Author’s response to reviews

Title: The Applications of Deep Learning in Plastic and Reconstructive Surgery: Protocol of a Systematic Review

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Author’s response to reviews:

Dear Editor and Reviewers,

We hope this letter finds you well

We would like to thank you for kindly taking the time to review our article and providing us with your feedback. We have collated this letter which includes a ‘point-by-point’ reply to all the comments of the review.

Reviewer:

I have some concerns about accepting the MS in its current form. The authors state that their outcome is the specificity, sensitivity, positive predictive value or negative predictive value. If this is true I wonder why they do intend to use QUADAS-2, for example.

Thank you for your insightful feedback. The QUADAS-2 is an excellent tool to assess the risk of bias of primary diagnostic accuracy studies. We will use this in our review, and we have included this to our manuscript.

My other concern is About the study designs to be included in junction with the risk of bias assessment. Both sections do not correspond. Under the risk of bias section only two designs are mentioned, while it is said in the methods that all primary studies (including case reports) will be included.

Thank you for your feedback. We have proceeded to clarify which method of assessment for risk of bias will be used for each type of primary study. The Cochrane Collaboration Risk of Bias tool will be used if any RCTs are identified. For non-randomised studies that compare the health effect of two or more interventions (for example, cohort studies, case-control studies and quasi randomised trials) the ROBINS-I tool will be used. For other quantitative studies evaluating outcomes using a deep learning algorithm, for which the ROBINS-I tool is not applicable, we will measure the risk of bias using the Quality Assessment Tool for Quantitative studies. This is the recommended approach in the Cochrane Handbook (Chapter 21.4), and it is applicable for any quantitative study design.

Lastly, for case reports, it is not possible to identify any validated and commonly used risk of bias assessment tools. This is potentially because they are inherently of relatively low value compared to RCTs and other primary studies. We have acknowledged this inherent weakness in the manuscript, and we will take this into consideration during our risk of bias assessment.
We have reviewed our manuscript to add the above information, and we hope this is to your satisfaction

Yours sincerely

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