Reviewer’s report

Title: Development of a percutaneous coronary intervention patient level composite measure for a clinical quality registry

Version: 0 Date: 15 Jan 2019

Reviewer: Mariela Acuna Mora

Reviewer's report:

This article describes the development and validation of a composite measure for patients who have undergone PCI. The authors developed a measure that combines a score of clinical and PROMs with a maximum score of a 100. The scale was developed by involving patients and clinical experts. In order for the manuscript to provide sufficient information to the reader and more clarity, the authors should consider undertaking the Following changes:

Introduction: while you make the case on why composite measures are important, your introduction is missing why this is relevant in patients that are undergoing PCI. The rationale on why it is important to measure an outcome with a composite measure in this particular group is missing, I would suggest you start your introduction by introducing your target group (i.e. patients undergoing PCI), what outcomes research has been undertaken before and what is this research lacking and then introduce your section on the composite measures and lastly, your objectives.

Methods: I believe your methods section would benefit from some rewriting. While reading it, different questions came up, which after reading some paragraphs, were answered. The introductory paragraph in your methods leaves me with more questions and does not accomplish what you want, which I assume is to give a short summary of the two-stage process you undertook to develop the measure. For instance, why isn't the section where you discuss the figure of the PROM included in the component 1? How did you select the clinical outcomes?

I think the reader would benefit from a short explanation of how the PROM came to be, since these 5 items are of extreme relevance in your score.

It is unclear How many clinical endpoints were provided in the second round.

Results: the description of the panel should be under the results of component 2 and not before. Try to be consistent in your reporting as you did in the methods. Are the clinical differences between your sample and VCOR clinically relevant?

Can you provide more details about your clinical experts? Was there a healthcare profession more representative than other? Years of experience?

Discussion: you use the term "holistic measure", I'm a bit hesitant on whether this is accurate. While you do include the patient's perspective in the composite score, clinical outcomes still represent more than 50% of the score, which makes it harder for me to accept this term as correct. Additionally, holistic measure is a concept open for interpretation

You write that many patients face lack of confidence, anxiety and depression and that through your measure you try to provide a more holistic and meaningful outcome measure. Do you consider that these outcomes (anxiety, depression, lack of confidence) are truly measured in your PROM?

Your discussion of your results, "summary of findings" it's more a summary than a discussion of your findings. While a short summary of the findings its usual in the discussion, you have not dedicated enough paragraphs to actually examining your results.

In your limitations, You write that patient participation of the final measure would have provided a
patient perspective, but it was not done. As it is written, this somehow questions your aim "The aim of this project was to develop a composite measure that combines clinical outcomes with the patient perspective".

Conclusions: you use different terms such as "holistic measure", "patient centered PROM" throughout the manuscript. Try to keep away from using terms that can be interpreted differently, since this confuses the reader on what are you actually referring to when using them. Moreover, it would be good if you provide a description of what you mean in the introduction if you decide to use only one of them. Your conclusions should be more related to your results, right now they are very broad and not focusing on your findings.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Unable to assess

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

No

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable

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