Reviewer's report

Title: Influence of arthritis and non-arthritis related factors on areal bone mineral density (BMDa) in women with longstanding inflammatory polyarthritis: a primary care based inception cohort

Version: 2 Date: 31 January 2010

Reviewer: Theresa Freeman

Reviewer's report:

The authors present a study comparing the influences of arthritis and non-arthrits related factors on BMDa. This study follows women assessed with poly inflammatory arthritis nd followed up at 5, 7 and 10 years. At the 10 year point 108 women agreed to take part in a bone health survey questionnaire and bone densitometry at the spine and femoral neck. The authors state that as expected increased age was significantly associated with a decline in BMDa and increased weight and BMI was significantly associated with BMDa. The only other significant finding associated BMDa with joint erosion.

The negative findings are interesting and the shortcomings of the study are clearly stated in the discussion. However, the level of significance and importance to the field are tempered by the shortcomings outlined.

Additionally, the most significant finding of the association with joint erosion is I assume based on the smaller cohort of those receiving hand radiographs (n=36). Although a description of the criteria or how the radiographs are assessed and by whom is not outlined in the methods section.

I unfortunately am not sufficiently trained to assess the validity of the detailed statistical analysis presented to comment on the methods.

Level of interest: An article of limited interest

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