Table S1 Sociodemographic and clinicopathologic characteristics of the study population

Variables	Total (n=3,593)	Alive (n=1,422)	Died (n=2,171)
Year of diagnosis, n (%)			
2004	206 (5.73)	38 (2.67)	168 (7.74)
2005	212 (5.90)	40 (2.81)	172 (7.92)
2006	232 (6.46)	51 (3.59)	181 (8.34)
2007	271 (7.54)	64 (4.50)	207 (9.53)
2008	239 (6.65)	57 (4.01)	182 (8.38)
2009	257 (7.15)	87 (6.12)	170 (7.83)
2010	296 (8.24)	87 (6.12)	209 (9.63)
2011	340 (9.46)	122 (8.58)	218 (10.04)
2012	348 (9.69)	148 (10.41)	200 (9.21)
2013	399 (11.10)	201 (14.14)	198 (9.12)
2014	389 (10.83)	233 (16.39)	156 (7.19)
2015	404 (11.24)	294 (20.68)	110 (5.07)
Age at diagnosis (years), n (%)			
20–29	12 (0.33)	6 (0.42)	6 (0.28)
30–39	35 (0.97)	17 (1.20)	18 (0.83)
40–49	292 (8.13)	129 (9.07)	163 (7.51)
50–59	983 (27.36)	394 (27.71)	589 (27.13)
60–69	1,471 (40.94)	604 (42.48)	867 (39.94)
70–79	730 (20.32)	252 (17.72)	478 (22.02)
80–89	70 (1.95)	20 (1.41)	50 (2.30)
Sex, n (%)			
Female	559 (15.56)	260 (18.28)	299 (13.77)
Male	3,034 (84.44)	1,162 (81.72)	1,872 (86.23)
Race, n (%)			
Black	175 (4.87)	54 (3.80)	121 (5.57)
Other	129 (3.59)	55 (3.87)	74 (3.41)
Unknown	4 (0.11)	3 (0.21)	1 (0.05)
White	3,285 (91.43)	1,310 (92.12)	1,975 (90.97)
8th ypTNM, n (%)			
Stage I	470 (14.39)	204 (15.86)	266 (13.43)
Stage II	624 (19.10)	284 (22.08)	340 (17.16)
Stage IIIA	329 (10.07)	149 (11.59)	180 (9.09)
Stage IIIB	1,563 (47.84)	573 (44.56)	990 (49.97)
Stage IVA	281 (8.60)	76 (5.91)	205 (10.35)
Histologic type, n (%)			
ESCC	695 (19.34)	278 (19.55)	417 (19.21)
EAC	2,898 (80.66)	1,144 (80.45)	1,754 (80.79)
ypT category, n (%)			
T0	1 (0.03)	0 (0.00)	1 (0.05)
T1	486 (13.53)	201 (14.14)	285 (13.13)
T2	641 (17.84)	301 (21.17)	340 (15.66)
T3	2,246 (62.51)	851 (59.85)	1,395 (64.26)
T4	219 (6.10)	69 (4.85)	150 (6.91)
ypN category, n (%)			
N0	1,280 (35.62)	578 (40.65)	702 (32.34)
N1	1,634 (45.48)	638 (44.87)	996 (45.88)
N2	474 (13.19)	165 (11.60)	309 (14.23)
N3	205 (5.71)	41 (2.88)	164 (7.55)
Grade, n (%)			
Grade I	195 (5.43)	90 (6.33)	105 (4.84)
Grade II	1,547 (43.06)	673 (47.33)	874 (40.26)
Grade III	1,806 (50.26)	640 (45.01)	1,166 (53.71)
Grade IV	45 (1.25)	19 (1.34)	26 (1.20)
Tumor location, n (%)			
Lower thoracic	3,082 (85.78)	1,232 (86.64)	1,850 (85.21)
Middle thoracic	445 (12.39)	167 (11.74)	278 (12.81)
Upper thoracic	66 (1.84)	23 (1.62)	43 (1.98)
Radiation sequence with surgery, n (%)			
Radiation before and after surgery	127 (3.53)	43 (3.02)	84 (3.87)
Radiation prior to surgery	3,466 (96.47)	1,379 (96.98)	2,087 (96.13)
Chemotherapy, n (%)			
No/unknown	50 (1.39)	13 (0.91)	37 (1.70)
Yes	3,543 (98.61)	1,409 (99.09)	2,134 (98.30)
Follow-up time (months)			
M [Q_1, Q_3]	26 [14, 50]	45 [25, 80]	18 [10, 32]
Mean ± SD	37.56±33.04	55.87±32.29	25.60±23.09
Min	2	3	2
Max	155	155	144

ESCC, esophageal squamous cell carcinoma; EAC, esophageal adenocarcinoma; SD, standard deviation.

Table S2 Univariate analysis of the modified ypTNM staging classification

Variables	β	S.E	χ^2	P	HR	Lower	Upper
Modified stage							
I					Ref		
II	0.353	0.057	38.098	<0.001	1.423	1.272	1.592
III	0.565	0.083	46.4564	<0.001	1.760	1.496	2.071
IV	0.777	0.082	90.751	<0.001	2.174	1.853	2.551
Modified substage							
IA	−0.355	0.110	10.349	0.001	0.701	0.565	0.871
IB	−0.198	0.092	4.576	0.032	0.821	0.685	0.984
IIA					Ref		
IIB	−0.184	0.105	3.089	0.079	0.832	0.678	1.021
IIC	0.067	0.083	0.638	0.424	1.069	0.908	1.258
IIIA	0.309	0.083	13.985	<0.001	1.362	1.158	1.602
IIIB	0.352	0.100	12.482	<0.001	1.422	1.170	1.729
IV	0.526	0.094	31.048	<0.001	1.693	1.407	2.037
8th ypTNM							
I					Ref		
II	0.122	0.082	2.195	0.138	1.129	0.962	1.326
IIIA	0.093	0.097	0.919	0.338	1.097	0.908	1.326
IIIB	0.461	0.070	43.811	<0.001	1.585	1.383	1.817
IVA	0.654	0.093	49.143	<0.001	1.923	1.602	2.309

S.E, standard error; HR, hazard ratio; Ref, reference.