

Peer Review File

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Round 1:

Reviewer A

1. It is an important scan of the surgical palliative care literature, an update since the last scan in 2016. This is a well-written high-level look that acknowledges the work in the field of palliative surgery to date, takes the frameworks that have been created and is trying to move the field forward. The authors correctly define it as a narrative review. It will hopefully provide further guidance to provide focus for researchers in the nascent field of palliative surgery.

Reply: Thank you for your comment. We firmly believe that a revised analysis of the literature in the space of palliative surgery is essential to guiding clinical practice and to informing directions for future research. We hope that our narrative review will encourage further progress in the field of palliative care of surgical patients.

Changes in the text: None

2. One comment is that there are a number of papers describing how to best format a narrative review. I would like the authors to provide a reference for the format that they have used.

Reply: Thank you for your comment. To support the process of conducting the review itself, including formalization of our search terms, establishing inclusion and exclusion criteria, searching multiple databases, conducting the review with two independent reviewers, manual searching high-yield journals (such as APM), conducting citation screening and using a citation manager we relied on the manuscript published by Siddaway et al “How to Do a Systematic Review: A Best Practice Guide for Conducting and Reporting Narrative Reviews, Meta-Analyses, and Meta-Syntheses,” published in the Annual Review of Psychology, 2019.

Changes to the text: We have included a citation to the above mentioned Siddaway article on line 75, our new citation #14. This is denoted on the track-changed manuscript, attached. Lines 73-75 are referenced below:

“With these consensus research directives, we undertook the task of updating the literature and summarizing recent contributions in the space of surgical palliative care since the first systematic review published in 2016.(14) ”

3. It seems to me that their methods of the review of the literature is comprehensive and appropriate.... all the papers and authors that are currently active that I am aware in the field are included.

Reply: Thank you for your comment.

Changes to the text: None

Reviewer B

1. Exceptionally well written and informative manuscript. Brings readers up to date on literature since the last topic review in 2016. Also helps identify areas for future research.

Reply: Thank you for your comment, and for taking the time to review our manuscript. We believe it fills an important gap in the current literature regarding the palliative care of surgical patients and we hope that our manuscript will motivate future progress in the field and improvements in clinical practice.

Changes to the text: None

Reviewer C

1. Kopecky and colleagues submit a narrative review examining use of palliative care interventions among surgical patients. This is an update from a prior study published in 2016 and using an established framework with which to interpret their findings. I applaud the authors for this well executed and well written study and have no major comments. This is an important addition to the existing literature, which I believe will be cited.

Reply: Thank you for your comment. We hope that our manuscript will motivate future progress in the field and improvements in clinical practice.

Changes to the text: None

2. My only comments are minor: 1) Please provide justification for why certain types of surgical patients were excluded from the analysis;

Reply: Thank you for your comment. As physicians trained in general surgery, we chose to focus our analysis on the palliative care of general surgery patients given our limited scope of knowledge regarding the surgical literature and indications for palliative care interventions outside our area of expertise. For this reason, we excluded from our analysis pediatric patients with heart failure, patients with ear, nose, and throat-related disease, patients receiving cardiac surgery, patients receiving urological care, and patients receiving left ventricular assist devices as described in lines 88-90 of our revised manuscript

Changes to the text: We have included a justification for our inclusion criteria on lines 86-89; “Given our limited scope of knowledge regarding the surgical literature and indications for palliative care interventions outside our area of expertise, this review only included publications focusing on adult general surgical patients receiving palliative care interventions.”

3. Recognizing that this was not a systematic review, were the bibliographies of the included manuscripts reviewed for any missed studies?

Reply: Thank you for your comment. We have performed an exhaustive review of the bibliographies of the included manuscripts to evaluate for missed studies. This is noted on lines 84-86. Our findings, and our manuscript, remain unchanged.

Changes to the text: None. For reference, lines 84-86 of the manuscript read: “Additional articles were included following a manual review of citations and publications from the Annals of Palliative Medicine special series on Palliative Care and Surgery”

4. Should it be EMBASE and not EMPBASE?

Reply: Thank you for your comment and for your attention to detail. This has been corrected in lines 23, 82, and 100 of the revised manuscript.

Changes to the text: This spelling has been corrected in lines 23, 82, and 100 of the revised manuscript.

Reviewer D

1. This is a narrative review from 2016 to 2022. The limitations of narrative reviews are known, and bias could be present, especially in this limited period of 6 years.

Reply: Thank you for your comments. We agree with you that narrative reviews, like all reviews, have limitations and we acknowledge that this was not mentioned in our original manuscript.

Changes to the text: We have added a sentence reflecting these limitations on lines 332-337, “As with any narrative review, our study has limitations including potentially missed publications, despite a comprehensive search of multiple databases and citation searching with manual review of select high-yield journals. The inclusion of expert guidance statements(29,31) helps to establish benchmarks for additional research in this area but is not itself objectively evidence-based. Bias(40) and study quality were not formally assessed and had the potential to influence conclusions of the individual studies included in this analysis.”

2. Authors mentioned gap in literature in the discussion section, however, a 6 year narrative review was performed and this is not reliable to conclude the presence of **literature gap**.

Reply: Given that no other comprehensive analyses have been published regarding palliative care interventions for surgical patients between 2016 to present, we do believe that there is a literature gap in this area and we are confident that this manuscript addresses this gap and informs direction for future research in this field.

Changes to the text: None

3. Discussion needs more depth. Last paragraph, again mentioned the presence of no publication offered insight into current practice, while this is should not be reported, unless a systematic review has been performed +/- metanalysis.

Reply: Thank you for your comment. In the fifth paragraph of the discussion, we noted that “No publications offer insight into the current practice of aligning surgical treatments with patient-oriented outcomes...”. As requested by this reviewer, we have clarified that in the process of performing this narrative review, that we did not identify any publications which address this issue.

Changes to the text: We have modified the first sentence of the fifth paragraph in lines 320-323 to reflect, as above, that “No publications identified in this narrative review offer insight into the current practice of aligning surgical treatments with patient-oriented outcomes...”

4. Limitations of the study section is missing, what are the future implications of this study?

Reply: Thank you for your comment, we agree and regret that this was an omission in our originally submitted manuscript.

Changes to the text: We have added a discussion of limitations on lines 332-337, “As with any narrative review, our study has limitations including potentially missed publications, despite a comprehensive search of multiple databases and citation searching with manual review of select high-yield journals. The inclusion of expert guidance statements(29,31) helps to establish benchmarks for additional research in this area but is not itself objectively evidence-based. Bias(40) and study quality were not formally assessed and had the potential to influence conclusions of the individual studies included in this analysis.”

5. In the discussion, predicting factors for survival, active surgical management should have been mentioned.

Reply: Thank you for your comment. While we agree that overall prognosis and patient-specific survival factors are key pieces of information in the clinical context, prognostication itself is outside the scope of this review. Although the individual management of surgical patients included in the cited studies was also beyond the scope of this review, it is reasonable to conclude that active surgical management was considered on an individual-patient level when appropriate. In comparison to hospice care, which is comfort-focused and often occurs outside of an institution like a hospital or clinic, palliative care is frequently offered concurrently with other modalities of treatment, including surgical intervention. Lines 304-305 of our discussion reflect on the need for clinical providers to “tailor value-concordant recommendations that focus on the day-to-day impact of potential interventions for surgical patients facing serious illness...”.

Changes to the text: None

6. No tabular analysis performed. how did the author analyse the data/included citations?

Reply: Based on this review and the comments of an additional reviewer we have decided to include a Table summarizing the findings in the text. Given that this was a narrative review, the data was analyzed in a narrative fashion and citations were included with the use of a citation manager.

Changes to the text: We have included a table, Table 2, according to the Reviewer’s request.

7. In results: Authors studied the outcomes that matters to patients.

Reply: We thank the Reviewer for this reflection

Changes to the text: None

8. A previous study concluded: Frailty, surgical diagnosis and existing DNAR were predictors of shorter admission to death interval. I suggest authors, can have a read; Nov 25;S1479-666X(21)00160-8. doi: 10.1016/j.surge.2021.09.003.

Reply: Thank you for this recommendation. As this publication is not related to palliative care interventions for surgical patients we have elected not to include it in this narrative review.

Changes to the text: None

Reviewer E

1. This was a well-written narrative review of the literature on palliative care use in surgical patients from 2016-2022. This is an important topic given the paucity of data in the surgical field. Findings included significant need for further research in terms of aligning goals of care with surgical treatment, ACP in the preop phase, and identifying the ideal timepoint to apply pall care principles in the surgical patient. Some additional findings included that there are frameworks in place for talking about ACP in the preop arena, there are advancements in documenting pall care in the EMR and guidelines on how to have these conversations, findings that patients fear debility and burdening loved ones rather than lack of decision making capability, and a distinct lack of surgeon comfort with pall care.

Reply: Thank you for your comment, this is a helpful and accurate summary of our manuscript.

Changes to the text: None

2. A couple of comments to strengthen the manuscript:

Results: in the Bergenholtz et al study, it would be interesting to know what percentage of participants felt each way.

Reply: Thank you for your comment. The Bergenholtz study was a qualitative study and unfortunately does not include/report data regarding percentages, though we agree that this would be interesting to know.

Changes to the text: None

3. If possible, it would be visually helpful to have a table that lists out the studies, type of study, N, and major findings.

Reply: Thank you for your comment. We have decided to add a Table 2 summarizing the included studies and their findings.

Changes to the text: We have included a table, Table 2, according to the Reviewer's request.

4. Discussion: I would mention in the discussion any thoughts on how we can "normalize" or better familiarize surgeons with palliative care so they are more comfortable initiating these conversations or consulting specialty palliative care.

Reply: Regarding thoughts on how we can better normalize palliative care for surgeons, we have added a comment to the end of the discussion highlighting the common ground of palliative care clinicians and surgeons. We do believe that building relationships with colleagues and becoming comfortable working in a multidisciplinary environment are key factors to fostering familiarity, understanding, and respect amongst interdisciplinary colleagues.

Changes to the text: We have added a comment to the end of the discussion highlighting the common ground of palliative care clinicians and surgeons. This addition is on lines 326-330 of the current version of the manuscript and is noted using Track Changes as requested. "As the data supporting palliative care interventions for surgical patients grows, albeit slowly, and as multidisciplinary models of patient care continue to become the norm, we are hopeful that surgeons and palliative care specialists can continue to foster both clinical and research relationships. Surgeons and palliative care specialists can find common ground in supporting patient autonomy while offering realistic hope regarding anticipated clinical outcomes."

5. I would also recommend including a sentence or two on limitations, most of which are common to all narrative reviews (such as the inclusion of perspective pieces might lead to bias and inclusion of conference abstracts might lead to missing information.)

Reply: Thank you for your comment. We agree and regret this oversight. We have added a comment on limitations to the discussion; thank you for this thoughtful reminder.

Changes to the text: We have added a section outlining the limitations of our narrative review and we thank the Reviewer for this reminder. See lines 332-337.

Round 2:

Reviewer A

1. I would like to thank the authors for submitting the revision of the manuscript. It improved significantly and authors tried to follow most of the reviewers' suggestions. Table 2 good and relevant addition to the paper.

Reply: Thank you.

2. Some of the suggested citations should have been added to the discussion, to cover most of this subject such as for predicting factors for survival by Clements et al. and for active management instead of leaving generic for "tailor value-concordant recommendations". Same as for the Bergenholtz et al, which can be added in the discussion.

*Reply: Thank you again for reviewing our submission and for your thoughtful review. The original reviewer comments did not mention inclusion of a paper by Clements et al. Predictive factors for survival were outside the scope of this review and were not included in the published Priority Areas from *Palliative Care in Surgery: Defining the Research Priorities* (see reference 14) which we used as a framework for our review. For these reasons, an introduction of predictive factors for survival in the discussion was not felt to meaningfully impact the discussion of the topic at hand. The Bergenholtz et al paper was cited as reference 16.*

3. The authors improved the manuscript and answered most of the raised concerns. Few points were not addressed, 2 reviewers requested more depth in discussion and covering more about this subject in discussion. This was not added unfortunately. I don't have anything against the acceptance of this paper, but it would have been better addressing all requests from reviewers.

Reply: We did our best to address all requests from reviewers and we were very appreciative of each reviewer's input.