Reviewer's report

Title: Perceived barriers of heart failure nurses and cardiologists in using clinical decision support systems in the treatment of heart failure patients

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Reviewer: stephen j leslie

Reviewer's report:

Thank you for asking me to review the manuscript entitled, ‘Perceived barriers of heart failure nurses and cardiologists in using clinical decision support systems in the treatment of heart failure patients’ by Arjen E. de Vries and colleagues.

The authors surveyed clinician views on the use of CDSS system in supporting heart failure management. I have some general and some specific comments

General

In general, the manuscript was prepared to a very high standard although it was rather lengthy for what is a simple postal survey. The study design, methods and statistical analysis appeared appropriate. However, the results section was too wordy and I believe could be shortened by making reference to the tables and including p values in the table. The authors could have attempted to find out how many eligible staff were working at each centre rather than estimate a 1:2 ratio of doctors to nurses which seems rather inaccurate.

Specific

Throughout there are small inconsistencies that should be corrected. Knowledge Management is variably written as ‘KM’ or ‘Knowledge Management’ – if it is to be abbreviated to ‘KM’ then this should be used consistently.

Introduction

Line 5 – the term ‘contributor’ is confusing – contributor to what? I presume it means reduced readmission to hospital but this is not 100% clear.

Authors have included this relevant statement: There is evidence that when using a CDSS, the performance of healthcare providers on clinical outcomes in general improves the quality of care significantly. [14,16-18]. Do authors have data on outcomes in relation to clinicians’ attitudes from this study. If not, this could be a subject for further studies and such suggestion can be included in the text.

A brief description on what is involved in your telemonitoring will be helpful. Does it involve scheduled phone interviews, interactive internet software or invasive haemodynamic monitoring systems (i.e. implantable pulmonary artery device)?

Aims
Define Knowledge Management abbreviated to (KM) unless this occurs earlier in the text

Methods / validation process of the questionnaire
Line 4 – the first 3 sentences of this paragraph could be shortened and simplified by taking out some of the repetition
Since some cardiologist find CDSS interferes with patient contact & that computing experience is important – is there any data on average time required to complete 1 application of the software on an individual patient (e.g. from data input to results output by CDSS)? This can be further divided to time taken during initial usage and time taken during subsequent/ follow-up usage.

Results
Line 1 - Response rate is reported as 32% in cardiologists and 57% in HF nurses and yet 74% over all – this need clarification. Authors sent 220 questionnaires to 110 centres, assuming 2 questionnaires to each centre. Was 1 of the 2 questionnaires specifically addressed to the Cardiologist or was it left to individual centres to determine who should fill them? If it is the latter, this can explain the dismal 32% participation by Cardiologist.

Spelling error of 'summEry' , last sentence page 13, section: Differences between cardiologists and HF nurses (Table III)

The manuscript indicated that all 110 centres in Netherland were included in the study. It will be useful to know how many centres participated (& percentage) in addition to participation rate by clinicians. Were there regional differences in survey participation, i.e. any regions with centres which did not respond?

The rest of the results section could be shortened by referring to the tables.

Avoid use of p=ns, add the actual p value

Tables
These require p valves to be added as one of the aims of the study was to investigate differences between doctors and nurses.

Table 2 – there is a formatting issue with the first 3 rows of the 'experience with computers section'

Table 3 the HF nurses column is to the left of the Cardiologist – in Table 2 it is the other way round – suggest to change one for consistency.

Conclusions
Aims have been defined and regrouped in different ways throughout the manuscript. 2 aims were stated in the abstract, 5 in methods and 3 in conclusion. Reiterating aims in the conclusion section which unnecessarily lengthened the
manuscript can be avoided.

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

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

**Declaration of competing interests:**

I have no competing interests