Prostate Cancer Tool May Help Patients to Decide on Treatment

The results from a randomized clinical trial have demonstrated that a new decision-making tool can help men with prostate cancer (PCa), together with their medical teams, make choices regarding their treatment that improve their satisfaction with care. According to the researchers, the main goal of Patient Preferences for Prostate Cancer Care (PreProCare), a web-based decision tool, is to align the patient’s treatment options with the degree of risk posed by their disease while remaining in line with the patient’s values, unique needs, and preferences. The researchers believe that this patient-centered care approach reduces fears and regrets about therapy decisions while improving patient satisfaction with the result.

The multicenter, randomized controlled study appears in the Journal of Clinical Oncology (published online March 12, 2019. doi:10.1200/JCO.18.01091).

According to lead study author Ravishankar Jayadevappa, PhD, MS, a research associate professor of medicine at the University of Pennsylvania’s Perelman School of Medicine in Philadelphia, the goals of the PreProCare tool are to facilitate patient-centered care, defined by the Institute of Medicine (IOM was renamed and is now called the National Academy of Medicine) as care that ensures that each patient understands the seriousness of his disease (not just prostate cancer in general, but his prostate cancer specifically) and its implications; considers his treatment options, including the risks, benefits, and alternatives; and evaluates whether his personal values align with his therapeutic goals and with each of his therapy options in terms of benefits and harms.

Dr. Jayadevappa says this study addresses 2 major aspects of patient-centered care in prostate cancer. The first is values elicitation through the measurement of preferences via a web-based decision aid tool using a conjoint analysis technique. The second is shared decision making, which promotes an environment in which patients and providers can be concordant in their treatment decisions and recommendations.

Study Details

The researchers enrolled patients with newly diagnosed, untreated PCa from 3 study sites between January 2014 and March 2015. Men diagnosed with distant/metastatic or unstaged disease were excluded. Of the 743 enrolled subjects, 590 were white, 386 had annual incomes of ≥$75,000, and 638 had at least attended college. Researchers randomly assigned 372 patients to receive PreProCare and 371 patients to receive usual care.

Patients were divided into 3 risk categories. Low-risk patients were those patients with a prostate-specific antigen (PSA) level of ≤10 ng/mL, a research associate professor of medicine at the University of Pennsylvania’s Perelman School of Medicine in Philadelphia, the goals of the PreProCare tool are to facilitate patient-centered care, defined by the Institute of Medicine (IOM was renamed and is now called the National Academy of Medicine) as care that ensures that each patient understands the seriousness of his disease (not just prostate cancer in general, but his prostate cancer specifically) and its implications; considers his treatment options, including the risks, benefits, and alternatives; and evaluates whether his personal values align with his therapeutic goals and with each of his therapy options in terms of benefits and harms.

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KEY POINTS

• The percentage of patients who reported satisfaction with their decision and no regret increased over time and was higher for the PreProCare intervention group compared with the usual-care group at 24 months of follow-up.

• Among patients with low-risk prostate cancer, a higher percentage of the PreProCare decision tool group selected active surveillance compared with those in the usual-care group.
a Gleason score of \( \leq 6 \) and T1c to T2a disease. Patients with intermediate risk were those with a PSA level >10 ng/mL and \( \leq 20 \) ng/mL, or a Gleason score of 7, or T2b disease. High-risk patients were those patients with a PSA level >20 ng/mL, or a Gleason score of 8 to 10, or T2c disease.

The PreProCare tool used adaptive conjoint analysis, a sophisticated statistical method, to help determine how each patient’s preferences regarding treatment attributes best aligned his possible treatment options and possible outcomes. The patients completed the intervention at home or during an office visit.

The PreProCare tool consisted of 3 parts. After a brief introduction in part 1 with instructions concerning how to use the tool, the participants ranked the 15 attributes of various treatments (such as adverse effects, survival, psychological distress, and treatment duration) in part 2 from “not important” to “extremely important.” In part 3, patients were presented with choice scenarios that consisted of combinations of treatment attributes with ranking options. The patients selected their most preferred combination.

Based on their choices, a list of the 5 attributes most preferred by the participant along with a graph depiction were created. On average, it took patients 30 minutes to complete the questionnaire.

For the usual-care group, participants received standard educational material regarding the variety of PCa treatments.

Subjects completed an 18-item patient satisfaction questionnaire that was subdivided into 7 subscales that covered general satisfaction with their care and 6 different aspects related to care. The subscale scores ranged from 1 to 5, with a higher score indicating higher satisfaction.

### Study Results

The primary outcome was satisfaction with care, and secondary outcomes were satisfaction with decision, decision regret, and treatment choice. Satisfaction with care was measured at baseline and at follow-up. Satisfaction with decision and decision regret also were measured at follow-up. The researchers also compared treatment choice across intervention groups by PCa risk categories. Follow-up assessments were performed at 3 months, 6 months, 12 months, and 24 months.

All 7 subscales of the instrument rating satisfaction with care demonstrated significantly (P value of \(<.001\) to \(.002\)) greater improvement from baseline to 24 months for the intervention group compared with the usual-care group. There was significantly greater satisfaction with the treatment decision overall in the intervention group \((P < .001)\) compared with controls, and also significantly \((P < .001 \text{ to } .014)\) higher scores for 5 of the 6 survey items.

Among low-risk patients, approximately 66% of the PreProCare intervention group selected active surveillance compared with 54% in the usual-care group. The treatment choices of the intermediate-risk and high-risk patients were very similar among men in the 2 study arms.

Durado Brooks, MD, MPH, vice president of cancer control interventions, prevention, and early detection at the American Cancer Society in Atlanta, Georgia, sees value in the study. “At the American Cancer Society, we fully support tools that help men make [treatment] decisions that are right for them,” he says.

However, Dr. Brooks notes that because the subjects for the most part were white, relatively affluent, and college educated, benefits for other demographic groups remain uncertain. “African Americans are disproportionately affected by prostate cancer and with worse outcomes. Also, [the researchers] state that it takes 30 minutes on average to complete the tool. For men with lower education levels, especially lower reading skills, unless it is highly interactive and highly engaging, it may just not keep their attention in order to complete it. Also—and at the risk of sounding too negative—I wonder if 24 months is a long enough time to make judgments about effectiveness.”

Dr. Jayadevappa agrees with both points. First, he is aware that the demographic diversity of the subjects was limited. “The first future step is to test and tailor our intervention for different subpopulations of patients and different health care settings,” he says. But that is not the only measure he would like to explore in the future. “Stability of patient preferences over time must be evaluated. Also, the role of physician preferences in shared decision making, treatment choice, and outcomes must also be evaluated.”

Ultimately, Dr. Jayadevappa would like to see the tool integrated and implemented in real clinical settings. “In clinical practice, a greater awareness of the attributes that influence a patient’s treatment decisions may enable physicians to initiate discussions with patients regarding their preferred choice of treatment. Thus, integrating preference assessment as part of clinical care is essential.”

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