded the background section. CONSORT 2010 checklist point 2b asks for specific objectives or research questions for pilot trial to be detailed in the Introduction, which is why it is included here. Title of Background has been replaced for Introduction to be more in keeping with CONSORT checklist.

Methods: Nothing mentioned about ethics approval.

Response: CONSORT checklist specifies this to be mentioned in “other information” after discussion, however we have also included a statement of ethics approval in the trial design section

No success rate and results are reported for the following outcome 'clarity and usability of protocol and Case Report Form (CRF)' is mentioned.

Response: This has been removed from manuscript

Nothing mentioned how the patient demographics were reported in the statistical analysis section. There is no justification why the authors used non-parametric approach for continuous outcomes. The statistical analysis section is poorly written. It needs to say which method is used for which outcome. Nothing mentioned about effect estimate, level of significance, whether the test is one-sided or two-sided.

Response: Statistical analysis section has been reworded to include reviewer’s comments
Results tables need some revision. For example, in table 3, age is reported as '50.7(15.4)' while it written as 'Age (years; mean, SD)'. It should be reported as CONSORT extension.

Response: Results table has been amended.

In summary, this manuscript requires major revisions, especially in the areas discussed above. I suggest the authors to follow the CONSORT extension for pilot and feasibility studies and revise the manuscript accordingly.

Reviewer # 4 Abstract. The abstract might be improved. The study is label as a Feasibility RCT, however, the authors can use the CONSORT checklist for reporting RCT in journals and conference abstract or the extension for abstract related to the pilot and feasibility trials (available at the equator network website). I would suggest to the authors to use one of the two reporting checklist and include the items that are missing (For example: Funding).

Response: We have amended the abstract using the CONSORT 2010 checklist and included missing items.

Background. I would suggest to the authors to increase the description related to the Lewis reference (Cochrane Review). This information might be useful for the reader (For example: number of included studies, number of participants, effect estimates related to the study proposal). This suggestion might be overlook if the authors consider that is not necessary (this information is mentioned in the discussion), however, it might be useful also in the background.

Response: Authors feel that this is information is mentioned in the discussion and feel it is not necessary to repeat this information in the background. As suggested by reviewer, this could be overlooked.

Methods: I would suggest to the authors to use the reporting guideline published by Eldridge et al. for pilot and feasibility trials (CONSORT 2010 statement: extension to randomized pilot and feasibility trials.). - Trial design: No comments. - Participants: No comments. - Intervention: No comments. - Outcome: - The authors mentioned this information in the discussion, however, it might be useful to report some of this with more detail in the outcome section. "Although
outcome assessors were also unblinded to the technique, the primary and secondary outcomes were objective measures, limiting the relevance of blinding at this level" How many researchers were involved in the outcome assessment? Does the authors tested the agreement between the outcomes assessors? What type of objective measures does the authors are referring?

Response: We have addressed these questions from the reviewer in the text. There were 4 outcome assessors, this has been amended in the manuscript. The objective measures for outcome assessment are detailed in the outcomes section lines 149 -161 in the manuscript. As these measures are objective, they did not need to be tested between the outcome assessors.

- I would suggest to the authors to create a subheading for the outcome section. For example. Primary endpoints, Secondary endpoints and feasibility endpoints. This might facilitate the reading process. This suggestion might be overlooked by the authors’ because the information follows the propose structure.

Response: We chose to overlook this suggestion as information follows the propose structure.

- Sample size: o In the online registry the authors reported the following description related to calculate the sample size calculation: "We estimate a total of 100 patients will be adequate to test feasibility endpoints but not adequate for the primary endpoint. We estimate from previously published data that the first-pass intubation rates will be approximately 85%. We believe a clinically important absolute difference would be 5%. To find a 5% absolute difference between the performances of laryngoscopy blades we calculated that the sample size of 1480 (alpha= 0.05 and beta= 0.2) or 1940 (alpha=0.05 and beta 0.1) would be needed. Please refer to table in attachments section on page 9 to see calculations." o Please provide more information about what statistical measurement was used to calculated the confidence interval approach, Is not clear if the authors replicate the one-side 80% Confidence interval approach. What effect size was used to calculate the sample size? Does the authors used the continuous or binary outcomes recommendations?.

Response: This has been amended in the manuscript and more details have been given with regards to how the sample size was determined including effect size and used and use of binary outcomes.
Randomization: Please clarify the following. In the online register the randomization was describe as "Permuted block randomization", in the manuscript is only mentioned as blocked randomization. This had been updated in the manuscript to permuted block randomisation.

Also, please describe who performed the randomization process, the randomization was done by a third party?. Randomisation was performed by a research coordinator who disclosed group assignment to the investigator.

Response: This has been updated in the manuscript.

- Blinding: In the discussion section is mentioned that the outcome assessors were not blinded, this needs to be reported in this section "Although outcome assessors were also unblinded". Also, Does the statistician was unblinded?

Response: Details of unblinding of outcome assessors and statistician are detailed now in the blinding section.

Results: No comments.

Discussion. The discussion section reflects the requirements by the CONSORT statement (limitations, generalisability and interpretation) The following suggestions can be overlook by the authors’, these ideas came to my mind while reading the authors manuscript. - "Wide range of expertise between the centers for the future trial". Does the authors are considering to use a expertise-based randomized controlled trial design? - "There is a learning curve for both DL and VL before technical proficiency is achieved". How the authors are going to handle and identified if the recruitment centers had a proper learning curve?. How this situation will be re-evaluated? - How the authors will handle or minimize the deviation from the protocol? - Blinding issues: Does the authors are planning to blind the outcome assessor or the statistician for the future trial?

Response: Thank you for these comments and suggestions. We did not feel these comments needed to be included in the manuscript

Conclusion. No comments.