Reviewer’s report

Title: Efficacy and Safety of Nasal High-Flow Oxygen in COPD Patients

Version: 0 Date: 22 Jun 2017

Reviewer: Marieke Duiverman

Reviewer's report:

Dear Authors,

Thanks for giving me the opportunity to review your manuscript.

I have some major problems with your paper presenting only baseline (what you call safety) data of normal oxygen therapy and high flow oxygen. It is confusing that you use data for two substudies and from the information you show it is impossible to see how you selected the patients that are included in this baseline analysis. Were that all patients included in the studies? Could there have been a selection bias.

The second main issue you have defined as one of your primary outcomes oxygen requirement to a PaO2 > 60 or an > 10 mmHg increase, but you measured arterialised capillary blood gases. It it widely known that capillary gases do not reflect arterial PAO2 adequately. So this outcomes with regard to PaO2 and oxygen needed are not reliable.

The finding that PaCO2 goes down only confirms prior results. The results on lung function are also not surprising as measurements were done after the oxygen sessions.

So, overall, the news value is very limited and I would advise the authors to include the information into the papers that hopefully will follow from the prospective studies.
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

No

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

No

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 am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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