Reviewer's report

Title: Efficacy of a Physical Exercise Training Programme COPD in primary care: study protocol of a randomised controlled trial

Version: 2 Date: 19 May 2014

Reviewer: miguel roman

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This is a well designed randomized controlled trial situated in the primary care setting to evaluate the efficacy of a physical exercise training programme at a local physiotherapy practice in patients with mild to moderate COPD on exercise capacity, physical activity, dyspnoea and quality of life. The intervention group receives a well designed 4-month physical exercise training programme according to Dutch guidelines and primary outcome is functional exercise capacity at 4-months measured on the six-minute walk distance. Thought I'm not an statistics expert it seems that a review has been made on that issue and the data-analysis plan seems to be robust.

The study faces an important issue for COPD management in primary care and it's original research.

We have some suggestions that could improve the publication

Major Compulsory Revisions

INCLUSION CRITERIA:

Page 4: Inclusion criteria are not well explained and this is one of the main problems of the design. They will recruit COPD patients visiting their general practitioner because of dyspnoea, impaired exercise capacity and a low level of self-reported physical activity. They should explain which level of dyspnea or impaired exercise capacity or physical activity is needed to be eligible for the study. Otherwise the inclusion criteria will be widely open and hardly reproducible and as commented in the discussion will bias the sample because they will very much depend on the doctor and nurses aims and encouragement to include patients. An strategy (well defined inclusion criteria) should have been built on to minimize this possible bias

Page 4. The population in Limburg is the least physically active population of the Netherlands. This could lead to a lack of external validity and should be comment on the discussion.

Page 4 The inclusion criteria includes an adequate and optimal inhalation technique but there's no mention on how it will be measured Which is the added value of this criteria for the study to be an inclusion criteria?

DURATION OF INTERVENTION.

Page 11: Most rehabilitation programs are conducted over 12 weeks. It is not
well explained why in this study the duration of the intervention will be 4 months. We need some arguments to the duration of the intervention

Minor Essential Revisions:

On the BACKGROUND we miss two important references about rehabilitation in primary care very recently published:

Kruis AL, Smidt N, Assendelft WJJ, Gussekloo J, Boland MRS, Rutten-van Mölken M, Chavannes NH. Integrated disease management interventions for patients with chronic obstructive pulmonary disease. Cochrane Database of Systematic Reviews 2013, Issue 10. Art. No.: CD009437. Metaanalysis showing that integrated disease management interventions not only improved disease-specific QoL and exercise capacity, but also reduced hospital admissions and hospital days per person.

Román et al. Efficacy of pulmonary rehabilitation in patients with moderate chronic obstructive pulmonary disease: a randomized controlled trial BMC Family Practice 2013, 14:21. A randomized control trial about rehabilitation totally conducted in a primary care setting

On page 7 authors say "Although in some regions in the Netherlands these disease management programmes COPD are already implemented and serve as current daily care, no evidence on the effectiveness of these programmes is available" The authors are not making a cost-effectiveness analysis so this sentence is out of place here

Page 13: "The six-minute walk test (6MWT) will be performed in accordance with the ATS Statement: guidelines for the 6MWT [43], except that a standard 30-meter corridor will not always be feasible in a primary care physiotherapy practice, but the minimal track will be 10 meter" This could lead to wrong results and should be mentioned in the limitations


Page 17: "As a consequence, general practitioners or practice nurses will have a lack of information on this topic and will not consider a follow-up strategy, including referral to a physical exercise training programme". This is an assumption that should be deleted

Level of interest: An article of outstanding merit and interest in its field

Quality of written English: Acceptable
**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

I declare that I have no competing interests