Reviewer’s report

Title: Factors that Influence Rheumatologists’ Anti-Tumor Necrosis Factor Alpha Prescribing Decisions: A Qualitative Study

Version: 0 Date: 07 Jul 2019

Reviewer: Mark Harrison

Reviewer's report:

This is an interesting and well-written qualitative study of the factors that influence the prescribing of anti-TNF treatments in the context of UK rheumatology services. The findings suggest the existence of three key spheres of influence which exist at the internal environment, external environment and at the individual level. These findings are then nicely placed in the context of other studies of prescribing patterns and their variation. I have a few comments and suggestions that I would welcome consideration by the authors.

1. The thematic analysis with the six outlined stages are well described and seem reasonable and the citations for the approach look appropriate.

2. There is no need for an estimated sample size required for this type of research, but I wasn't clear from reading what the rule to stop recruitment rule was e.g. saturation. I think the authors should provide a definition of saturation and also how they knew they'd reached it.

3. The gist statements like 'most' and 'many' are used frequently in the reporting of results. I understand that this is acceptable in qualitative reporting. I have also seen a few papers using qualitative methods which have included actual counts of how many participants shared an experience, perception, or attitude. Did the authors consider this approach to support these statements?

4. I would also be interested to know, or hear the authors describe the presence/absence of given themes in the sample of participants (especially absence if there was evidence that suggested it should be present), if there were differences in themes between sub-groups, and whether there were any conflicting attitudes/experiences among participants (and within individuals). This might be interesting to include and add depth to the findings currently presented.

5. On one occasion I don't agree with the description of a quote - it says "...we don't give them options of five agents...you don't want to bewilder patients" and this is described as 'patient influence.' It sounds more like physician influence to me (provider behaviour/perception of patients rather than patient influence), and there is a category under the same 'patient influence' section where physicians skepticism over patients' abilities to make informed treatment decisions is listed - I'd think it sat more comfortably there. Consider moving or describing more clearly why it is classified as patient
influence. It may be that the themes need to be described more clearly for the reader so that the direction of influence isn't misinterpreted.

6. Quite a lot of interpretation of results relies on knowing what the NICE criteria are for starting an anti-TNF treatment (e.g. what the DAS28 score has to be to determine eligibility, how many times it has to be &gt;5.1 etc), think this would be a worthwhile addition. Table 3 relies on this

7. Linked to point 6, when I got to Table 3 I didn't understand how the #3 "Only perform one DAS28 assessment" helps in the absence of some explanation clarification of the NICE criteria - is this because need an average &gt;5.1 so if you suspect patient not very active and you get one &gt;5.1 you stop there?

Minor

1. Background, paragraph 2: Sentence starting "For example, in 2015/16, 60% and 73% of patients commenced cDMARDs within 6 weeks..." is important but the way it is written currently seems to be difficult to understand. Could be written more clearly to emphasize the point here e.g only 60% in Midlands/Eastern compared with 73% in South

2. Background, page 5, paragraph 1: Re: "1.5. Start treatment with the least expensive drug (taking into account administration costs, dose needed and product price per dose)" [5, p.5]." Is it immediately clear to physicians what the least expensive is - I assume this would be in the BNF?

3. Page 14, line 44: minor typo - "received referrals with as DAS below 5.1.." 'As' should be 'a'

4. Page 18, line 15 "A: "...then there's some people who don't put up their inflammation tests, their ESR/CRP" I think it's interesting that rheumatologists just don't seem to have any faith in the validity of ESR/CRP

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.
Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

Not relevant to this manuscript

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