

Table 3 Univariable and multivariable Cox proportional hazards analysis of risk factors associated with conditional overall survival.

Variable	Univariate analysis				Multivariate analysis			
	HR	95%CI		P-value	HR	95%CI		P-value
Age								
<50 years	Reference				Reference			
50-59 years	1.299	1.116	1.511	0.001	1.307	1.123	1.522	0.001
60-69 years	1.625	1.411	1.872	<0.001	1.603	1.390	1.849	<0.001
70-79 years	2.348	2.044	2.698	<0.001	2.181	01.892	2.515	<0.001
80+ years	4.072	3.547	4.676	<0.001	3.420	2.948	3.967	<0.001
Gender								
Female	Reference				Reference			
Male	1.074	1.002	1.150	0.044	1.248	1.162	1.341	<0.001
Race								
American Indian/Alaska Native	Reference							
Asian or Pacific Islander	0.902	0.601	1.353	0.618				
Black	1.047	0.699	1.567	0.825				
White	0.963	0.650	1.428	0.852				
Site								
Ascending Colon	Reference				Reference			
Cecum	1.085	0.976	1.207	0.133	0.981	0.881	1.092	0.722
Descending Colon	0.776	0.660	0.912	0.002	0.842	0.716	0.992	0.039
Hepatic Flexure	1.128	0.953	1.337	0.163	1.119	0.945	1.326	0.193
Rectosigmoid Junction	0.811	0.708	0.930	0.003	0.906	0.788	1.041	0.162
Sigmoid Colon	0.809	0.728	0.900	<0.001	0.909	0.816	1.013	0.084
Splenic Flexure	0.947	0.775	1.156	0.591	0.947	0.774	1.158	0.594
Transverse Colon	0.958	0.833	1.102	0.547	0.931	0.810	1.072	0.320
AJCC_T								
T3	Reference				Reference			
T4a	1.560	1.428	1.704	<0.001	1.433	1.311	1.568	<0.001
T4b	1.756	1.553	1.986	<0.001	1.524	1.345	1.727	<0.001
AJCC_N								
N1a	Reference				Reference			
N1b	1.245	1.136	1.365	<0.001	1.242	1.133	1.362	<0.001
N1c	1.287	1.064	1.556	0.009	0.918	0.745	1.130	0.419
N2a	1.543	1.397	1.704	<0.001	1.610	1.456	1.781	<0.001
N2b	1.938	1.741	2.156	<0.001	2.127	1.904	2.376	<0.001
Scope of regional lymph nodes								
1 to 3 regional LNs	Reference							
4 or more regional LNs	1.046	0.739	1.482	0.799				
None	1.169	0.716	1.908	0.533				
Radiation								
None/Unknown	Reference							
Yes	1.076	0.923	1.255	0.348				
Chemotherapy								
No/Unknown	Reference				Reference			
Yes	0.460	0.429	0.494	<0.001	0.600	0.555	0.649	<0.001
CEA_Pretreatment								
CEA negative/normal	Reference				Reference			
CEA positive/elevated	1.544	1.441	1.654	<0.001	1.392	1.299	1.492	<0.001
Regional_nodes_examined								
<12LNs	Reference				Reference			
≥12LNs	0.630	0.566	0.700	<0.001	0.609	0.547	0.679	<0.001
Tumor_deposits								
No	Reference				Reference			
Yes	1.399	1.283	1.527	<0.001	1.408	1.277	1.551	<0.001
Tumor_size								
<5cm	Reference							
≥5cm	1.016	0.948	1.089	0.653				
Perineural_Invasion								
No/Unknown	Reference				Reference			
Yes	1.381	1.269	1.502	<0.001	1.290	1.182	1.408	<0.001
Marital_Status								
Married	Reference				Reference			
Unmarried	1.349	1.260	1.445	<0.001	1.195	1.112	1.284	<0.001