

and evaluated using partial likelihood. The proportional hazards and linearity assumptions were tested by examination of scaled Schoenfeld Residuals and Martingale Residuals, respectively.

Results: After a median follow-up time of 28.0 months (interquartile range [IQR] 19.1 – 39.1), median PFS was 34.3 months (95% confidence interval [CI] 28.8 – 39.9), and median OS was 50.5 months (95% CI 45.2 – 58.9). The resulting PFS model contained four covariates: primary tumor type (prostate, colorectal, lung, breast, renal, other), ECOG (1-2 vs 0), oligoprogression (yes vs no), number of organs with metastases (single vs multiple). The cross-validated C-Index was 0.66 [95% CI 0.64 – 0.68]. The OS model had five covariates: age (continuous), primary tumor type (prostate, colorectal, lung, breast, renal, other), ECOG (1-2 vs 0), number of organs with metastases (single vs multiple), presence of brain metastasis (yes vs no) and had a corresponding C-Index of 0.67 [95% CI 0.64 – 0.700].

Conclusion: These nomograms can be a useful guiding tool for clinicians in predicting PFS and OS in patients treated with SABR in oligometastatic or oligoprogressive setting. These models should be externally validated.

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Progress in Shortening Treatment Courses for Bone Metastases in a Statewide Quality Consortium

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Purpose/Objective(s): Radiotherapy (RT) is an effective and standard treatment for bone metastases. While data supporting the superiority of treatment with > 5 fractions for any and > 1 fraction for uncomplicated bone metastases are limited, longer treatment courses are routinely used. We report our ongoing efforts to promote use of shorter treatment courses within a statewide quality consortium.

Materials/Methods: Consecutive patients receiving RT for bone metastases from primary breast, lung, melanoma, prostate, or renal cancer(s) between 3/1/18 and 6/30/23 were prospectively enrolled in the Michigan Radiation Oncology Quality Consortium database. Quality metrics promoting use of single fraction RT for uncomplicated bone metastases and ≤5 fraction RT for all bone metastases were introduced in 1/1/20 and 1/1/22, respectively. Uncomplicated metastases were defined as painful, not previously irradiated, and not associated with spinal cord or nerve root compression, fracture, surgery, or a soft tissue component. SBRT plans were excluded from the ≤5 fraction analysis given that all were ≤5 fractions. Patient, treatment, physician, and facility characteristics were

captured. Mixed models with a random intercept for centers were generated with significance defined as p<0.05.

Results: In total, 2,700 patients were enrolled across 29 treatment facilities. Among all patients, 1890 of 3760 (50.3%) unique treatment plans were delivered in ≤5 fractions. From 2018 to 2023, observed annual rates of ≤5 fraction regimens increased from 32% to 67%. Among 825 patients treated for uncomplicated metastases, 327 of 1089 (30%) unique treatment plans utilized a single fraction. From 2018 to 2023, observed annual rates of single fraction use increased from 15% to 40%. Significant predictors of ≤5 fraction use and single fraction use are summarized in Table 1.

Conclusion: Our efforts to shorten treatment courses for bone metastases in our statewide quality consortium have been successful. The number and variety of factors that predict the use of shorter courses highlight the complexity of the decision making when treating these patients.

Abstract 1041 – Table 1

≤5 Fractions	Variable	OR	95% CI	P-value	Single Fraction			
					Variable	OR	95% CI	P-value
Year		1.71	1.52-1.92	<0.01	Year	2.56	1.65-3.97	<0.01
Age					Primary Malignancy			
≤59		-	-	-				
≥70		1.81	1.23-2.67	<0.01	Lung Breast	0.20	0.05-0.74	0.02
Treatment Intent:					Physician Years in Practice			
Palliation		-	-	-	0-10 Years	-	-	-
Durable Local Control		0.44	0.29-0.66	<0.01	>30 Years	0.18	0.03-0.93	0.04
Existing Pathologic Fracture		0.21	0.12-0.36	<0.01				
Cord Compression		0.46	0.23-0.92	0.03				
Treatment Site					Treatment Site			
Spine		-	-	-	Spine	-	-	-
Other		2.52	1.97-3.24	<0.01	Other	9.035	3.50-23.3	<0.01
ECOG								
0-1		-	-	-				
≥2		1.66	1.22-2.27	<0.01				
≥2 Regions Treated		1.53	1.15-2.03	<0.01				
Uncomplicated		1.72	1.24-2.40	<0.01				
Opioid Use		1.53	1.08-2.15	0.02				
Academic Practice Setting		1.65	1.18-2.30	<0.01				

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Radiation Oncologist Workload after Traditional Office Hours: A Threat to Work-Life Balance?

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