

Supplementary Table S11. Performance of ML models and conventional indicators to predict bacterial infection in ACLF in the validation set.

Model names	AUC	Accuracy	Specificity	Recall	Precision	F1 score
Five-metabolite model	0.835	0.743	0.811	0.662	0.750	0.701
Combined model	0.840	0.743	0.851	0.613	0.776	0.685
CRP	0.691	0.647	0.730	0.548	0.630	0.586
WBC	0.665	0.632	0.824	0.403	0.658	0.500

Note: ACLF, acute-on-chronic liver failure; AUC, area under the ROC curve; CRP, C-reactive protein; ML, machine learning; WBC, white blood cell count.