

Supplementary Table S16. Comparison of AUC and NRI between metabolomics model and the best composite clinical model in the validation set.

Model names	AUC (95% CI)	<i>P</i> -value vs. Metabolomics model	NRI	<i>P</i> -value vs. Metabolomics model
ACLF				
Five-metabolite model	0.835 (0.769-0.902)	-	-	-
Composite clinical model	0.752 (0.670-0.834)	0.036	-0.181	<0.001
Non-ACLF				
Six-metabolite model	0.889 (0.859-0.920)	-	-	-
Composite clinical model	0.823 (0.784-0.863)	0.048	-0.147	0.036

Note: ACLF, acute-on-chronic liver failure; AST/ALT, aspartate to alanine aminotransferase ratio; AUC, area under the ROC curve; BUN, blood urea nitrogen; CRP, C-reactive protein; INR, international normalized ratio; N, neutrophil count; NRI, net reclassification improvement; PCT, procalcitonin; PT, prothrombin time; TB, total bilirubin; WBC, white blood cell count.

The best composite clinical model in ACLF: CRP, N, Ascites, Na⁺, TB, WBC, PT, INR, PCT.

The best composite clinical model in Non-ACLF: CRP, N, Ascites, WBC, PT, TB, Cirrhosis, PCT, AST/ALT, Jaundice, BUN.