Reviewer’s report

Title: CHRONIC AIRFLOW OBSTRUCTION IN TANZANIA - A CROSS-SECTIONAL STUDY

Version: 0 Date: 12 Nov 2017

Reviewer: Helena Backman

Reviewer’s report:

Review of the manuscript titled: "CHRONIC PULMONARY OBSTRUCTION IN TANZANIA - A CROSS-SECTIONAL STUDY" with Manuscript ID: PULM-D-17-00450.

I find this study interesting and important since data on the prevalence of chronic airway obstruction (CAO) in the African countries is scarce. It is important to recognize that the estimated prevalence is not a population prevalence since it is based on a sample of visitors and patients at a health care facility, and this is also emphasized by the authors, but the results are interesting nevertheless, especially since the population prevalence in Tanzania is unknown. However, there are several major weaknesses that I believe should be addressed before publication.

Major concerns:

* I believe an important analysis is lacking. I would have expected a logistic regression analysis of risk factors for CAO where e.g. age, sex, smoking habits were adjusted for in order to estimate the risk for CAO for subjects who used different methods for e.g. cooking.

* In my opinion, it is not unexpected that e.g. FEV1 decrease by the increase in symptom severity since both are strongly dependent on age. Thus, I think the appropriate method is to analyse FEV1 as % of predicted instead for FEV1 per se. In that way FEV1 is adjusted for age, height and sex and those factors are less likely to explain the associations.

Minor concerns:

* The terminology regarding CAO should preferably be consistent, as for now there are several different terms used, i.e. chronic pulmonary obstruction (in the title and in the methods section on page 4), chronic airflow obstruction (e.g. in the abstract and in the discussion section on page 8) and chronic airway obstruction (in the discussion section on page 7). Also, in the background section in the beginning of page 3, I would prefer that the correct name is used for COPD. As for now it is stated "chronic obstructive lung disease" before the abbreviation COPD whereas the correct name is "chronic obstructive pulmonary disease".
* Was no consideration taken to the FEV1/FVC ratio when evaluating restriction in the sample? I would have preferred that the ratio of FEV1/FVC should have been higher than the 5th percentile of predicted in combination with FVC lower than the 5th percentile of predicted, and not only FVC lower than the 5th percentile of predicted. This is more in line with previously published definitions of restrictive spirometric pattern.

* "Positive bronchodilator response according to the ATS/ERS criteria" is mentioned in the Result section but was not defined under methods.

* Decimal points are sometimes lacking for some results, e.g. in tables 2 and 3 and for the median age on page 5.

* The column headings in Table 4 are not logical as "n" for e.g. "current or former smokers" is 147 and "% of n" is 29.3. I suggest that the lower case n in the third column of Table 4 is relabelled as upper case N instead.

**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.

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?**  
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I am able to assess the statistics

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