Reviewer’s report

Title: A Simple Prediction Model to Estimate Obstructive Coronary Artery Disease

Version: 0 Date: 23 Sep 2017

Reviewer: Shih-Hsien Sung

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Chen et al. have conducted an interesting study to compute a modified Framingham risks score (FRS) for the prediction of obstructive coronary artery disease (OCAD). They demonstrated additional incorporations of anemia, hs-CRP and LVEF into Framingham risk score might improve the predictive power of OCAD in a total of 1262 subjects undergoing CAG. The results are exciting, however, I have some comments.

Major comments.

1. The authors suggested the modified FRS outperform FRS by ROC analysis. The authors may further calculate the net reclassification improvement to show how much improvement by using modified FRS to predict OCAD.

2. OCAD is defined by >=50% stenosis in at least one major coronary vessel. Is it referred to diameter or lumen area?

3. Given that LVEF is an important predictor, please describe how LVEF is measured.

4. FRS is for the prediction of the development of CHD/atherosclerosis. What is the clinical application of the modified FRS? It is to reduce the invasive procedure?
Minor comments:

1. How did the authors compute model selection? How did they conduct "Backward elimination approach..."? Are all the variables in Table 1 enrolled in the multivariate analysis?

2. "...similarly, the modified Framingham risk factors model had a higher area under the ROC curve than the Framingham risk factors model (c-statistic, 0.719 vs. 0.693; P=0.059)..." A P value of 0.059 is not significant.

3. In "Figure legends", Figure 1 is not study flow.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

No

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I recommend additional statistical review

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