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Factors that Influence Decision Aid Use in Prostate Cancer

Giulia Lane, Ajith Dupati, Ji Qi, Stephanie Ferrante, Roshan Paudel, Daniela Wittmann, Lauren Wallner, Chad Ellimoottil, James Montie, J. Quentin Clemens, Ann Arbor, MI, for the Michigan Urological Surgery Improvement Collaborative, Ann Arbor , MI*

INTRODUCTION AND OBJECTIVE: Decision aids (DA) have been found to improve patients' knowledge of treatment and decrease decisional regrets. Despite their many benefits, there is not widespread use of DA for newly diagnosed prostate cancer. This study investigates how much influence patient and clinician factors have on a patient's use of a decision aid after being newly diagnosed with localized prostate cancer.

METHODS: We included patients with newly diagnosed, clinically localized prostate cancer, seen by urologists in the Michigan Urological Surgery Improvement Collaborate between 2018-20, who were using Personal Patient Profile for Prostate (P3P), a validated, web based decision aid. Our primary outcome was patient enrollment in P3P. We fit a multilevel logistic regression model with the following patient level factors: age, race, ethnicity, family history of prostate cancer, PSA, Gleason score, stage. We evaluated the effect of urologists on P3P enrollment, by using a model that accounted for clustering of patients among urologists via random intercepts. The intra-class correlation (ICC) was computed from the model. We estimated the predicted probability of P3P enrollment among patients of urologists who treated more than 10 patients, and this was visualized graphically in a caterpillar plot.

RESULTS: Out of our sample of 2099 patients, 988 (47%) patients enrolled into P3P. We found that 41% of the total variance (ICC) of whether or not patients enrolled into P3P was attributed to the urologist's influence. We found significant variation in predicted patient enrollment across the 42 urologists (Figure). In contrast, only 2% of the variance of whether patients enroll in P3P was explained by patient level factors: older patients (OR 0.98 [95% CI 0.97-0.99], p=0.015) and those with higher PSA (OR 0.96 [95% CI 0.92-0.99], p=0.015) had decreased odds of enrolling to use a DA.

CONCLUSIONS: Our findings suggest that urologists' influence far outweighs patient factors in patients' decision to enroll in P3P. Future work should focus on interventions that will encourage providers to increase decision aid adoption in their practices.

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