

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)	Nonoperative treatment for lumbar spinal stenosis with neurogenic claudication: An updated systematic review.
AUTHORS	Ammendolia, Carlo; Hofkirchner, Corey; Plener, Joshua; Bussières, André; Schneider, Michael; Young, James; Furlan, Andrea; Stuber, Kent; Ahmed, Aksa; Cancelliere, Carolina; Adeboyejo, Aleisha; Ornelas, Joseph

VERSION 1 – REVIEW

REVIEWER	Zaina, Fabio ISICO Milan
REVIEW RETURNED	08-Nov-2021

GENERAL COMMENTS	This is a very interesting paper summarizing the evidence about the conservative treatment of symptomatic LSS. The paper is clear and well written. I have no request nor suggestions
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REVIEWER	Hammerich, Amy Regis University
REVIEW RETURNED	16-Nov-2021

GENERAL COMMENTS	Thank you for the opportunity to review this manuscript. I believe this paper is useful for the physical medicine and rehabilitation clinicians, and will serve as preliminary evidence for non-surgical treatment of individuals with lumbar spinal stenosis. In general, the rationale and methods used in this study are sound and appropriate and appropriate address PRISMA 2020 Checklist. I find only a few areas for improvement. I hope the authors find my comments helpful to augment the knowledge sharing in this important area of rehabilitation research.
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VERSION 1 – AUTHOR RESPONSE

Reviewer 1

This is a very interesting paper summarizing the evidence about the conservative treatment of symptomatic LSS. The paper is clear and well written.

I have no request nor suggestions

Thank you for your comments No changes made

Reviewer 2 Thank you for your comments

Abstract

Broad characteristics of the participants with LSS (population) included is not clearly defined We have now included broadly the characteristics of the population of interest. "participants diagnosed with neurogenic claudication with imaging confirmed LSS" Abstract on page 4 lines 8-9

Methodology of the systematic review is not stated; risk of bias, methods to synthesize results We have now provided more details on risk of bias assessment and evidence synthesis "Two independent reviewers extracted data and assessed risk of bias using the Cochrane Risk of Bias Tool One. Grading of Recommendations Assessment, Development, and Evaluation (GRADE) was used for evidence synthesis Abstract on page 4 line 10-11 of manuscript

Results section is good but don't see "discussion" section and some information currently in results and conclusion might benefit from being in discussion section Editor suggests not to add discussion to abstract No changes made

Introduction

Information in introduction is appropriate and informative Thank you No changes made

Methods

Page 13, line 4: mentions statistically significant differences between comparators but no mention of the statistical analysis used in the methods. I am assuming the authors are referring to the statistical analysis performed by the authors of the original articles but this isn't stated clearly. We have now clarified the statement as follows

"The results below are reported based on statistically significant differences between comparators for each outcome using data reported by authors." Page 12 lines 12 and 13

Additionally, the mention of MCIDs assuming the reported MCID and not calculated by the authors of the statistical review should be clearly stated. We have now clarified the statement as follows. "The MCIDs we used are listed in Table 2."

The MCIDS selected are listed in Supplemental Table 2 with corresponding references. Page 12 line 14

Results

Age and intervention information from evidence in the beginning of the results is appropriate and helpful to identify population under review however more descriptive information can be helpful to understand this population although not necessary

Additional details of the population and interventions reviewed are sufficiently outlined in Supplemental Table 1 No Changes made

Page 13, Line 15-16 seems to be missing a parentheses We were unable to identify a missing parentheses? We did remove the adjacent parentheses to reduce confusion Page 13 line 13

Discussion

Focus for limitations section is on the evidence reviewed. Only risk of bias is discussed as limitation of review process

We listed several limitations that could potentially introduce bias at various stages of the review process. First, we included potential bias in the screening and selection process since we included English studies only and studies with small sample sizes. Second, in the assessment of risk of bias we stated that including a category of "Serious Flaw" and a cut-off point of 6/12 to determine high vs low risk of bias were arbitrary and therefore could lead to bias. Thirdly, the review was primarily limited to qualitative evidence synthesis because of the high heterogeneity across studies and this may lead to more bias. Finally, when making conclusions regarding clinical importance of reported treatment effects, we selected published MCID we felt were most appropriate although the validity of the selected MCIDs is unknown and this could introduce bias. No changes made

Page 28, line 15 states that bias can be reduced by using CONSORT guidelines for RCT, however this is not listed as a method used by reviewers

For our review we used Cochrane methods to search, screen, extract data, assess bias and to synthesize the evidence from eligible RCTs. We have now included the following sentence.

We used methods recommended by the Cochrane Back Review Group.

However, since most of the included trials in our review were of low quality, we suggest to potential authors of future trials to use the CONSORT guidelines when planning, conducting, and reporting of findings of RCTs to reduce bias and increase overall quality.

Page 7

line 17

Additionally, page 29, lines 10-11 states that the reviewer's rating of bias was arbitrary. These seem to be in contradiction and is not clear. Since major conclusions were based on assessment of bias, this should warrant more explanation.

We have modified the statement for clarification.

'The definition of a severe flaw and the cut-off point of 6 or more to differentiate trials of low from high risk of bias were arbitrary, therefore alternative definitions and cut-off points or the use of other risk of bias tools could have impacted the findings and conclusions of this review" Page 29

lines 2-4

Other limitations in the systematic review process should be clearly stated Please see response above. We believe we have sufficiently outlined the main limitations of our review. No changes

Conclusion

Conclusion is appropriate given information summary. Clinical relevance is stated appropriately.

Thank you No changes

VERSION 2 – REVIEW

REVIEWER	Hammerich, Amy Regis University
REVIEW RETURNED	09-Dec-2021
GENERAL COMMENTS	The authors have addressed concerns and the manuscript is appropriate for publication.