Author’s response to reviews

Title: Serious infections in patients with self-reported psoriatic arthritis from the Psoriasis Longitudinal Assessment and Registry (PSOLAR) treated with biologics

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Author’s response to reviews:

August 08, 2019

Dr. Ciaràn Martin Fitzpatrick
BioMed Central
United Kingdom

Dear Dr. Fitzpatrick:

Re: BRHM-D-19-00025R1

Dear Dr. Fitzpatrick:

The authors greatly appreciate the opportunity granted by BMC Rheumatology to revise our
manuscript (BRHM-D-19-00025R1) entitled, “Serious infections in patients with self-reported psoriatic arthritis from the Psoriasis Longitudinal Assessment and Registry (PSOLAR) treated with biologics” based on the valuable comments made by the reviewers.

The authors have addressed the reviewer’s comments in the manuscript, as well as in the accompanying response document. We hope that these additional revisions meet your approval.

Thank you for your kind consideration.

Best regards,

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Authors’ Responses to Reviewers’ Comments

PSOLAR PsA SI (BRHM-D-19-00025R1)

Reviewer 1

Editor’s comment Authors’ response

1. Definition of history of infections
   It is defined as the infection in the past 3 years with medications prescribed. Do you mean by antibiotics?
   1. The question asked on the eCRF was: “Has the patient had a significant infection (requiring prescription medication) within the last 3 years?” Therefore, any prescription medication including antibiotics, to treat the infection would be included.

2. As the pneumonia is found to be one of the most common infections in the study, the background history of pulmonary disease is crucial. May I know the definition of pulmonary disease (page 13 & 27)? PsA patients with background of bronchiectasis and tuberculosis who receive Anti-TNF definitely susceptible for chest infection.
   2. In this study, a medical history of pulmonary disorder included: sleep apnea, asthma, chronic obstructive pulmonary disorder, and pneumonitis.

3. It is sensible that PsA patients with DM have more infections (page 11), irrespective of biologic exposure. May I know more about the status of their DM? Are they under any treatment?
   3. In the self-reported (unconfirmed) PsA population a total of 66 patients (1.5%) had diabetes mellitus type I and 580 patients (13.4%) had diabetes mellitus type 2. We did not collect any information regarding diabetes mellitus medication at enrollment.
4. Table 1 - in the row of BSA involvement, the SD value is greater than the mean value. The use of median value should be more appropriate.

4. The authors have replaced the mean ± SD values for BSA involvement with median values in Table 1.

Reviewer 2

1. Please include all comments for the authors in this box rather than uploading your report as an attachment. Please only upload as attachments annotated versions of manuscripts, graphs, supporting materials or other aspects of your report which cannot be included in a text format. Please overwrite this text when adding your comments to the authors.

1. We have included the responses to the reviewers’ comments in the box provided, as well as uploaded this point-by-point letter as requested in the decision letter.

2. The authors report data on the rates of serious infections amongst patients with self-reported psoriatic arthritis from the PSOLAR psoriasis registry. Data relating to infection rates amongst patients with Psoriasis in the PSOLAR registry has previously been reported but this analyses focuses on those with PsA and this is a relevant cohort to investigate. The primary finding is of numerically less, but statistically non-significant, number of events amongst those on Ustekinumab compared with TNFi in addition to other infection risks.

I see the manuscript has already been subject to peer review. The authors have made a significant effort to address limitations relating to the industry collaboration/ funding and used the STROBE checklist. I don't have a great deal to add. On a very minor note the traditional term for csDMARDS is conventional synthetic (rather than systemic).

2. The authors appreciate the reviewer’s comment and have incorporated the traditional terminology for csDMARDs.

Reviewer 3

1. The study is very interesting, providing data about serious infections in psoriasis patients with self-reported psoriatic arthritis. In my opinion the paper is suitable for the publication. I suggest including in the discussion section some data about the possible clinical implication of the results.  

1. We appreciate the reviewer’s comment and have included the following text to the Discussion section on page 16, lines 326-330, as well as adding a new reference (#26) to support this statement.

“According to recent guidelines for the treatment of PsA, serious infections were chosen as one of the critical outcomes for comparisons between therapies and noted to be are one of the greatest concerns for patients and physicians when choosing among the currently available therapies [26]. The findings presented here could potentially inform and assist health care professionals when selecting an appropriate treatment for their patients with PsA.”

Reviewer 4

1. The study is well conducted and the results from the PSOLAR registry add to current knowledge on
SI and Psoriasis treatment.

My only comment is that it seems from the methods that the PsA was self reported and I assume that was concomitant to skin psoriasis. This should be very clear. Did the author make a comparison vs no PsA patients?

1. We had previously referenced the overall PSOLAR psoriasis study (reference [7]) in the manuscript, but to the reviewer’s point, we have expanded the text to better emphasize the similar findings on page 14, lines 277-281: “These results are consistent with, and those previously reported for the overall PSOLAR population of patients with psoriasis, in which a higher risk of serious infections with the monoclonal TNF inhibitors compared with non-methotrexate and non-biologic therapies was found, with no increased risk observed with ustekinumab or etanercept [7].”