

Peer Review File

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Reviewers' comment	Authors' response	Changes in the text
<p>Comment 1. The authors restricted themselves on a superficial description of the different deep learning application without providing an added value for the reader beyond their excellent research (i.e. table 1). In particular, they missed the opportunity to discuss their own results of the performed meta-analysis.</p>	<p>Reply 1. -A new paragraph has been added to the "Results" section explaining the different deep learning applications found amongst all studies. The meta-analysis section has a review of the models used, and an in-depth discussion of most models is provided in the Discussion section under "Deep learning techniques". -Another paragraph has been added to the "Summary of main results" section about meta-analysis results.</p>	<p>-See page 11, lines 1-7 -See page 17, lines 18-21</p>
<p>Comment 2. Abstract: Please provide an explanation for the abbreviation "QUADAS"</p>	<p>Reply 2. Thanks for the comment. An explanation has been provided</p>	<p>-See page 2, line 13</p>
<p>Comment 3. Selection criteria: "Comparison was made with the standard imaging tests used in clinical practice (reference test) which is considered the gold standard." Please rephrase this sentence.</p>	<p>Reply 3. Thanks for the comment. This sentence has been rephrased to become clearer.</p>	<p>-See page 6, lines 12-13</p>
<p>Comment 4. Methodology: Rather long (approximately one page) description of data extraction and assessment of risk of bias. Consider a revision.</p>	<p>Reply 4. The Data extraction paragraph has been shortened to include only the list of extracted fields. The risk of bias section is already condensed and focused mainly on the 5 fields</p>	<p>-See page 8, line 6</p>

	important to understand the table in Appendix.2	
<p>Comment 5. Statistical analysis: “Those metric were described qualitatively”. However, most of the parameters are quantitative (e.g. area under the curve).</p>	<p>Reply 5. Thanks for the comment. This has been changed to quantitatively. Also, another section on heterogeneity testing has been added for more quantitative meta-analysis</p>	<p>-See page 9, line 13 -See page 14, lines 5-16</p>
<p>Comment 6. Results: Please provide the explanation for OCT and IVUS at their first reference (page 10, line 243).</p>	<p>Reply 6. Thanks for the comment. These acronyms have been explained</p>	<p>-See page 10, lines 17-18</p>
<p>Comment 7. Coronary artery stenosis (page 14, line 325): “...(CCTA, OCT, IVU, inva...” Please correct the misspelling (IVUS)</p>	<p>Reply 7. Thanks for the comment. This has been corrected.</p>	<p>-See page 12, line 6</p>
<p>Comment 8. The information provided in “Applicability of findings to review question”, “Implication for practice” and “implication for research” is quite similar and repetitive.</p>	<p>Reply 8. 2 paragraphs have been deleted due to repetition, and the “Applicability of findings to review question” section has been merged with “Summary of main results”</p>	<p>-See page 18, line 6 -See page 19, line 11</p>
<p>Comment 9. Figure 2: Please provide an explanation for the term “Invasive coronary angiography”. Unfortunately, there is no further explanation on this term in the manuscript. Is this the umbrella term for IVUS and OCT?</p>	<p>Reply 9. An explanation of this old technique has been added to Figure 2 legend. This is not related to IVUS or OCT.</p>	<p>-See page 32, lines 7-8</p>
<p>Comment 10. Further, why do the authors have a category “retinal fundus imaging?” Is this a confusion with OCT, which can also be applied for high-resolution images of the retinal layer? And more</p>	<p>Reply 10. Son et al reference (78) used imaging of the retina to predict coronary artery calcification (CAC) compared to</p>	<p>-See page 32, lines 9-10</p>

<p>important, how was a study about retinal fundus imaging accepted by the inclusion/exclusion criteria?</p>	<p>coronary CT, so this is not confusion with OCT. This study passed the inclusion criteria as it addresses deep learning for prediction of some of coronary anatomy features. An explanation has been added to Figure 2 legend.</p>	
<p>Comment 11. Last, why do the authors mention cardiac phase space tomography analysis, if they were not further explained within the text?</p>	<p>Reply 11. This technique is rare and not widely used, but reported in one study Stuckey et al reference (17), so it was listed and included in the plot for completion purpose only, but has no significant clinical value (so is the case for invasive coronary angiography). Figure 2 legend has been updated with some explanation.</p>	<p>-See page 32, lines 5-6</p>
<p>Comment 12. Figure 4: Please use a standardized scale for sensitivity and specificity results (preferably 0-1).</p>	<p>Reply 12. The scale is standardized 0-1, but the 2 forest plots show different scales on the x axis due to the difference in individual studies values. For example, the highest sensitivity value is 0.95, so the max scale appears to be 1, whereas the highest specificity value is 0.89, and the max scale appears to be 0.9. This is R package "mada" plotting system and</p>	<p>NA</p>

	<p>how it appears, but the scale is 0-1 for both plots. If this is a major issue we can try different R package to construct the plots, so please let us know if necessary.</p>	
<p>Comment 13. Throughout the manuscript: The authors used two different abbreviations for coronary computed tomography angiography: CCT and CCTA. Please be consistent (CCTA is the common term for illustration of the coronary with CT).</p>	<p>Reply 13. Thanks for this comment. All abbreviations have been unified as CCTA.</p>	
<p>Comment 14. Throughout the manuscript: please enter a comma before the word "which"</p>	<p>Reply 14. Thanks for this comment. This has been implemented throughout the manuscript.</p>	