

## Supplementary

**Table S1** Demographic and clinical characteristics of patients receiving standard radiation therapy *vs.* hypofractionated radiation therapy among the whole cohort (N=7,143)

Variable (N)	Standard RT	HFRT	P*
No. (%) of patients	6992	151	
Age (years), mean ± SE	64.0 ± 0.11	65.0 ± 0.79	0.18
Age (years)			0.23
≤64 (3613)	3544 (50.7)	69 (45.7)	
>64 (3530)	3448 (49.3)	82 (54.3)	
Sex			0.067
Male (3120)	3043 (43.5)	77 (51.0)	
Female (4023)	3949 (56.5)	74 (49.0)	
Race/Ethnicity			0.073
White non-Hispanic (6022)	5900 (84.4)	122 (80.8)	
Other (839)	813 (11.6)	26 (17.2)	
Unknown (282)	279 (4.0)	3 (2.0)	
Income			0.51
<50% (3203)	3133 (44.8)	70 (46.4)	
≥50% (3382)	3309 (47.3)	73 (48.3)	
Not available (558)	550 (7.9)	8 (5.3)	
Insurance			0.76
None/Non-Private (4678)	4575 (65.4)	103 (68.2)	
Private (2371)	2324 (33.2)	47 (31.1)	
Unknown (94)	93 (1.3)	1 (0.7)	
Medicaid expansion state status			<0.001
Non-expansion (2765)	2735 (39.1)	30 (19.9)	
Expansion (4337)	4217 (60.3)	120 (79.5)	
Suppressed (41)	40 (0.6)	1 (0.7)	
Urban/Rural			<0.001
Metro 250k+ (4607)	4487 (64.2)	120 (79.5)	
Other area (2339)	2369 (33.9)	30 (19.9)	
Not available (137)	136 (2.0)	1 (0.7)	
Greater Circle Distance			0.43
≤10 mi (3225)	3161 (45.2)	64 (42.4)	
>10 mi (3406)	3327 (47.6)	79 (52.3)	
Unknown (512)	504 (7.2)	8 (5.3)	
Year of diagnosis, mean ± SE	2013 ± 0.029	2013 ± 0.18	0.43
Comorbidity Score			0.88
0 (4158)	4071 (58.2)	87 (57.6)	
1+ (2985)	2921 (41.8)	64 (42.4)	
Concurrent chemotherapy			<0.001
Early Concurrent (5137)	5065 (72.4)	72 (47.7)	
Non-early concurrent (2006)	1927 (27.6)	79 (52.3)	

**Table S1** (*continued*)

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Variable (N)	Standard RT	HFRT	P*
Tumor location			0.96
Right (3700)	3620 (51.8)	80 (53.0)	
Left (2679)	2624 (37.5)	55 (36.4)	
Other/unknown (764)	748 (10.7)	16 (10.6)	
Grade			0.13
Well/mod/intermediate (29)	28 (0.4)	1 (0.66)	
Poor/undifferentiated (1693)	1666 (23.8)	27 (17.9)	
N/A (5421)	5298 (75.8)	123 (81.5)	
T stage			0.37
T1 (1640)	1607 (23.0)	33 (21.9)	
T2 (2213)	2171 (31.1)	42 (27.8)	
T3 (1439)	1400 (20.0)	39 (25.8)	
T4 (1851)	1814 (25.9)	37 (24.5)	
N stage			0.067
N0 (663)	656 (9.4)	7 (4.6)	
N1 (978)	954 (13.6)	24 (15.9)	
N2 (4205)	4121 (58.9)	84 (55.6)	
N3 (1297)	1261 (18.0)	36 (23.8)	
TNM stage			0.77
II (1054)	1033 (14.8)	21 (13.9)	
III (6089)	5959 (85.2)	130 (86.1)	
Facility Type			<0.001
Academic (2265)	2168 (31.0)	97 (64.2)	
Non-academic (4837)	4784 (68.4)	53 (35.1)	
Suppressed (41)	40 (0.6)	1 (0.7)	
Facility Location			0.05
East Coast (3012)	2962 (42.4)	50 (33.1)	
All other (4090)	3990 (57.1)	100 (66.2)	
Suppressed (41)	40 (0.6)	1 (0.7)	

\*P value reflects chi-square analysis or Fisher's exact test for categorical variables and ANOVA for continuous variables. RT, radiation therapy; HFRT, hypofractionated radiation therapy; SE, standard error.

**Table S2** Univariable and multivariable logistic regression analysis for variables potentially associated with receipt of hypofractionated radiation therapy (HFRT; N=151) compared to standard radiation therapy (standard RT; N=6,992) among the entire cohort (N=7,143)

Variable <sup>†</sup>	Univariable		Multivariable	
	OR (95% CI)	P	OR (95% CI)	P
<b>Sex</b>				
Male	1 [Reference]		1 [Reference]	NA
Female	0.74 (0.54-1.02)	0.068	0.76 (0.55-1.06)	0.1
Age (years)	1.01 (0.99-1.03)	0.18		
<b>Race/Ethnicity</b>				
White non-Hispanic	1 [Reference]		NA	
Other	1.55 (0.95-2.19)	0.047		
Unknown	0.52 (0.15-1.47)	0.27		
<b>Medicaid expansion state status</b>				
Non-expansion	1 [Reference]		NA	
Expansion	2.59 (1.73-3.88)	<0.001	2.24 (1.49-3.37)	<0.001
Suppressed	2.28 (0.30-17.1)	0.42	1.51 (0.19-11.7)	0.7
<b>Urban/Rural</b>				
Metro 250k+	1 [Reference]		NA	
Other area	0.47 (0.32-0.71)	<0.001	0.62 (0.41-0.95)	0.027
Not available	0.27 (0.038-1.98)	0.2	0.32 (0.04-2.37)	0.27
<b>Concurrent chemotherapy</b>				
Early concurrent	1 [Reference]		NA	
Non-early concurrent	2.88 (2.09-3.99)	<0.001	3.05 (2.19-4.24)	<0.001
<b>Grade</b>				
Well/moderate/intermediate	1 [Reference]		NA	
Poorly/undifferentiated	0.45 (0.060-3.46)	0.45		
N/A	0.65 (0.087-4.82)	0.67		
<b>N stage</b>				
N0	1 [Reference]		NA	
N1	2.36 (1.01-5.50)	0.047	2.70 [1.14-6.35]	0.023
N2	1.91 (0.88-4.15)	0.1	2.06 [0.94-4.50]	0.07
N3	2.68 [1.18-6.04]	0.018	2.51 [1.10-5.72]	0.029
<b>Facility Type</b>				
Academic	1 [Reference]		NA	
Non-academic	0.25 (0.18-0.35)	<0.001	0.26 (0.18-0.37)	<0.001
Suppressed	0.56 (0.076-4.11)	0.57	1	NA
<b>Facility Location</b>				
East Coast	1 [Reference]		NA	
All other	1.48 (1.05-2.09)	0.024	1.80 (1.26-2.56)	0.001
Suppressed	1.48 (0.20-11.0)	0.7	1	NA

<sup>†</sup>, variables with empty spaces in multivariate column were not included in the final MVA model. OR, odds ratio; CI, confidence interval.

**Table S3** Univariable and multivariable logistic regression analysis for variables potentially associated with receipt of hypofractionated radiation therapy (HFRT; N=72) compared to standard radiation therapy (standard RT; N=5,065) among the early concurrent chemotherapy subset (N=5,137)

Variable	OR (95% CI)	P	OR (95% CI)	P
Age	1.03 (1.00-1.05)	0.053	1.02 (1.00-1.05)	0.1
Sex				
Male	1 [Reference]	NA	1 [Reference]	NA
Female	0.52 (0.33-0.84)	0.007	0.54 (0.34-0.87)	0.012
Race/Ethnicity				
White non-Hispanic	1 [Reference]	NA	1 [Reference]	NA
Other	2.16 (1.21-3.86)	0.009	1.81 (1.003-2.9)	0.051
Unknown	1.21 (0.38-3.90)	0.75	1.36 (0.42-4.44)	0.61
Medicaid expansion state status				
Non-expansion	1 [Reference]	NA	1 [Reference]	NA
Expansion	2.79 (1.53-5.10)	0.001	2.22 (1.20-4.09)	0.011
Suppressed	1	NA	1	NA
Urban/Rural				
Metro 250k+	1 [Reference]	NA	1 [Reference]	NA
Other area	0.36 (0.19-0.67)	0.001	0.39 (0.21-0.75)	0.005
Not available	1	NA	1	NA
N stage				
N0	1 [Reference]	NA	1 [Reference]	NA
N1	2.75 (0.78-9.69)	0.12	2.98 (0.84-10.6)	0.092
N2	2.04 (0.63-6.62)	0.24	2.27 (0.69-7.43)	0.18
N3	3.27 (0.95-11.2)	0.059	3.84 (1.11-13.3)	0.033
Facility Type				
Academic	1 [Reference]	NA	1 [Reference]	NA
Non-academic	0.43 (0.27-0.68)	<0.001	0.50 (0.31-0.80)	0.004
Suppressed	1	NA	1	NA
Facility Location				
East Coast	1 [Reference]	NA	1 [Reference]	NA
All other	1.95 (1.16-3.28)	0.011	2.25 (1.32-3.83)	0.003
Suppressed	1	NA	1	NA

OR, odds ratio; CI, confidence interval.

**Table S4** Univariable and multivariable logistic regression analysis for variables potentially associated with receipt of hypofractionated radiation therapy (HFRT; N=79) compared to standard radiation therapy (standard RT; N=1,927) among the non-early concurrent chemotherapy subset (N=2,006)

Variable <sup>†</sup>	Univariable		Multivariable	
	OR (95% CI)	P	OR (95% CI)	P
<b>Race/Ethnicity</b>				
White non-Hispanic	1 [Reference]	NA		
Other	0.99 (0.52-1.90)	0.98		
Unknown	1	NA		
<b>Medicaid expansion state status</b>				
Non-expansion	1 [Reference]	NA	1 [Reference]	NA
Expansion	2.67 (1.55-4.60)	<0.001	2.07 (1.19-3.61)	0.01
Suppressed	4.81 (0.58-39.7)	0.15	1.53 (0.18-12.8)	0.69
Year of diagnosis	1.11 (1.00-1.22)	0.041	1.09 (0.99-1.20)	0.093
<b>Facility Type</b>				
Academic	1 [Reference]	NA	1 [Reference]	NA
Non-academic	0.13 (0.08-0.22)	<0.001	0.14 (0.08-0.24)	<0.001
Suppressed	0.92 (0.12-7.32)	0.94	1	NA

<sup>†</sup>, variables with empty spaces in multivariate column were not included in the final MVA model. OR, odds ratio; CI, confidence interval.