Oncology

Which Patients Report That Their Urologists Advised Them to Forgo Initial Treatment for Prostate Cancer?

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OBJECTIVE To examine how frequently patients report that their urologist recommended forgoing definitive treatment and assess the impact of these recommendations on treatment choice and perceived quality of cancer care.

METHODS We mailed surveys to men newly diagnosed with localized prostate cancer between 2014 and 2015 (adjusted response rate of 51.3%). Men reported whether their urologist recommended forgoing definitive treatment. Using logistic regression models, we assessed patient-level predictors of receiving a recommendation to forgo definitive treatment and estimated associations of receiving this recommendation with receipt of definitive treatment and perceived quality of cancer care among men with low-risk tumors and limited life expectancies.

RESULTS Nearly two-thirds (62.2%) of men with low-risk tumors and 46.4% with limited life expectancies received recommendations from their urologists to forgo definitive treatment. Among men with limited life expectancies, those with low-risk tumors were more likely to receive this recommendation compared with men with high-risk tumors (odds ratio [OR] 3.41; 95% confidence interval [CI] 2.17-5.37). Men with low-risk tumors who were recommended to forgo definitive treatment were less likely to receive definitive treatment (OR 0.48; 95% CI 0.32-0.73) but did not report lower perceived quality of care (OR 0.97; 95% CI 0.63-1.48).

CONCLUSION In this population-based study, a majority of men with low-risk prostate cancer report receiving recommendations from their urologists to forgo definitive treatment. Our results suggest that urologists have a strong influence on patient treatment choice and could increase active surveillance uptake in men eligible for expectant management without patients perceiving lower quality of cancer care. UROLOGY ■■: ■■–■■, 2018. © 2018 Elsevier Inc.

In the United States, an estimated 161,360 men were diagnosed with prostate cancer in 2017.[1] Nearly 80% of prostate cancer is diagnosed at the localized stage, for which treatment ranges from definitive therapy (surgery or radiation) to expectant management (active surveillance [AS] or watchful waiting). Men with favorable-risk disease and limited life expectancies may be particularly well suited for expectant management given their low risk of dying from their prostate cancer.[2,3] Guidelines have evolved to recommending AS as the preferred treatment strategy for men with favorable-risk disease,[4,5] and the use of expectant management has increased over the past 5 years in men with low-risk prostate cancer to 40%.[6,7] However, there remains room for improvement in increasing uptake of expectant management—in Swedish cohorts, nearly three-quarters of men with low-risk tumors are in AS[8]—and further research is needed to ascertain which patients are recommended for expectant management, and the subsequent impact of these recommendations on patient treatment choices and experiences in cancer care.

Patient enrollment in AS may, in large part, be driven by recommendations they receive from their cancer specialists. In a national survey of urologists and radiation oncologists, 72% believed that AS was effective for low-risk prostate cancer and 80% believed it to be underused. However, only 22% of specialists recommended AS to their patients, with 71% believing that their patients were likely not interested in AS.[9] This discordance may be due to specialists responding to patient expectations for treatment; some patients perceive definitive treatment as more

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efficacious[10] and fear the consequences of delaying treatment.[11] Specialists' behaviors may further be reinforced by concern for patient satisfaction with care. As quality metrics are increasingly being utilized to rate physician performance, specialists may feel pressured to provide care concordant with patient preferences to ensure patient satisfaction.

In this study, we draw on a large cohort of men with localized prostate cancer to assess the frequency of recommendations by urologists for forgoing definitive treatment, focusing on men with low-risk disease and men with limited life expectancies. We further evaluate whether a urologist's recommendation for forgoing definitive treatment is associated with patient treatment choice and lower perceived quality of care. We hypothesize that a urologist's recommendation to forgo definitive treatment is associated with a higher likelihood of patients choosing expectant management. We further hypothesize that patients who receive recommendations to forgo definitive treatment will not perceive lower quality of care, regardless of the treatment they ultimately receive. This hypothesis stands in contrast to physicians' expectations that their patients are not interested in expectant management but in line with prior studies reporting high decision satisfaction and minimal decisional regret for patients who elect AS.[12,13]

MATERIALS AND METHODS

Data for this study were obtained from the Philadelphia Area Prostate Cancer Access Study (P^2 Access). This study was approved by the Institutional Review Boards at Johns Hopkins University and University of Pennsylvania.

Study Design and Population

Using the Pennsylvania Cancer Registry, we identified white and black men with newly diagnosed localized prostate cancer between January 1, 2012, and December 31, 2014 (Hispanic and other race or ethnicity excluded, n = 70). Men were residents of the Greater Philadelphia region (Berks, Chester, Delaware, Lancaster, Lehigh, Montgomery, and Philadelphia counties) and were excluded if they had military insurance (n = 8) or received chemotherapy (n = 4).

Men were mailed surveys between June 2014 and August 2015. The first mailing included an unconditional $2 incentive, and all nonresponders received up to 2 additional mailings. Responders received $15 upon completion of the survey.

Urologists' Recommendations

To assess whether urologists recommended forgoing definitive treatment, men were asked "Some people with prostate cancer decide NOT to use medicines, radiation, or surgery to treat their cancer unless the cancer shows signs of growing. Was this suggested to you by your urologist?" This question was formulated based on pilot testing with men with localized prostate cancer (n = 10). Although we hoped that iterations which specifically asked about "active surveillance" or "watchful waiting" would lead to increased precision of the measure, multiple patients reported low comprehension of these terms. Our measure of forgoing definitive treatment, therefore, encompasses formal AS to watchful waiting.

Receipt of Definitive Treatment

We used Pennsylvania Cancer Registry data to determine whether men received definitive treatment, defined as radical prostatectomy or radiation therapy (external beam radiotherapy or seed brachytherapy).

Patient-reported Quality of Care

We adapted our question to assess patient-reported quality of care from items used in the Consumer Assessment of Healthcare Providers and Systems and from prior research on patients' experiences with health care.[14,15] Men were asked to rate the quality of health care for their prostate cancer on a 1 (poor) to 5 (excellent) scale. Responses were dichotomized as excellent or less than excellent given the minimal variation in responses for less than excellent quality of care.

Patient Characteristics

We used survey responses to obtain patient age, race or ethnicity, education, employment and insurance at the time of diagnosis, and marital status. Life expectancy was estimated using a validated 10-year mortality index based on patient self-reported age, body mass index, medical comorbidities, and functional status.[16]

Tumor data were obtained from the cancer registry. We abstracted Gleason scores, prostate-specific antigen (PSA) results, and clinical tumor stage, and created risk categories based on National Comprehensive Cancer Network (NCCN) criteria, which are classified as low, intermediate, and high risk.[17]

Statistical Analysis

We summarized responder sociodemographic and clinical characteristics. Given guidelines recommend AS as the primary treatment strategy for men with favorable-risk disease and limited life expectancies,[4,5] we performed the remainder of our analyses on 2 subgroups of men: (1) men with NCCN low-risk tumors and (2) men with limited life expectancies (10-year risk of mortality ≥50%). Analyses were conducted separately for each subgroup of men.

First, using chi-square tests, we compared characteristics between patients whose urologists did and did not recommend forgoing definitive treatment. We used multivariable logistic regression models to identify the association of sociodemographic (age, race or ethnicity, education, employment, marital status, and insurance) and clinical (10-year risk of mortality, NCCN risk) characteristics with receiving a recommendation from a urologist to forgo definitive treatment.

Second, we examined the association between a urologist's recommendation to forgo definitive treatment and (1) receipt of definitive treatment and (2) perceived quality of prostate cancer care using multivariable logistic regression models. The outcome was receipt of definitive treatment or quality of care, and the independent variable was a urologist's recommendation to forgo definitive treatment. We adjusted for sociodemographic and clinical characteristics in each of these models. Additionally, for models examining quality of care, we adjusted for receipt of definitive treatment.

We used multiple imputation to account for missing data using multiple chained equations based on all available patient sociodemographic and clinical characteristics, using 20 imputed datasets. All tests were two-sided, with significance level set at 0.05. Analyses were conducted using STATA 13.0 (StataCorp, College Station, TX).