Reviewer’s report

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

Version: 0 Date: 14 Jan 2020

Reviewer: Helena Carreira

Reviewer's report:

This is a well written protocol for a systematic review and, if data permit, meta-analysis. I have some comments:

- Any restrictions by study language or geographical region?
- Where the authors refer to accuracy, what specific measure will they be looking for? Positive predictive values? This should be clarified.
- Please provide a separate sections for the risk of bias and analysis of the data. In the analysis, start with a descriptive narrative of the study results, before considering meta-analytic methods.

Other:
Line 133 - the pat of the sentence that says 'included for review' sounds like that all papers are eligible. I suggest using 'considered' instead of 'included'.
Line 168 - the authors refer to including studies where patients had conditions dx, investigated or managed 'in a plastic surgery department'. Could it be that some of these patients are managed in less specialised centres (e.g. general surgery departments?)? This restriction by setting could be justified.
Line 220 - it is unclear to me what risk of bias the authors are evaluating here. The risk of bias in the performance of the models? Or of the studies themselves, where these models were developped? Would the domains included in the Cochrane Collaboration Risk of Bias tool address this?

Level of interest
Please indicate how interesting you found the manuscript:

An article whose findings are important to those with closely related research interests

Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable

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No