Reviewer’s report

Title: Impact on healthcare resource use of telemonitoring home care patients with heart failure or chronic lung disease. The TELBIL study

Version: 1 Date: 3 February 2013

Reviewer: Kavita Radhakrishnan

Reviewer’s report:

- Major Compulsory Revisions

The author must respond to these before a decision on publication can be reached. For example, additional necessary experiments or controls, statistical mistakes, errors in interpretation.

1) Methods - Statistical Analysis section: Comment on whether a power Analysis conducted to estimate sample size?

2) Methods – statistical Analysis, para2, last sentence: Describe how you estimated the number needed to treat (NNT), in terms of provision of telemonitoring support, to prevent one hospital admission in a year.

3) Results, para 3: Which adjustment variables were considered as independent variables in the logistic regression analysis of Incidence ratios

- Minor Essential Revisions

The author can be trusted to make these. For example, missing labels on figures, the wrong use of a term, spelling mistakes.

1) Abstract, results, 2nd sentence: P value missing for result (RR and CI provided)

2) Abstract – Conclusion: The results showed a trend to reduce all-cause and cause-specific hospitalizations (since not statistically significant). Please revise Conclusion, 1st sentence to reflect so.

3) Methods – Paragraph 3 – intervention consisted of not in daily transmission

4) Methods, Para 2: Need a brief description of the primary health care center setting. What was the average composition of health care providers across the health care centers? Is a healthcare center synonymous with a primary care clinic?

5) Methods - Statistical Analysis, 1st para: A better word for qualitative variable would be categorical variable, and continuous for quantitative variables

6) Results, para 3, Table 2: Please provide the RRs and CIs in Table 2

- Discretionary Revisions
These are recommendations for improvement which the author can choose to ignore. For example clarifications, data that would be useful but not essential.

1) Background, Paragraph 3 & 4: It will be helpful to include a summary of providers/entities or the setting where telehealth was used in the cited reviews and studies

2) Abstract – Conclusion: What are the Implications of increasing telephone contacts and decreasing home nursing visits, how does it affect the care provided?

3) Discussion, para 7: “On the other hand, it is equally important as an indicator of the impact of changes in care practices on primary care, the setting in which the technology is managed.”

What does this mean? What kind of impact is being indicated, besides cost savings?

4) Discussion, para 11: FYI: Another reference set in primary care and evaluated comorbid conditions: “Effectiveness of home telehealth in comorbid diabetes and hypertension: a randomized, controlled trial.” By Wakefield et al (2011). However this study explored diabetes and hypertension and outcomes did not include hospitalization

5) Discussion, para 8: “82.4% of alerts were reviewed with any further action being taken” –

Why did the alerts not require any action? Were the alerts false alarms? How did the providers decide if a alert required any action or not?

6) Title of the study could reflect the setting (primary health center) of the tele-monitored patients, which is the unique aspect of this study.

7) Results: Figure 2: Comment on why home visits by doctors trended to be more in IG than CG

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

**Quality of written English:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I declare that I have no competing interests