Reviewer’s report

Title: Tufts PACE Clinical Predictive Model Registry: Update 1990 through 2015

Version: 1  Date: 2017-11-10

Reviewer: Joie Ensor

Reviewer's report:

I thank that authors for their response to my revisions, which I think show that there is much potential for the manuscript. I think there are lot of interesting details to be unveiled from this registry, and hope that the further work planned by the authors can offer us much greater insight into the current state of the CPM field (at least in CVD outcomes). I think there are a few areas where further questions have been raised by the responses and have questioned these below.

Minor comments

1. I think perhaps that my first original comment has been slightly misinterpreted. I appreciate the adjustment to the text, but the proportion given for those reporting calibration performance has remained the same, at 39%. This is still the proportion of all CPMs in the registry which reported calibration performance (e.g. 425/1083). But the real proportion of interest is excluding those articles which only performed model development. The question of interest is really - what proportion of studies which should report calibration have reported calibration? So the figure reported here should be the number of studies reporting internal/external validations that report calibration performance. I expect that this number should be higher than 39%, and it will be interesting to see if it is. The current statistic given in the paper, is like saying 'how many men take up paternity leave', as a proportion of all men, not just new fathers.

2. Corresponding to the above, I suggest making sure the percentages in table 2 for calibration represent the appropriate proportions. And then please check the trend again, because as above the current percentages I believe correspond to the proportion of calibration reporting for the whole set of CPMs not just those that include some validation (internal/external).

3. I appreciate your response to my 3rd point, it is good to see that statements on the reporting of particular statistics are possible. However I think this has been slightly misinterpreted, I should have been clearer in that the Hosmer-Lemeshow statistic is not something recommend to be reported (as it does not quantify the extent of calibration),
more relevant calibration statistics include the E/O ratio, calibration slope and calibration-in-the-large. If the 56% of new models reporting the HL statistic is the only measure of calibration reported in these studies then the reporting quality is potentially still substandard. Perhaps rephrase the current statement to, "Of the CPMs reporting calibration that were published after May 2012, 93 (56%) only reported a Hosmer-Lemeshow statistic for calibration." If this is true of course.

4. Thank you for your response to point 9 in my revisions. I now understand the discrepancy in numbers of logistic and survival models, poor reporting of the baseline survival or hazard is a major issue in the reporting of Cox models. This is perhaps something worth highlighting as part of the manuscript as it would encourage others to report this information in the future. Indeed it could be valuable to include a table of reasons for exclusion, as this can inform new model development studies what is needed for good reporting (reinforcing the TRIPOD guidelines).

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

An article of importance in its field

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

Acceptable
Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal