



Supplementary Fig. 2. Discrimination performance of the predeveloped machine learning models in a separate retrospective cohort. (A) ROC curve of ICU score to predict the need for intensive care within 30 days of hospitalization in the derivation group. The AUC was 0.897 (95% CI: 0.877–0.917), which was significantly higher than that of CURB-65 (0.836 with 95% CI: 0.825–0.847). (B) ROC curve of ICU score to predict the need for intensive care within 30 days of hospitalization in the validation group. The AUC was 0.885 (95% CI: 0.855–0.915), which was significantly higher than that of CURB-65 (0.843 with 95% CI: 0.829–0.857). (C) ROC curve of oxygen score to predict the need for oxygen supplement within 30 days of hospitalization in the derivation group. The AUC was 0.886 (95% CI: 0.872–0.900). (D) ROC curve of oxygen score to predict the need for oxygen supplement within 30 days of hospitalization in the validation group. The AUC was 0.865 (95% CI: 0.842–0.888). ROC, receiver-operating characteristics; ICU, intensive care unit; AUC, area under the receiver-operating characteristics curve; CI, confidence interval.