



**Figure S1** Detailed steps of model construction and validation. SEER, Surveillance, Epidemiology, and End Results; N, number; CS, conditional survival.

**Table S1** Baseline characteristics of patients in the external validation cohort

Characteristic	External validation cohort (N=37), n (%)
<b>Gender</b>	
Male	29 (78.4)
Female	8 (21.6)
<b>Age</b>	
Young	23 (62.2)
Old	14 (37.8)
<b>Marriage</b>	
Married	21 (56.8)
Unmarried	16 (43.2)
<b>Grade</b>	
Grade I/II	19 (51.4)
Grade III/IV	18 (48.6)
<b>AJCC-T</b>	
T1-T2	19 (51.4)
T3-T4	18 (48.6)
<b>AJCC-N</b>	
N0	20 (54.1)
N1	17 (45.9)
<b>Surgical treatment</b>	
Yes	23 (62.2)
No	14 (37.8)
<b>Chemotherapy</b>	
Yes	25 (67.6)
No	12 (32.4)

AJCC, American Joint Committee on Cancer.