

The impact of confirmatory testing on the adoption of active surveillance for men with favorable-risk prostate cancer

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INTRODUCTION AND OBJECTIVES: In the Michigan Urological Surgery Improvement Collaborative (MUSIC), we have promoted since 2016 a 6-month 'Consideration Phase' during which men with newly diagnosed favorable risk prostate cancer obtain confirmatory testing (e.g., repeat biopsy, prostate MRI and/or genomics) for more accurate risk classification. Herein, we examine the relationship between the use and results of confirmatory testing and the adoption of active surveillance (AS).

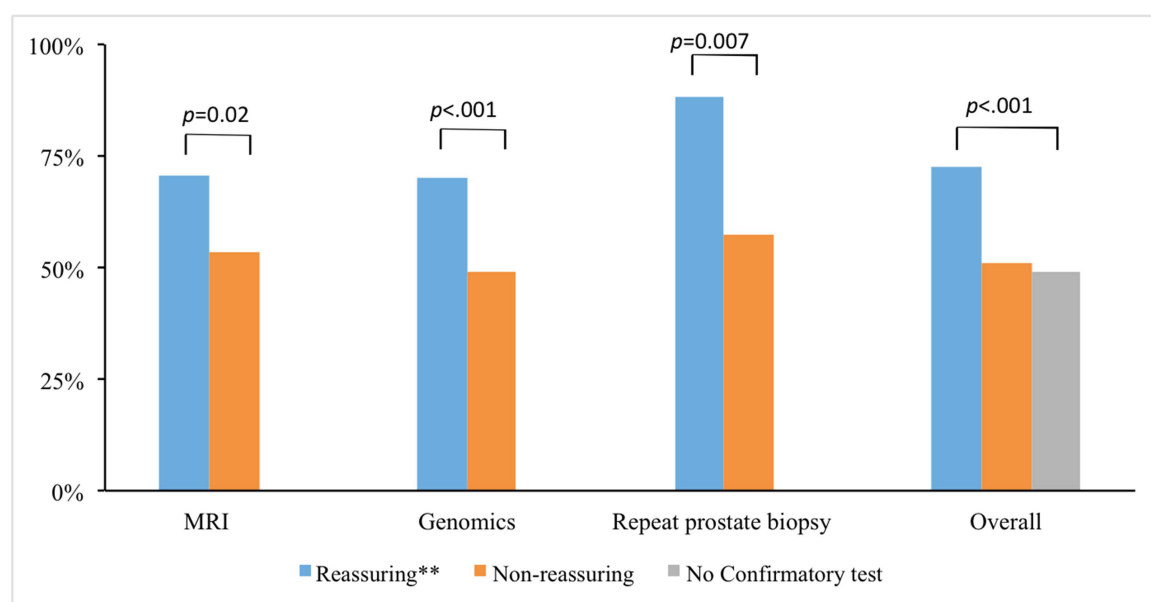
METHODS: We identified all men in the MUSIC registry who were diagnosed with favorable-risk prostate cancer (i.e., any Gleason 3+3 or low-volume Gleason 3+4) from 01/2016 through 02/2017. From this group, we examined trends in the use of confirmatory test(s) within 6 months from the diagnostic biopsy. We then compared the proportion of men remaining on AS 6 months after diagnosis according to the results of their confirmatory test(s) (i.e., reassuring vs non-reassuring). Last, we stratified the analyses by age <65 and ≥65 years.

RESULTS: Among 2,455 patients with favorable-risk prostate cancer, 23% underwent confirmatory testing within 6 months of diagnosis. The use of confirmatory testing increased from 17.8% for men diagnosed in Q1 2016 to 31.7% for those diagnosed in Q1 2017 ($p<.001$). Sixty-eight percent of patients ($n=382$) had reassuring results of confirmatory testing. Rates of AS were significantly higher for patients with reassuring results (Figure 1); 73% ($n=278$) of patients with reassuring confirmatory tests remained on AS, compared to 51% ($n=91$) with non-reassuring results and 49% ($n=927$) with no confirmatory testing ($p<.001$). A larger share of patients ≥65 years with a reassuring test remained on AS (80%) compared to those <65 (68%) ($p=0.01$).

CONCLUSIONS: The use of confirmatory testing is increasing among patients in Michigan diagnosed with favorable-risk prostate cancer. Moreover, rates of surveillance are higher among men with reassuring results, indicating a likely beneficial impact of these tests on clinical decision-making. Further research should evaluate the reasons for continued AS among men with non-reassuring confirmatory test results.

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Figure 1: Proportion of patients with favorable-risk* prostate cancer remaining on active surveillance according to confirmatory testing results



*Favorable-risk prostate cancer: Any volume Gleason 3+3 disease or low volume Gleason 3+4, defined by 1-3 cores positive with no cores containing 3+4 with >50% cancer involvement

**Reassuring confirmatory result: MRI-PIRADS 1-2; Prolaris: <3% Probability of PCa Mortality; OncotypeDx: >80% Freedom from High Grade Disease or ≤20% High Grade Disease; Decipher score <0.45; Prostate biopsy – biopsy no longer favorable risk