Reviewer's report

Title: Efficacy of multiparametric telemonitoring on respiratory outcomes in elderly people with COPD: a randomized controlled trial.

Version: 4 Date: 13 November 2012

Reviewer: Elizabeth Krupinski

Reviewer's report:

BMC – efficacy telemonitoring

Overall: This paper reports on a very nice RCT on the impact of multiparametric remote monitoring of COPD patients compared to those in standard care. The results show overall a reduction in incidence of respiratory events and hospital admissions for the tele group. The paper is well organized and written but the authors should find a native speaker of English to review it. All of the points must be addressed.

Abstract: Fine as written.

1) Unless it is a journal requirement, the trial registration # & funding info should not be in the abstract. Usually in acknowledgments.

Introduction: Fine as written. It does a good job of summarizing the literature, noting where the gaps/weaknesses are and thus providing the rationale for the current study.

1) Should try to break this one very long paragraph into at least two smaller ones.

Methods: A few points require clarification.

1) Page 2 col 2 para 1 line 4: Who recruited the patients?
2) Page 2 col 2 para 1 line 8: Provide a reference for the GOLD criteria.
3) Page 2 col 2 para 2 line 1: Provide the manufacturer name of the “Sweet Age” product. If it is an in-house system say this. If it is in-house then was it validated in any way prior to use? IN other words – how do you know the system is accurate & reliable?
4) Page 2 para 2 point #3: So it was a special phone provided to them not their own?
5) Page 2 col 2 para 3 line 3: Just to verify – by the monitoring system you mean the side the health care provider accesses – right?
6) Page 2 col 2 para 3 line 12: How long was each recording/measurement? Was it continuous or discrete? Was the patient aware of when it was occurring?
7) Page 3 col 1 line 1: Do you know what the missing data rate was? In other words – if is recorded for 2 minutes do you get 100% of the possible data points for the whole 2 minutes or do you lose data perhaps if the sensor gets jarred or something?
8) Page 3 col 1: Did the patient have access to the data?
9) Page 3 col 1 para 1 line 6: Is there the possibility that a patient would be admitted to another hospital for some reason & it would not get recorded in the study?
10) Page 3 col 1 para 3 line 5: Provide a reference for the Activities of Daily Living tool & MMSE.

Results: They are generally fine as presented with appropriate statistical analyses and good support of the figures.

Conclusions: Fine as written. It does a good job of summarizing the results and integrating them with the existing literature on the topic. Limitations are noted.

1) Need to break down into more than one long paragraph.

References: Fine.

Tables & Figures: Figure 2 needs a better explanation & it needs a legend to describe what each of the lines. Also – does not convert well into grayscale (bottom line nearly lost) so unless color is an option need to redo.

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests