Reviewer’s report

Title: Impact of diabetes mellitus on functional exercise capacity and pulmonary functions in patients with diabetes and healthy persons

Version: 0 Date: 26 Jul 2018

Reviewer: Reviewer 2

Reviewer's report:

PEER REVIEWER COMMENTS: To view the full report from the academic peer reviewer, please see the attached file.

REVIEWER COMMENTS FROM REPORT: I think this study has several critical issues. Most of these relate to how the study is present and the interpretation of the findings. The authors are over interpreting their findings

REQUESTED REVISIONS:

Abstract: I suggest you remove the SDs from abstract. There is a missing 'the' in the first sentence of abstract.

Introduction: the references used are old and out of date, especially references 1-3. These need replacing. The statement on line 20 requires a reference. There is no discussion or references to other studies who have completed this test on those with diabetes. The reader is not told how this study is unique or what gap it filled. This would be a useful addition. The last line of the introduction does not make sense. Did you recruit those with or without pulmonary complications? In the methods it says the opposite that no patients had pulmonary disorders. The recruitment strategy of this study is unclear. Those with dm and those without should be recruited from the same broader population or selection bias creeps in. As it stands, you have a very select group of individuals. Among those with diabetes, the level of control is poor which tells us that they are uncontrolled diabetes. If you compare these people to healthy, of course there walk test will be different. Further you have a high proportion of individuals on insulin again suggesting your population is on the severe end. This means your findings are only generalizable to this group of people with diabetes. This is not discussed as a limitation. There are not limitations discussed. I think you should have restricted the study to type 2 patients only. Mixing type 1 and type 2 just gives you results which are tricky to interpret. The word 'anamnesis' is poorly used in the methods and should be replaced or the sentence should be rewritten. What is a proprietary questionnaire? This should be explained and a reference should be given. The methods used to measure BMI etc should be described rather than saying special attention was paid to this. The reader does not know what this means. The text in the results does not mention whether any differences you observe are statistically significant. There is some discussion in the results. This should be removed (line 50 onwards). It is not clear how the diabetes complications were measured. This is not mentioned in the methods. For table 1, if you have not measured the same factors in the dm vs no dm, you should not report them. ie: glucose,
microalbuminuria. Fibrinogen is missing units. The discussion needs rewriting. For example: first paragraph of the discussion should be about your results and it is currently a statement about pulmonary disease in diabetes. Your main hypothesis is to test the walk test and this is what your discussion should be about. There are many statements in the discussion that are not really true. You have shown no evidence that bodyweight and complications explain the differences in walking time. You need to do regression to find this out. You have shown no real evidence that diabetes decrease the strength and resistance of respiratory muscles. You should not make that statement. It is speculation. On page 11, the lines 10-11 are just not really true. All your discussion restructuring and the language needs toning down

ADDITIONAL REQUESTS/SUGGESTIONS:

see above

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.

Not relevant to this manuscript

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

Needs some language corrections before being published

Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:
1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

This reviewer has been recruited by a partner organization, Research Square. Reviewers with declared or apparent competing interests are not utilized for these reviews. This reviewer has agreed to publication of their comments online under a Creative Commons Attribution License attributed to Research Square and was paid a small honorarium for completing the review within a specified timeframe. Honoraria for reviews such as this are paid regardless of the reviewer recommendation.

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal