# PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (http://bmjopen.bmj.com/site/about/resources/checklist.pdf) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

# ARTICLE DETAILS

TITLE (PROVISIONAL)	Efficacy of treatments and pain management for trapeziometacarpal
	(thumb base) osteoarthritis: protocol for a systematic review
AUTHORS	Hamasaki, Tokiko; Lalonde, lyne; Harris, Patrick; Bureau, Nathalie;
	Gaudreault, Nathaly; Ziegler, Daniela; Choinière, Manon

### **VERSION 1 - REVIEW**

REVIEWER	Norelee Kennedy University of Limerick
	Ireland
REVIEW RETURNED	10-Jul-2015

GENERAL COMMENTS	This is a well presented paper on an important clinical topic area. The methodology is appropriate and well described. The lack of definitive evidence on prevalence of TMO, which seem to indicate low prevalence rates, does not however suggest that this is not an important area that warrants further investigation.
	The introduction, while setting the scene and justifying the importance of TMO could be presented more succinctly to focus not so extensively on the wider aim of the research (improve quality of TMO services) and instead focus on what is currently known about the management of TMO.
	Did the pilot search use the same approach as proposed in Step 1? Were any modifications made
	Some minor points- Use full terms and not abbreviations at start of sentences - line 49 page 5, line 21 page 6 Pg 15 - line 12/13- check sentence for readability

REVIEWER	Jennifer Wolf
	University of Connecticut, USA
REVIEW RETURNED	20-Aug-2015

GENERAL COMMENTS	The authors propose a comprehensive review of the treatment strategies for TM OA, a problem that they accurately note is both under-diagnosed and inadequately studied and treated. I would add the following comments for suggested revisions:
	<ol> <li>Page 5, line 16: Patients with TM OA don't typically present with stiffness. The joint is not stiff even late in the disease, although the thumb unit itself may become contracted due to metacarpal subluxation. Please consider revision.</li> <li>Page 4, line 39 - I would note our paper on symptomatic TM OA</li> </ol>

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for the authors' consideration - this was based on data in the Swedish registry focused on physician-diagnosed OA, thus clearly symptomatic, although our database study could not confirm radiographic OA (it is inferred as the disorder was diagnosed in the
clinical setting).

### **VERSION 1 – AUTHOR RESPONSE**

### REPLY TO REVIEWER 1: Dr. NORELEE KENNEDY

1. The introduction, while setting the scene and justifying the importance of TMO could be presented more succinctly to focus not so extensively on the wider aim of the research (improve quality of TMO services) and instead focus on what is currently known about the management of TMO.

Authors' response: The introduction of the manuscript has been shortened up and now focuses more on what is currently known about the management of TMO (see pages 7 - 11) and the relevance of conducting our systematic review.

2. Did the pilot search use the same approach as proposed in Step 1? Were any modifications made?

Authors' response: We used exactly the same approach for the pilot search. The first search used the three key concepts: trapeziometacarpal joint, osteoarthritis, and treatment; the second search, trapeziometacarpal joint, osteoarthritis, and pain. The same keywords relating to psychotherapeutic modalities were also included in both searches.

3. Some minor points- Use full terms and not abbreviations at start of sentences - line 49 page 5, line 21 page 6, Pg 15 - line 12/13- check sentence for readability

Authors' response: As suggested, we have avoided beginning sentences with abbreviations in our manuscript (see lines 298 - 307, page 12). We have also revised the sentences to improve readability (line 171, page 7 & line 403, page 17).

#### REPLY TO REVIEWER 2: Dr. JENNIFER WOLF

1. Page 5, line 16: Patients with TM OA don't typically present with stiffness. The joint is not stiff even late in the disease, although the thumb unit itself may become contracted due to metacarpal subluxation. Please consider revision.

Authors' response: We agree that the stiffness observed in TMO patients is more likely to be due to metacarpal subluxation and joint contracture, and is observed in most advanced TM OA. We have thus omitted the term in our revised manuscript (see line 192, page 8).

2. Page 4, line 39 - I would note our paper on symptomatic TM OA for the authors' consideration - this was based on data in the Swedish registry focused on physician-diagnosed OA, thus clearly symptomatic, although our database study could not confirm radiographic OA (it is inferred as the disorder was diagnosed in the clinical setting).

Authors' response: The paper by J. M. Wolf, A. Turkiewicz, I. Atroshi and M. Englund 2014 Prevalence of Doctor-Diagnosed Thumb Carpometacarpal Joint Osteoarthritis: An Analysis of Swedish Health Care. Arthritis Care & Research is now cited in our manuscript where we now refer to symptomatic prevalence with and without radiographic findings (see line 181, page 7).