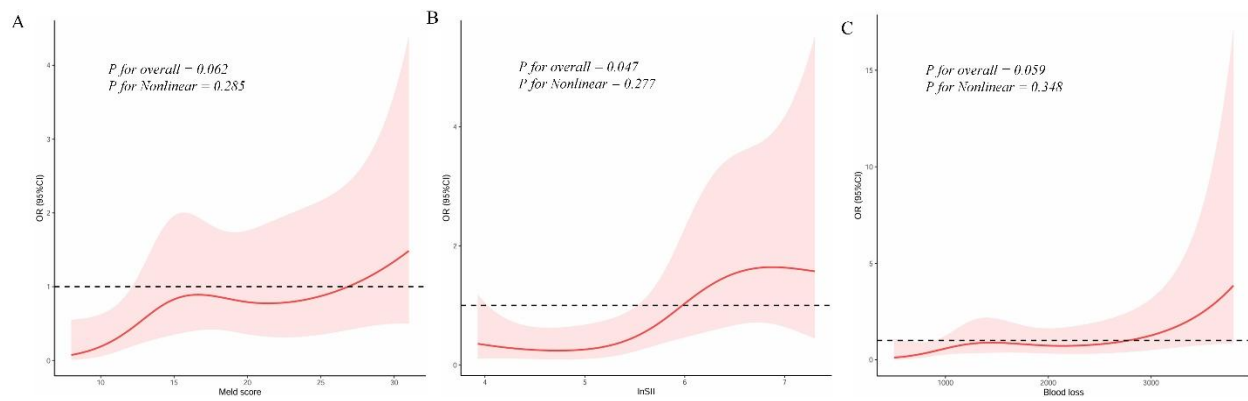
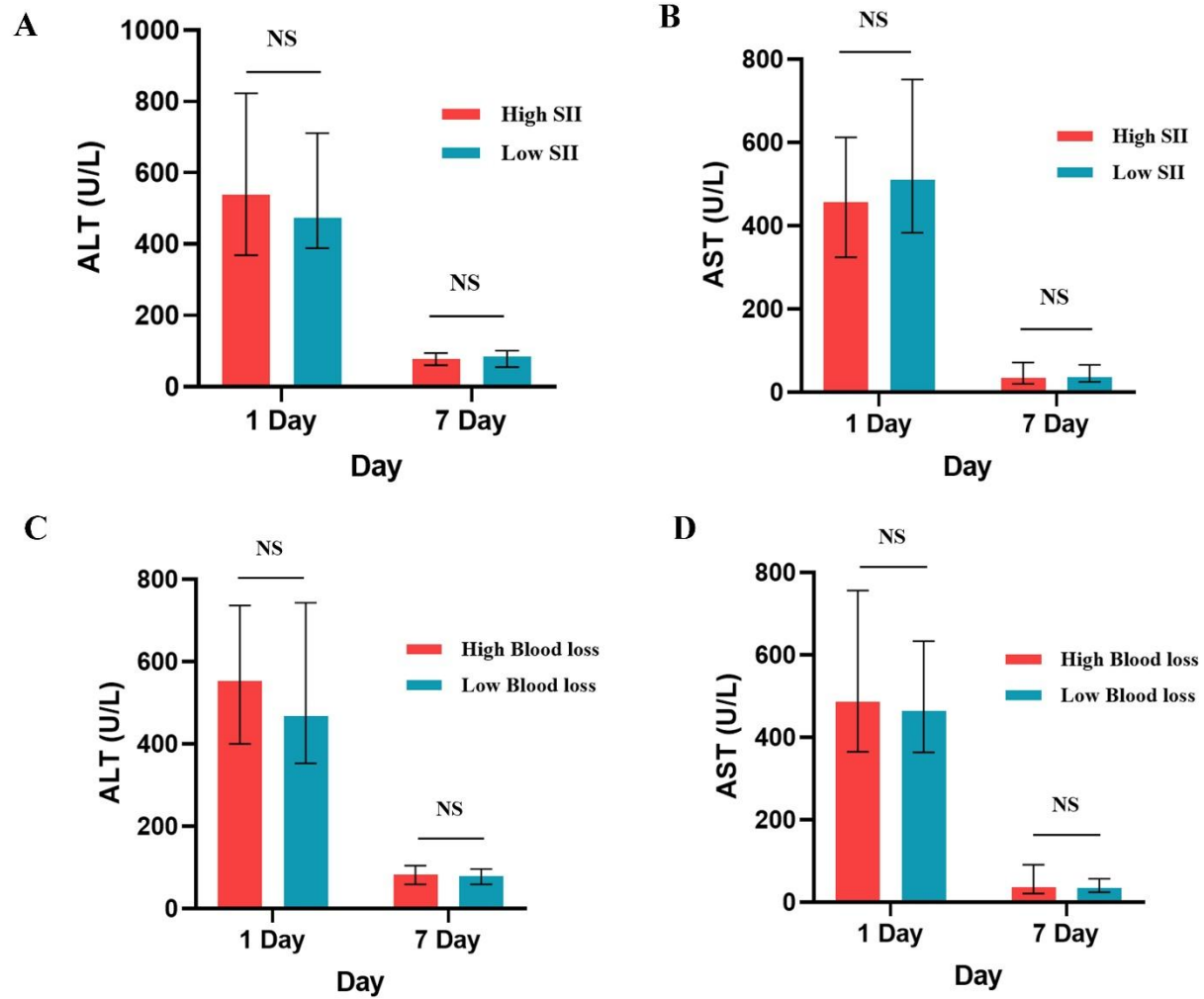


Supplementary Figure 1 SHAP summary dot plots of the top 10 features of the three ML models. A: XGBoost; B: SVM; C: LR.



Supplementary Figure 2 Restricted cubic spline analysis showing the association across A: Model for end-stage liver disease scores; B: LnSII; C: Blood loss with OR (95% CI) for EPC after SLT.



Supplementary Figure 3 Comparison of ALT and AST levels (U/L) in recipients at 1 and 7 days post-transplant, showing no significant differences between High SII and Low SII groups (A, B) or between High Blood Loss and Low Blood Loss groups (C, D).

Supplementary Table 1 Comparison of the performance of four models

Machine model	AUC	Brier scores	Sensitivity	Specificity	PPV	NPV	Accuracy	F1 scores
RF	0.800	0.186	0.649	0.792	0.615	0.814	0.743	0.632
XGB	0.776	0.199	0.676	0.708	0.543	0.810	0.697	0.602
SVM	0.761	0.184	0.622	0.778	0.590	0.800	0.725	0.605
LR	0.760	0.187	0.703	0.736	0.578	0.828	0.725	0.634