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)	A protocol for a network meta-analysis of interventions to treat patients with blood blister-like aneurysms of the internal carotid artery
AUTHORS	Li, Yujian; Yang, Xiang; Zhou, Huiqing; Li, Hao; Zheng, Jun; Li, Li; Hui, Xuhui

VERSION 1 – REVIEW

REVIEWER	McConnachie, Alex	
	University of Glasgow, Robertson Centre for Biostatistics	
REVIEW RETURNED	28-Feb-2023	
GENERAL COMMENTS	Li et al provide a description of the protocol for a network meta- analysis of interventions for patients with blood blister-like aneurisms of an internal carotid artery. This review looks mainly at the statistical aspects of the proposal.	
	The statistical methods, as described, seem appropriate for this type of study. The authors propose pairwise analyses of direct intervention comparisons to begin with, followed by a Bayesian network meta-analysis, to get at the indirect comparisons. Interventions will be ranked using appropriate metrics. Inconsistency within the models will be assessed. Various subgroup and sensitivity analyses are proposed. These are all good, and my comments are fairly minor.	
	Retrospective studies are to be excluded. Is this wise? I would have thought that there could be some quite good retrospective cohort studies in this population.	
	Regarding the primary outcome, is this a composite of the three listed outcomes? If so, simply adding "the composite of" to the description would make it clearer. Is there an intention to look at the components of the primary outcome as secondary outcomes?	
	Would subgroup analyses of RCTs and observational studies be of value, or is that covered by the design-by-treatment model referred to in the section on inconsistency?	
	Sensitivity analyses are proposed in terms of excluding each study in turn, which is fine. Would it also be of value to repeat the network meta-analysis, excluding each intervention in turn, to see if the ranking of the remaining interventions is stable?	

REVIEWER	TALARI, SANDEEP
	Andhra Medical College

REVIEW RETURNED	24-Mar-2023
GENERAL COMMENTS	It would be interesting to know the outcome of the metaanalysis as the management of blister aneurysms is indeed difficult, with the risk of intraoperative rupture. A surgeon experienced in high flow bypas surgery will be biased to do trapping and bypass whereas an endovascular collegue will be biased towards towards using a flow diverter. I believe clipping, wrapping, wrap clipping, only trapping and only coiling are not considered ideal now .Will wait to see the results of the study

REVIEWER	Yoshioka, Hideyuki
	University of Yamanashi, Neurosurgery
REVIEW RETURNED	17-May-2023
GENERAL COMMENTS	Since the optimal treatment for BBAs remains controversial, I am looking forward to seeing the results of the network meta-analysis using this protocol.

VERSION 1 – AUTHOR RESPONSE

Reviewer 1

Response to comment: Retrospective studies are to be excluded. Is this wise? I would have thought that there could be some quite good retrospective cohort studies in this population.

Response: Thank you! Considering the Reviewer's suggestion, we will include retrospective studies in this population.

Response to comment: Regarding the primary outcome, is this a composite of the three listed outcomes? If so, simply adding "the composite of..." to the description would make it clearer. Is there an intention to look at the components of the primary outcome as secondary outcomes?

Response: Thank you! Considering the Reviewer's suggestion, we have added "the composite of..." to the description of primary outcome in the Abstract section and Eligibility criteria section, and we will regard the composite of the three listed outcomes as primary outcome.

Response to comment: Would subgroup analyses of RCTs and observational studies be of value, or is that covered by the design-by-treatment model referred to in the section on inconsistency?

Response: Thank you! Considering the Reviewer's suggestion, we have added the subgroup analyses of RCTs and observational studies in the Subgroup analysis section. And, the inconsistency of study design will be evaluated by the design-by-treatment model.

Response to comment: Sensitivity analyses are proposed in terms of excluding each study in turn, which is fine. Would it also be of value to repeat the network meta-analysis, excluding each intervention in turn, to see if the ranking of the remaining interventions is stable?

Response: Thank you! With reference to previous literature [1], we think that sensitivity analyses are proposed in terms of excluding each study in turn is fine. We will also try the method proposed by the reviewer in the subsequent research process.

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Reference

1.Yu Zhiyuan, Zheng Jun, Ma Lu et al. Comparison of surgical strategies in patients with spontaneous intracerebral haemorrhage: a protocol for a network meta-analysis. BMJ Open, 2019, 9: e027658.

REVIEWER	McConnachie, Alex
	University of Glasgow, Robertson Centre for Biostatistics
REVIEW RETURNED	17-Jul-2023
GENERAL COMMENTS	The paper by Yujian Li and colleagues presents a protocol for a network meta-analysis of interventions for blood blister-like aneurysms of the internal carotid artery. This review considers the statistical aspects of the paper.
	Overall, the statistics proposed in the paper reads like a list of recommended methods for a NMA, and as such, there is not much wrong with the planned analyses.
	In response to previous comments, the authors say that they will include retrospective studies, but the discussion section of the paper still says that these will be excluded. Otherwise, I am happy with the responses given.
	One other point, and apologies for not spotting this earlier. I am not an expert in NMA, but is it true that the STATA modules for NMA are doing a Bayesian analysis? I have done some reading, and I am not sure whether this is the case.
	Finally, regarding the use of English in the paper, this is generally fine, though the paper tends to switch between past and future tense at times. Is this deliberate (i.e. have parts of the study been done, with other parts still to do)?

VERSION 2 – REVIEW

VERSION 2 – AUTHOR RESPONSE

Reviewer 1

Response to comment: In response to previous comments, the authors say that they will include retrospective studies, but the discussion section of the paper still says that these will be excluded. Otherwise, I am happy with the responses given.

Response: Thank you! In the discussion section, we have corrected accordingly. The content is as follows: Both randomized controlled studies and non-randomized studies will be included to strengthen the statistical power of this network meta-analysis.

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Response to comment: One other point, and apologies for not spotting this earlier. I am not an expert in NMA, but is it true that the STATA modules for NMA are doing a Bayesian analysis? I have done some reading, and I am not sure whether this is the case.

Response: Thank you! Previous high quality study has shown that NMA could be performed with STATA software package. 1

Response to comment: Finally, regarding the use of English in the paper, this is generally fine, though the paper tends to switch between past and future tense at times. Is this deliberate (i.e. have parts of the study been done, with other parts still to do)?

Response: Thank you! We have corrected accordingly, and the past tense have been

changed to the future tense.

Reference

1.logna Prat Laura, Wilson Peter, Freeman Suzanne C et al. Antibiotic treatment for spontaneous bacterial peritonitis in people with decompensated liver cirrhosis: a network meta-analysis. Cochrane Database Syst Rev, 2019, 9: CD013120.