

Variable	Category	Count (%) / Median (IQR)	Clinical Benefit = No	Clinical Benefit = Yes	P value
Age (N=51)		62 (53~67)	64(56.75~66)	59(53~68)	0.652
Race (N=51)					1
	Black or African American	9 (17.65)	2 (20)	7 (17.07)	
	White	42 (82.35)	8 (80)	34 (82.93)	
Tumor Grade (N=45)					0.533
	1	8 (17.78)	2 (22.22)	6 (16.67)	
	2	30 (66.67)	7 (77.78)	23 (63.89)	
	3	7 (15.56)	0 (0)	7 (19.44)	
ER/PR Status (N=49)					0.659
	ER+ / PR+	41 (83.67)	8 (80)	33 (84.62)	
	ER+ / PR-	8 (16.33)	2 (20)	6 (15.38)	
Tumor Histology (N=51)					0.558
	Ductal	36 (70.59)	6 (60)	30 (73.17)	
	Lobular	9 (17.65)	2 (20)	7 (17.07)	
	Other	6 (11.76)	2 (20)	4 (9.76)	
ECOG Status (N=51)					0.168
	0	28 (54.9)	6 (60)	22 (53.66)	
	1	19 (37.25)	2 (20)	17 (41.46)	
	2	4 (7.84)	2 (20)	2 (4.88)	
Menopausal Status (N=51)					1
	Postmenopausal	43 (84.31)	9 (90)	34 (82.93)	
	Premenopausal	8 (15.69)	1 (10)	7 (17.07)	
Endocrine Therapy (N=51)					0.113
	Fulvestrant	14 (27.45)	5 (50)	9 (21.95)	
	Letrozole	37 (72.55)	5 (50)	32 (78.05)	
Line of Therapy (N=51)					0.810
	1st Line	47 (92.15)	9 (90)	38 (92.7)	
	2nd Line	4 (7.84)	1 (10)	3 (7.32)	
Treatment Setting (N=51)					0.447
	De novo stage IV	17 (33.33)	3 (30)	14 (34.15)	
	Endocrine Resistant	22 (43.14)	6 (60)	16 (39.02)	
	Endocrine Sensitive	12 (23.53)	1 (10)	11 (26.83)	
Bone Metastasis at Baseline (N=51)					0.664
	N	10 (19.61)	1 (10)	9 (21.95)	
	Y	41 (80.39)	9 (90)	32 (78.05)	
Visceral Metastasis at Baseline (N=51)					0.075
	N	25 (49.02)	2 (20)	23 (56.1)	
	Y	26 (50.98)	8 (80)	18 (43.9)	
Best Treatment Response (RECIST) (N=51)					P<10E-5
	CR	3 (5.88)	0 (0)	3 (7.32)	
	PR	15 (29.41)	0 (0)	15 (36.59)	
	SD	27 (52.94)	4 (40)	23 (56.1)	
	PD	6 (11.76)	6 (60)	0 (0)	

**Supplementary Table 2. Patient demographics.** Categorical variables were summarized into count and percentages and frequency differences were compared by Fisher's exact test for patients with and without clinical benefit. Continuous variables were summarized into median with interquartile range (IQR) and were compared by Wilcoxon rank sum test.