Supplementary Online Content

Royce TJ, Chen M-H, Wu J, et al. Surrogate end points for all-cause mortality in men with localized unfavorable-risk prostate cancer treated with radiation therapy vs radiation therapy plus androgen deprivation therapy: asecondary analysis of a randomized clinical trial. *JAMA Oncol*. Published online January 12, 2017. doi:10.1001/jamaoncol.2016.5983.

eTable 1. Unadjusted and Adjusted Hazard Ratios for Clinical Characteristics, Candidate Surrogates and Treatment for the Risk of All-Cause Mortality

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

eTable 1. Unadjusted and Adjusted Hazard Ratios for Clinical Characteristics, Candidate Surrogates and Treatment for the Risk of All-Cause Mortality

			Candidate Surrogate														
			PSA Failure				*PSA nadir (>0.5 ng/mL)*				*PSA DT (<9 months)*				*Int to PSA failure (<30 months)*			
			UHR		AHR		UHR		AHR		UHR		AHR		UHR		AHR	
Covariate	**Men N(%)**	**Deaths N(%)**	HR (CI)	P	HR (CI)	P	HR (CI)	P	HR (CI)	P	HR (CI)	P	HR (CI)	P	HR (CI)	P	HR (CI)	P
Log PSA (ng/mL)	157 (100)	110 (100)	1.17 (0.85, 1.61)	0.35	1.26 (0.88, 1.81)	0.21	1.17 (0.85, 1.61)	0.35	1.23 (0.87, 1.75)	0.24	1.17 (0.85, 1.61)	0.35	1.19 (0.84, 1.70)	0.34	1.17 (0.85, 1.61)	0.35	1.25 (0.87, 1.78)	0.23
Age (years)	157 (100)	110 (100)	1.08 (1.04, 1.12)	<0.001	1.08 (1.04, 1.12)	<0.001	1.08 (1.04, 1.12)	<0.001	1.08 (1.04, 1.66)	<0.001	1.08 (1.04, 1.12)	<0.001	1.08 (1.04, 1.12)	<0.001	1.08 (1.04, 1.12)	<0.001	1.08 (1.04, 1.20)	<0.001
1992 AJCC T stage																	
T2	76 (48)	51 (46)	0.94 (0.64, 1.3	0.73	0.85 (0.57, 1.2	0.42	0.94 (0.64, 1.37)	0.73	0.87 (0.59, 1.3	0.50	0.94 (0.64, 1.3	0.73	0.84 (0.56, 1.2	0.38	0.94 (0.64, 1.3	0.73	0.84 (0.56, 1.2	0.41

			7)				7)			0)		7)		5)		7)		6)
T1	81 (52)	59 (54)	1.0 (ref)	-	1.0 (ref)	-	1.0 (ref)	-	1.0 (ref)	-	1.0 (ref)	-	1.0 (ref)	-	1.0 (ref)	-	1.0 (ref)	-
Highest GS																		
8-10	18 (11)	14 (13)	1.95 (1.03, 3.60)	0.04	1.62 (0.84, 3.13)	0.15	1.95 (1.03, 3.60)	0.04	1.80 (0.93, 3.48)	0.08	1.95 (1.03, 3.60)	0.04	1.49 (0.77, 2.91)	0.24	1.95 (1.03, 3.60)	0.04	1.56 (0.80, 3.03)	0.19
7	91 (58)	66 (60)	1.46 (0.94, 2.27)	0.09	1.58 (0.97, 2.59)	0.07	1.46 (0.94, 2.27)	0.09	1.62 (1.00, 2.64)	0.05	1.46 (0.94, 2.27)	0.09	1.48 (0.90, 2.43)	0.12	1.46 (0.94, 2.27)	0.09	1.50 (0.92, 2.45)	0.11
≤6	48 (31)	30 (27)	1.0 (ref)	-	1.0 (ref)	-	1.0 (ref)	-	1.0 (ref)	-	1.0 (ref)	-	1.0 (ref)	-	1.0 (ref)	-	1.0 (ref)	-
Treatment																		
RT+ADT	78 (50)	53 (48)	0.68 (0.47, 0.99)	0.04	0.85 (0.55, 1.31)	0.45	0.68 (0.47, 0.99)	0.04	1.02 (0.62, 1.66)	0.95	0.68 (0.47, 0.99)	0.04	0.80 (0.54, 1.20)	0.28	0.68 (0.47, 0.99)	0.04	0.80 (0.53, 1.20)	0.27
RT	79	57	1.0	-	1.0	-	1.0	-	1.0		1.0	-	1.0	-	1.0	-	1.0	-

	(50)	(52)	(ref)		(ref)		(ref)		(ref)		(ref)		(ref)		(ref)		(ref)
Surrogate (t)	157 (100)	110 (100)	1.56 (1.05, 2.30)	0.03	1.47 (0.93, 2.32)	0.10	5.76 (2.40, 13.83)	<0.001	1.72 (1.17, 2.52)	0.01	2.17 (1.41, 3.33)	<0.001	2.06 (1.29, 3.28)	0.003	1.89 (1.20, 2.98)	0.006	1.76 (1.06, 2.92)	0.03
PTE value			Not Estimable				103.86%				43.09%				41.26%			

Abbreviations: PSA, prostate-specific antigen; DT, doubling time; Int, interval; UHR, unadjusted hazard ratio; AHR, adjusted hazard ratio; CI, 95% confidence interval; P, P value; AJCC, American Joint Commission on Cancer; Ref, reference; GS, Gleason score; ADT, androgen deprivation therapy; RT, radiation therapy; Obs, observed; PTE, proportion of the treatment effect explained.