Reviewer's report

Title: Cardiovascular disease prevalence in patients with inflammatory arthritis, diabetes mellitus and osteoarthritis: a cross-sectional study in primary care

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Reviewer: Soon H Song

Reviewer's report:

This study looked at the prevalence of cardiovascular disease among patients with inflammatory arthritis, diabetes and osteoarthritis compared to controls in a primary care setting.

Comments:

(a) The authors have shown that CVD risk in rheumatoid arthritis approaches that of diabetes mellitus. How does this study add to the authors previous work? (Major Compulsory Revisions)

(b) Subjects age under 30 yrs were excluded from analysis because of lower probability of having CVD. Did the authors have any data to support this point? This can affect the overall CVD prevalence rate in this population and potentially the conclusion of this study particularly the strength of associations of each condition with CVD. (Major Compulsory Revisions)

(c) Practices that recorded data less than 6 months were excluded. The reason for this exclusion was not given. This can unnecessarily exclude a large number of patients and can affect the overall CVD prevalence rate in this population and the conclusion of this study similar to point (b). (Major Compulsory Revisions)

(d) Table 1 - statistical comparisons were made against controls. In addition, it would give more information if comparisons were also made for CVD risk factors between each condition studied. (Major Compulsory Revisions)

(e) Do the given prevalence of diabetes, inflammatory arthritis and osteoarthritis refer to subjects with only one condition or does it also include those with mixed conditions? This needs to be clarified. It will also be helpful to give the prevalence of subjects with mixed conditions. (Major Compulsory Revisions)

(f) Table 2 - did the odds ratio refer to one individual condition (diabetes or OA or inflammatory arthritis) or did it include mixture of these conditions? If so, how can the authors conclude that inflammatory arthritis gave similar CVD risk to diabetes as this may also reflect the effect of diabetes in subjects with mixed conditions? (Major Compulsory Revisions)

(g) The authors didn't give the breakdown of the prevalence of CVD at different age bands for diabetes, inflammatory arthritis and osteoarthritis. It would be
informative to have an idea of any difference (if any) in relation to the age factor. Do subjects with inflammatory arthritis have higher burden of CVD at an earlier age compared to diabetes/osteoarthritis/controls? (Major Compulsory Revisions)

**Level of interest:** An article whose findings are important to those with closely related research interests

**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’