Author's response to reviews

Title: Predictors of health care drop-out in an inception cohort of patients with early onset rheumatoid arthritis.

Authors:

Irazú Contreras-Yáñez (irazucy@yahoo.com.mx)

Virginia Pascual-Ramos (virtichu@gmail.com)

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Author’s response to reviews:

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Helen Benham
Editor BMC Musculoskeletal Disorders

Dear Dr. Benham:

Please find enclosed the manuscript entitled “Predictors of health care drop-out in an inception cohort of patients with early onset rheumatoid arthritis (BMSD-D-17-00072), version 2, to be considered for publication in BMC Musculoskeletal Disorders as an original article. The manuscript has been updated according to editor and reviewer requests and a point-by-point detailed response letter is provided.

The updated version of the manuscript is not being considered for publication in another Journal nor has it been published elsewhere. Both authors agree with the updated version of the manuscript, and they have no conflicts of interest to declare. We hope the new version will satisfy the reviewers.

Sincerely yours,

Dr. Virginia Pascual-Ramos

RESPONSES TO REVIEWERS

REVIEWER 1
1. Abstract: In the methods section of the abstract it would be ideal to include a specific time period 2004 so that it is clear when the recruitment period ended.

Answer: A specific time period was included.

2. In the results section of the abstract, what is P < 50% referring to? It also needs to be clear in the background section whether you are looking at a specific population and why this group was selected.

Response: The following paragraph has been added to page 7; it includes the definition of persistence, of persistence <50% and the rationale for creating the variable persistence <50%; we consider that the “definition section” is the appropriated location to insert the paragraph in the manuscript.

“Persistence was defined (within each patient) as the percentage of the patient’s follow-up, he/she was persistent with therapy. In addition, persistence <50% was defined when patient was persistent with therapy less than 50% of his/her entire follow-up; this variable was created based on previous publications that have demonstrated an association between (better) persistence and more favorable outcomes (19, 21)”.

3. Methods: On page 7 where it say "to achieve objective 4" please specify here what the objective is.

Answer: objective 4 has been specified as recommended.

4. On page 8 where it says "age was forced..." could you consider replacing the word forced with included?

Response: “forced” was replaced by “included”.

5. I'm interested to know why you have selected the term persistence as opposed to concordance?

Answer: Medication persistence and medication adherence (synonym compliance) are two different constructs; medication adherence refers to the degree or extent of conformity to the recommendations about day to day treatment by the provider, with respect to the timing, dosage and frequency; medication persistence refers to the act of continuing treatment for the prescribed duration; it may be defined as “the duration of time from initiation to discontinuation therapy (Cramer JA et al. Medication compliance and persistence: terminology and definitions. Value in Health 2008; 11(1):44-47).

In the mid 1990’s, the concept of concordance was born; it relates to a process of consultation in which prescribing is based on partnership. In this process, healthcare professionals recognize the primacy of the patient’s decision about taking the recommended medication, and the patient’s expertise and beliefs are fully valued (van den Bemt Z et al. Medication adherence in patients with RA, review. Exp Rev Clin Immunol 2012; 8(4): 338-42).
6. Results: I note that you often use "P" when referring to persistence. It may be better to use the full term.

Response: “P” has been replaced by the term “persistence” all along the manuscript.

7. Also where you present the results of the regression it would be useful to include the significance values. The regression results could also be put into better context. Perhaps it would be worth reporting the results of the OR for the different models and describing these in some detail.

Answer: The following paragraph has been added on page 11, “Interestingly, in the 3 models, persistence<50% had the greatest impact (OR from 3.06 to 1.9), followed by number of DMARDs/patient (OR from 2.89 to 1.7) and by the level of disease activity evaluated as per number of disease´s flares (OR: 2.45), sustained remission status (OR: 0.36) or DAS28 (OR: 2.1)”.

8. In the tables, it needs to be clearer what the last column represents, particularly as you use P to refer to persistence.

Answer: Tables had been clarified and P has been replaced by persistence.

9. Discussion: It may be worth making a stronger case as to why your participants are representative of the "real population", perhaps include something here about the prevalence of the disease or your sample size.

Answer: Discussion has been shortened based on reviewer 2’s indication and the section mentioned has been omitted in order to enrich the discussion with most relevant findings.

REVIEWER 2

1. The study commenced in 2004. The patients appear to have only been given DMARDs and not biological therapies. Why is that so? A comment required.

Answer: The following comment has been added to “Study population section” (page 5): Patients had partial health coverage and paid for their physician´s consultations, laboratory investigations and for their treatment that was prescribed by the rheumatologist in charge of the clinic, and was T2T oriented; accordingly, traditional disease-modifying anti-rheumatic drugs (DMARDs) were used in 99% of the patients with/without corticosteroids.

2. The discussion is overly long and should be trimmed.

Answer: The discussion has been shortened as suggested.

3. There are a small, but acceptable number of typographical errors in the text and in the Figure-legend.
Answer: The legend of the Figure has been revised and updated.