NORTH CAROLINA Advisory Committee on Cancer Coordination and Control

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Prostate Cancer Screening Position Statement

Prostate Cancer Risk Evaluation and Screening

Prostate cancer (PCa) is the most common cancer in American men and the second most common cause of cancer mortality in US men. African American men and men with a family history of prostate cancer before age 65 years have an elevated risk of prostate cancer. Two large, prospective randomized clinical trials have been conducted with differing outcomes, leading to controversy in the role of prostate cancer screening. The US Prostate, Lung, Colorectal, and Ovarian Screening Trial (PLCO) did not show a prostate-specific mortality reduction associated with prostate cancer screening with PSA. However, it is now widely acknowledged that there were significant methodologic problems with the PLCO including substantial contamination of the control group. In contrast, the well-designed European Randomized Study of Screening for Prostate Cancer (ERSPC) observed a 21% mortality reduction associated with prostate cancer screening. Notably, amidst the controversy surrounding the interpretation of these two studies and the low rates of prostate screening in the past fifteen years, the incidence of advanced prostate cancer has been observed to be increasing in the US across all race groups.

Currently, guideline groups are universal in recommending an informed decision-making process in which men are counseled by their health care provider about the potential benefits and harms associated with prostate cancer screening. The American Cancer Society (ACS) recommends that men aged 50 years and older who have at least a 10-year life expectancy should have an opportunity to make an informed decision regarding screening. For men with an elevated risk (African American, family history), the discussion of screening should occur at age 45 years. The US Preventive Services Task Force (USPSTF) also recommends an informed decision-making process for prostate cancer screening but limits screening to the ages of 55 to 69 years. The National Comprehensive Cancer Network (NCCN) recommends to start the discussion of risks and benefits of prostate screening at the age of 45 and among men who decide to screen, to continue to age 75.

The additional benefit of digital rectal examination (DRE) has not been well demonstrated and so guideline groups vary in the inclusion of DRE in screening algorithms.

In 2018, the NC ACCCC consulted with prostate cancer and prostate cancer screening experts at the three NCI-designated Comprehensive Cancer Centers and a working group of primary care physicians, statisticians, experts in cancer health disparities, experts in clinical outcomes, surgeons, medical oncologists, radiation oncologists, and imaging specialists. This group has extensively reviewed the most recent screening outcomes data in large-scale clinical trials, considered the prevalence of PCa in North Carolina and its impact on African American men in North Carolina, and analyzed extensive utilization and outcomes data, and generated an algorithm for screening adapted to North Carolina.

It has been increasingly well recognized that a baseline PSA performed in a man between the ages of 40 and 49 is strongly predictive of future prostate cancer-specific mortality. For this reason, many groups, including the three centers noted above, have transitioned to a risk-stratified approach for prostate cancer screening, using an evaluation of risk factors and the result of the first PSA to evaluate the risk of an individual and determine the recommended frequency of monitoring the PSA. In men with two or more first-degree family members with a history of prostate cancer, the informed discussion of screening should begin around age 40 (and genetic counseling should be considered). For African American men or men with one first-degree relative with a history of prostate cancer prior to age 65, the informed decision-making discussion should be considered around age 45. Among both groups, if the baseline PSA is low, indicating a relatively low lifetime risk of dying of prostate cancer, then screening should resume at age 50. In contrast, an elevated baseline PSA indicates a higher lifetime risk of aggressive PCa and suggests that earlier and more frequent screening might be indicated.

Further, the Working Group recommends that men with a low baseline PSA continue age-based PSA monitoring from age 50 to 75. If PSA levels continue to be low, PSA monitoring is continued every two years. If PSA levels are higher than age-adjusted normal levels, a referral to a urologist may be recommended. Physicians involved in treating prostate cancer should make every effort to avoid overtreatment and implement imaging technologies that maximize Active Surveillance for cancer progression.

As highlighted above, the NC ACCCC recommends that individuals consider whether screening is appropriate for them and actively engage in informed decision-making with their health care providers. Screening involves both potential benefits and potential harms, and the decision for or against screening should be an informed one. At this time, therefore, the Advisory Committee supports collaborative provider-patient informed decision making.

Research on the effectiveness of prostate cancer screening continues. The NC ACCCC recommends that scientific evidence related to prostate cancer screening be re-examined in five years (2023). If, however, compelling evidence regarding screening effectiveness becomes available before the scheduled review, the NC ACCCC recommends immediate review of the current position statement.

Approved by NC ACCCC. Date: May 17, 2019