Author’s response to reviews

Title: Negative Pain Management Index scores do not necessarily indicate inadequate pain management: a cross-sectional study

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Author’s response to reviews:

Dear Dr. Maria Zalm

Thank you for reviewing our manuscript “Negative Pain Management Index scores do not necessarily indicate inadequate pain management: a cross-sectional study” (PCAR-D-17-00141R1). We have revised our paper in response to the suggestions made by the editor and the reviewer:

Reviewer1

“In my last review I was critical on the single item instrument to measure interference with pain. In this version of the manuscript, the authors agree with the simplicity of the instrument and write a sentence about the simple measurement of pain interference in the discussion paragraph. I think the single item instrument is not formally validated. As a method for validation, the authors calculated mean pain intensity in patients who stated interference with pain and in patients without pain interference. Mean pain intensity indeed differed. I also requested a definition for
the term sensitivity and specificity. I understood that the PI was considered as the gold standard. However, the definitions as given in the paragraph on the data analysis are not correct. The sensitivity is the percentage of patients with pain interference who actually score under the cut-off of using the PMI. The definition of specificity also does not suffice. I ask the investigators to change the definitions in formal ones. According to the results, I think the investigators calculated sensitivity and specificity properly."

- Based on the advice, we have revised the definition as follows:

“The sensitivity of the PMI score was defined as the proportion of patients with PI who actually scored positive (i.e., PMI<-1 or PMI<0), and the specificity was defined as the proportion of patients without PI who scored negative (i.e., PMI>=-1 or PMI>=0).” in the latter half of the Data analysis section (Line 1 to 5, Page 4.)

Also, the editor suggested that we should upload a clean version of our manuscript without any tracked changes or colored/highlighted text. We believe that the manuscript has improved. If we can make further changes, please let me know. Thank you for the opportunity to revise our paper.

Sincerely,

Naoki Sakakibara, RN, PhD