Reviewer's report

Title: Early telemedicine training and counselling after hospitalization in patients with severe chronic obstructive pulmonary disease: A feasibility study.

Version: 3
Date: 16 June 2014

Reviewer: Tanja Effing

Reviewer's report:

This paper described a feasibility study of an early telemedicine training and counselling intervention in patients with severe COPD who have been hospitalised. The authors conclude that the study showed that home-based supervised training and counselling via video conference is feasible and that telemedicine can help to ensure more equitable access to rehabilitation in patients with severe COPD after hospitalisation with an exacerbation of COPD.

Whereas the authors report some interesting findings with regard to patient and health care provider perspectives, safety and costs, I feel that the information regarding the patient assessment is given far too much value throughout the paper. As this study is clearly not designed to evaluate the effects of the intervention (no control group included) far less attention should be given to effects on patient outcomes (HRQoL etc) otherwise results could be easily misinterpreted by readers.

The program has a duration of only three weeks, this is extremely short for a PR program. The authors don't discuss this at all. It is not clear whether they are planning to extend the program to 8 weeks (as their usual PR program) in future studies. If this is the case, it will seriously influence the costs of the program and will probably change the conclusion with regard to the economic analysis. If they are not planning to extend it, it is seriously questionable what effects on clinical outcomes they can expect from such a short PR program.

Other major comments:

It should be made clearer that this study was not designed to evaluate the effects of the intervention itself (and that this was just a secondary analysis). Having no control group and including patients in which you could expect positive changes (because they are recovering from an exacerbation), results in clinical outcomes (HRQoL etc) are impossible to interpret (and this should therefore be avoided as much as possible). The text needs to be changed (and re-ordered) throughout the whole manuscript to make clearer that this study was not designed to evaluate effects of the intervention itself. The discussion needs to be rewritten.

Page 6, second paragraph (Introduction): I found it a bit confusing that this paragraph is mainly directed towards the need to evaluate effects of programs given the fact that the current study is not aimed to evaluate effects. I would
prefer to see more information about what is already known (and not known) regarding the feasibility to add telemedicine to interventions that have been proven effective previously.

Page 7, first paragraph, last line: ‘Thus, this....MAST (13)’. This sentence needs more explanation. What exactly is the MAST model? What are the domains. And what domains are included in this study.

Page 8, first paragraph. This paragraph is confusing. If you read this paragraph it seems that an 8-week PR program + the telemedicine sessions (one week?) is offered to all patients that have been hospitalised with an exacerbation. I don’t believe this information is correct, do the authors mean that this is their ‘usual care’ approach? Please clarify.

‘the intervention’ (page 9-10): I think it would be more logical to explain first more about the whole intervention and then insert the information regarding the specific telemedicine equipment (so insert the first paragraph later in the ‘intervention part’).

- Page 9: ‘there was a camera installed’: I think it would be good to explain the purpose of this.
- Page 10, second paragraph, last line: ‘communication through internet’ instead of ‘internet connection’
- Page 10, third paragraph: ‘The intervention concluded(?),.....as required’. Not exactly clear what authors mean, please rephrase

Page 11-13: Measurements:
- Please replace information regarding clinical outcomes to the end of measurements
- Where were the different measurements performed?
- No inclusion of walking test?

Page 15-18, Results:
- Please replace the information regarding the clinical outcomes to the end
- Page 15, first paragraph: Please report whether the patients who did withdraw had different (baseline) characteristics than the remaining patients
- Table 4: would prefer to see the average minuted (+SD) or when not normally distributed the median and IQR.
- On page 13 it is stated that a focus group interview was done with the occupational and physiotherapists that were involved in carrying out the intervention. However on page 18 it is said that interviews were carried out with one physio, one occupational therapist, and one representative from the Rehab department. This information is not consistent.... Why weren’t all therapists involved in the focus group? In addition, I would prefer to see some baseline characteristics of all health care providers involved in the intervention and the ones participating in the focus groups (e.g. age, number of years of experience in
Page 19, discussion:

- In the first paragraph the authors state that the intervention is likely to have an impact on clinical outcomes. I don’t think that they conclude that from their data and I strongly recommend to delete the text related to this from the discussion. I think the last part of the first paragraph, in which they reason that they are not able to draw conclusions from this study with regard to clinical outcomes, should be included in the end of the discussion. The major part of the discussion should be focused on the discussion of feasibility data instead.

- Authors should discuss the 3-week versus 8-week program.

- Recommendations regarding future studies should be included.

Minor comments:

- Page 6, second paragraph, line 12: could you please give some examples of monitor devices

- Page 7, first paragraph, ‘hospital after being discharged’ instead of ‘hospital after discharged

- Page 14, ‘Research ethics: informed consent patients?’

- Page 15, first paragraph: ‘and 2 did not show up’; this is a bit strange with a home-based program, did they refuse to participate?

- Page 15: ‘All patients had a first….50 minutes’: suggestion to change this to: All patients had at least one telehealth session with the occupational therapist (average duration 50 minutes), XX patients (=20%) needed an additional second session with the occupation therapist.

- Table 1: In prednisolone treatment: current prednisolone treatment?

- Explanations of abbreviations should be included in footnotes of Tables

- Please be consistent in wording: telehealth devices, telemonitoring devices, telehealth etc.