

Table S1. Results from Kaplan-Meier cumulative survival plots for median and 75th percentile survival times and p values from log-rank tests as well as hazard ratios (HR) and 95% confidence intervals (CI 95%) in univariate Cox proportional hazard models for overall (OS) and tumor-specific survival (TSS) of various covariates demonstrating an impact on survival of NSCCUP patients according to multivariate Cox proportional hazard models. *P* values below 0.05 are in bold.

Covariates and Characteristics		median (months)	75th percentile (months)	<i>P</i> _{log rank}	<i>HR</i> _{Cox univariate} (CI 95%)	<i>P</i> _{Cox univariate}
Overall survival						
Cohort	1	50.5	18.1	0.181	1.464 (0.835-2.568)	0.184
	2	-	25.3			
Age (years)	>60	51.4	25.0	0.412	1.261 (0.723-2.203)	0.413
	≤60	-	22.4			
Smoking (pack years)	>10	49.6	19.3	0.054	1.876 (0.978-3.584)	0.058
	≤10	-	35.3			
Alcohol (g/day)	>60	25.1	11.3	3.71 × 10⁻³	2.252 (1.282-3.953)	4.74 × 10⁻³
	others		29.3			
HPV16-related	yes	-	-	2.75 × 10⁻³	26.06 (0.90-753.3)	0.057
	no	50.5	19.3			
N categories	N3	31.0	16.5	0.152	1.582 (0.840-2.976)	0.156
	others	-	24.7			
N categories	N1	-	53.0	0.086	0.453	0.094

	others	52.8	18.1		(0.180-1.144)	
Neck dissection	no ND	49.6	16.7	0.318	1.380	0.320
	ND	-	24.7		(0.732-2.602)	
Tonsillectomy	no	50.5	16.7	0.201	1.206	0.320
	yes	-	25.3		(0.903-1.610)	
Surgery	yes	-	22.4	0.763	0.804	0.763
	no	55.9	18.1		(0.195-3.321)	
R status	R0	-	37.4	8.17 × 10⁻⁶	0.296	2.54 × 10⁻⁵
	R+	22.4	12.2		(0.168-0.522)	
ECE	ECE+	25.3	14.2	6.35 × 10⁻⁶	3.817	2.52 × 10⁻⁵
	no	-	52.8		(2.045-7.092)	
Cisplatin	yes	-	37.4	0.111	0.620	0.115
	no	50.5	18.1		(0.342-1.123)	
Radiotherapy	yes	-	22.4	0.964	0.983	0.964
	no	53.0	25.6		(0.478-2.024)	
PFS	relapse	25.1	12.2	7.51 × 10⁻⁷	3.831	3.99 × 10⁻⁶
	yes	-	47.4		(2.165-6.803)	
Primary detected	yes	29.6	22.4	0.980	1.013	0.980
	no	-	24.7		(0.364-2.817)	
Nodal control	relapse	37.8	9.0	0.240	1.658	0.603
	NC	-	24.7		(0.707-3.891)	

Locoregional control	relapse	37.8	19.3	0.236	1.517	0.239
	LRC	-	25.0		(0.758-3.03)	
Distant control	relapse	17.6	10.4	6.83 × 10⁻⁶	4.464	3.84 × 10⁻⁵
	DC	-	25.6		(2.193-9.091)	
Other cancer entity	yes	50.5	20.8	0.639	1.276	0.640
	no	-	24.0		(0.459-3.546)	

Tumor-specific survival

Cohort	1	-	25.6	0.467	1.311	0.469
	2	-	55.9		(0.630-2.726)	
Age (years)	>60	-	-	0.304	0.664	0.307
	≤60	-	25.3		(0.302-1.458)	
Smoking (pack years)	>10	-	25.3	0.158	1.828	0.165
	≤10	-	-		(0.781-4.292)	
Alcohol (g/day)	>60	50.5	12.2	6.09 × 10⁻⁴	3.333	1.23 × 10⁻³
	others	-	-		(1.605-6.944)	
HPV16-related	yes	-	-	0.024	25.95	0.151
	no	-	25.6		(0.31-2211.29)	
N categories	N3	-	35.3	0.886	1.073	0.886
	others	-	37.5		(0.409-2.816)	

N categories	N1	-	-	0.221	0.481	0.232
	others	-	25.6		(0.145-1.595)	
Neck dissection	no ND	-	29.6	0.625	1.237	0.625
	ND	-	37.8		(0.527-2.905)	
Tonsillectomy	no	-	25.6	0.245	1.252	0.249
	yes	-	55.9		(0.854-1.837)	
Surgery	yes	-	35.3	0.301	0.475	0.312
	no	55.9	18.1		(0.112-2.008)	
R status	R0	-	-	3.63 × 10⁻⁴	0.278	8.27 × 10⁻⁴
	R+	29.6	17.6		(0.132-0.589)	
ECE	ECE+	-	19.3	7.08 × 10⁻⁴	3.759	1.56 × 10⁻³
	no	-	-		(1.656-8.547)	
Cisplatin	yes	-	-	0.198	0.600	0.203
	no	-	25.3		(0.273-1.318)	
Radiotherapy	yes	-	35.3	0.948	1.032	0.948
	no	-	37.4		(0.394-2.71)	
PFS	relapse	25.1	13.8	5.23 × 10⁻¹⁷	257.1	3.52 × 10⁻³
	yes	-	-		(6.2-10675.8)	
Primary detected	yes	29.6	22.4	0.265	1.808	0.272
	no	-	37.8		(0.629-5.208)	
Nodal control	relapse	55.9	16.7	0.047	2.564	0.056
	NC	-	37.4		(0.977-6.711)	

Locoregional control	relapse	37.8	19.3	0.010	2.688	0.014
	LRC	-	53.0		(1.224-5.917)	
Distant control	relapse	17.6	10.4	2.76 × 10⁻¹¹	9.434	3.76 × 10⁻⁸
	DC	-	37.4		(4.237-20.83)	
Other cancer entity	yes	50.5	20.8	0.116	2.278	0.126
	no	-	37.8		(0.792-6.536)	
