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A 17-Gene Genomic Assay as a Predictor of Outcomes in African Americans with Prostate Cancer

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Study Overview

Adoption of prognostic molecular assays for prostate cancer requires evidence of robust performance in different racial groups, especially in African Americans.

Objective: Assess the performance of Oncotype DX Genomic Prostate Score[®] (GPS[™]) test in African American and Caucasian American men.

Methods: Retrospective analysis of GPS results and gene group scores in biopsies from 201 African American and 1144 Caucasian American men across 6 independent study cohorts. Adverse pathology (AP) and biochemical recurrence (BCR) outcome data collected in 4 cohorts from patients treated by radical prostatectomy.

AP Outcomes

Cleveland Clinic (CC)
University of California, San Fran. (UCSF)
Center Prostate Cancer Disease Res (CPDR)*

BCR Outcomes

Kaiser Permanente N. California (KPNC)
Center Prostate Cancer Disease Res (CPDR)*

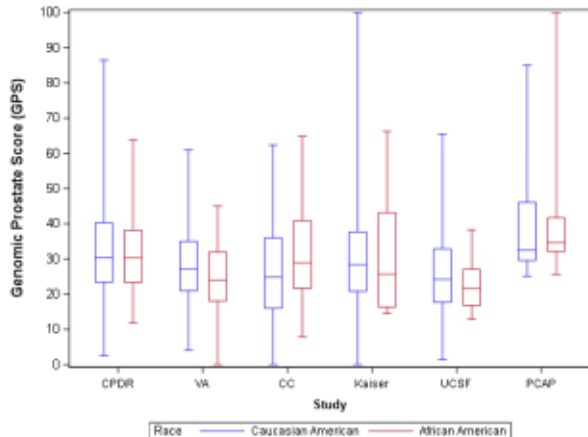
No Outcomes

Veterans Healthcare Administration (VA)
North California-Louisiana Prostate Cancer
Project (PCaP)

*CPDR had both AP and BCR outcomes data



GPS assay is similarly predictive of outcomes in African American and Caucasian American men with prostate cancer



GPS Predicting AP

Study	Race	Odds Ratio (95% CI) Outcome: AP	Estimates			
			N	PCT	OR	PVAL
CPDR	African American		79	22%	2.86	0.026
	Caucasian American		288	78%	4.06	<.001
CC	African American		28	17%	3.11	0.090
	Caucasian American		138	83%	5.96	<.001
UCSF	African American		13	3%	9.48	0.214
	Caucasian American		359	97%	2.30	<.001

GPS Predicting BCR

Study	Race	Hazard Ratio (95% CI) Outcome: BCR	Estimates			
			N	PCT	HR	PVAL
CPDR	African American		82	21%	3.50	0.0418
	Caucasian American		305	79%	2.97	<.0001
Kaiser	African American		26	11%	4.38	<.0001
	Caucasian American		201	89%	2.23	0.0013

Distribution of GPS results is similar between racial groups.

GPS test was predictive of AP and BCR in both racial groups on univariable analyses.