ADDITIONAL FILE 5:

Figure 1: Observed versus predicted probabilities estimated by Model 1 (panels A and B) and Model 2 (panels C and D).

Panels A and C: Calibration plots for Model 1 and 2 respectively. Apparent prediction (small-dotted line) is compared to perfect prediction (spaced line). The bias-corrected line shows prediction after bootstrap (continuous line) and the prediction after correcting with the estimated shrinkage factor (0.83 and 0.87 for Model 1 and Model 2, respectively, black dots).

Panels B and D: Observed probabilities against decile groups of predicted risk with Model 1 and 2, respectively.