Author’s response to reviews

Title: Contemporary Portable Oxygen Concentrators and diverse breathing behaviours – A Bench Comparison

Authors:

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Author’s response to reviews:

Thank you for the invitation to resubmit manuscript “Contemporary Portable Oxygen Concentrators and diverse breathing behaviours -- A Bench Comparison” (PULM-D-19-00069) for consideration for BMC Pulmonary Medicine. Thanks also to your additional reviewer for his comments.

The reviewer concerns have been addressed; below is a point-by-point summary of my edits in response. Revisions may be viewed as tracked changes.

Jacek Nasiłowski’s revision suggestions and author response:

The main points of criticism are:

1. The background section is a little bit too wordy. Some paragraphs refers more to discussion than a background, like detailed analyzing of the study of Leblanc et al. The direct quotation of sentences should be avoided. I recommend to shorten this part and make it more concise.

Author response:

The indicated paragraph has been condensed, and the direct quote replaced with a concise summary.

2. The methods section is concise and informative, however such sentence like: "Yet very few related publications offer information on the shape of the effort, or any associated rationale." fits more to discussion then methods.

Author response:

This sentence has been removed.

3. Titles of paragraphs of the result section are a little bit misleading. E.g., the title "Inspiratory synchronization during shallow nasal breathing" indeed refers to oronasal
breathing imitating sleep with open mouth. I would suggest to change titles to make them more informative about the clinical scenario they pretend.

Author response:

This title has been revised to prevent any ambiguity.

4. In the discussion section the misleading description of oronasal breathing is repeated, and should be corrected. The first, theoretical part of discussion is too wordy. I recommend to make it more concise. The last sentences of the discussion should be rather placed in methods, where they are missing, like method of inserting nasal cannula.

Author response:

References to shallow nasal breathing have been revised to prevent any ambiguity. Figure captions and the Table have been likewise reviewed and adjusted if needed. The early discussion has been condensed where possible, while bearing in mind comments from earlier reviewers. The last paragraph has been revised, with aspects moved to Methods.

I thank you for the opportunity to further improve this manuscript.