Reviewer’s report

Title: EFFECTIVENESS OF PULMONARY REHABILITATION IN PATIENTS WITH INTERSTITIAL LUNG DISEASE OF DIFFERENT ETIOLOGY: A MULTICENTER PROSPECTIVE STUDY

Version: 0 Date: 08 Mar 2017

Reviewer: Nathan Sandbo

Reviewer’s report:

In this manuscript by Tonelli and colleagues, the authors undertook a prospective cohort study to examine the efficacy of pulmonary rehabilitation in patients with interstitial lung disease and seek to determine how specific ILD diagnoses and severity of disease is associated with response to this therapy. This was a multicenter (two centers) study, however, the cohort size was relatively small (41 patients). Most patients had IPF (63%). The authors’ primary findings were that in the majority of patients with ILD participation in pulmonary rehab was associated with a positive response in 6MW distance. Secondly, they found that a low baseline 6MW distance was associated with greater improvement in 6MWD by the end of pulmonary rehabilitation. The authors did not identify any association of greater or lesser treatment response with specific ILD entities.

Overall, the authors rightly identified some of the questions that remain in the field vis-à-vis patient selection for participation in pulmonary rehabilitation; namely does illness severity or specific ILD diagnosis impact response to this therapy. However, it appears that their study was underpowered to answer these questions. It is unclear if the authors performed power calculations to try to estimate how many patients need to be included to see a difference in the stated endpoints.

More importantly, the authors have rightly cited several studies in their introduction that establish the efficacy of PR in IPF and a mixed population of ILDs. Additionally, Collard et al showed that low 6MW distances were associated with larger improvements on 6MW test. Thus, this study largely confirms the findings of previous studies, which of course, does have value. However, there is no additional conclusions provided from this study design that moves the field forward.

In summary, it does not appear that the study was sufficiently powered to meet its objectives, nor are there sufficiently new and impactful conclusions from this study to justify its publication in BMC Pulmonary Medicine at this time.

Minor Comments:

1. On page 3, line 6 - awkward sentence structure, please rephrase.
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

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.

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 recommend additional statistical review

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

Needs some language corrections before being published

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