

PEER REVIEW HISTORY

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ARTICLE DETAILS

TITLE (PROVISIONAL)	Diagnosis and treatment for hyperuricemia and gout: a systematic review of clinical practice guidelines and consensus statements
AUTHORS	Li, Qianrui; Li, Xiaodan; Wang, Jing; Liu, Hongdie; Kwong, Joey; Chen, Hao; Li, Ling; Chung, Sheng-Chia; Shah, Anoop; Chen, Yaolong; An, Zhenmei; Sun, Xin; Hemingway, Harry; Tian, Hao-Ming; Li, Sheyu

VERSION 1 – REVIEW

REVIEWER	Puja Khanna University of Michigan USA
REVIEW RETURNED	03-Oct-2018

GENERAL COMMENTS	I congratulate the authors on conducting an in-depth systematic review. however my enthusiasm for the manuscript is low since it does not contribute to the extant body of literature. There have been several reviews on the literature presented by the authors and all have concluded with the similar findings. If the trials do not have standard outcomes/measures how can the practice guidelines evaluate uniform data when the methodology (AGREE) was not utilized in them. It is unfair to use this process as a result..
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REVIEWER	Shelagh Szabo Broadstreet, Canada
REVIEW RETURNED	25-Oct-2018

GENERAL COMMENTS	<p>This is a very nice summary of a systematic review of guidelines for the management of gout. The review is very comprehensive, well conducted, and clearly written up. I had only a few queries/comments:</p> <p>1) I feel like this is a fairly specialized piece of work that might be best placed in a rheumatology journal to best reach its intended audience.</p> <p>More minor points,</p> <p>2) Why were two separate dates used for searches of the two different databases?</p> <p>3) The search started in 2003, and some of the included guidance are quite old. What is the value of including old guidances, at all?</p> <p>4) A more global question is around how people use guidance documents. If everyone ignores all but the highest quality guidances, does it matter that so many poor guidances exist? (I am not saying that low-quality guidances should be published, but rather, how are these documents actually used). Most of the guidances that spring to mind quickly (EULAR, 3e, etc) are high-</p>
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	scoring for quality; so to understand what potential impact the various low-scoring guidances have (many of which appear to be regional), it would be good to understand how clinicians use guidances from different organizations (if at all). This could be expanded upon in the discussion.
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VERSION 1 – AUTHOR RESPONSE

REVIEWERS' COMMENTS

Reviewer 1

1. I congratulate the authors on conducting an in-depth systematic review. however my enthusiasm for the manuscript is low since it does not contribute to the extant body of literature. There have been several reviews on the literature presented by the authors and all have concluded with the similar findings. If the trials do not have standard outcomes/measures how can the practice guidelines evaluate uniform data when the methodology (AGREE) was not utilized in them. It is unfair to use this process as a result.

RE: Thank you for your comments. Although there have been reviews on this topic, we did not identify any systematic review of both clinical practice guidelines and consensus in gout and hyperuricemia providing an overview of their diagnosis and treatment using AGREE II appraisal. We did find several well-written and valuable narrative reviews [6-8], which indeed helped our study and others'. However, none of them was considered to be systematic reviews and quality assessment. As promoted by the editor, a recently published quality assessment study [5] reviewed all guidelines for gout. The difference between our work and this study is discussed as above.

AGREE instrument is an internationally established tool to evaluate the quality of guidance documents from six aspects. It is not necessary that the documents declare to utilize the AGREE methodology.

Reviewer 2

1. I feel like this is a fairly specialized piece of work that might be best placed in a rheumatology journal to best reach its intended audience.

RE: Thank you for raising concerns on the audience. We did consider this issue at the time of conducting this study. We agree that gouty arthritis can be a specialized rheumatological condition, but hyperuricemia is also a common condition of interest in the clinical practice of general internal medicine, endocrinology, cardiology, nephrology and oncology. Hyperuricemia is of high prevalence, varying from 5% to 25% [9,10] and is associated with multiple health outcomes [11]. Guidance documents for hyperuricemia are developed by groups of rheumatology, endocrinology, nephrology, and cardiology, and a growing number of multidisciplinary teams, supporting that hyperuricemia is a general medical concern, instead of a specialized issue. Hence, we would like to place our work in a general medical journal.

2. Why were two separate dates used for searches of the two different databases?

RE: Thank you for your inquiry. We searched PubMed and EMBASE on 27 October 2016 and downloaded all records for literature screening. Our search of ten guideline databases, Google, and Google Scholar was conducted in July 2017, after the screening of records from PubMed and EMBASE was completed, and all returned records were reviewed online. We conducted literature

search on two separate dates because their strategies were different. Moreover, the second literature search was scheduled on a later date, to some extent, to provide update on the first search.

3. The search started in 2003, and some of the included guidance are quite old. What is the value of including old guidances, at all?

RE: We searched all data sources from inception to the time of literature search and included only the latest version of documents released by the same organization. In daily practice, clinicians aim to focus on the most specific and the latest guidelines, but some may still focus on the old documents, especially when their regional guidelines or consensus were not timely updated. In this review, we hope to provide a full picture of all currently available documents and to explore the change of document qualities and recommendations over time.

4. A more global question is around how people use guidance documents. If everyone ignores all but the highest quality guidances, does it matter that so many poor guidances exist? (I am not saying that low-quality guidances should be published, but rather, how are these documents actually used). Most of the guidances that spring to mind quickly (EULAR, 3e, etc) are high-scoring for quality; so to understand what potential impact the various low-scoring guidances have (many of which appear to be regional), it would be good to understand how clinicians use guidances from different organizations (if at all). This could be expanded upon in the discussion.

RE: Thank you for helping us improve the messages to convey. We agree that the way clinicians use guidance documents is important. However, this topic could be subject of other studies, such as studies on guideline compliance. We also strongly agree that clinicians should refer to high-quality guidelines instead of the low-quality ones. Results from our study contribute as well to the distinguishing of documents with diverse quality and consequently help clinicians identify the high-quality guidance documents for daily practice. We added this interpretation of our work to the Discussion section, which reads as: 'These results reinforced that it is better for clinicians to refer to high-quality guidance documents instead of the low-quality ones. However, when high-quality documents are unavailable in the local language, referring to low-quality local documents might mislead clinical practice in the region. It is thus more challenging for non-English speaking countries, including China' (Page 19).

Yours sincerely,

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VERSION 2 – REVIEW

REVIEWER	Shelagh Szabo Broadstreet
REVIEW RETURNED	26-Feb-2019
GENERAL COMMENTS	Thank you for your responses. I still think that why this topic would be of widespread interest to BMJ Open readers needs additional support to highlight the value of a systematic review of older practice guidelines.

VERSION 2 – AUTHOR RESPONSE

Reviewer's Comments to Author:

Reviewer: 2

Thank you for your responses. I still think that why this topic would be of widespread interest to BMJ Open readers needs additional support to highlight the value of a systematic review of older practice guidelines.

RE: Thank you very much for raising this concern. As responded previously, the inclusion of older practice guidelines (e.g., the South African Medical Association guideline in 2003) was a consequence of our inclusion criteria that when a guideline or consensus was not updated, the initial version of the document was included. Despite emerging documents all over the world, especially in the US, the UK, and China, old regional documents might still affect regional practice, and hence should be evaluated.

To better highlight the value of including older practice guidelines, we further added the following arguments in the Discussion section: 'Moreover, the oldest document included in our study was the South African Medical Association guideline, published in 2003, and no guidance document in either English or Chinese was released in South African in the past 16 years. This finding suggested that some old documents might still affect regional practice. Efforts to timely update or declare the withdrawal of existing guidance documents are also critical for clinical practice.' (Page 19-20)