## **Peer Review File**

Article information: https://dx.doi.org/10.21037/pm-23-15

## Reviewer A

**Comment 1:** Methods: please explain in more detail how the search was done, inclusion/exclusion criteria

**Reply 1:** Details of literature details were added: search criteria/terms, timeframe, inclusion/exclusion criteria are presented in the text and Table 1 (new)

**Changes in the text:** L114-116

**Comment 2:** It would be nice to see the findings of different sections summarized and/or strengthened by the literature; i.e. post-op management: many articles describe that there is a benefit but do they give date; what were i.e. reduction of ICU days or hospital stays.

**Reply 2:** We thank our Reviewer to point out this important aspect. New references and Table 3 (new) were added to present various details and supply references.

Changes in the text: L261-266

**Comment 3:** Result section could be improved in terms of presentation (Tables; more data less text) i.e. Lateral approach: could be strengthened when giving the range of weight/age found in the literature

**Reply 3:** Thank you. Table 3 was added to present these details.

**Changes in the text:** L270-274

## **Reviewer B**

**Comment 1**: We found that the authors emphasize that this was a clinical scope review and submitted the manuscript in accordance with the PRISMA-ScR checklist. However, the authors also mention in the checklist that this is a clinical practice review, thus explaining the lack of Results section. We have a bit confused about the type of this article. After carefully checking the manuscript, we find this manuscript suits a Narrative Review better than a Scoping Review or a Clinical Practice Review as the authors state the methods but do not meet the search strategy requirements for a scoping review. In addition, Table 1 is also a common part of Narrative Reviews.

Based on the above rationale, we suggest this manuscript as a "Narrative Review". Authors should fill out the Narrative Review checklist (see attached) rather than the PRISMA-ScR checklist.

**Reply 1**: Thank you for the suggestion. The Authors agree with your recommendation to submit the manuscript as a Narrative Review. We made changes in the Title and text accordingly and filled the Narrative Review checklist (submitted).

**Changes in the text**: L2-3, \*\*\*\*\*\*\*\*

**Comment 2**: Please modify the Title to be identified as a narrative review. For your reference, Minimal Incision And Less Invasive Techniques In Congenital Cardiac Surgery: a narrative review/ a literature review.

**Reply 2**: Thank you. The Title is modified accordingly

## **Changes in the text**: L2-3

**Comment 3**: The manuscript fails to provide a persuasive rationale for the publication of this review in the introduction. The authors should have clarified what existing similar reviews (e.g., PMID: 32352905) have and have not summarized, what is the highlight point of this article before carrying out "The objective of this clinical scope review is to..." In addition, there is a spelling error, paediatric (line 112) should be revised to pediatric.

**Reply 3**: Thank you for the excellent recommendation. We added sentences to highlight the point of this paper in comparison to other publications in the literature

In addition, the spelling error, "paediatric" (L112) has been revised to "pediatric" (L125).

**Changes in the text**: L117-123.

**Comment 4**: If the term "clinical scope "appears in the text, the author is advised to change to a narrative review or to delete the term scope to avoid misinterpretation by readers. For example, line 111, "The objective of this clinical scope review...", line 115, "The present clinical scope narrative..."

**Reply 4**: Appearances of "clinical scope" have been replaced to "narrative review". **Changes in the text**: L124, 127 and L129.

**Comment 5**: We recommend including a separate section on strengths and limitations in the main body to promote a more intellectual interpretation.

**Reply 5**: Thank you for the excellent recommendation. 3.3.6 Strengths and limitations section has been added.

Changes in the text: L353-368.

**Comment 6**: Lines 279-280: "It is, therefore, an imperative that adult and congenital surgeons learn from one another (73)". Strongly agree! Could the authors consider summarizing the differences between minimal invasive and less invasive techniques in adult and pediatric congenital cardiac surgery combined with institutional experience? This could involve key different aspects of perioperative surgery. We do believe this would provide valuable insight into complex neonatal/infant surgery.

**Reply 6**: Thank you for the excellent recommendation. We added sentences and a new table (Table 4) to address differences between minimal invasive and less invasive techniques in adult and pediatric congenital cardiac surgery combined with institutional experience.

Changes in the text: L294-307.

**Comment 7**: Line 116, 1018 should be 2018.

**Reply 7**: Thank you, we apologize for the typo. Correction is done.

**Changes in the text**: L130.

**Comment 8**: Please refine Table 2 further as the table lines are messed up.

**Reply 8**: Columns 3-4-5 in Table 2 feature merged content for the aspects (multiple rows) in Column 1 and 2. We added curly brackets/braces in front of the text in the relevant cells. We hope this provides a better clarification.

Changes in the text: L248-253.

**Comment 9**: Please confirm whether Fig 6 is quoted from ref77. If does, written permissions from the copyright holder (usually the publisher) may be required. And please state in the legends of figures that "permissions were obtained".

**Reply 9**: Fig 6 is NOT from reference 77; it is the work of the first author (LK). The misleading reference in the figure legend has been deleted. All the Figures are the work of the authors, so no copyright issues persist. This fact is specifically mentioned in the Acknowledgements (L409-411).

**Changes in the text**: L320.

**Comment 10**: All the abbreviations appeared in "List of abbreviations" need to be explained once again in the text, such as ASD (line 36, line 163).

**Reply 10**: Thank you. All abbreviations have been resolved at their first appearance in the text.

**Changes in the text**: In numerous places