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Comparisons of Perceptions of Active Surveillance and Treatment Recommendations by Urologists and Radiation Oncologists for Low-risk Prostate Cancer

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INTRODUCTION

- Active Surveillance (AS) is the preferred initial treatment option for Low-risk Prostate Cancer (LRPC) (defined as PSA<10, Gleason score ≤6, clinical stage <T2c)
- The use of AS as an initial treatment option for LRPC has been increasing, but is still underutilized
- Black men are more likely to die from prostate cancer, so AS for Black men remain controversial
- The physician's (Urologist and Radiation Oncologist) treatment recommendation has the largest influence on which option the patient chooses, and so understanding how they arrive at their recommendation is vital in improving AS uptake

METHODS

- **Design:** Cross-sectional survey
- **Setting:** Urologists and radiation oncologists practicing in two locations (Michigan & Georgia)
- **Population:** Urologists and radiation oncologists who see LRPC patients
- **Instrument:** Mailed or online survey (with case scenarios)
- **Outcome:** Perceptions and practices of AS, and treatment recommendations for LRPC using patient scenarios.
- **Scenario Example:**

Age	Life Expectancy	Patient Fear of Cancer Progression	Patient Concern about Treatment Side Effects	Patient Concern about Treatment Burden
55	More than 10 years	Low	Low	Low

	Most Strongly Recommend to White Patient			Most Strongly Recommend to Black Patient		
D1a. Treatment Recommendation	Surgery ☐	Radiation ☐	Active Surveillance ☐	Surgery ☐	Radiation ☐	Active Surveillance ☐

	Recommend Active Surveillance to White Patient				Recommend Active Surveillance to Black Patient			
D1b. Likelihood of Recommending Active Surveillance	Definitely ☐	Probably ☐	Probably Not ☐	Definitely Not ☐	Definitely ☐	Probably ☐	Probably Not ☐	Definitely Not ☐

RESULTS

Table 1. Selected Respondent Characteristics

Variable	Urologists (N=225)	Radiation Oncologists (N=97)	P-value
Location			
Detroit	147 (65.3%)	53 (54.6%)	.080
Georgia	78 (34.7%)	44 (45.4%)	
# of prostate patients seen each month			< .001
1-10	68 (30.5%)	58 (60.4%)	
11-25	60 (26.9%)	23 (24.0%)	
26-50	70 (31.4%)	14 (14.6%)	
50+	25 (11.2%)	1 (1.0%)	
Discuss AS with low-risk prostate cancer patients			.014
Yes, with all eligible low-risk patients	209 (97.2%)	87 (90.6%)	
Yes, with some eligible low-risk patients	5 (2.3%)	9 (9.4%)	
No, I don't discuss it with any patients	1 (0.5%)	0 (0%)	
Compensation			.002
Salary not based on productivity	65 (31.1%)	40 (53.3%)	
Salary based on productivity	90 (43.1%)	24 (32.0%)	
Predominantly fee for service	54 (25.8%)	11 (14.7%)	
Who owns this practice?			< .001
A medical school or university	28 (13.3%)	11 (13.6%)	
Government	5 (2.4%)	1 (1.2%)	
Physician-owned	133 (63.3%)	27 (33.3%)	
A hospital	44 (21.0%)	41 (50.6%)	

RESULTS

Figure 1. Treatment Expectations for LPC and Less or More than 10-Year Life Expectancies

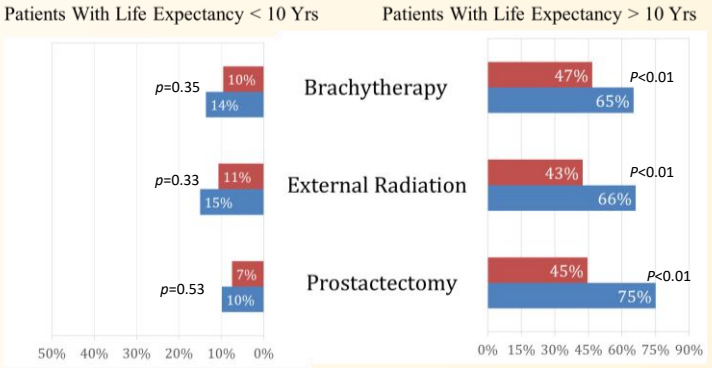


Figure 1 shows the responses when asked: Do you believe there is a survival benefit to treating LRPC in a patient with a life expectancy (LE) < 10 yrs (left side) or > 10 yrs (right side) with each therapy?

Figure 2. Believe Black Men Have More Aggressive LRPC

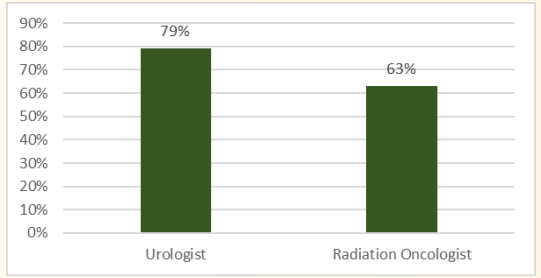
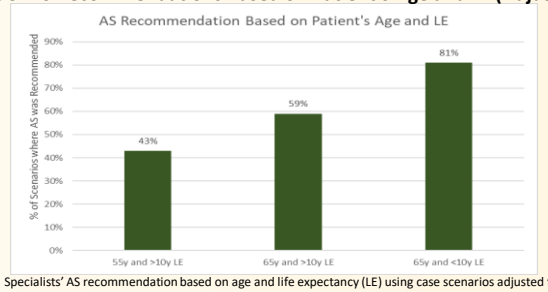


Figure 2 shows the responses when asked: Do you believe black men diagnosed with LRPC tend to have more aggressive tumors than white men

Figure 3. AS Recommendations Based on Patient's Age and LE (Adjusted*)



Specialists' AS recommendation based on age and life expectancy (LE) using case scenarios adjusted for all variables in GEE model to the right (p,0.001 for all comparisons).

RESULTS

Table 2. Generalized Estimating Equation Model Predicting AS Recommendations in Patient Case Scenarios

Variable	Odds Ratio	95% CI		P Value
Intercept	4.60	0.80	26.57	0.088
Age and Life Expectancy (LE, in Y)				<0.001
Age 55 vs Age 65 > 10	0.53	0.43	0.65	<0.001
Age 65 < 10 vs Age 65 > 10	3.09	2.39	4.00	<0.001
Race[a]	0.80	0.72	0.89	<0.001
Fear of Cancer Progression[b]	0.13	0.09	0.17	<0.001
Race by Fear Interaction	1.18	1.06	1.31	0.002
Concern About Side Effects[b]	1.82	1.23	2.70	0.003
Concern About Treatment Burden[b]	1.06	0.72	1.55	0.781
Study Site[c]	0.64	0.43	0.94	0.024
Physician Type[d]	0.44	0.26	0.75	0.003
Physician Type by Fear Interaction	2.00	1.22	3.29	0.006
Survival Benefit of Prostatectomy for > 10 LE[e]	0.60	0.45	0.81	<0.001
Survival Benefit of External Radiation for < 10 LE[e]	0.68	0.49	0.94	0.020
AS Effectiveness[f]	2.30	1.59	3.34	<0.001
Number of Years in Practice	0.97	0.95	0.99	<0.001

[a] Coded as 0 White, 1 Black
[b] Coded as 0 Low, 1 High
[c] Coded as 0 Michigan, 1 Georgia
[d] Coded as 0 Urologist 1 Radiation Oncologist
[e] Coded as 1 Definitely Not, 2 Probably Not, 3 Probably, 4 Definitely
[f] Coded as 1 Very Ineffective, 2 Moderately Ineffective, 3 Moderately Effective, 4 Very Effective

CONCLUSION

- Both Physicians believed that AS was an effective treatment option for LRPC and both discussed and provided AS to the majority (>90%) of their eligible patients.
- More Urologists believed that all three curative treatments had a survival benefit compared to Oncologists in patients with longer LE.
- Urologists were more likely to recommend AS compared to Oncologists in patient case scenarios.
- Both physicians were less likely to recommend AS to men with longer LE.
- Both physicians less likely to recommend AS to Black men but the absolute difference was small (<4%, p<0.01)).
- Physicians that were in practice for longer were less likely to recommend AS compared to those who practiced a shorter.
- Georgia physicians were less likely to recommend AS compared to Michigan physicians.

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