

**Table S1** Patients characteristics of training and validation cohorts

Characteristics	All patients	Training	Validation	P value
Patients, no., %	30,538 (100.0)	15,270 (50.0)	15,268 (50.0)	
Age, average years (range)	65 (34–105)	65 (35–105)	65 (34–99)	0.42
PSA, average ng/mL (range)	5.7 (0.1–9.9)	5.7 (0.1–9.9)	5.7 (0.1–9.9)	0.64
Race, no. (%)				0.59
Other	1,611 (5.3)	787 (5.2)	824 (5.4)	
White	23,686 (77.6)	11,846 (77.6)	11,840 (77.5)	
Black	5,241 (17.1)	2,637 (17.2)	2,604 (17.1)	
Marital status, no., (%)				0.37
Married	22,037 (72.2)	10,984 (71.9)	11,053 (72.4)	
Unmarried	8,501 (27.8)	4,286 (27.1)	4,215 (27.6)	
cT stage, no., (%)				0.17
T1c	28,663 (93.9)	14,361 (94.0)	14,302 (93.7)	
T2a	1,875 (6.1)	909 (6.0)	966 (6.3)	
ISUP grade, no., (%)				0.88
1	25,376 (83.1)	12,683 (83.1)	12,693 (83.1)	
2	5,163 (16.9)	2,587 (16.9)	2,576 (16.9)	
Cause of death, no., (%)				0.91
prostate cancer	358 (11.6)	176 (11.5)	182 (11.7)	
other causes	2,727 (88.4)	1352 (88.5)	137 (88.3)	
Follow-up after diagnosis				
Average months (range)	64 (1–155)	64 (1–155)	64 (1–155)	0.82

PSA, prostate specific antigen; cT stage, clinical T stage; ISUP, International Society of Urological Pathology. P value: Student's t test and Chi-square test was used to test whether there was any difference in clinical characteristics between the training and validation cohorts.