Reviewer’s report

Title: Effect of a lifestyle-focused electronic patient support application for improving risk factor management, self-rated health and prognosis in post myocardial infarction patients: a study protocol for a multi-center randomized controlled trial

Version: 0 Date: 23 Aug 2018

Reviewer: Edward Janus

Reviewer's report:

This is overall well written but needs a lot more detail. Please attend to the points below and then go on and refer to the Journals SPIRIT Check list and address each requirement - you have already done a lot but not in enough detail.

The benefit of doing this becomes very clear as the study proceeds and when you come to analyse it and write it up. All the hard work done to publish the protocol pays big dividends so please persevere.

The SPIRIT checklist specifies the title requirements. Could you add the word electronic into the title?

Method/Design The 1200 is slightly unclear. Is this the total for all three centres (I think this is what you mean) or is it the number at each centre? Please rephrase to make this absolutely clear.

Provide more information about the method of randomization. Also note the 50 usual care/100 intervention here. It does come up later.

Figure 1 is clear on what happens in the intervention but not on what happens in usual care. These visits may in themselves influence behaviour in addition to the application. This all needs to be clear.

What "visits" apply for those who drop out/don't fully engage - in both arms.

The word visit can be confusing. Does the nurse visit the patient at home or does the patient visit the nurse at the hospital? Please make this very clear.

Secondary outcomes. The text in some places does not match figure 1 or is otherwise unclear.

a. Self reported health is in text but not in figure 1

b. Smoking habits is not in figure 1. Presumably it's done at baseline - later as well?
2 Changes in self reported activity - measured more often in figure 1 than text indicates - matches both nurse and Physio visits

Feasability study - patients registering data drops off markedly at 6 weeks. Could be much worse at 12-14 months. Is this factored into your study design - may have low number of observations late in study?

CHECK LIST

Should not the trial registry number be in the text as well as listed on the SPIRIT Check list?

I can’t see the date and version identifier

Role of sponsor and funders in design is not clearly set out.

Coordinating, steering monitoring .. not clearly set out.

Description of trial does not specify framework

Procedures for monitoring adherence please elaborate

A participant time line schematic diagram is recommended

Comment on strategies to achieve adequate numbers of enrolled patients

All the details about methods of assignment of interventions - as specified on SPIRIT check list

More details of data collection methods see 18a

Data management 19 more details please

Monitoring more details please see listed requirements

Consent processes - more details You can refer to supplementary pages/tables - these are very comprehensive.

Level of interest

Please indicate how interesting you found the manuscript:

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Quality of written English

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All images and figures within the manuscript should be genuine i.e. without evidence of manipulation. No specific feature within an image may be enhanced, obscured, moved, removed, or introduced. If you have concerns about the veracity of the figures you should choose the first option below.

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Is it essential that this manuscript is seen by an expert statistician? If so, please give your reasons in your report.

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