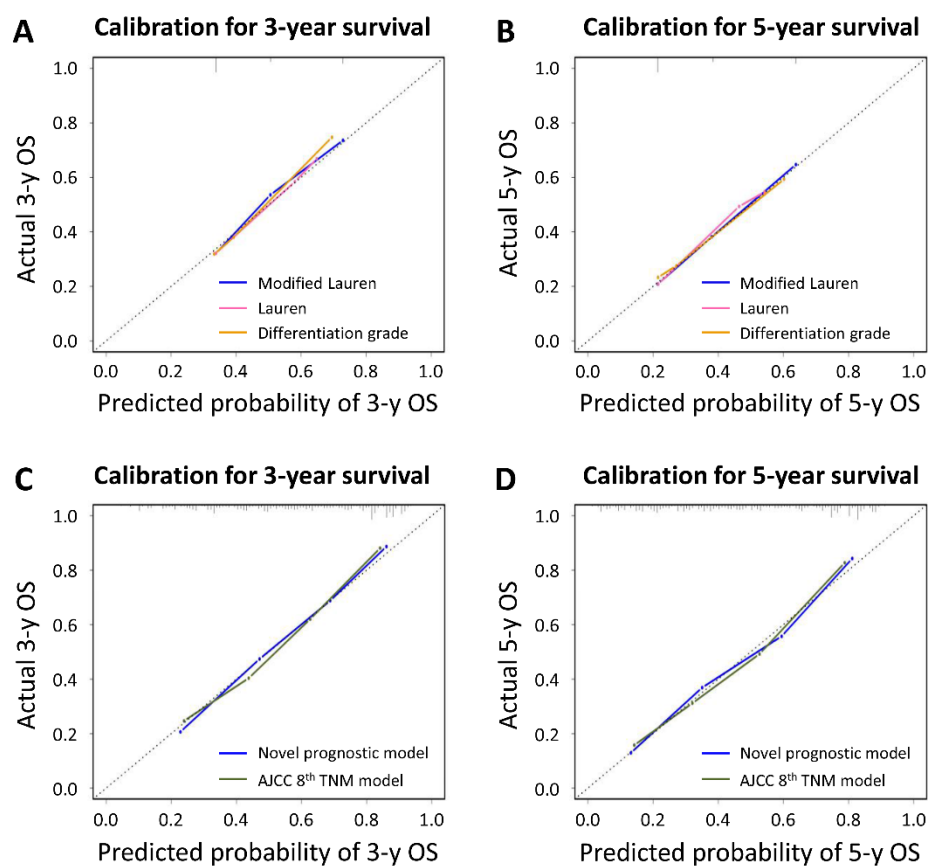
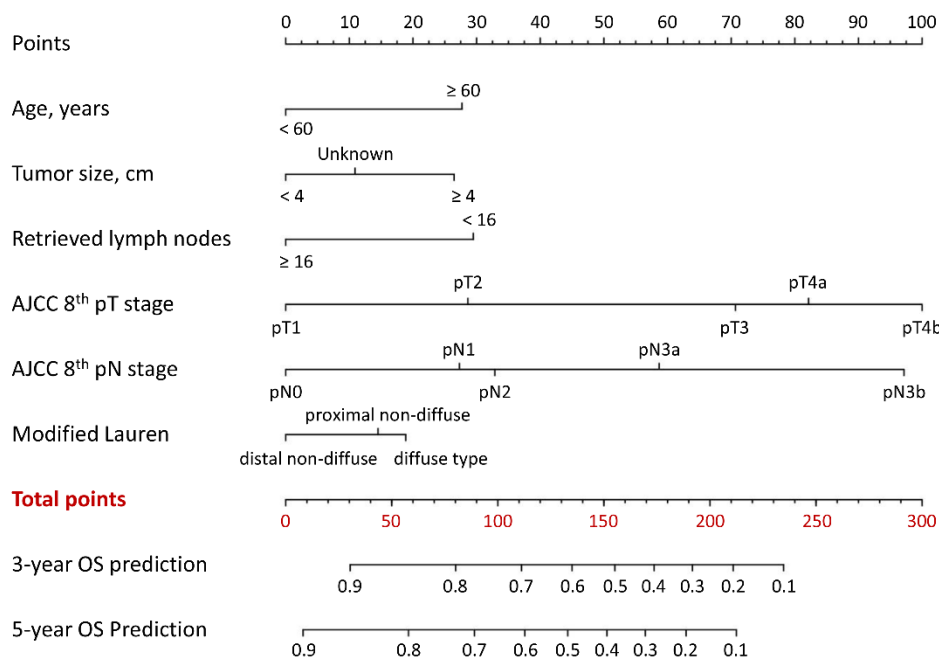


Supplementary Figure 1 Receiver operating characteristics to compare the discriminative ability, and decision curve analysis to assess clinical usefulness. A: ROCs of different pathological classifications for 3-year overall survival (OS); B: ROCs of different pathological classifications for 5-year OS; C: DCA of different pathological classifications for 3-year OS; D: DCA of different pathological classifications for 5-year OS; E: DCA of different models for 3-year OS; and F: DCA of different models for 5-year OS.

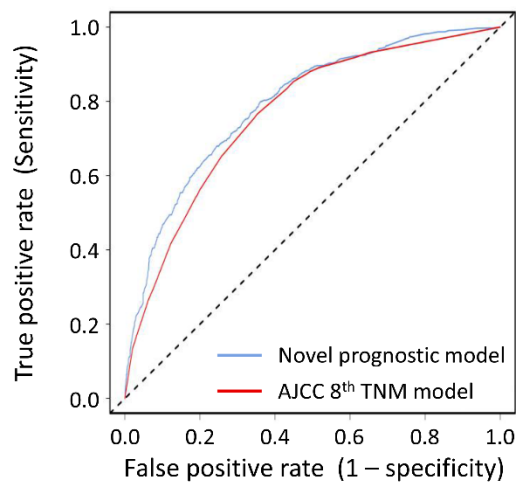


Supplementary Figure 2 The calibration curve for predicting overall survival. A: Three-year OS for different pathological classifications; B: Five-year OS for different pathological classifications; C: Three-year OS in different prognostic models; and D: Five-year OS in different prognostic models.

A



B



Supplementary Figure 3 A novel prognostic nomogram. A: A novel prognostic nomogram in predicting 3- and 5-year overall survivals; B: Receiver operating characteristics (ROCs) to compare the discriminative ability of the novel prognostic nomogram with the American Joint Committee on Cancer (AJCC) 8th Edition TNM classification.

Supplementary Table 1 Univariate and multivariable analyses of the prognostic factors of overall survival

Variable	No. of patients	Univariate analysis		Multivariate analysis	
		5-year OS	<i>P</i>	HR (95% CI)	<i>P</i>
Gender (%)			0.111		
Male	1588 (58.4)	45.9%			
Female	1130 (41.6)	49.1%			
Age (%)			<0.001		<0.001
< 60 years	1217 (44.8)	50.7%		1 (Ref)	–
≥ 60 years	1501 (55.2)	44.4%		1.513 (1.356–1.687)	<0.001
Tumor size (%)			<0.001		0.001
< 4.0 cm	1200 (44.2)	63.9%		1 (Ref)	–
≥ 4.0 cm	1302 (47.9)	33.6%		1.179 (1.038–1.339)	0.011
Unknown	216 (7.9)	40.2%		1.457 (1.191–1.782)	<0.001
Retrieved lymph			0.074		<0.001
Adequate (n ≥16)	1418 (52.2)	48.9%		1 (Ref)	–
Inadequate (n <16)	1300 (47.8)	45.5%		1.541 (1.373–1.730)	<0.001
AJCC 8 th pT stage (%)			<0.001		<0.001
pT1	690 (25.4)	80.9%		1 (Ref)	–
pT2	329 (12.1)	66.6%		1.547 (1.203–1.990)	0.001
pT3	820 (30.2)	38.5%		2.892 (2.342–3.571)	<0.001
pT4a	670 (24.7)	23.4%		3.437 (2.758–4.284)	<0.001
pT4b	209 (7.7)	18.6%		4.500 (3.496–5.793)	<0.001
AJCC 8 th pN stage (%)			<0.001		<0.001
pN0	1031 (37.9)	71.6%		1 (Ref)	–
pN1	456 (16.8)	46.9%		1.464 (1.222–1.753)	<0.001
pN2	507 (18.7)	37.5%		1.610 (1.352–1.917)	<0.001
pN3a	512 (18.8)	24.8%		2.350 (1.971–2.801)	<0.001
pN3b	212 (7.8)	9.2%		4.115 (3.287–5.151)	<0.001
Differentiation grade			0.011		0.115
Well differentiation	95 (3.5)	69.4%		1 (Ref)	–
Moderate	483 (17.8)	58.9%		0.984 (0.656–1.477)	0.939
Poorly differentiation	2054 (75.5)	44.0%		1.155 (0.774–1.723)	0.482
Undifferentiation	86 (3.2)	35.6%		1.450 (0.895–2.349)	0.132
Lauren classification			<0.001		0.163
Intestinal type	916 (33.7)	55.1%		1 (Ref)	–
Diffuse type	1601 (58.9)	42.4%		1.126 (0.975–1.300)	0.106
Mixed type	201 (7.4)	51.0%		0.981 (0.779–1.236)	0.873

AJCC: American Joint Committee on Cancer; HR: Hazard ratio; OS: Overall survival; pN stage: Pathological N stage; pT stage: Pathological T stage; Variables with *P* values less than 0.1 were included in the multivariate analysis.