Author’s response to reviews

Title: Patient and system factors of mortality post hip fracture: a scoping review

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Author’s response to reviews:

Revision report

Thank you for all your valuable comments. We believe the manuscript is much improved following the changes we have made to address your comments. We highlight all changes in yellow for ease of reference.

Reviewer 1 comments

1. Reviewer comment:

Although the author have done a lot of works in this study, there was nothing new I can find in this manuscript. For old patients of hip fractures, we should see them as a whole person. Because all the factors can affected each other. So we usually use ASA and some other index to give an overall estimation.
Author response:

We thank you for taking your valuable time to review our work.

We have clarified the aims of our review in the Introduction section:

“More specifically, the aims of this review are 1) to identify patient and system factors of mortality after hip fracture, and 2) to identify factors with a proposed mechanism for their association with mortality.”

Thank you for the opportunity to clarify the novelty of our results. We have added the following text to the first sentence of the Discussion to improve the presentation:

“The purpose of this review was to synthesize the information available on proposed mechanisms for reported associations between patient and system factors and mortality after hip fracture.”

Further, we have added a paragraph highlighting the novel points of strength to the Discussion section:

“This is the first scoping review to synthesize the biological and hypothetical mechanisms for patient and system factors of mortality following hip fracture. Such synthesis represents a first step towards transparency about underlying assumptions when informing policy on potential interventions to improve survival in this vulnerable population.”
Reviewer 2 comments

1. Reviewer comment:

The authors performed an interesting review to evaluate the patient and system factors of mortality after hip fractures. In my opinion same revisions are needed to improve this manuscript.

Author response:

Thank you for your suggestions for the manuscript’s improvement. We address them below.

2. Reviewer comment:

According to the policy of the journal, the authors need to perform a systematic review. For this reason, I would suggest to clarify this issue in the title, and also to consider the PRISMA approach to improve the methodology of the study.

Author response:

We agree that authors submitting systematic reviews and meta-analysis of randomized trial should consider the PRISMA statement.

We thank you for the opportunity to clarify our intent to synthesize the literature on the proposed mechanisms for the reported patient and system factors of mortality in the hip fracture population. We have added the following text to the Introduction section:
“Scoping reviews represent an approach to summarizing the range of evidence on a subject, to clarify a complex concept, and to help refine subsequent research questions for a full systematic review.”

We followed the framework proposed by Arksey and O’Malley (cited by 1457) and updated by Levac et al (cited by 545). We have added the following statement to the Methods section:

“We have followed to a widely recognized framework by Arksey and O’Malley[6] and recommendations of Levac et al.[5] for conducting and reporting scoping reviews”

We have also clarified the key elements of the scoping review framework in the Methods sections:

“The key elements of the scoping review framework include formulating the research question, identifying relevant studies, selecting studies from electronic database, charting the extracted data, and collating, summarizing and reporting findings. We extend this framework by collecting information on the underlying mechanisms for found associations.”

Further we have added the following text to the Discussion section:

“This review is not without limitations. In contrast to a systematic review, where literature is critically appraised on the methodology, we assess the reviewed articles only according to the presence of proposed mechanisms for the reported associations. This is a common approach in scoping reviews where the purpose is to collate the evidence on a topic of interest.[5]”

3. Reviewer comment:

In the Introduction, I would suggest to clarify the rationale of the study. What the readers should learn by reading this paper.
Author response:

Thank you for this suggestion. We have updated text in the Introduction to highlight the importance of identifying underlying mechanisms for an association:

“Without knowledge of mechanisms mediating an association, interventions to improve survival post hip fracture can only be designed on the basis of the reported statistical associations. We believe designing interventions should rely on knowledge about a modifiable factor with negative effect on survival. Where modifiable factors lie on the causal pathway between exposure and outcome determines the focus of an intervention.”

4.Reviewer comment:

Moreover, the aims of the study should by clearly stated at the end of the introduction. In this respect, I would suggest to move the research question paragraph in this section.

Author response:

We have removed the ‘research question’ from the methods section of the manuscript and have added the following text to the introduction:

“More specifically, the aims of this review are 1) to identify patient and system factors of mortality after hip fracture, and 2) collate the description of proposed mechanisms for their associations with mortality.”

5.Reviewer comment:

In the Discussion, I would suggest to delete the first statements. In my opinion, it would be better to state the main finding of the study at the beginning of this section.
Author response:

That you for this valuable comment. We agree and have removed the first two statements from the discussion. The section now begins with the purpose and main findings:

“The purpose of this review was to synthesize the information available on proposed mechanisms for reported associations between patient and system factors and mortality after hip fracture. The articles included in this review point to plausible mediators in the biological mechanisms for mortality post fracture”

6. Reviewer comment:

Moreover, the authors should discuss extensively point of strength and limits of the present study.

Author response:

Again thank you for this valuable comment.

We have added a paragraph highlighting the points of strength to the Discussion section:

“This is the first scoping review to synthesize the biological and hypothetical mechanisms for patient and system factors of mortality following hip fracture. Such synthesis represents a first step towards transparency about underlying assumptions when informing policy on potential interventions to improve survival in this vulnerable population.”

We have also added the following sentence to the limitations section of the manuscript:
“We excluded articles reporting outcomes of interventions as they do not reflect hip fracture mortality resulting from usual care.”

Editor comments

1. Editor comment:

Ethics: If your study involves humans, human data or animals, then your article should contain an ethics statement which includes the name of the committee that approved your study. If ethics was not required for your study, then this should be clearly stated and a rationale provided.

Author response:

Thank you for this comment. We have added the following statement to the manuscript:

“This scoping review synthesizes published literature and ethical approval was not required.”

2. Editor comment:

Consent: If your article is a prospective study involving human participants then your article should include a statement detailing consent for participation.

If individual clinical data is presented in your article, then you must clarify whether consent for publication of these data was obtained.

Author response:

Not applicable to this review article.
Availability of supporting data: BioMed Central strongly encourages all data sets on which the conclusions of the paper rely be either deposited in publicly available repositories (where available and appropriate) or presented in the main papers or additional supporting files, in machine-readable format whenever possible. Authors must include an Availability of Data and Materials section in their article detailing where the data supporting their findings can be found. The Accession Numbers of any nucleic acid sequences, protein sequences or atomic coordinates cited in the manuscript must be provided and include the corresponding database name.

Author response:

Not applicable to this review article.

Authors Contributions: Your 'Authors Contributions' section must detail the individual contribution for each individual author listed on your manuscript.

Author response:

The author contributions section reads:

“All authors contributed to the conception and design of the review. In addition KJS, TS, AC contributed to the search development, identification of papers, and data extraction. KJS, BS, and PG contributed to the interpretation of the data extracted. KJS and SB drafted the manuscript. All authors critically revised the manuscript. All authors approved the final version for submission.”