Author’s response to reviews

Title: The prevalence and types of discordance between physician perception and objective data from standardized measures of RA disease activity in real-world clinical practice in the US

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Dr. James Mockridge,
Editor
BMC Rheumatology

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Dear Dr. Mockridge,

Pleased find attached a final revision of our manuscript “The prevalence and types of discordance between physician perception and objective data from standardized measures of RA disease activity in real-world clinical practice in the US”, following the final set of peer review comments. These have been duly addressed in the draft provided – please see the tracked changes in the marked version. In addition, our responses to the comments are below.

Thank you, on behalf of all the authors.

Sincerely,

Wenhui Wei, PhD

1) page 7, lines 136-144. Is would be enough to say that the DAS28(3v)-ESR were selected to maximize the number of patients OR to minimizing missing data. One is related to another. Lines 140-141 seem also unnecessary.

• Please find that we have changed this text to: Primary analysis was conducted using DAS28(3)-ESR as this maximized the number of patients and is one of a selection of standardized measures advocated by the ACR (7,8). The most recent tender Joint Count (TJC), Swollen Joint Count (SJC), and ESR values were used to calculate the DAS28(3)-ESR based on the published scoring equations (24). Two outcome categories were defined: remission (DAS28(3)-ESR < 2.6) and no remission (DAS28(3)-ESR ≥ 2.6) (25).

2) in line 188, not clear what "change in pain from worse ever to current pain" is? This is not the standard way to assess pain... Also, this appear firstly in the description of multivariate analyses.

• Please find that we have added the variable to the baseline clinical characteristics (lines 125-132) and also added a footnote which explains that the physician questionnaire question asks the following question “Please give your overall assessment of the pain that this patient experiences as a result of their RA” with pain rated on a 1-10 scale (1-None to 10- worst possible). Change in pain was then the simple difference between worst ever experienced to current – positive values indicative of an improvement.

3) all variables assessed in the study (and meaningful) to it should be described in the methods section. Some variables only appear in results, namely BMI (line 212)
• Please find the demographic and baseline clinical characteristic now listed in a separate subsection of the methods.

4) In page 11, lines 229-232, missing data statistics are presented for the variables of CDAI. numbers for EGA is missing.

• Please find that we have noted there were no missing data for EGA; we have noted this on line 243.

5) Page 12, discussion, line 270-271 "Negative discordance was higher for the CDAI (35.6%) than the DAS28(3)-ESR (25.8%); this was likely due to the greater stringency of the CDAI than of the DAS28..."

The authors fail, in my perspective, the main reason for this. If the CDAI includes the "EGA/PhGA" this result is "expected".

• We appreciate the comment and have clarified the text on lines 277-278. Negative discordance was higher for the CDAI (35.6%) than the DAS28(3)-ESR (25.8%); this was expected due to the inclusion of EGA and PGA in the CDAI. In the DAS28(3)-ESR analysis, PGA was excluded to mitigate a limitation observed in previous studies

• Whether it is expected or not is somewhat different than trying to understand the underlying reasons for the observation. It certainly is possible that the inclusion of the PGA/EGA is the explanation. We have now added the citation for Conigliaro et al 2016 describing that it is quite typical (i.e. expected) that the proportion of patients in remission is expected to be higher with the DAS28 than with the CDAI, consistent with the reviewer’s comment.

6) Page 12, line 267 - "26.2% of patients relied on a composite disease activity score". The patients "relied"?

• Thank you for indicating that the sentence was inaccurate; we have changed “patients relied” to “rheumatologists relied”.

7) Line 309-310 - "only severity at diagnosis was shown to differ significantly between the groups, with included patients being more severe at diagnosis". This is presented only in discussion, not in results.

Please find this now addressed on lines 228-229.
8) Figure 2 - Is it 102 or 101 rheumatologists?

• Please find that Figure 2 has been amended to indicate 101 rheumatologists.