Author’s response to reviews

Title: Does the implementation of a care pathway for patients with hip or knee osteoarthritis lead to fewer diagnostic imaging and referrals by general practitioners? A pre-post-implementation study of claims data.

Authors:

Esther van den Bogaart (e.vandenbogaart@maastrichtuniversity.nl)
Mariëlle Kroese (marielle.kroese@maastrichtuniversity.nl)
Marieke Spreeuwenberg (m.spreeuwenberg@maastrichtuniversity.nl)
Ramon Ottenheijm (ramon.ottenheijm@maastrichtuniversity.nl)
Patrick Deckers (p.deckers@zuyderland.nl)
Dirk Ruwaard (d.ruwaard@maastrichtuniversity.nl)

Version: 3 Date: 11 Oct 2019

Author’s response to reviews:

Helen Roberton
Editor
BMC Family Practice

Maastricht, the Netherlands, October 11th, 2019

Paper title: Does the implementation of a care pathway for patients with osteoarthritis lead to less diagnostics and referrals by general practitioners? A pre-post-implementation study of claims data.

Paper ID: FAMP-D-19-00051

Dear Ms. Roberton

Thank you very much that based on the reviewers’ reports and your own assessment as Editor our revised manuscript entitled “Does the implementation of a care pathway for patients with osteoarthritis lead to fewer diagnostics and referrals by general practitioners? A pre-post-implementation study of claims data” is potentially accepted for publication in BMC Family Practice. We have carefully considered the comments of Ms. Gillian Hawker. Please find below our reaction to the reviewer indicated with symbol ‘&gt;’. The adaptations we made in the manuscript are visible in the manuscript by track changes.
We really hope our manuscript will be accepted for publication and we are looking forward to your reply.

Yours sincerely,

Also on behalf of all authors,

Esther H.A. van den Bogaart, MSc

Maastricht University
Faculty of Health, Medicine and Life Sciences
Department of Health Services Research
P.O. Box 616, 6200 MD Maastricht
The Netherlands
Telephone number: +31 43 38 82199
E-mail: e.vandenbogaart@maastrichtuniversity.nl

Reviewer 1 - Gillian Hawker.

Comment 1

Thank you for major revisions that have improved the manuscript - my major concerns and questions have been addressed.

One additional suggestion - I did not realize that the substudy was performed exclusively within the intervention arm where you examined outcomes for those whose GPs did versus did not follow the pathway, according to chart review - i would suggest this be made much clearer with a separate heading in the methods section and results - only once i got my head around that did i understand you were doing an analysis of patients seen and thus logistic regression made sense

We thank Ms. Gillian Hawker for reviewing our manuscript and for her suggestion to add separate headings in the methods and results section. Therefore, we added the separate headings ‘Observational study’ and ‘Patient record review’ to the methods and results sections in order to make the distinction between the two different studies more clear.

Additional questions for your consideration:

Within the sub-study of patients in the intervention arm, you examined the likelihood of receiving an arthroplasty at consult, and of being imaged or referred for consultation - you note on page 13 that you did not find any significant differences between groups whose GPs did vs did not follow the pathway - was statistical power sufficient to detect clinically meaningful differences?
We thank Ms. Gillian Hawker for her additional question about the statistical power of our sub-study. This sub-study is more of an exploratory nature and is used to indicate a direction of the effect of the pathway. For patients with suspected hip OA, we see little difference in the percentages of arthroplasty in patients being referred or not referred according to the pathway. However, for patients with suspected knee OA, arthroplasty in patients being referred according to the pathway is more than 10% higher compared to patients not being referred according to the pathway. Although this difference is not significant, it can have a clinical significance. Stakeholders have not express expectations about this percentage on forehand. Therefore, additional research, with perhaps a larger study population, could possibly provide more clarity about the clinically meaning of this difference.

Finally, were there any contemporaneous interventions occurring, such as Choosing Wisely campaign, that might have influenced ordering of knee xrays?

We thank Ms. Gillian Hawker for her additional question about the possibility of contemporaneous interventions, such as a Choosing Wisely campaign. We have no indications that there are contemporaneous interventions on a regional or national level occurred during the study period, which might have influenced the results.