

Supplementary Table S9. Head and neck cancer patient characteristics, median survival, and Multivariate Cox Regression Modeling.

| Patient Characteristics (Head & Neck) | | LOR | ALP | No Benzo | Overall | P-value |
|---------------------------------------|----------------|-------------|------------|-------------|-------------|---------|
| | N | 171 (21.3) | 86 (10.7) | 546 (68.0) | 803 (100%) | |
| Sex | Female | 50 (29.2%) | 31 (36.0%) | 174 (31.9%) | 255 (31.8%) | 0.540 |
| | Male | 121 (70.8%) | 55 (64.0%) | 372 (68.1%) | 548 (68.2%) | |
| Grade (Clinical) | I | 13 (9.1%) | 8 (10.1%) | 60 (11.2%) | 81 (10.7%) | 0.559 |
| | II | 67 (46.9%) | 32 (40.5%) | 205 (38.3%) | 304 (40.2%) | |
| | III | 29 (20.3%) | 19 (24.1%) | 150 (28.0%) | 198 (26.2%) | |
| | IV | 3 (2.1%) | 1 (1.3%) | 5 (0.9%) | 9 (1.2%) | |
| | Not Reported | 31 (21.7%) | 19 (24.1%) | 115 (21.5%) | 165 (21.8%) | |
| Grade (Pathological) | I | 12 (8.5%) | 7 (8.9%) | 60 (11.2%) | 79 (10.4%) | 0.493 |
| | II | 61 (43.0%) | 33 (41.8%) | 204 (38.1%) | 298 (39.4%) | |
| | III | 29 (20.4%) | 18 (22.8%) | 151 (28.2%) | 198 (26.2%) | |
| | IV | 3 (2.1%) | 1 (1.3%) | 5 (0.9%) | 9 (1.2%) | |
| | Not Reported | 37 (26.1%) | 20 (25.3%) | 115 (21.5%) | 172 (22.8%) | |
| Stage (Clinical) | 0 | 3 (1.8%) | 1 (1.2%) | 8 (1.5%) | 12 (1.5%) | 0.027 |
| | I | 27 (15.8%) | 13 (15.1%) | 64 (11.7%) | 104 (13.0%) | |
| | II | 27 (15.8%) | 4 (4.7%) | 63 (11.5%) | 94 (11.7%) | |
| | III | 26 (15.2%) | 11 (12.8%) | 53 (9.7%) | 90 (11.2%) | |
| | IV | 48 (28.1%) | 23 (26.7%) | 192 (35.2%) | 263 (32.8%) | |
| | Not Reported | 40 (23.4%) | 34 (39.5%) | 166 (30.4%) | 240 (29.9%) | |
| Stage (Pathological) | 0 | 1 (0.6%) | 1 (1.2%) | 7 (1.3%) | 9 (1.1%) | 0.509 |
| | I | 7 (4.1%) | 5 (5.9%) | 49 (9.0%) | 61 (7.6%) | |
| | II | 5 (2.9%) | 1 (1.2%) | 17 (3.1%) | 23 (2.9%) | |
| | III | 7 (4.1%) | 2 (2.4%) | 20 (3.7%) | 29 (3.6%) | |
| | IV | 21 (12.4%) | 10 (11.8%) | 82 (15.0%) | 113 (14.1%) | |
| | Not Reported | 129 (75.9%) | 66 (77.6%) | 371 (67.9%) | 566 (70.7%) | |
| Overall Survival Indicator | Alive | 53 (31.0%) | 33 (38.4%) | 212 (38.8%) | 298 (37.1%) | 0.175 |
| | Dead | 118 (69.0%) | 53 (61.6%) | 334 (61.2%) | 505 (62.9%) | |
| Progression-Free Survival Indicator | No Progression | 49 (28.7%) | 32 (37.2%) | 199 (36.4%) | 280 (34.9%) | 0.156 |
| | Progression | 122 (71.3%) | 54 (62.8%) | 347 (63.6%) | 523 (65.1%) | |

| Overall Survival (OS) | Median Surv. (95% CI) | Sample: Head & Neck | Log Rank P-value |
|-----------------------|-----------------------|---------------------|------------------|
| Total | 55.2 (44.2, 68.0) | E=505 C=298 T=803 | p= 0.012 |
| ALP | 51.3 (30.7, 90.6) | E=53 C=33 T=86 | |
| LOR | 35.0 (23.8, 56.5) | E=118 C=53 T=171 | |
| No Benzo | 63.7 (48.2, 79.1) | E=334 C=212 T=546 | |

| Progression-Free Survival (PFS) | Median Surv. (95% CI) | Sample: Head & Neck | Log Rank P-value |
|---------------------------------|-----------------------|---------------------|------------------|
| Total | 38.7 (30.6, 52.1) | E=523 C=280 T=803 | p= 0.006 |
| ALP | 40.3 (23.7, 75.2) | E=54 C=32 T=86 | |
| LOR | 29.2 (18.0, 44.0) | E=122 C=49 T=171 | |
| No Benzo | 46.8 (32.0, 61.3) | E=347 C=199 T=546 | |

| Overall Survival (OS) | | |
|---|-----------------------|---------|
| Predictors: Cohort, Sex, Clinical Grade, and Clinical Stage | | |
| Cohort | HR (95% CI) | P-value |
| No Benzo | Ref. | <.0001 |
| ALP | 1.227 (0.907 – 1.660) | 0.1845 |
| LOR | 1.629 (1.304 – 2.035) | <.0001 |
| Progression-Free Survival (PFS) | | |
| No Benzo | Ref. | <.0001 |
| ALP | 1.235 (0.917 – 1.662) | 0.1647 |
| LOR | 1.635 (1.313 – 2.036) | <.0001 |

E= event, C= censored, T= Total