Supplementary Table 1. Comparison of the discrimination ability of different models based on different cutoff values.

	Crude model			Adjusted model		
	HR (95% CI)	C-index	AIC		HR (95% CI)	C-index
LNR						
Cutoff_1		0.607	5376			0.643	5350
<0.09	1 (ref)				1 (ref)	
0.09~0.33	1.88 (1.44, 2.44)				1.74 (1.33, 2.29)	
>0.33	3.02 (2.30, 3.97)				2.63 (1.97, 3.50)	
Cutoff_2		0.605	5378			0.641	5355
<0.09	1 (ref)				1 (ref)	
0.09~0.40	1.97 (1.52, 2.54)				1.85 (1.38, 2.54)	
>0.40	3.16 (2.38, 4.21)				2.72 (2.02, 3.67)	
LODDS						
Cutoff_1		0.609	5373			0.644	5346
<-2.09	1 (ref)				1 (ref)	
-2.09~-0.65	1.93 (1.48, 2.51)				1.80 (1.36, 2.37)	
>-0.65	3.13 (2.38, 4.13)				2.77 (2.07, 3.70)	
Cutoff_2		0.605	5378			0.640	5352
<-2.10	1 (ref)				1 (ref)	
-2.09~-0.37	2.00 (1.54, 2.59)				1.86 (1.42, 2.44)	
>-0.37	3.26 (2.45, 4.33)				2.83 (2.10, 3.81)	

Cutoff_1 was generated by minimal p-value method via X-tile software, cutoff_2 was generated using P25 and P75.

Supplementary Table 2. Univariate analysis of the potential confounders.

Variables	HR (95% CI)	P-value
Age (increased by 10ys)	1.06 (0.98 – 1.14)	0.065
Tumor size (increased by 1cm)	1.13 (1.06 – 1.19)	<0.001
Sex		
Male	1	
Female	1.09 (0.89 – 1.34)	0.386
Race		
Others	1	
Black	1.42 (0.91 – 2.21)	0.118
White	1.57 (1.13 – 2.19)	0.007
Grade		
G1	1	
G2-3	2.08 (1.20 – 3.60)	0.009
G4	3.08 (1.32 – 7.22)	0.009
T		
T1-2	1	
T3-4	1.70 (1.38 – 2.10)	<0.001
N		
N1	1	
N2	1.61 (1.34 – 1.93)	<0.001
N3	2.15 (1.77 – 2.62)	<0.001
M		
M0	1	
M1	2.61 (2.00 – 3.39)	<0.001
Low nodes yield		
No	1	
Yes	1.64 (1.35 – 1.99)	<0.001