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)	EFFECTS OF HOME HEALTH CARE FOR ADULTS WITH CHRONIC RESPIRATORY DISEASES AND POST-COVID SYNDROME ON HOSPITAL BED TURNOVER RATE: A PROTOCOL OF SYSTEMATIC REVIEW WITH META-ANALYSIS
AUTHORS	Leite, Sarah; Monteiro, Karolinne; Santino, Thayla; Chaves, Gabriela; Barbosa, Joubert; Santos, Tácito; Amaral, Cleia; Ahmed, Sara; Gama, Zenewton; Mendonça, Karla

VERSION 1 – REVIEW

REVIEWER	Shunsuke Taito Hiroshima University Hospital
REVIEW RETURNED	08-Nov-2022

| GENERAL COMMENTS | Thank you very much for the opportunity to review the submitted protocol of systematic review with meta-analysis. The reviewer appreciates the present protocol but has got some concerns.

Major comments
1. Page 5 Line 4-
The definition of type of outcome measures should be more detailed. The authors need to state whether each outcome is treated as dichotomous data or continuous data. There are multiple measures of health-related quality of life and multiple ways to integrate them. The authors should clarify in advance which indicators they intend to extract data for which outcomes. Also, the time point is described in three parts, but when is it 3 months from? Also, at what point will the authors plan to divide the "immediate" and "short-term" time points?

2. Page 10 Line 8-
What is the reason for adding the secondary outcome, Re-admissions to the hospital, instead of HRQOL, which is the primary outcome for subgroup analysis?
I recommend performing subgroup analysis for primary outcomes.

3. Page 10 Line 37-
It is appropriate to pre-define the outcomes to be included in the Summary of findings table to avoid cherry picking. I recommend including all three primary outcomes in SoF table. Additionally, please specify in advance up to four outcomes from secondary outcomes to be presented in the SoF table. The Cochrane handbook describes that "The rows of a 'Summary of findings' table should include all desirable and undesirable health outcomes (listed in order of importance) that are essential for decision making, up to a maximum of seven outcomes." The Cochrane handbook states to include undesirable health outcomes, so please include the |

undesirable health outcomes that the authors believe will occur by the intervention.

Minor comments
1. Page 4, line 33 The authors should provide more detailed definitions of CRD and post-covid syndrome. It would be appropriate to specify in advance what diseases and syndromes are to be included.

2. Page 5 Line 35- Since the authors have described that rehabilitation in Types of interventions, the authors could consider adding PEDro to Information sources.

3. Page 10 Line 16- What will the authors intend to extract as the duration of treatment in the subgroup analysis? The authors should specify in advance the immediate, short-term, and long-term durations.

REVIEWER	Md. Nazim Uzzaman The University of Edinburgh Usher Institute of Population Health Sciences and Informatics
REVIEW RETURNED	04-Dec-2022

GENERAL COMMENTS	Overall, this is a comprehensive protocol with several standout points of note including the inclusion of non-English language papers, and the inclusion of PPI members. There are several points of note I would like the authors to respond to: Abstract: 1. The abstract is clear and details databases, PICO, quality assessment and research questions. Please use the use short form of chronic respiratory diseases consistently throughout the manuscript. CRDs in place of CRD would be more appropriate in most instances. 2. Line 16: You mentioned that you will include studies reported in full text or abstract. Does the inclusion of abstracts make sense? Please re-write the sentence. Introduction: 1. Line 47-48: 'We will consider…' seems unnecessary here. Methods and analysis: 1. What do chronic respiratory diseases include? Please provide an operational definition. 2. Line 9: 'This study was registered in the PROSPERO'. This statement in the present tense would sound good. 3. Line 26: Please revisit the sentence as suggested in the abstract. 4. Line 33: Are you considering CRD and/or post-COVID? In the earlier part of the manuscript, you mentioned CRD and post-COVID. 5. Line 26: Glad to see that you have explicitly mentioned the time points Data extraction and management 1. Line 51: Who will pilot the data extraction form? Assessment of heterogeneity 1. Line 43: What is the reason for considering the p-value 0.1 as statistically significant?

	Sensitivity analysis 1. What is the rationale for including some concerns studies in the sensitivity analysis? Certainty of the evidence 1. Please mention explicitly who will be involved in the GRADE assessment. Reference: 1. Please double-check your reference style meet the BMJ Open guidelines. I have noticed some inconsistencies. 2. Reference 13: Please cite the latest version of the Cochrane Handbook for Systematic Reviews of Interventions.

VERSION 1 – AUTHOR RESPONSE

Reviewer 1	
1. Page 4, line 33 The authors should provide more detailed definitions of CRD and post-covid syndrome. It would be appropriate to specify in advance what diseases and syndromes are to be included.	We included a definition of chronic respiratory diseases in the introduction section. We also provided examples of CRDs that may be included (types of participants section).
1. Page 5 Line 4- The definition of type of outcome measures should be more detailed. The authors need to state whether each outcome is treated as dichotomous data or continuous data. There are multiple measures of health-related quality of life and multiple ways to integrate them. The authors should clarify in advance which indicators they intend to extract data for which outcomes. Also, the time point is described in three parts, but when is it 3 months from? Also, at what point will the authors plan to divide the "immediate" and "short-term" time points?	We provided more details on the outcomes measurements and specified the outcomes that may be measured by patient-reported measurement instruments. The information about dichotomous/continuous data depends on the instrument used to collect the data. In addition, regarding the time points, we specified the short term as three months after the intervention. If data from rating scales are combined in a meta-analysis, we will ensure they are entered with a consistent direction of effect (e.g., lower scores always indicate improvement).
2. Page 5 Line 35-	Despite the continued growth of the PEDro database, we decided not to include it in our systematic review for

	several reasons. Firstly, we had already included the most comprehensive databases (MEDLINE, EMBASE, CINAHL, and CENTRAL), and PEDro was found to overlap significantly with these. Additionally, we felt that PEDro was not likely to substantially contribute to our study because, despite the inclusion of rehabilitation as a description of the intervention, our preliminary searches indicated that the eligible studies were more likely to be related to nursing interventions than rehabilitation. Furthermore, PEDro is not regularly updated, with the last update having occurred on December 5, 2022, and the next planned for February 6, 2023. Therefore, we made this decision based on the relevance and feasibility of PEDro in the context of our review.
Since the authors have described that rehabilitation in Types of interventions, the authors could consider adding PEDro to Information sources.	
2. Page 10 Line 8- What is the reason for adding the secondary outcome, Re-admissions to the hospital, instead of HRQOL, which is the primary outcome for subgroup analysis? I recommend performing subgroup analysis for primary outcomes.	This systematic review is being performed to meet a demand from the Brazilian Ministry of Health. "Re-admissions to the hospital" is an outcome of interest to support national public policies on home care.
3. Page 10 Line 16- What will the authors intend to extract as the duration of treatment in the subgroup analysis? The authors should specify in advance the immediate, short-term, and long-term durations.	This point will be removed from the subgroup analysis since all final results will be presented separately by time points. Thank you for your suggestion.
3. Page 10 Line 37- It is appropriate to pre-define the outcomes to be included in the Summary of findings table to avoid cherry picking. I recommend including all three primary outcomes in SoF	Thank you for this comment. The outcomes were pre-defined, and all three primary outcomes were considered for the summary of findings table. We replaced the outcome "functional status" with "adverse events" as an undesirable health outcome.

table. Additionally, please specify in advance up to four outcomes from secondary outcomes to be presented in the SoF table. The Cochrane handbook describes that "The rows of a 'Summary of findings' table should include all desirable and undesirable health outcomes (listed in order of importance) that are essential for decision making, up to a maximum of seven outcomes." The Cochrane handbook states to include undesirable health outcomes, so please include the undesirable health outcomes that the authors believe will occur by the intervention.	
Reviewer 2	
Abstract: 1. The abstract is clear and details databases, PICO, quality assessment and research questions. Please use the use short form of chronic respiratory diseases consistently throughout the manuscript. CRDs in place of CRD would be more appropriate in most instances.	We amended the use of the short form of chronic respiratory diseases consistently throughout the manuscript.
2. Line 16: You mentioned that you will include studies reported in full text or abstract. Does the inclusion of abstracts make sense? Please re-write the sentence.	We included abstracts to broaden the search and identify studies that have not been fully published. In addition, we can contact the authors for further information if the abstracts only provide partial data.
Introduction: 1. Line 47-48: 'We will consider…' seems unnecessary here.	Thank you. We excluded the mentioned sentence.
Methods and analysis: 1. What do chronic respiratory diseases include? Please provide an operational definition.	We included a definition of chronic respiratory diseases in the introduction section to provide context and clarify the focus of the study. (Section "Types of participants"

	of methods)
2. Line 9: 'This study was registered in the PROSPERO'. This statement in the present tense would sound good.	Thank you for pointing that out. We amended the tense verb.
3. Line 26: Please revisit the sentence as suggested in the abstract.	We amended the corresponding sentence in the abstract.
4. Line 33: Are you considering CRD and/or post-COVID? In the earlier part of the manuscript, you mentioned CRD and post-COVID.	We apologize for the mistake. We amended the mentioned sentence by standardizing it with "or", in order to include both conditions: CRDs and post-COVID syndrome, but not necessarily together. We modified it in the title, in the abstract, in the last paragraph of the introduction, and in the methods.
5. Line 26: Glad to see that you have explicitly mentioned the time points	We appreciate your feedback. Mentioning the time points was a deliberate decision to help manage the data and ensure transparency.
Data extraction and management 1. Line 51: Who will pilot the data extraction form?	The missing information has been entered.
Assessment of heterogeneity 1. Line 43: What is the reason for considering the p-value 0.1 as statistically significant?	According to Cochrane Handbook: "Care must be taken in the interpretation of the Chi2 test, since it has low power in the (common) situation of a meta-analysis when studies have small sample size or are few in number. This means that while a statistically significant result may indicate a problem with heterogeneity, a non-significant result must not be taken as evidence of no heterogeneity. This is also why a P value of 0.10, rather than the conventional level of 0.05, is sometimes used to determine statistical significance". (https://training.cochrane.org/handbook/current/chapter-10#section-10-10-2). Chapter 10 reference: Deeks JJ, Higgins JPT, Altman DG (editors). Chapter 10: Analysing data and undertaking meta-analyses. In: Higgins JPT, Thomas J, Chandler J, Cumpston M, Li T, Page MJ, Welch VA (editors). *Cochrane Handbook for Systematic Reviews of Interventions* version 6.3

	(updated February 2022). Cochrane, 2022. Available from www.training.cochrane.org/handbook.
<u>Sensitivity analysis</u> 1. What is the rationale for including some concerns studies in the sensitivity analysis?	We modified this point in the section to accept your suggestion. We decided to exclude studies with some concerns and high risk. It makes more sense because these two categories are studies that do not demonstrate good quality.
<u>Certainty of the evidence</u> 1. Please mention explicitly who will be involved in the GRADE assessment.	We added the information in the first paragraph of the section "Certainty of the evidence".
<u>Reference:</u> 1. Please double-check your reference style meet the BMJ Open guidelines. I have noticed some inconsistencies.	We double-checked the references. Thank you for your advice.
<u>2. Reference 13:</u> Please cite the latest version of the Cochrane Handbook for Systematic Reviews of Interventions.	We updated this reference. Thank you

VERSION 2 – REVIEW

REVIEWER	Shunsuke Taito Hiroshima University Hospital
REVIEW RETURNED	14-Jan-2023

GENERAL COMMENTS	I have no additional peer review comments on this manuscript.

REVIEWER	Md. Nazim Uzzaman The University of Edinburgh Usher Institute of Population Health Sciences and Informatics
REVIEW RETURNED	05-Jan-2023

GENERAL COMMENTS	Thanks for your hard work and for addressing my comments and suggestions.