

**Supplementary Table 1.** Comparison of variables included vs.excluded in Cohort-1 and Cohort-2

Variable	Category	COHORT-1			COHORT-2		
		Included (N=302)	Excluded (N=322)	<i>P value</i> <sup>b</sup>	Included (N=376)	Excluded (N=258)	<i>P value</i> <sup>b</sup>
Age, median (range)	(continuous)	59 (32-84)	60 (33-89)	.14	59 (32-84)	60 (36-89)	<b>.028</b>
Sex, N (%)	Male	263 (87.1)	283 (85.2)	.50	331 (88.0)	215 (83.3)	.10
	Female	39 (12.9)	49 (14.8)		45 (12.0)	43 (16.7)	
Race	White	279 (92.4)	307 (92.5)	.97	345 (91.8)	241 (93.4)	.44
	Non-white	23 (7.6)	25 (7.5)		31 (8.2)	17 (6.6)	
Charlson comorbidity	0	248 (82.1)	271 (81.6)	.87	308 (81.9)	211 (81.8)	.97
	≥1	54 (17.9)	61 (18.4)		68 (18.1)	47 (18.2)	
Smoking history	Never	143 (47.4)	145 (45.2)	.85	177 (47.1)	111 (44.9)	.87
	≤10 PY	62 (20.5)	67 (20.9)		77 (20.5)	52 (21.1)	
	>10 PY	97 (32.1)	109 (34.0)		122 (32.4)	84 (34.0)	
Overall clinical stage	Stage I	270 (89.4)	299 (90.1)	.10	338 (89.9)	231 (89.5)	.25
	Stage II	20 (6.6)	12 (3.6)		22 (5.9)	10 (3.9)	
	Stage III	12 (4.0)	21 (6.3)		16 (4.3)	17 (6.6)	
Overall pathologic stage	Stage I	225 (74.5)	269 (81.0)	.10	289 (76.9)	205 (79.5)	.14
	Stage II	74 (24.5)	59 (17.8)		85 (22.6)	48 (18.6)	
	Stage III	3 (1.0)	4 (1.2)		2 (0.5)	5 (1.9)	
Level IV and/or V nodes <sup>a</sup>	No	269 (89.1)	301 (92.3)	.16	340 (90.4)	230 (91.3)	.72
	Yes	33 (10.9)	25 (7.7)		36 (9.6)	22 (8.7)	
Margin status	Negative	282 (93.4)	302 (95.6)	.23	352 (93.6)	232 (95.9)	.23
	Positive	20 (6.6)	14 (4.4)		24 (6.4)	10 (4.1)	
Lymphovascular invasion	No	212 (70.2)	199 (66.6)	.34	268 (71.3)	143 (63.6)	<b>.05</b>
	Yes	90 (29.8)	100 (33.4)		108 (28.7)	82 (36.4)	
Perineural invasion	No	251 (83.1)	252 (84.3)	.70	316 (84.0)	187 (83.1)	.76
	Yes	51 (16.9)	47 (15.7)		60 (16.0)	38 (16.9)	
Extranodal extension	No	211 (69.9)	242 (73.1)	.37	268 (71.3)	185 (72.0)	.85
	Yes	91 (30.1)	89 (26.9)		108 (28.7)	72 (28.0)	

Abbreviations: PY, Pack-years

a, Pathologically positive

b, Pearson's chi-square statistic or Fisher's exact test for categorical variables, Wilcoxon rank-sum test for continuous variables