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)	Weaning from mechanical ventilation in people with neuromuscular disease: a systematic review
AUTHORS	Bernardes Neto, Saint Clair; Torres-Castro, Rodrigo; Lima, Íllia; Resqueti, Vanessa; Fregonezi, Guilherme

VERSION 1 – REVIEW

REVIEWER	Kataoka, Yuki
	Hyogo Prefectural Amagasaki Hospital
REVIEW RETURNED	04-Dec-2020

GENERAL COMMENTS	Overall Evaluation:
	Thanks for giving me to review this manuscript.
	Authors aimed to assess the effects of different weaning protocols in
	people with neuromuscular disease receiving invasive mechanical ventilation. They found no eligible study. This is a well-written manuscript. However, there are several methodological aspects the warrant further clarification and alternative statistical analyses may be indicated.
	Major
	Please show the details of excluded full text articles.
	Authors mentioned that "Other study types, such as non-randomised trials, crossover studies and case—control studies will be described in the 'Discussion' section of the review" in their protocol. I think that it is necessary for readers to know "what has already been done?" Increasing the amount of information, even if it was not sufficiently specified in the protocol, would add scientific value to this paper. How about summarize the articles in table 1? With such information, researchers will conduct RCTs easily.
	Minor
	 Please show the search results of each database in the flowchart. p7 We will also searched
	Please use past tense.

REVIEWER	Morgan, Helen
	Cardiff University, SURE, University Library Service
REVIEW RETURNED	17-Dec-2020

GENERAL COMMENTS	Abstract (page 1, lines 26 -29) - consider altering text to 'invasive mechanical ventilation, identifying which protocol is the best and how different protocols can affect weaning outcome success'. From this point forward use non-randomised not quasi-randomised for consistency.
	See my comments below about detail needed in discussion regarding excluded studies which could impact detail in conclusions,

this will need to be reflected in abstract. Page 5 - Population - remove 'people' from 1st line Page 8 - search method - correct 'weer' to 'were' Page 8 - discussion - delete 'any of' from 'and applied to this population in any of the aforementioned types of protocls.' protocols. More discussion around the 18 non-randomised or observational studies would be useful, were they just excluded on study design? The authors state that quasi-RCTS would be included so were the excluded non-randomised studies outside of this criteria? More specific reasons for exlcusion in the PRISMA diagram are needed. Could some of these excluded studies give some indication for further research i.e. right poulation and intervention? Are RCTs wholly appriopriate for this population? Discuss. Reconsidering the excluded studies may lead to added detail around limitations of the inclusion criteria of this review. The protocol did state: 'We will identify non-randomised studies for inclusion in the discussion from the same search results.' so the 18 excluded studies need to be discussed. Without this detail the conclusions are misleading with regards to the last paragraph of the conclusions and therefore abstract conclusions. Check page numbering in PRISMA checklist matches.

REVIEWER	ORLIKOWSKI, David
	Service de Réanimation médicale et unité de ventilation à domicile, centre de référence neuromusculaire GNHM, CHU
	Raymond Poincaré, APHP, Université de Versailles Saint Quentin
	en Yvelines, Garches, France 2) Centre d'Investigation clinique et
	Innovation technologique CIC 14.29, INSERM, Garches, France
REVIEW RETURNED	24-Dec-2020

GENERAL COMMENTS	No specific comments.

VERSION 1 – AUTHOR RESPONSE

Dear Reviewer 1 (Dr. Yuki Kataoka), thanks a lot for your comments. After the review the following adjustments were made:

- The excluded studies were explained with more details in the flowchart and in the results section;
- The non-randomized trials that had a control group with results regarding weaning protocol were included in the discussion section (p.8, line 25 p.9 line 28);
- The studies were not summarized in a table due to their enormous methodological differences, interventions and outcomes, but they were described in the text (Results and Discussion sections);
- The search result of each database was included in the flowchart:
- In p7 the text was corrected.

Dear Reviewer 2 (Dr. Helen Morgan), thanks a lot for your comments. After the review the following adjustments were made:

- The text in abstract (lines 26-29) written again with correction;
- The term quasi-randomized was changed for non-randomized trial all over the text;
- The text in p5 was corrected;
- The text in p8 was corrected;

- Discussion about the reasons and the study types were included in the flowchart as well in the results and discussion section;
- The 2 non-randomized trials that had a control group with results regarding weaning protocol were included and highlighted in the discussion section.

Dear Reviewer 3 (Dr. David Orlikowski), thanks a lot for your comments.

VERSION 2 – REVIEW

REVIEWER	Kataoka, Yuki
	Hyogo Prefectural Amagasaki Hospital
REVIEW RETURNED	15-Mar-2021
GENERAL COMMENTS	Authors answered my comments.
REVIEWER	Morgan, Helen
	Cardiff University, SURE, University Library Service
REVIEW RETURNED	28-Mar-2021
GENERAL COMMENTS	More clarity is needed in the rewritten results and discussion
	sections.
	Page 8, Results, line 40-45:
	rage of itesuits, line 40-43.
	This section is not clear, please rewrite for clarity, firstly referring to
	the sets described in figure 1, that is 2 non-randomized studies, 6
	observational studies etc were excluded, example below
	'Although 24 publications were selected for full-text reading, none
	met the eligibility criteria. The excluded publications comprised of 2
	non-randomized studies, 6 observational studies'
	then discuss the reasons for excluding the 2 non-randomized
	studies, also be clearer about if they had a comparison group.
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	The discussion needs to be clearer about the group of 19 studies that were excluded, it is difficult to follow which studies are being referred to and if all are discussed. More detail is required on population and intervention rather than the results of excluded studies.

VERSION 2 – AUTHOR RESPONSE

Dear Reviewer 2 (Dr. Helen Morgan), thanks a lot for your comments. After the review the following adjustments were made:

- The Results and Discussion sections were rewritten to provide greater clarity about the non-inclusion of articles and better understanding of the 2 non-randomized articles, as suggested.

VERSION 3 - REVIEW

REVIEWER	Morgan, Helen
	Cardiff University, SURE, University Library Service
REVIEW RETURNED	09-Aug-2021

GENERAL COMMENTS	Thank you for amending the text to provide clarity.
	Please note some minor typographical issues:
	71 0 1

page 5, line 13/14 'ethical approval mas not applicable' - do you mean 'is not applicable?
page 9, line 3-5, end of sentence is not clear, probably delete 'due to relevant information'