## Supplementary Table S7. Breast cancer patient characteristics, median survival, and Multivariate Cox Regression Modeling.

Patient Characteristics (Breast)		LOR	ALP	No Benzo	Overall	P-value
	N	559 (24.0)	362 (15.5)	1,411 (60.5)	2,332 (100%)	
Sex	Female	555 (99.3%)	360 (99.4%)	1,404 (99.5%)	2,319 (99.4%)	0.840
	Male	4 (0.7%)	2 (0.6%)	7 (0.5%)	13 (0.6%)	
Grade (Clinical)	I	51 (9.3%)	78 (21.9%)	259 (18.7%)	388 (16.9%)	<.001
	II	193 (35.1%)	134 (37.6%)	535 (38.5%)	862 (37.6%)	
	III	258 (46.9%)	100 (28.1%)	382 (27.5%)	740 (32.3%)	
	IV			2 (0.1%)	2 (0.1%)	
	Not Reported	48 (8.7%)	44 (12.4%)	210 (15.1%)	302 (13.2%)	
Grade (Pathological)	ı	49 (8.9%)	76 (21.3%)	257 (18.5%)	382 (16.6%)	<.001
	II	186 (33.8%)	130 (36.5%)	515 (37.1%)	831 (36.2%)	
	III	249 (45.3%)	94 (26.4%)	362 (26.1%)	705 (30.7%)	
	IV			2 (0.1%)	2 (0.1%)	
	Not Reported	66 (12.0%)	56 (15.7%)	253 (18.2%)	375 (16.3%)	
Stage (Clinical)	0	24 (4.3%)	32 (8.9%)	120 (8.5%)	176 (7.6%)	<.001
	I	137 (24.5%)	97 (27.0%)	395 (28.1%)	629 (27.1%)	
	II	127 (22.7%)	37 (10.3%)	189 (13.4%)	353 (15.2%)	
	III	29 (5.2%)	6 (1.7%)	51 (3.6%)	86 (3.7%)	
	IV	47 (8.4%)	8 (2.2%)	75 (5.3%)	130 (5.6%)	
	Not Reported	195 (34.9%)	179 (49.9%)	576 (41.0%)	950 (40.9%)	
Stage (Pathological)	0	16 (2.9%)	28 (7.8%)	130 (9.4%)	174 (7.6%)	<.001
	I	124 (22.4%)	104 (29.1%)	459 (33.1%)	687 (29.9%)	
	II	124 (22.4%)	36 (10.1%)	208 (15.0%)	368 (16.0%)	
	III	62 (11.2%)	10 (2.8%)	80 (5.8%)	152 (6.6%)	
	IV	11 (2.0%)	1 (0.3%)	25 (1.8%)	37 (1.6%)	
	Not Reported	216 (39.1%)	179 (50.0%)	483 (34.9%)	878 (38.2%)	
Overall Survival Indicator	Alive	349 (62.4%)	227 (62.7%)	1,021 (72.4%)	1,597 (68.5%)	<.001
	Dead	210 (37.6%)	135 (37.3%)	390 (27.6%)	735 (31.5%)	
Progression-Free Survival Indicator	No Progression	332 (59.4%)	220 (60.8%)	1,000 (70.9%)	1,552 (66.6%)	<.001
	Progression	227 (40.6%)	142 (39.2%)	411 (29.1%)	780 (33.4%)	

Overall Survival (OS)	Median Surv. (95% CI)	Sample: Breast	Log Rank P-value
Total	194.1 (183.5, NR)	E=735 C=1597 T=2332	p= <.001
ALP	142.7 (114.0, 171.5)	E=135 C=227 T=362	
LOR	157.5 (133.2, 165.9)	E=210 C=349 T=559	
No Benzo	NR (NR, NR)	E=390 C=1021 T=1411	

Progression-Free Survival (PFS)	Median Surv. (95% CI)	Sample: Breast	Log Rank P-value
Total	191.3 (172.5, NR)	E=780 C=1552 T=2332	p= <.001
ALP	136.6 (92.7, 161.5)	E=142 C=220 T=362	
LOR	133.2 (117.1, 168.3)	E=227 C=332 T=559	
No Benzo	NR (NR, NR)	E=411 C=1000 T=1411	

Overall Survival (OS)					
Predictors: Cohort, Sex, Clinical Grade, and Clinical Stage					
Cohort	HR (95% CI)	P-value			
No Benzo	Ref.	<.0001			
ALP	1.867 (1.528 – 2.281)	<.0001			
LOR	1.248 (1.050 – 1.484)	0.0119			
Progression-Free Survival (PFS)					
No Benzo	Ref.	<.0001			
ALP	1.850 (1.523 – 2.248)	<.0001			
LOR	1.345 (1.138 – 1.591)	0.0005			

E= event, C= censored, T= Total