

	1-year postoperative conditional overall survival			1-year postoperative conditional cancer-specific survival		
	Training set (N=11386)	Validation set (N=4876)	P-value	Training set (N=11800)	Validation set (N=5055)	P-value
Age						
<50 years	1593 (14.0%)	714 (14.6%)	0.328	1601 (13.6%)	721 (14.3%)	0.58
50-59 years	2330 (20.5%)	1001 (20.5%)		2379 (20.2%)	992 (19.6%)	
60-69 years	2984 (26.2%)	1323 (27.1%)		3068 (26.0%)	1340 (26.5%)	
70-79 years	2584 (22.7%)	1069 (21.9%)		2704 (22.9%)	1123 (22.2%)	
80+ years	1895 (16.6%)	769 (15.8%)		2048 (17.4%)	879 (17.4%)	
Gender						
Female	5531 (48.6%)	2415 (49.5%)	0.274	5746 (48.7%)	2469 (48.8%)	0.874
Male	5855 (51.4%)	2461 (50.5%)		6054 (51.3%)	2586 (51.2%)	
Race						
American Indian/Alaska Native	91 (0.8%)	43 (0.9%)	0.822	90 (0.8%)	47 (0.9%)	0.352
Asian or Pacific Islander	1296 (11.4%)	543 (11.1%)		1293 (11.0%)	586 (11.6%)	
Black	1396 (12.3%)	617 (12.7%)		1479 (12.5%)	608 (12.0%)	
White	8603 (75.6%)	3673 (75.3%)		8938 (75.7%)	3814 (75.5%)	
Site						
Ascending Colon	2060 (18.1%)	889 (18.2%)	0.866	2166 (18.4%)	929 (18.4%)	0.061
Cecum	2428 (21.3%)	1014 (20.8%)		2539 (21.5%)	1045 (20.7%)	
Descending Colon	759 (6.7%)	315 (6.5%)		766 (6.5%)	337 (6.7%)	
Hepatic Flexure	522 (4.6%)	234 (4.8%)		520 (4.4%)	262 (5.2%)	
Rectosigmoid Junction	1160 (10.2%)	490 (10.0%)		1170 (9.9%)	528 (10.4%)	
Sigmoid Colon	3072 (27.0%)	1321 (27.1%)		3213 (27.2%)	1300 (25.7%)	
Splenic Flexure	393 (3.5%)	191 (3.9%)		404 (3.4%)	202 (4.0%)	
Transverse Colon	992 (8.7%)	422 (8.7%)		1022 (8.7%)	452 (8.9%)	
pT						
T3	8755 (76.9%)	3747 (76.8%)	0.963	9050 (76.7%)	3866 (76.5%)	0.585
T4a	1860 (16.3%)	803 (16.5%)		1958 (16.6%)	828 (16.4%)	
T4b	771 (6.8%)	326 (6.7%)		792 (6.7%)	361 (7.1%)	
pN						
N1a	3550 (31.2%)	1470 (30.1%)	0.577	3629 (30.8%)	3629 (30.8%)	0.993
N1b	3606 (31.7%)	1598 (32.8%)		3783 (32.1%)	1614 (31.9%)	
N1c	570 (5.0%)	234 (4.8%)		592 (5.0%)	249 (4.9%)	
N2a	2162 (19.0%)	937 (19.2%)		2247 (19.0%)	954 (18.9%)	
N2b	1498 (13.2%)	637 (13.1%)		1549 (13.1%)	670 (13.3%)	
Scope of regional lymph nodes						
1 to 3 regional LNs	110 (1.0%)	64 (1.3%)	0.144	133 (1.1%)	49 (1.0%)	0.658
4 or more regional LNs	11160 (98.0%)	4763 (97.7%)		11548 (97.9%)	4954 (98.0%)	
None	116 (1.0%)	49 (1.0%)		119 (1.0%)	52 (1.0%)	
Radiation						
None/Unknown	10899 (95.7%)	4670 (95.8%)	0.913	11327 (96.0%)	4823 (95.4%)	0.092
Yes	487 (4.3%)	206 (4.2%)		473 (4.0%)	232 (4.6%)	
Chemotherapy						
No/Unknown	3002 (26.4%)	1306 (26.8%)	0.593	3345 (28.3%)	1413 (28.0%)	0.615
Yes	8384 (73.6%)	3570 (73.2%)		8455 (71.7%)	8455 (71.7%)	
CEA Pretreatment						
CEA negative/normal	6462 (56.8%)	2698 (55.3%)	0.097	6617 (56.1%)	2821 (55.8%)	0.759
CEA positive/elevated	4924 (43.2%)	2178 (44.7%)		5183 (43.9%)	2234 (44.2%)	
Regional nodes examined						
<12 LNs	828 (7.3%)	389 (8.0%)	0.125	900 (7.6%)	388 (7.7%)	0.939
≥12 LNs	10558 (92.7%)	4487 (92.0%)		10900 (92.4%)	4667 (92.3%)	
Tumor deposits						
No	9140 (80.3%)	3941 (80.8%)	0.43	9461 (80.2%)	4091 (80.9%)	0.269
Yes	2246 (19.7%)	935 (19.2%)		2339 (19.8%)	964 (19.1%)	
Tumor size						
< 5 cm	6080 (53.4%)	2586 (53.0%)	0.683	6269 (53.1%)	2673 (52.9%)	0.78
≥ 5 cm	5306 (46.6%)	2290 (47.0%)		5531 (46.9%)	2382 (47.1%)	
Perineural Invasion						
No/Unknown	9212 (80.9%)	4021 (82.5%)	0.02	9573 (81.1%)	4134 (81.8%)	0.329
Yes	2174 (19.1%)	855 (17.5%)		2227 (18.9%)	921 (18.2%)	
Marital Status						
Married	6437 (56.5%)	2741 (56.2%)	0.719	6628 (56.2%)	2814 (55.7%)	0.559
Unmarried	4949 (43.5%)	2135 (43.8%)		5172 (43.8%)	2241 (44.3%)	