

Peer Review File

Article Information: <https://dx.doi.org/10.21037/asj-23-41>

Review comments

The authors provide a very interesting oversight of new concepts in preoperative care. They focus on the areas of personalized holistic care and technological intervention. Although the literature cited is very comprehensive, and the presentation is clear, I have some concerns regarding the methods:

Comment 1: The authors state that they had no exclusion criteria. Apart from non-English language and date before 2013, however, there might have been some further exclusion criteria such as: Articles not completely accessible (only abstract), redundant publications, or certain forms of publications like editorials or comments, which may be excluded from a review. The authors should specify this in the methods section.

Authors Reply 1: Thank you for your comment. We have included exclusion criteria as per your suggestion. Changes in Text: page 6 line 104

Comment 2: The authors should state any objective eligibility criteria for the articles. Were there, for example, qualitative weaknesses that led to the exclusion of individual works? If so, what exactly?

Reply 2: Thank you for your comment. We have included some text as to further inform the reader on how articles were selected for this review. Changes in Text: page 7 lines 107-109

Comment 3: Have the search terms taken into account that there are multiple spellings, e.g., "pre-operative" and „preoperative“? I suggest that the authors should provide the complete search strings, e.g., in PubMed, which terms were added with „AND“ and which with „OR“

Reply 3: Thank you for your comment. The search terms have been updated to address this concern.

Changes in Text: page 6 lines 100-102

Comment 4: How many search results did the authors have in total, and how many of them were eligible?

Reply 4: 726 were found, we have detailed this in the supplementary table 1. We will add that in the text.

Changes in Text: page 7 line 99

Comment 5: Figures 1 and 2 are somewhat redundant. I suggest providing separate figures for personalized holistic care and technological interventions and using the style of Figure 2.

Reply 5: Thank you for your comment. We agree with your assessment of the figures

and have developed a new figure as per your suggestion.

Changes in Text: page 7 line 113

Comment 6: „Non-surgical specialty input“: This section is somewhat superficial overall. Please provide concrete examples of pharmacogenomics in ERAS. How does this measure contribute to improving patients' outcomes? Please specify the role of patient-reported outcome measures for non-surgical specialties such as pain therapy. Comprehensive geriatric assessment is increasingly finding its way into the guidelines of anesthesiological societies. Please give examples.

Reply 6: Thank you for your comment. We have expanded the section to better reflect the impact of pharmacogenomics and comprehensive patient assessment during the perioperative period. Citations have been added.

Changes in Text: page 9 lines 135-143

Comment 7: The literature in the continuous text is numbered consecutively. Sometimes, however, the author and year are found in parentheses. Please standardize the citation style.

Reply 7: We have standardized to all consecutive numbers

Changes in Text: Various pages and line numbers

Comment 8: Please elaborate a bit on the "anxiety assessment" item. Its assessment, e.g., by means of the APAIS score, is now recommended by guidelines. It is assumed that sedating medication has negative effects on the outcome of patients. Therefore, other alternatives are sought, such as music therapy.

Reply 8: Thank you for your comment. It is the correct assumption that implementing alternative strategies such as music therapy reduces the burden (and associated adverse effects) of pharmacologic therapy aimed at reducing patient anxiety in the perioperative period. We have added text to expand on preoperative anxiety assessment including reference to the APAIS tool.

Changes in Text: pages 10-11 lines 173-193

Comment 9: In the „prehabilitation“ section, the authors state that „it enhances health and reduces post-surgery recovery speed“. Should it be that it increases surgery recovery speed?

Reply 9: Thank you for your comment. We have corrected the error you have identified.

Changes in Text: page 12 line 219

Comment 10: For genetic profiling, as well as for artificial intelligence and machine learning, the authors should address ethical problems like data privacy

Reply 10: Thank you for your comment. We have added text to highlight relevant ethical issues as suggested.

Changes in Text: page 13 lines 259-261, page 14 lines 276-279

Comment 11: In the discussion, it should be emphasized that preoperative care becomes not only more personalized but also more participative. Targeted preoperative diagnostics and assessment can be used to take specific measures to educate patients regarding their behavior and to bring about a positive attitude, which may positively influence the perioperative course.

Reply 11: Thank you for your comment. Your discussion point is a welcomed addition.

Changes in Text: page 17 lines 367-369