

## 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

<b>TITLE (PROVISIONAL)</b>	Initiatives for improving delayed discharge from a hospital setting: A scoping review
<b>AUTHORS</b>	Cadel, Lauren; Guilcher, Sara; Kokorelias, Kristina; Sutherland, Jason; Glasby, Jon; Kiran, Tara; Kuluski, Kerry

### VERSION 1 – REVIEW

<b>REVIEWER</b>	Benson Hsu, MD, MBA, FAAP, FCCM University of South Dakota Sanford School of Medicine, United States
<b>REVIEW RETURNED</b>	28-Sep-2020

<b>GENERAL COMMENTS</b>	<p>This is a very timely review of the literature given the continued improvement necessary to decrease waste in healthcare. Overall, this review comprehensively explores the literature (formal and grey) into themes and characterizes each theme. My comments:</p> <ul style="list-style-type: none"><li>- Can you better define "grey literature"? Specifically, what methods did you use to explore the grey literature and what inclusion/exclusion you used to initially map out all available "grey literature"?</li><li>- Given concerns of "regression to the mean" for quality/process improvement projects, for the themes of tools, practice changes, there should be some categorization of the number/types of study that was more rigorous (randomized) versus a pre-post assessment.</li><li>- I am concerned about the exclusion criteria of the timing of discharge studies. These studies may still address issues that are characterized by themes. Just because a study focused on earlier discharge to improve cost savings for the length of stay, they may still be informative in identifying best practice changes, tools/guidelines, and other learnings helpful for delay of discharge.</li></ul>
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<b>REVIEWER</b>	SANDRO SCARPELINI UNIVERSIDADE DE SAO PAULO, BRAZIL
<b>REVIEW RETURNED</b>	05-Oct-2020

<b>GENERAL COMMENTS</b>	A very good and comprehensive paper, perhaps, in some parts might be summarized, to be more easily read.
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<b>REVIEWER</b>	Cristina Lavareda Baixinho Nursing School of Lisbon; Portugal.
<b>REVIEW RETURNED</b>	02-Dec-2020

<p><b>GENERAL COMMENTS</b></p>	<p>Dear authors:</p> <p>The article presented for publication in this journal deals with a current and pertinent theme for health care and policies.</p> <p>The title is clear. The abstract gives a good overview of the article. However, the objective presented in the abstract is different from the aims presented in the method section. The recommendation is to put this two aims in the abstract.</p> <p>The Keywords are clear but for indexing questions I suggest that the terms should be extracted from MeSH.</p> <p>The introduction makes possible to understand the problem under study and explores the international literature on the subject.</p> <p>The method is structured in accordance with the recommendations for reporting this type of literature review and is in accordance with the registered protocol (<a href="https://osf.io/rfzgu">https://osf.io/rfzgu</a>). The protocol has the name of 3 of the 6 authors of this articles - it is necessary to justify the inclusion of these authors.</p> <p>It is necessary to justify the choice of this time limit (2004-2019), the justification given is valid also for a period of 5 or 10 years. Despite being a literature review there is ethical issues associated with this type of research that should be reported.</p> <p>The team present the categorization of the content of the articles from the bibliographic sample - please clarify the methodological procedures and if any software was used for this content analysis.</p> <p>The results are clear, but difficult to read, because the data of the articles included are presented in 2 tables, which makes it difficult to associate the study design and the objectives to the results. Please consider the possibility of organizing tables in another way to facilitate reading. Eventually putting the results in table 2 and presenting a scheme / or a tree for the content analysis. It's possible to put in the same column participants/target group and sample size and in another column merge results with Key conclusions.</p> <p>The discussion allows comparison and deepening of the results.</p> <p>When referencing throughout the text, separate sequential references with a hyphen (e.g. 4-5), and separate the non-sequential ones with a comma (e.g. 4,12).</p> <p>In the final list of references, put the abbreviation of the journals and there are incomplete references. There is missing DOI in some articles.</p>
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**VERSION 1 – AUTHOR RESPONSE**

Reviewer 1:

1) This is a very timely review of the literature given the continued improvement necessary to decrease waste in healthcare. Overall, this review comprehensively explores the literature (formal and

grey) into themes and characterizes each theme.

Response: Thank you for your comment and noting the importance of this review.

2) Can you better define "grey literature"? Specifically, what methods did you use to explore the grey literature and what inclusion/exclusion you used to initially map out all available "grey literature"?

Response: Grey literature can be defined as, "any literature that has not been published through traditional means." (<https://guides.library.utoronto.ca/c.php?g=577919&p=4123572>) All grey literature was required to meet the same inclusion and exclusion criteria as the articles identified from the database searches. We added some information about what grey literature is, the grey literature databases and repositories that were searched and how the eligibility criteria were applied to grey literature. See pages 5 and 7.

3) Given concerns of "regression to the mean" for quality/process improvement projects, for the themes of tools, practice changes, there should be some categorization of the number/types of study that was more rigorous (randomized) versus a pre-post assessment.

Response: The study designs of each article are listed in Table 2. Given the few number of articles that used a "more rigorous" study design, we are not able to create meaningful categorizations of these studies within the main categories presented in the results (information sharing, tools and guidelines, practice changes, infrastructure changes and other). We have added some additional information stating this on page 11. We have also added this as a potential limitation on page 23. Additionally, we created a schematic (figure 2), which highlights what categories included articles with a randomized design.

4) I am concerned about the exclusion criteria of the timing of discharge studies. These studies may still address issues that are characterized by themes. Just because a study focused on earlier discharge to improve cost savings for the length of stay, they may still be informative in identifying best practice changes, tools/guidelines, and other learnings helpful for delay of discharge.

Response: While we acknowledge that studies focusing on earlier discharges to improve cost savings may have applicable learnings to discharge delays, we wanted to focus this review on strategies that were developed and/or implemented specifically to target discharge delays. We appreciate you raising this concern and have added it as a potential limitation of the review. See page 23.

Reviewer 2:

1) A very good and comprehensive paper, perhaps, in some parts might be summarized, to be more easily read.

Response: Thank you, we appreciate your comment. We have reviewed the paper to summarize and condense sections in order to improve readability. See track changes throughout.

Reviewer 3:

1) The article presented for publication in this journal deals with a current and pertinent theme for health care and policies.

Response: Thank you for your comment.

2) The title is clear. The abstract gives a good overview of the article. However, the objective presented in the abstract is different from the aims presented in the method section. The recommendation is to put this two aims in the abstract.

Response: Thank you for noting this. The objective in the abstract mapped onto the research question, but we have revised the abstract to align with the aims presented in the methods. See page 2.

3) The Keywords are clear but for indexing questions I suggest that the terms should be extracted from MeSH.

Response: Thank you for noting this; we have revised the keywords to include some additional MeSH terms. See page 3.

4) The introduction makes possible to understand the problem under study and explores the international literature on the subject.

Response: Thank you for this comment.

5) The method is structured in accordance with the recommendations for reporting this type of literature review and is in accordance with the registered protocol ([https://urldefense.com/v3/\\_\\_https://osf.io/rfzgu\\_\\_!!AvaGOQ!SQZUwd-Ug\\_p8l4j4rcjZnAz4pUUfhH3Pyb8LnNXS3DSYKHKXeMatgGG4ZJnAOPvbw\\$](https://urldefense.com/v3/__https://osf.io/rfzgu__!!AvaGOQ!SQZUwd-Ug_p8l4j4rcjZnAz4pUUfhH3Pyb8LnNXS3DSYKHKXeMatgGG4ZJnAOPvbw$)). The protocol has the name of 3 of the 6 authors of this articles - it is necessary to justify the inclusion of these authors.

Response: The three authors listed on the protocol were the core study team leading the scoping review. The additional authors were part of the grant team who provided critical and ongoing feedback on the analysis and writing of the manuscript. Please refer to the 'Author Contributions' section on page 25 for specific contribution details. If recommended, we can revise the registered protocol to include the additional authors.

6) It is necessary to justify the choice of this time limit (2004-2019), the justification given is valid also for a period of 5 or 10 years.

Response: We note that the justification provided on the time limit from 2004-2019 could potentially be valid for a period of 5 or 10 years; however, given the work that has been done over the last 15 years, we wanted to be more inclusive to reduce the chance of potentially relevant articles being excluded.

7) Despite being a literature review there is ethical issues associated with this type of research that should be reported.

Response: Thank you for bringing that to our attention, we have added a section on ethical considerations. See page 24. If these are not the ethical concerns the reviewer was referring to, we would appreciate some guidance/ examples of what to include in this section.

8) The team present the categorization of the content of the articles from the bibliographic sample - please clarify the methodological procedures and if any software was used for this content analysis.

Response: The procedure for analyzing the content of the included articles is outlined in section "Stage 5: Collating, summarizing and reporting results" on page 9. We conducted a thematic analysis of the extracted data and deductively applied a policy instrument/tool classification framework. No specific software was used for the analysis; however, Microsoft Excel was used to help organize the extracted data.

9) The results are clear, but difficult to read, because the data of the articles included are presented in 2 tables, which makes it difficult to associate the study design and the objectives to the results.

Please consider the possibility of organizing tables in another way to facilitate reading. Eventually putting the results in table 2 and presenting a scheme / or a tree for the content analysis. It's possible to put in the same column participants/target group and sample size and in another column merge results with Key conclusions.

Response: Thank you for noting this. We have revised the tables to improve their readability. We combined the method and study design columns (table 2) and moved the key conclusions from table 3 to table 2, as they are related to the overall study.

We have also created a schematic (figure 2) to help readers with the visualization of the results of the thematic analysis.

10) The discussion allows comparison and deepening of the results.

Response: Thank you for this comment.

11) When referencing throughout the text, separate sequential references with a hyphen (e.g. 4-5), and separate the non-sequential ones with a comma (e.g. 4,12).

Response: Thank you for noting this, we have revised the in-text references.

12) In the final list of references, put the abbreviation of the journals and there are incomplete references. There is missing DOI in some articles.

Response: Thank you for highlighting this. We have added the DOI to articles in which it was missing (some references are reports or web pages that do not have a DOI).

### VERSION 2 – REVIEW

<b>REVIEWER</b>	Benson Hsu, MD, MBA, FAAP, FCCM University of South Dakota Sanford School of Medicine
<b>REVIEW RETURNED</b>	24-Jan-2021

<b>GENERAL COMMENTS</b>	Very timely review of the topic through a deep exploration of available literature. Prior review's concern for the exclusion of "timing to discharge" studies and the failure in addressing the regression to the mean of studies have both been specifically noted by authors as weaknesses of the study. Responses are acceptable for publication.
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<b>REVIEWER</b>	Cristina Lavareda Baixinho Lisbon Nursing School
<b>REVIEW RETURNED</b>	22-Jan-2021

<b>GENERAL COMMENTS</b>	The scoping review addresses an issue of international interest, the research method and strategy are clear. The results are rigorous and are organized into categories, which promotes their organization. The recommended changes were introduced. The article is ready for publication.
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