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)	Prompt closure vs. gradual weaning of external ventricular drainage for hydrocephalus in adult patients with aneurysmal subarachnoid haemorrhage: A systematic review
AUTHORS	Capion, Tenna B.; Lilja-Cyron, Alexander; Juhler, Marianne; Mathiesen, Tiit; Wetterslev, Jørn

VERSION 1 – REVIEW

REVIEWER	David Hasan
	University of Iowa
REVIEW RETURNED	03-Aug-2020

GENERAL COMMENTS	The authors reviewed the literature and performed a meta-analysis to attempt to answer which method of weaning the EVD is the better: gradual meaning vs. prompt closure. Their conclusion is that there is not enough data to answer the question appropriately.
	This a good review and well written. I strongly believe that there should be other factors involved to answer this question like amount of iron/Ferritin in CSF and other biomarkers. However, this review is sufficient to show that either method is appropriate for now.

REVIEWER	DaiWai Olson UT Southwestern United States
	Participation in the EVD wean trial. This is a multicenter RCT of rapid vs slow EVD weaning after aSAH. The trial has finished data collection, but the results are not yet known.
REVIEW RETURNED	04-Aug-2020

GENERAL COMMENTS	Thank you for the opportunity to review this manuscript which at the core is a systematic review of 1 and only 1 paper. Although the format is more appropriate for a dissertation/thesis, the content within the manuscript (e.g., each separate sentence) is well
	written. However, my opinion is that it is not appropriate to reference this as a systematic review.
	Major Consideration:
	This is not a systematic review. I realize that this project began life as a systematic review, but you only found 1 paper and so this is somewhere between a letter-to-the-editor and an in-depth critique of one article. In a systematic review, I would expect that the author synthesize the existing body of knowledge in a formal

 (systematic) fashion. The title and the format of the manuscript should be revised accordingly. I think the authors make a reasoned argument against the current recommendation, but they do not offer enough evidence to reject the current recommendation and adopt a new one. Moreover, they do not offer a new recommendation. There needs to be an overwhelming amount of evidence to reject the current paradigm and adopt a new one. The current recommendation is not based solely on the one article by Klopfenstein. I think that this submission would be much more impactful if it were condensed down to about 1,500 words. It is written as though it were pulled from chapter 2 of a thesis. Much of the content wanders into sections and contents that I would expect to see only in a thesis. (see comments below). You have several pages of planned analyses that you never analyze. All this material can be deleted so the reader is more able to follow your argument.
Minor Considerations: In the first 4 pages you have 18 headers or sub=headers for 17 paragraphs. Six of the paragraph are only single sentence. Consolidate this content for readability. If the purpose is to summarize the evidence on benefits & harms, consider that a table would be very helpful. Mostly, this reads like a critique of one paper and a argument against a recommendation. Never have a paragraph that is only 1 sentence long. Be consistent in style. Either indent all paragraphs (preferred) or don't indent any of them. Same goes for spacing. This will make it much easier for the reviewer. Be consistent with terms Reference 28 is incomplete

VERSION 1 – AUTHOR RESPONSE

Answers to reviewer: 1

Please leave your comments for the authors below:

The authors reviewed the literature and performed a meta-analysis to attempt to answer which method of weaning the EVD is the better: gradual meaning vs. prompt closure. Their conclusion is that there is not enough data to answer the question appropriately.

This a good review and well written. I strongly believe that there should be other factors involved to answer this question like amount of iron/Ferritin in CSF and other biomarkers. However, this review is sufficient to show that either method is appropriate for now.

Comment: The group of authors thank reviewer 1 for taking the time to evaluate this manuscript. We agree that the issue of EVD discontinuation is affected by a number of factors including the composition and amount of CSF, and that future studies might reveal more detailed the role and significance these factors may play in the disease course.

Answers to reviewer: 2

Please leave your comments for the authors below:

Thank you for the opportunity to review this manuscript which at the core is a systematic review of 1 and only 1 paper. Although the format is more appropriate for a dissertation/thesis, the content within the manuscript (e.g., each separate sentence) is well written. However, my opinion is that it is not

appropriate to reference this as a systematic review.

Comment: The group of authors would like to thank reviewer 2 for taking the time to thoroughly examine this manuscript. The study was conducted as a systematic review following a review protocol previously published in BMJ Open with the intention to summarize and evaluate the current available evidence describing EVD discontinuation following aSAH, a field in general lack of scientific data.

Major Consideration:

This is not a systematic review. I realize that this project began life as a systematic review, but you only found 1 paper and so this is somewhere between a letter-to-the-editor and an in-depth critique of one article. In a systematic review, I would expect that the author synthesize the existing body of knowledge in a formal (systematic) fashion. The title and the format of the manuscript should be revised accordingly.

Comment: This recommendation disagrees with the explicit suggestion by the editorial team, and we have followed the latter. This systematic review aimed at assessing the evidence of benefits and harms of prompt closure vs. gradual weaning of external ventricular drainage in patients with hydrocephalus following aSAH based on RCT's. We have tried to adhere to the strict methodology and the rigorous demands specified in the PRISMA Statement which is an evidence-based tool for reporting of systematic reviews and meta-analyses. The fact that only one study was included in the present review should in our opinion not change the nature of how the study was conducted neither should it alter the definition of the methodology used in order to avoid data-driven interpretation. Multiple systematic reviews have previously been published with only one study included.

I think the authors make a reasoned argument against the current recommendation, but they do not offer enough evidence to reject the current recommendation and adopt a new one. Moreover, they do not offer a new recommendation. There needs to be an overwhelming amount of evidence to reject the current paradigm and adopt a new one. The current recommendation is not based solely on the one article by Klopfenstein.

Comment: The purpose of this systematic review was not to define a new recommendation for EVD discontinuation after aSAH, but to evaluate the current available evidence within the field. We conclude that the current recommendation is based on insufficient evidence, and that it as such is deficient in order to recommend either one of the two investigated strategies.

In clinical practice, physicians must decide whether guidelines apply to a specific patient in a specific situation, since evidence-based medicine reflects the combination of best evidence and clinical expertise. Under such conditions, individual physicians can make better informed decisions if available evidence has been critically assessed. We did not clarify nor discuss this issue further, but will be happy to do so if the reviewer thinks we could add clarity and improve understanding.

I think that this submission would be much more impactful if it were condensed down to about 1,500 words. It is written as though it were pulled from chapter 2 of a thesis. Much of the content wanders into sections and contents that I would expect to see only in a thesis. (see comments below). You have several pages of planned analyses that you never do and in-depth definitions of variables like QOL that you never analyze. All this material can be deleted so the reader is more able to follow your argument.

Comment: We agree that a longer methods section can complicate the reading of the manuscript and we thank the reviewer for his suggestion to limit the Methods section in order to make the manuscript more readable. We have made appropriate corrections.

Minor Considerations:

In the first 4 pages you have 18 headers or sub=headers for 17 paragraphs. Six of the paragraphs are only single sentence. Consolidate this content for readability.

Comment: Please, see above. Appropriate corrections have been made.

If the purpose is to summarize the evidence on benefits & harms, consider that a table would be very helpful. Mostly, this reads like a critique of one paper and an argument against a recommendation. Never have a paragraph that is only 1 sentence long.

Be consistent in style. Either indent all paragraphs (preferred) or don't indent any of them. Same goes for spacing. This will make it much easier for the reviewer.

Be consistent with terms

Reference 28 is incomplete

Comment: Appropriate corrections have been made regarding formatting, style and paragraphs.