Reviewer’s report

Title: Do supervised weekly exercise programs maintain functional exercise capacity & quality of life, twelve months after pulmonary rehabilitation in COPD?

Version: 1 Date: 26 March 2007

Reviewer: Michael D Morgan

Reviewer’s report:

General
This paper describes a protocol for examination of the benefits of formal post-rehabilitation maintenance. This is an important area which remains ill-defined. In this case the study proposes a randomised controlled trial between once weekly supervised exercise programme (combined with a home programme) and unsupervised home programme only. The study is to last for 12 months and the main outcomes include functional performance (walking test) and health status. The aims and the methodology of the proposal are fairly conventional. One interesting novel feature is the measurement of three types of exercise assessment. The comparison will be interesting. There are a few comments that are worth consideration:

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

1. I note that the study is not blinded. Obviously this may be difficult but it ought to be possible to blind the assessor.

2. The control group is not strictly non-intervention. The patients will be given home exercise programme exercises and telephone support. This may lessen the sensitivity of the study.

3. I think there are some weaknesses around the sample size calculation and expectations of the study. The power calculation is based upon the expectation that a difference of 54 metres will arise between the two groups and this is extremely unlikely since the natural post-rehabilitation fall in 6 minute walk distance is about 54 metres over 5 years (see recent paper from Bart Celli’s group). If the study were powered for equivalence a much larger sample size would be required. Also the 10% loss rate is probably to optimistic. I would anticipate a greater drop-out rate. The authors do not mention whether this is an intention to treat analysis but I imagine that this will be only be performed on the survivors though the former may be more interesting.

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

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Discretionary Revisions (which the author can choose to ignore)

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What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article whose findings are important to those with closely related research interests

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'