



### IP80-13 THE IMPACT OF MRI ON TREATMENT OF NEWLY DIAGNOSED GRADE GROUP 1 PROSTATE CANCER

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**INTRODUCTION AND OBJECTIVES:** Active surveillance (AS) has become the standard of care for men with clinical Gleason grade group 1 (GG1) prostate cancer (PCa). The aim of this study was to evaluate the effect of MRI on type of treatment for men with GG1 PCa.

**METHODS:** The Michigan Urological Surgical Improvement Collaborative (MUSIC) Prostate Database was retrospectively reviewed. We identified patients with GG1 on initial prostate biopsy between 2021 and 2024. Our outcome variable was treatment type at 6 months from diagnosis. A multivariable logistic regression model was used to predict the selection of treatment (versus AS). The key independent variable was MRI (non-reassuring, reassuring, none available) performed within ± 6 months of diagnosing biopsy. A PI-RADS 4 or 5 lesion was considered non-reassuring. The model controlled for genomic testing, prostate volume, PSA density, BMI, Charlson Comorbidity Index, clinical T-stage, age, race and family history.

**RESULTS:** 5486 patients were diagnosed with GG1 between 2021 and 2024. Active surveillance was selected for 90% (4932/5486) of patients. Of patients treated, 67% (370/554) had radical prostatectomy, 30% (164/554) had radiation and 3% (20/554) had cryoablation. 34% (1838/5486) had an MRI, of which 67% (1225/1838) and 33% (613/1838) were non-reassuring and reassuring, respectively. 11% (140/1225) with a non-reassuring MRI underwent definitive treatment, compared to 7% (45/613) with a reassuring MRI. In the regression model, a non-reassuring MRI (compared to patients without an MRI) was associated with definitive treatment (OR 1.5, CI 1.1-1.8, p = 0.002). Meanwhile, a reassuring genomic test (compared to patients without a genomic test) was associated with selection of AS (OR 0.44, CI 0.2-0.8, p = 0.007) (Table).

**CONCLUSIONS:** In men with clinical GG1 PCa, those with a non-reassuring MRI were more likely to select definitive treatment. Further studies investigating prognostic value of MRI in patients with clinical GG1 are warranted.

Table: Multivariable Logistic Regression Model Predicting Definitive Treatment in Patients with Grade Group 1 Prostate Cancer (OR > 1 predicts definitive treatment, OR < 1 predicts active surveillance)

Characteristic	OR	95% CI	p-value
<b>MRI</b>			
Non-Reassuring	1.45	1.14, 1.84	<b>0.002</b>
Reassuring	0.96	0.68, 1.36	0.8
None within 6 months of biopsy	—	reference	
<b>Genomics</b>			
Non-Reassuring	1.06	0.81, 1.39	0.7
Reassuring	0.44	0.24, 0.80	<b>0.007</b>
None within 6 Months of biopsy	—	reference	
<b>Clinical T-Stage</b>			
T1	—	reference	
T2+	2.99	2.23, 4.02	<b>&lt;0.001</b>
Tx	1.19	0.81, 1.75	0.4
PSA Density (Log-Transformed)	3.25	2.43, 4.35	<b>&lt;0.001</b>
Age at Biopsy (continuous)	0.96	0.95, 0.97	<b>&lt;0.001</b>

Abbreviations: CI = confidence interval, OR = odds ratio  
 Bold text indicates statistical significance  
 Practice level variability was accounted for with a random intercept  
 The model adjusted for Prostate Volume (log-transformed), Race (White, Black, Other), Family History (binary), Charlson Comorbidity Index (continuous) and BMI (continuous)

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### IP80-14 ASSOCIATION BETWEEN GENOMIC CLASSIFIER SCORES AND INITIAL MANAGEMENT OF LOCALIZED PROSTATE CANCER IN A POPULATION-BASED COHORT IN THE UNITED STATES

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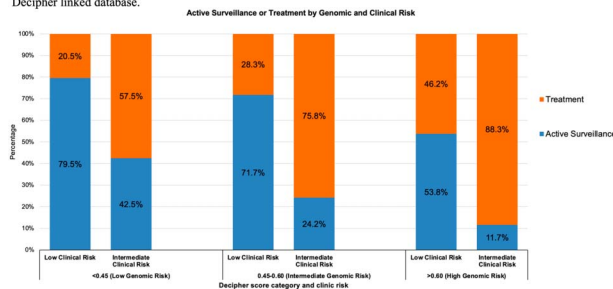
**INTRODUCTION AND OBJECTIVES:** Tissue-based gene expression assays provide prognostic information in prostate cancer, but their independent clinical value, particularly in guiding initial treatment versus active surveillance (AS), remains uncertain. We evaluated the association between results of a 22-gene genomic classifier (GC) and initial management in a population-based sample linking genomic and clinical data.

**METHODS:** We used the Surveillance, Epidemiology, and End Results–Decipher linked database, integrating prostate cancer diagnoses from 2010–2018 with Decipher Prostate GC results. Eligible patients had low- or favorable intermediate-risk disease, biopsy-based GC testing, and complete demographic and clinical data (PSA, Gleason grade group, stage, NCCN risk). Management was classified as immediate therapy (surgery or radiation) versus AS. GC scores were categorized as low (<0.45), intermediate (0.45–0.60), or high (>0.60). Multivariable logistic regression assessed associations between AS versus treatment and GC, adjusting for covariates and stratified by clinical risk (low vs intermediate).

**RESULTS:** Among 2,547 men with low- or favorable intermediate-risk cancer, 744 (72.2%) with low-risk and 404 (26.6%) with intermediate-risk disease were managed initially with AS. In low-risk disease, AS was more frequent in those with low GC (419/527 [79.5%]) versus intermediate (218/304 [71.7%]) or high (107/199 [53.8%]) GC (p<0.001). Among intermediate-risk patients, AS was more common with low GC (239/562 [42.5%]) than intermediate (103/425 [24.2%]) or high GC (62/530 [11.7%]), p<0.001. In the low-risk group, higher GC was independently associated with lower odds of AS (intermediate GC: OR=0.69, 95% CI 0.49–0.97, p=0.033; high GC: OR=0.29, 95% CI 0.20–0.43, p<0.001). In intermediate-risk disease, associations were stronger (intermediate GC: OR=0.42, 95% CI 0.31–0.57, p<0.001; high GC: OR=0.19, 95% CI 0.14–0.27, p<0.001).

**CONCLUSIONS:** In this analysis of the first publicly available population-based linkage of genomic and clinical data, higher GC scores were independently associated with lower odds of AS among men with low- or intermediate-risk prostate cancer in the United States.

Figure. Proportion of patients managed with active surveillance or immediate treatment by genomic classifier score category and clinical risk status among those with low- or intermediate-risk prostate cancer in the SEER–Decipher linked database.



**Source of Funding:** In this first publicly available population-based linkage of genomic and clinical data, higher GC scores were independently associated with lower odds of AS among U. S. men with low- or intermediate-risk prostate cancer