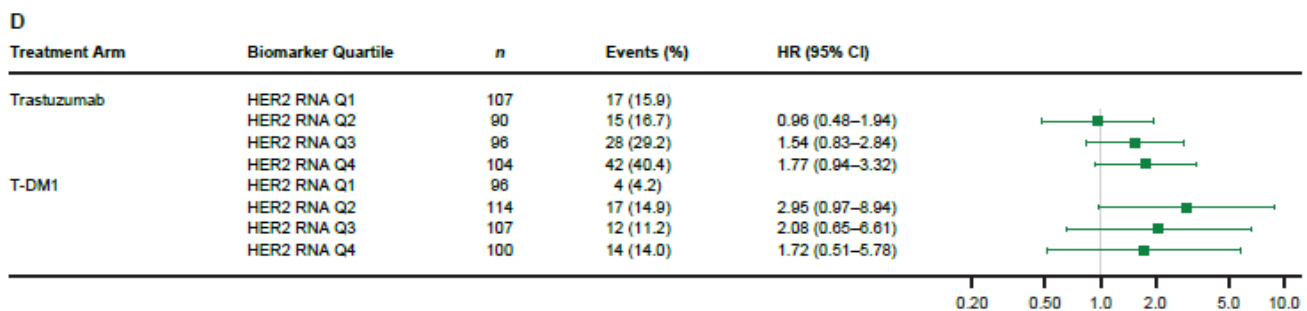
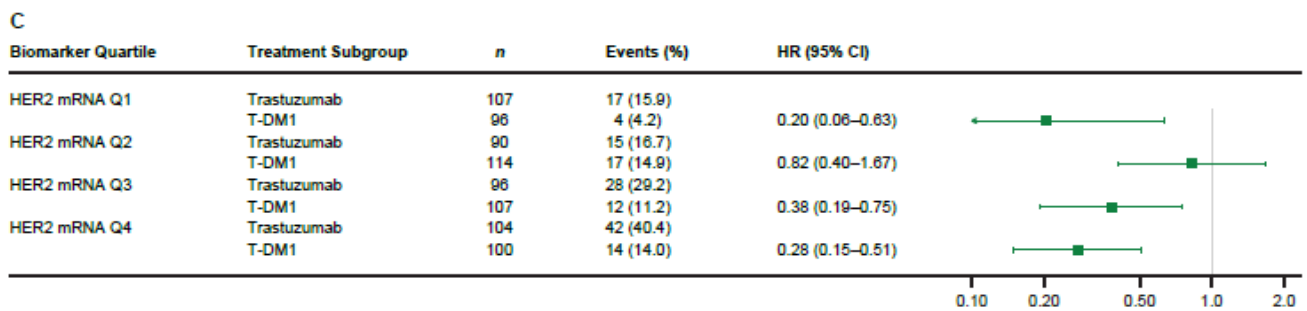
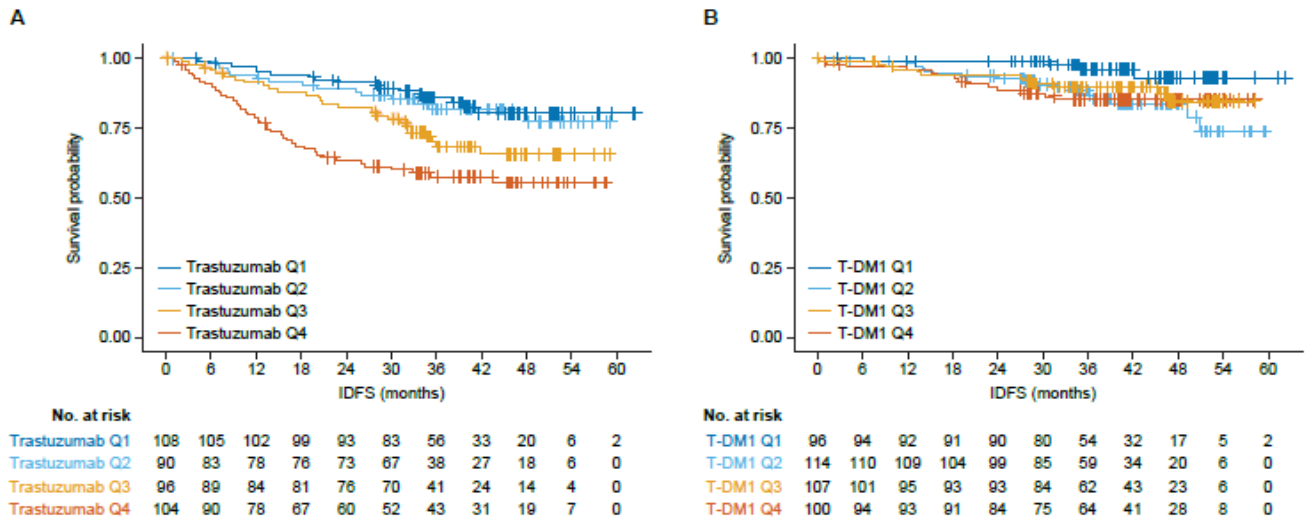
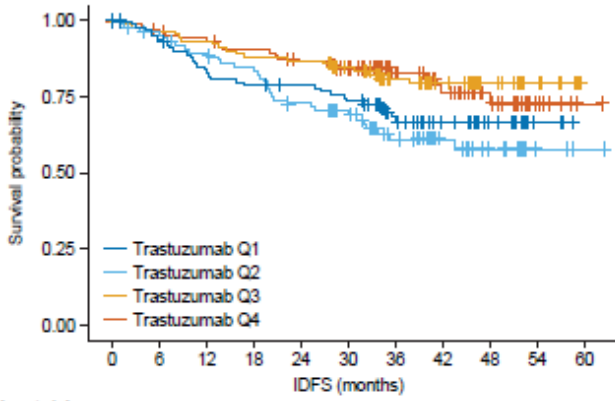


Supplementary Figure S6. HER2, PD-L1, and Five-Gene Signature Quartile Analysis. IDFS by HER2 gene expression quartile (**A**) in the trastuzumab arm; and (**B**) in the T-DM1 arm; (**C**) treatment effect on IDFS by HER2 gene expression quartile; (**D**) effect of HER2 gene expression quartile on IDFS; IDFS by PD-L1 gene expression quartile (**E**) in the trastuzumab arm; and (**F**) in the T-DM1 arm; (**G**) treatment effect on IDFS by PD-L1 gene expression quartile; (**H**) effect of PD-L1 gene expression quartile on IDFS; IDFS by five-gene signature (i.e., PD-L1/granzymeB/CD8/IFN γ /CXCL9) gene expression quartile (**I**) in the trastuzumab arm; and (**J**) in the T-DM1 arm; (**K**) treatment effect on IDFS by five-gene signature gene expression quartile; (**L**) effect of five-gene signature gene expression quartile expression on IDFS. Each expression quartile (quartile 2, quartile 3, and quartile 4) is compared to the lowest quartile (quartile 1). The analyses are unstratified and adjusted using a Cox regression model that includes percent tumor in marked area, clinical stage at presentation, hormone receptor status, type of preoperative HER2-directed therapy, and pathologic nodal status. HER2, human epidermal growth factor receptor 2; IDFS, invasive disease-free survival; IFN γ , interferon gamma; Q, quartile; T-DM1, trastuzumab emtansine.

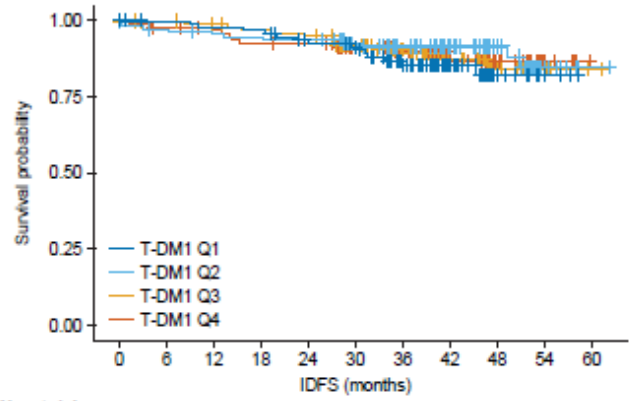


E



No. at risk		0	6	12	18	24	30	36	42	48	54	60
Trastuzumab Q1	105	94	82	78	75	70	44	27	17	4	0	
Trastuzumab Q2	90	82	76	71	60	51	35	19	12	3	1	
Trastuzumab Q3	95	89	86	81	80	72	50	36	22	9	0	
Trastuzumab Q4	108	102	98	93	87	79	49	33	20	7	1	

F



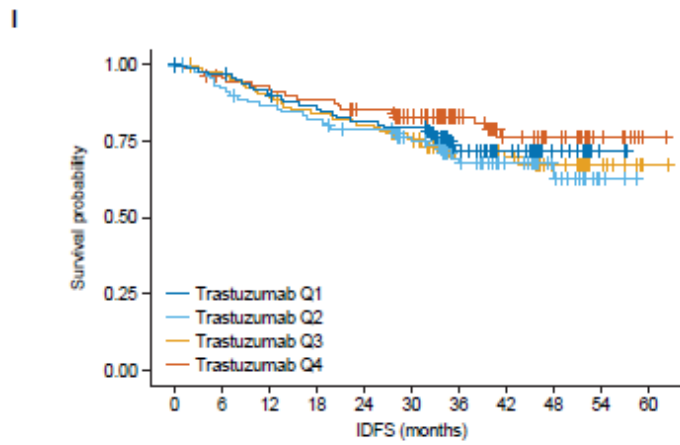
No. at risk		0	6	12	18	24	30	36	42	48	54	60
T-DM1 Q1	99	96	94	93	85	81	61	33	13	4	0	
T-DM1 Q2	114	108	105	104	102	86	68	50	30	9	1	
T-DM1 Q3	108	103	100	97	95	83	60	35	23	6	1	
T-DM1 Q4	96	92	90	85	84	74	50	32	22	6	0	

G

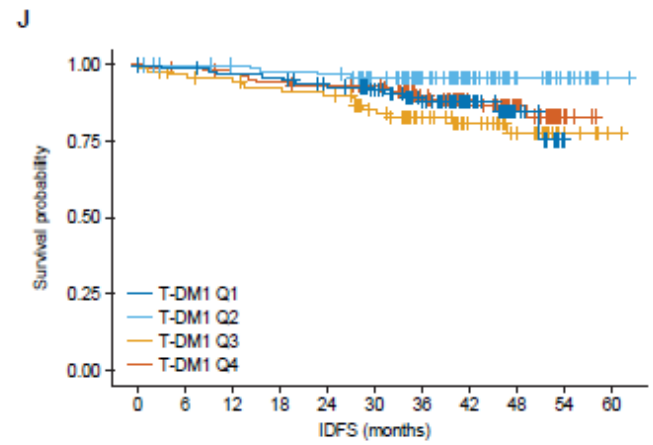
Biomarker Quartile	Treatment Subgroup	n	Events (%)	HR (95% CI)
PD-L1 RNA Q1	Trastuzumab	105	31 (29.5)	0.41 (0.22–0.77)
	T-DM1	99	14 (14.1)	
PD-L1 RNA Q2	Trastuzumab	90	32 (35.6)	0.21 (0.10–0.41)
	T-DM1	114	11 (9.6)	
PD-L1 RNA Q3	Trastuzumab	95	18 (18.9)	0.57 (0.27–1.20)
	T-DM1	108	12 (11.1)	
PD-L1 RNA Q4	Trastuzumab	107	21 (19.6)	0.45 (0.21–0.96)
	T-DM1	96	10 (10.4)	

H

Treatment Arm	Biomarker Quartile	n	Events (%)	HR (95% CI)
Trastuzumab	PD-L1 RNA Q1	105	31 (29.5)	1.26 (0.77–2.08)
	PD-L1 RNA Q2	90	32 (35.6)	
	PD-L1 RNA Q3	95	18 (18.9)	
	PD-L1 RNA Q4	107	21 (19.6)	
T-DM1	PD-L1 RNA Q1	99	14 (14.1)	0.62 (0.28–1.37)
	PD-L1 RNA Q2	114	11 (9.6)	
	PD-L1 RNA Q3	108	12 (11.1)	
	PD-L1 RNA Q4	96	10 (10.4)	



No. at risk											
	0	6	12	18	24	30	36	42	48	54	60
Trastuzumab Q1	103	96	88	84	79	77	48	27	16	3	0
Trastuzumab Q2	97	84	78	74	68	60	40	29	13	3	0
Trastuzumab Q3	107	101	93	86	82	72	46	31	20	9	1
Trastuzumab Q4	91	86	83	79	73	63	44	28	22	8	1



No. at risk											
	0	6	12	18	24	30	36	42	48	54	60
T-DM1 Q1	101	99	96	95	87	79	62	35	13	1	0
T-DM1 Q2	107	103	101	99	98	87	64	41	25	13	1
T-DM1 Q3	96	90	88	84	82	67	48	31	22	6	1
T-DM1 Q4	113	107	104	101	99	91	65	43	28	5	0

