## Supplementary information 1.

 Table 1. Comparison of machine learning model values (Three boosting model and logistic

 regression model)

Classifier	Sensitivity	Specificity	PPV	NPV	Accuracy	AUC
Xgboost	.813	.836	.807	.842	.826	.895
CatBoost	.921	.739	.749	.917	.822	.900
LGBM	.914	.746	.752	.911	.822	.897
LR	.784	.838	.838	.828	.832	.852

Abbreviations: PPV, positive predict value; NPV, negative predict value; AUC, area under

the receiver operating characteristics curve; LGBM, light gradient boosting model; LR,

logistic regression