Variation in Active Surveillance Utilization for the Management of Prostate Cancer in a Regional Collaborative

Adam C. Reese MD, Claudette Fonshell RN BSN, Serge Ginzburg MD FACS, Thomas Guzzo MD MPH, Thomas Lanchoney MD, Bret Marlowe, Marc Smaldone MD, Edouard Trabulsi MD, Robert Uzzo MD FACS, on behalf of the Pennsylvania Urologic Regional Collaborative (PURC)

Introduction and Objective

Active surveillance (AS) is gaining increasing acceptance as an effective management strategy for men with low risk prostate cancer. We analyzed a regional prostate cancer collaborative in order to characterize variation in the utilization of AS among practitioners and identify factors influencing AS rates.

Methods

The Pennsylvania Urologic Regional Collaborative (PURC), established in 2014, is a voluntary collaborative of urology practices in Southeastern Pennsylvania focused on the evaluation and improvement of prostate cancer care. We prospectively identified men with newly diagnosed prostate cancer across 6 academic and private practice sites from PURC, and determined the percentage of men initially managed with AS. Variations in AS rates by individual practitioner were determined for men with NCCN low or very-low risk disease. Demographic and clinicopathologic parameters were assessed to determine how these factors influenced AS rates.

Results

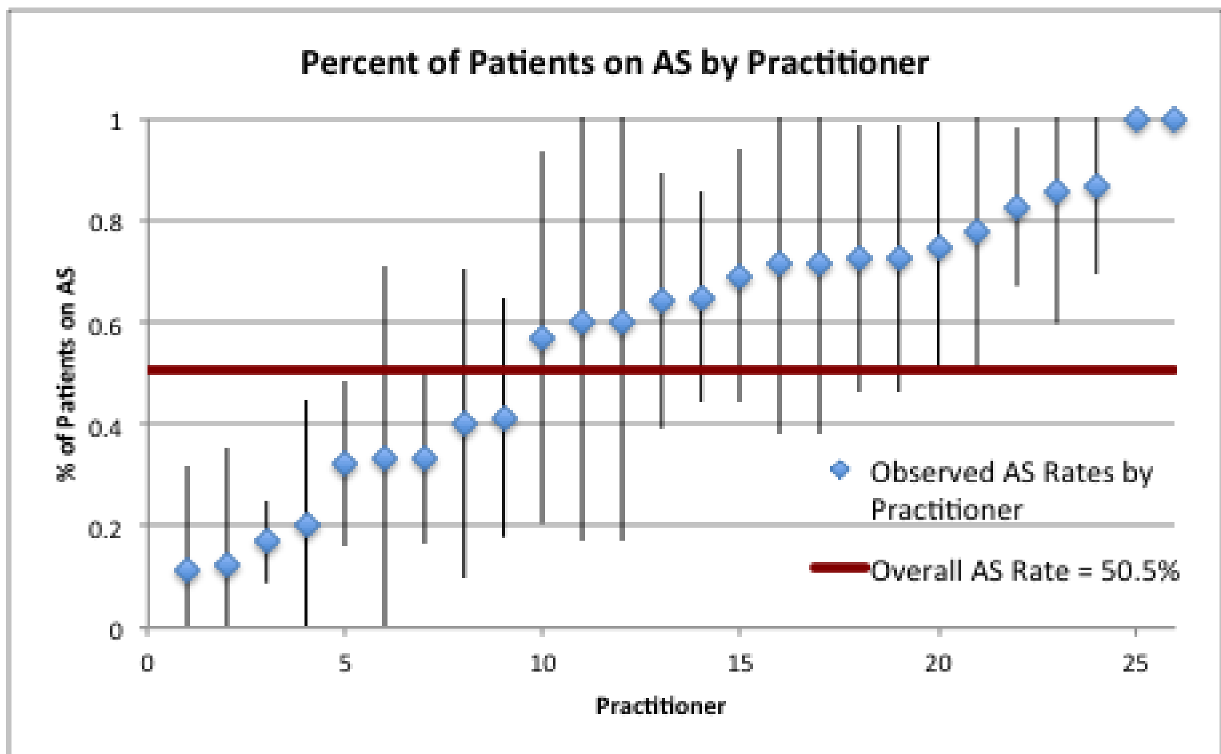
Between May 2015 and October 2016, 282 of 1154 (19.6%) men with newly diagnosed prostate cancer underwent AS as initial management strategy, including 82/104 (78.9%) men with NCCN very low and 133/322 (41.3%) with NCCN low risk disease. AS rates stratified by practitioner for men with low or very-low risk disease ranged from 11.1% to 100% (Figure 1). Associations of demographic and clinicopathologic parameters with AS rates are shown in the Table. High PSA, Gleason score, clinical stage, and NCCN risk category were all strongly associated with decreased utilization of AS (all p-values < 0.01).

Conclusions

Recent data report AS rates as high as 91% and 74% for NCCN very low and low risk prostate cancer, respectively. In the PURC collaborative, we observed lower rates of AS utilization for men with low risk prostate cancer, and significant variation in AS utilization among practitioners. These findings demonstrate the potential importance of quality collaboratives such as PURC in helping to identify variations in care and targets for quality improvement within local markets.

Data was provided with permission from the Pennsylvania Urologic Regional Collaborative (PURC), funded by participating urology practices and the Partnership for Patient Care, a quality improvement initiative supported by the Health Care Improvement Foundation, Independence Blue Cross, and southeastern PA hospitals and health systems.

Figure:



Table

		Total Patients	Number on AS	% on AS	p-value
Age	≤ 60	542	99	18.3%	0.30
	61 - 65	369	75	20.3%	
	66 - 70	298	54	18.1%	
	> 70	227	54	23.8%	
Race	Caucasian	999	193	19.2%	0.06
	African American	339	61	18.0%	
	Other	98	28	28.6%	
Charleson Comorbidity Score	≤ 1	65	7	10.8%	0.08
	2	335	61	18.2%	
	3	541	102	18.9%	
	≥ 4	495	112	22.6%	
Family History of Prostate Cancer	No	1068	212	19.9%	0.75
	Yes	367	70	19.1%	
PSA	≤ 4	217	65	30.0%	<0.01
	4 -10	851	175	20.6%	
	> 10	368	42	11.4%	
Biopsy Gleason Score	6	516	247	47.9%	<0.01
	7	636	34	5.4%	
	8-10	283	1	0.4%	
Clinical T-Stage	T1	1148	253	22.0%	<0.01
	T2	217	28	12.9%	
	T3/T4	62	0	0%	
NCCN Risk Category	Very Low	104	82	78.9%	<0.01
	Low	322	133	41.3%	
	Intermediate	609	41	6.7%	
	High	327	3	0.9%	