Reviewer's report

Title: Factors influencing the crystallization of monosodium urate: a systematic literature review

Version: 1 Date: 28 July 2015

Reviewer: Francisca Sivera

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Major compulsory revisions

Minor essential revisions
1) The first paragraph of the methods section is a bit difficult to follow. For example: "bibliographic references of individual publications were also checked": Was this performed for the articles selected for inclusion? Is this stating then the same as the last sentence "bibliographic references were also identified during the full text review stage"?

2) Please clarify if the title and abstract revision and exclusion was performed by one or two reviewers independently

3) Were congress abstracts (i.e. EULAR/ACR) of the last couple of years reviewed to check for unpublished recent data?

4) Please clarify what is meant by the third question of the quality assessment: "Are the results stated consistent with the results presented".

5) In the results section, no data on the quality of the studies is presented. Some data should be presented in the results and not solely on the Suppl material.

6) The research question is "to identify the factors that contribute to MSU crystallization in gout": I would argue that even though the literature on MSU crystal structure provides an appropriate background understanding, these studies do not fulfill the inclusion criteria. Therefore I would remove the section on MSU crystal structure from the results section and consider including some of its data in the introduction.

Discretionary revisions
1) I find that Suppl Table 1 is a very nice summary of some of the main characteristics of the reviewed articles. Perhaps it would benefit from including the number of observations (where appropriate) as it is stated that some papers presented a single observation.

Level of interest: An article whose findings are important to those with closely related research interests
Quality of written English: Acceptable

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

Declaration of competing interests:
I declare that I have no competing interests