

## Supplementary Online Content

Nguyen Q, Chun SG, Chow E, et al. Single-fraction stereotactic vs conventional multifraction radiotherapy for pain relief in patients with predominantly nonspine bone metastases: a randomized phase 2 trial. Published online April 25, 2019. *JAMA*. doi:10.1001/jamaoncol.2019.0192

**eTable.** Patient Characteristics

**eFigure 1.** Overall survival estimates by treatment group in the intent-to-treat analysis

**eFigure 2.** Proportions of patients with or without severe symptoms on the 13-core-item MD Anderson Symptom Index (MDASI) after irradiation of bone metastases

This supplementary material has been provided by the authors to give readers additional information about their work.

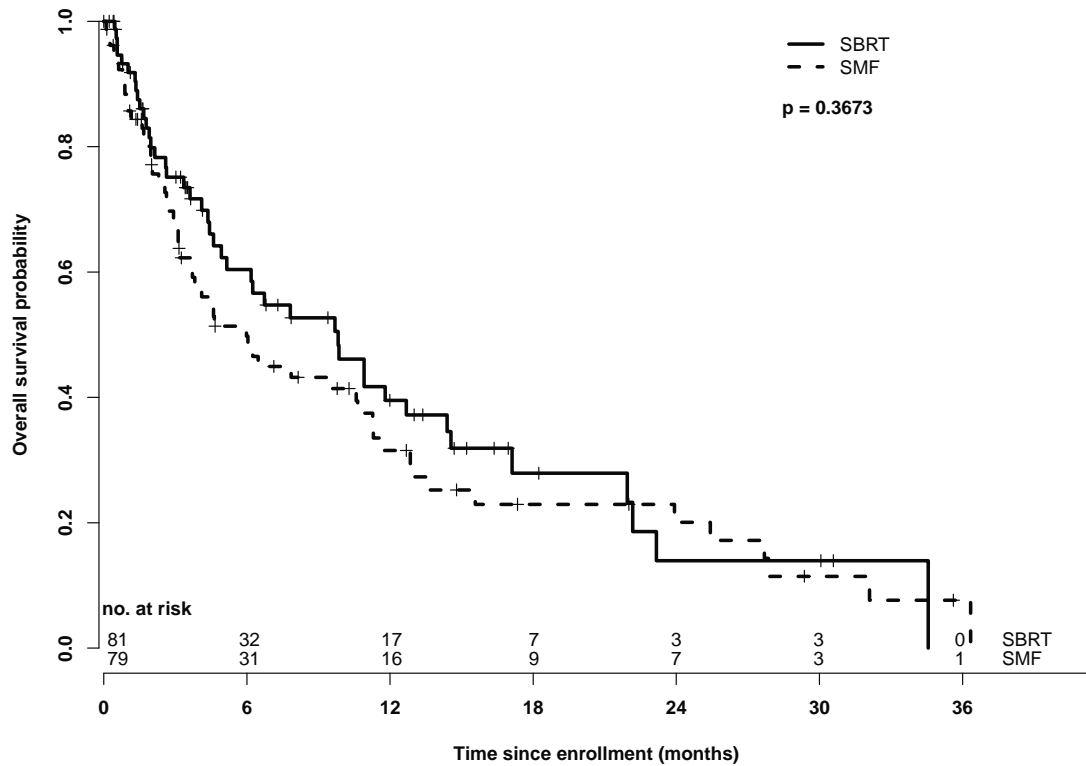
**eTable. Patient Characteristics**

	Value or No. of Patients (%)		Total (n=160)
	Multifraction Group (n=79)	Single-Fraction Group (n=81)	
Age at Diagnosis, years			
Mean $\pm$ SD	62.7 $\pm$ 10.9	62.0 $\pm$ 10.1	62.4 $\pm$ 10.4
Median (range)	63 (23–84)	63 (42–86)	63 (23–86)
Sex			
Male	47 (60)	49 (61)	96 (60)
Female	32 (40)	32 (39)	64 (40)
Ethnicity			
Caucasian	59 (75)	68 (84)	127 (79)
African American	8 (10)	2 (2)	10 (6)
Hispanic	4 (5)	7 (9)	11 (7)
Asian	2 (2)	3 (4)	5 (3)
Other	6 (8)	1 (1)	7 (4)
Disease Stage			
IV	79 (100)	81 (100)	160 (100)
No. of Lesions			
$\leq$ 4	41 (52)	42 (52)	83 (52)
$>$ 4	38 (48)	39 (48)	77 (48)
Site of Bony Mets			
Abdomen	4 (5)	3 (4)	7 (4)
Thorax	9 (11)	10 (12)	19 (12)
Extremities	13 (17)	15 (18)	28 (17)
Head/Neck	2 (2)	4 (5)	6 (4)
Pelvis	48 (61)	46 (57)	94 (59)
Spine	3 (4)	3 (4)	6 (4)
No. of Sites Irradiated			
1	64 (81)	61 (75)	125 (78)
$>$ 1	15 (19)	20 (25)	35 (22)
Pain Score at Baseline			
0-1	1 (1)	3 (4)	4 (2)
2-4	14 (18)	22 (27)	36 (23)
5-6	14 (18)	20 (25)	34 (21)
7-10	49 (63)	36 (44)	85 (54)
Missing	1	0	1
Karnofsky Score			
50-60	10 (13)	9 (11)	19 (12)
70-80	58 (73)	57 (70)	115 (72)
90-100	11 (14)	15 (19)	26 (16)

<b>eTable, continued</b>			
Value or No. of Patients (%)			
	Multifraction Group	Single-Fraction Group	Total
	(n=79)	(n=81)	(n=160)
<b>Primary Cancer Site*</b>			
Adrenal-cortical	1 (1)	0 (0)	1 (1)
Bladder	4 (5)	3 (4)	7 (4)
Breast	3 (4)	11 (14)	14 (9)
Esophagus	4 (5)	4 (5)	8 (5)
Head and Neck	1 (1)	2 (3)	3 (2)
Liver	0 (0)	3 (4)	3 (2)
Lung	47 (60)	32 (39)	79 (49)
Pancreas	0 (0)	1 (1)	1 (1)
Prostate	9 (11)	14 (17)	23 (14)
Renal Cell	5 (6)	9 (11)	14 (9)
Thymoma	1 (1)	0 (0)	1 (1)
Thyroid	2 (2)	0 (0)	2 (1)
Unknown/Lung	0 (0)	1 (1)	1 (1)
Uveal Melanoma	1 (1)	0 (0)	1 (1)
Multiple Myeloma	1 (1)	1 (1)	2 (1)
<b>Primary Tumor Histology</b>			
Adenocarcinoma	50 (64)	51 (61)	101 (63)
Adenoid Cystic	1 (1)	0 (0)	1 (1)
Adrenal Cortical Carcinoma	1 (1)	0 (0)	1 (1)
Atypical Carcinoid	1 (1)	0 (0)	1 (1)
Carcinoma	1 (1)	1 (1)	2 (1)
Clear Cell	5 (6)	9 (11)	14 (9)
Ductal Carcinoma	0 (0)	4 (5)	4 (2)
Lobular Carcinoma	1 (1)	1 (1)	2 (1)
Melanoma	1 (1)	0 (0)	1 (1)
Neuroendocrine	1 (1)	3 (4)	4 (2)
Papillary	2 (3)	0 (0)	2 (1)
Pleiomorphic Carcinoma	1 (1)	0 (0)	1 (1)
Poorly Diff Carcinoma	1 (1)	0 (0)	1 (1)
Sarcomatoid	1 (1)	0 (0)	1 (1)
Small Cell	1 (1)	3 (4)	4 (2)
Squamous	6 (8)	5 (6)	11 (7)
Urothelial Carcinoma	3 (4)	4 (5)	7 (4)
Other	1 (1)	2 (2)	3 (2)

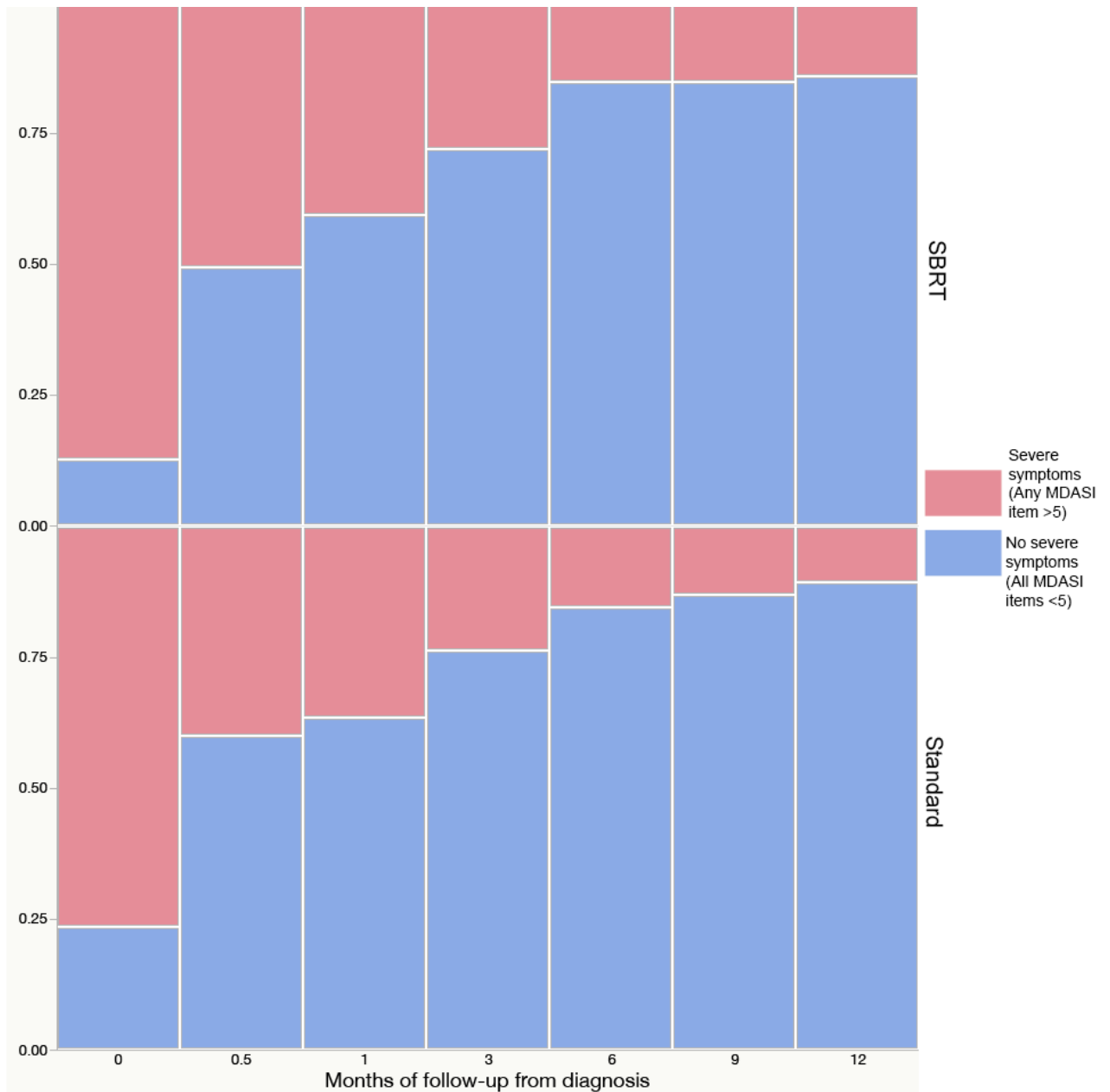
\*Percentages may not total 100 because of rounding.  
Abbreviations: SD, standard deviation.

**eFigure 1.** Overall survival estimates by treatment group in the intent-to-treat analysis.



SBRT, single-fraction stereotactic body radiation therapy (to 12 or 16 Gy); MFRT, standard multifraction radiation (to 30 Gy in ten 3-Gy fractions). Overall survival did not differ between the treatment groups ( $P=0.3673$ ).

**eFigure 2.** Proportions of patients with or without severe symptoms on the 13-core-item MD Anderson Symptom Index (MDASI) after irradiation of bone metastases.



The severity of symptoms lessened over time during the first year after treatment in both treatment groups (i.e., those receiving either single-fraction stereotactic radiation therapy to 12 or 16 Gy [SABR] or standard multifraction radiation therapy to 30 Gy in 10 fractions), but no differences were found between groups. Red indicates severe symptoms, defined as having a score of >5 on any MDASI item; blue indicates no severe symptoms, defined as having scores of <5 on all MDASI items.