Reviewer's report

**Title:** The utility of clinical decision tools for diagnosing osteoporosis in postmenopausal women with rheumatoid arthritis.

**Version:** 1  **Date:** 29 October 2007

**Reviewer:** L Melton

**Reviewer's report:**

**Discretionary Revisions**

1. (Page 2, paragraph 2) This paper is all the more timely because a new WHO fracture risk screening algorithm will include RA as one of the risk factors. The WHO report has not yet been released, but the authors should quote a reference by John Kanis et al (Kanis JA, Borgstrom F, De Laet C, et al. Assessment of fracture risk. Osteoporos Int 2005;16:581-9).

2. (Page 3, paragraph 2) More insight into the generalizability of the data would be provided by a better description of the study population. “Hospital and private practice settings” is entirely too vague.

3. (Page 4, paragraph 2) What actual DXA devices were employed in the study?

4. (Page 7, paragraph 2) Here is where the new WHO approach (and the Kanis reference) to estimating absolute fracture risk should be mentioned. The authors’ discussion doesn’t provide an adequate background for the need to focus on absolute fracture risk, especially since that outcome was not assessed here.

5. (Page 8, paragraph 1) Since the authors excluded patients on potent therapies, they may have deleted the appropriately managed ones. Therefore, the statement here is too broad, implying that most RA patients are managed poorly. This should be softened or made more specific to the study population.

**Minor Essential Revisions**

6. Numerous unnecessary abbreviations (e.g., RF, CDT, PM, LSP) don’t really save much space and make the paper harder to read. Note that the unnecessary abbreviation for risk factor (RF) is the same as the necessary one for rheumatoid factor (RF), and other key definitions (i.e., ESR) are not defined.

7. (Page 2, paragraph 1) DXA is really dual-energy X-ray absorptiometry.

8. (Page 3, paragraph 2) This is a cross-sectional study, not a cross-sectional survey.

9. (Page 4, paragraph 3) The authors should specify more specifically the outcomes that provided the basis for calculating sensitivity, specificity, etc.
10. (Page 4, paragraph 4) What was the total available patient pool?

11. (Table 2) “Normal for age” refers to Z-scores, not T-scores, and would include many of the osteopenic women. “For age” should be deleted to avoid confusion on this point.

12. (Page 4, paragraph 3 and Table 3) Were differences in the ROC curves actually tested (this is possible) or just compared visually. If tested statistically, the methodology used should be mentioned.

13. (Throughout) Multiple run on sentences and punctuation errors detract from the paper and should be corrected.

**What next?:** Accept after minor essential revisions

**Level of interest:** An article of limited interest

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

Mayo Clinic requires a formal consulting contract (between Mayo and the organization) for Mayo Staff to speak at any company-sponsored meeting. I have lectured on the epidemiology of osteoporosis to company staff or corporate scientific advisory boards of Amgen, Merck, Novartis and Procter & Gamble. I do not consult with pharmaceutical firms in the usual sense and do not belong to any speaker’s bureau. Note also that my research program is focused on fracture risk among patients with diverse forms of “secondary” osteoporosis, including rheumatoid arthritis.