

Supplementary Table S8. Performance of eight ML models to predict bacterial infection in non-ACLF.

Model	AUC	PRAUC	Accuracy	Specificity	Recall	Precision	F1 score
CatBoost_TRAIN	0.935	0.925	0.867	0.831	0.903	0.843	0.872
DT_TRAIN	0.918	0.912	0.834	0.822	0.847	0.826	0.836
KNN_TRAIN	0.952	0.952	0.876	0.833	0.919	0.846	0.881
Logistic_TRAIN	0.890	0.866	0.814	0.800	0.828	0.806	0.816
MLP_TRAIN	0.887	0.870	0.803	0.818	0.789	0.812	0.800
NB_TRAIN	0.883	0.866	0.798	0.779	0.816	0.787	0.801
RF_TRAIN	0.971	0.971	0.904	0.897	0.913	0.897	0.905
SVM_TRAIN	0.899	0.872	0.821	0.758	0.884	0.785	0.831
CatBoost_TEST	0.889	0.869	0.812	0.856	0.767	0.842	0.803
DT_TEST	0.793	0.746	0.749	0.823	0.674	0.792	0.729
KNN_TEST	0.836	0.747	0.763	0.777	0.749	0.770	0.759
Logistic_TEST	0.863	0.839	0.765	0.809	0.721	0.791	0.754
MLP_TEST	0.858	0.837	0.767	0.823	0.712	0.801	0.754
NB_TEST	0.864	0.840	0.772	0.823	0.721	0.803	0.760
RF_TEST	0.876	0.865	0.772	0.874	0.670	0.842	0.746
SVM_TEST	0.874	0.855	0.786	0.777	0.795	0.781	0.788

Note: ACLF, acute-on-chronic liver failure; AUC, area under the ROC curve; CatBoost, Categorical boosting; DT, decision tree; KNN, K-nearest neighbor; Logistic, logistic regression; ML, machine learning; MLP, multilayer perceptron; NB, naive bayes; RF, random forest; SVM, support vector machine.