

Machine Learning Model to Stratify the Risk of Lymph Node Metastasis for Early Gastric Cancer: A Single-Center Cohort Study

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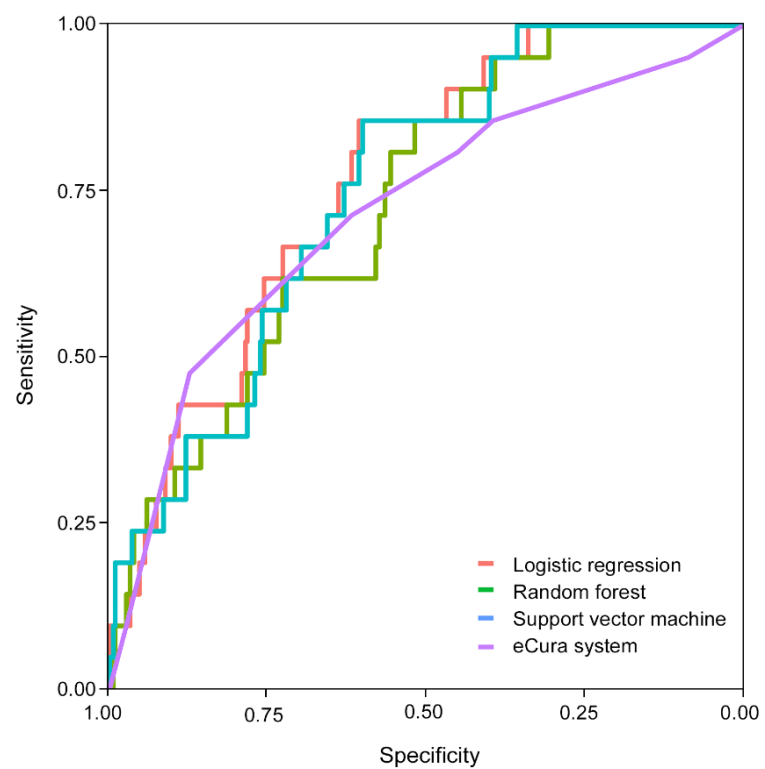
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Table S1. Best hyperparameters selected from the search algorithm.

	Logistic regression	RF	SVM
Best hyperparameters	{'C': 0.0164, 'penalty': 'l2'}	{'C': 1.0437, 'gamma': 0.0108}	{'n_estimators': 500, 'max_depth': 10, 'criterion': 'entropy'}
Hyperparameter candidates	{'penalty': ['l1', 'l2', 'elasticnet', 'none'], 'C': loguniform(1e-2, 1e2)}	{'C': loguniform(1e0, 1e3), 'gamma': loguniform(1e-2, 1e2)}	{'n_estimators': [100, 200, 300, 500, 700, 1000], 'criterion': ['gini', 'entropy'], 'max_depth': [10, 20, None]}



Prediction model	AUROC (95% CI)	NRI (95% CI)	Specificity (%) at high-sensitivity cutoff 95%
Logistic regression	0.76 (0.67–0.85)	0.46 (0.31–0.62)	39
Random forest	0.73 (0.63–0.83)	0.04 (–0.11–0.20)	38
Support vector machine	0.75 (0.65–0.83)	0.21 (0.16–0.25)	38
eCura system	0.72 (0.58–0.83)		9

Figure S1. Performance of the machine learning model and eCura system for predicting lymph node metastasis in patients with non-curative resection after endoscopic resection.