Reviewer’s report

Title: Health-related Quality of Life in Patients with Rheumatoid Arthritis

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Reviewer: Ian Scott

Reviewer’s report:

This manuscript evaluates HRQoL in patients with RA of Thai ethnicity. The authors report that cross-sectional EQ-5D scores were associated with cross-sectional HAQ scores, depression and anxiety, and a higher cumulative DAS28 score. They conclude that these factors should be considered in daily practice, in a holistic approach.

I have a number of comments to the authors. These comprise the following.

1. Introduction: I think that the rationale for the study requires further explanation. It is well established that patients with RA have a reduced HRQoL. I am of the understanding that the reason for this study is that HRQoL differs across patient populations, and has not previously been assessed in patients of Thai ethnicity with RA? I think that this needs further expansion e.g. giving information on differences in HRQoL across ethnic groups of patients with RA, and making it clear that HRQoL in patients of Thai ethnicity has not previously been assessed.

2. The grammar in the introduction lines 94-98 does not make sense to me, and requires rewriting.

3. Methods: I am unclear precisely how the cumulative DAS28 score was calculated. Could the explanation of this please be altered to make it more accessible?

4. Methods: were patients consented to take part in this study?

5. Methods: What is the time point of the cross-sectional EQ-5D and HAQ scores included in the analysis? Why only undertake a cross-sectional analysis, if longitudinal data are available for these outcomes?

6. Discussion: I think that the opening statement needs to contain the caveat that these findings were from a cross-sectional assessment of HRQoL. Presumably HRQoL can vary over time, and patients will have different EQ-5D scores on different days therefore the mean EQ-5D score in this population of Thai patients could vary if measured on a different day. Were the analyses in the studies of other ethnic groups also cross-sectional?

7. Discussion: the authors write that "Furthermore, we showed that depression and anxiety are additional factors related to quality of life. This has not been previously reported..."
because other studies did not include psychological status in their assessment”. Are the authors certain that depression and anxiety have not previously been reported to have an inverse association with HRQoL?

8. Discussion: the authors write that "Therefore EQ-5D should be one of the patient-reported outcome measures routinely used in clinical trial and daily practice due to its comprehensiveness, relevance, and feasibility”. Whilst I agree that it is important to measure PROMs in routine care, I'm not sure that the authors can conclude that it is the EQ-5D that should be used based on the data reported in their study?

9. Results: Table 2- why dichotomise the continuous variables e.g. age, and disease duration? Why report variance for all the variables?

10. Results: Table 3- Is it necessary to report both the SE and the 95% CI of the beta? Also why report both the T-statistic and the P-value? The constant isn't usually reported. Why are non-significant variables from univariate analyses included in the multivariate model (e.g the univariate P-value for age is 0.184)?

11. Results: Figure 1- how were these HAQ cut-offs decided on?

**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

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