Reviewer's report

Title: Psychometric properties of the Osteoporosis Patient Assessment Questionnaire (OPAQ) 2.0: results from the Multiple Outcomes of Raloxifene Evaluation (MORE) study

Version: 2  Date: 5 July 2014

Reviewer: Kenneth Izuora

Reviewer's report:

Major Compulsory Revisions

- Line 133/206: Were the participants informed of the results of their vertebral fracture assessments following each evaluation? This is important to clarify since knowledge of this (or not) could influence their responses to the HRQoL questions.

- Line 192/213: In the ANCOVA analyses done for the various endpoints, what co-variables were accounted for? Several variables could influence the responses to HRQoL independent of having osteoporosis/fractures. It will be important to account for those to be more likely to accurately predict changes in HRQoL based on fractures using this tool.

- Line 256: Patients with past history of fractures (prevalent) will likely have poorer responses to HRQoL compared to those that have never had a fracture independent of their T-scores. While looking at T-score ranges and the effects of T-scores on HRQoL (table 5) were “prevalent fracture” and other variables like age, BMI and years since menopause accounted for in calculating the p-values? If yes, this needs to be clearly specified.

Minor Essential Revisions

- Line 112: The description of study population needs to be more specific with a clearer explanation for the selection criteria for the subgroup out of the main MORE study population. Why were only 1477 participants selected to complete the questionnaire?

- Line 112: Description of the MORE population does not adequately describe the subgroup (1477) studied in this particular analysis. Although table 1 gave averages, it is unclear for example what the T-score ranges for the subgroup were. I suggest using the “study population” section to describe the 1477 subjects rather than the overall MORE population which was not studied in this analysis.

- Line 117: Be specific about what “low BMD” meant using T-scores criteria to define low BMD.

- Line 296: It is a strong statement to claim that this questionnaire can detect disease without clarifying if other variables which could also predict disease were considered. At best, we can say it suggests an association rather than imply that
it can detect disease.

Discretionary Revisions

• Line 78 can be modified to read “….healthcare professionals which shows adequate…..

• Line 160: Since some responses on the OPAQ2 were reverse-scored, please briefly clarify how the transformation (line 170) was done.

• Overall, I found this paper interesting and the well written by the authors. However, there were some unclear sections as outlined above. There were also some limitations that need to acknowledge including the fact that it was a post hoc, retrospective analysis hence limiting the conclusions that can be made from its findings. Also, the design involved several adjustments including dropping some questions that did not fit the models. These questions dropped were reported as not correlating with other questions (question 35) but may be more relevant in assessing the reliability of the OPAQ2.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

I declare that I have no competing interests