Reviewer's report

Title: Cardiovascular case fatality in rheumatoid arthritis is decreasing; first prospective analysis of a current low disease activity rheumatoid arthritis cohort and review of the literature

Version: 6
Date: 3 January 2014

Reviewer: Mary Chester Wasko

Reviewer's report:

I appreciate the revisions/additions to this manuscript, as they enhance the quality of this paper.

A few remaining suggestions

Introduction:

The 2nd sentence in 2nd paragraph is confusing. Do you mean that the CV mortality is reduced because of improvement in OVERALL survival? If so, please add this word. If not, the sentence should be rewritten to be clarify its intent.

In 2nd para, last sentence: ...studies show increased CV events in RA patients - compared to historical/older RA series, or the general population currently? Please add a phrase to clarify.

In the methods, please state how CV events were confirmed. There is clarification re. angina pectoris but no indication of how MI or acute heart failure was determined, for example.

In the methods/stat analysis, K-M survival analysis was mentioned but not reported in the results. Please add to the results or delete this reference to K-M analysis.

In the Results text, TNF inhibitor use is reported as 23%, but in Table 1, it is 22%. Please reconcile.

In the Results, Incident CV event text, there is mention of variables included in the Cox regression analysis. However, "use of anti-inflammatory immunosuppressive therapy" needs further definition. Were the following considered separately in the analysis (as they should be) or were they lumped together: MTX, nonMTX DMARDs, biologics, corticosteroids?

HgbA1c is reported but there is no indication of the proportion of pts with a diagnosis of diabetes. Because tight diabetes control may yield a reduced HgbA1c but still not reduce risk for macrovascular disease, please provide info re. prevalence of diabetes in your cohort and include this in Cox regression analysis if you have this information.
The lit review excludes Dr Inma del Rincon's Arthritis and Rheumatism publication providing info re. CV risk with 1 year follow-up. While I agree this is a relatively brief period of observation, I would favor including this excellently executed and noteworthy study in Table 3.

In the Discussion/Strengths and Limitations, I do not agree with the explanation/defense provided for low rate of seropositivity in the reported cohort and still consider this a significant limitation of this study's applicability to a more rigorous RA cohort, where seropositivity would likely approach 90% if either RF or CCP were used to define serologic status. Please rewrite the "However, ..." sentence to something like the following:

This limitation may account in part for our findings, as our patients may in fact have had milder disease and thus a lower overall inflammatory burden; however, our cohort does not differ markedly from others recently reported on tight treatment in RA (ref's 52, 53).

Level of interest: An article of importance in its field

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.