Position Statement on Prostate Cancer Screening in Black Men

Overview

The prostate is a small walnut-shaped gland in males that produces the seminal fluid that nourishes and transports sperm. Prostate cancer is one of the most common types of cancer. Many prostate cancers grow slowly and are confined to the prostate gland, where they may not cause serious harm. *However, while some types of prostate cancer grow slowly and may need minimal or even no treatment, other types are aggressive and can spread quickly.* Prostate cancer that's detected early — when it's still confined to the prostate gland — has the best chance for successful treatment.

Often men are placed on "active surveillance" for the low grade, slowly growing prostate cancers due to the general low risk of death in these types.

However, black men are twice as likely to die from low-grade prostate cancer than white men and other races with the same type of low-grade cancer.

By contrast, the rates of death from high-grade disease were similar among black men, white men and other races.

Symptoms

Prostate cancer may cause no signs or symptoms in its early stages.
Prostate cancer that's more advanced may cause signs and symptoms such as:

- Trouble urinating
- Decreased force in the stream of urine
- Blood in the urine
- Losing weight without trying
- Blood in semen
- Blood in the urine
- Bone pain
- Erectile dysfunction

Risk factors

Factors that can increase your risk of prostate cancer include:

- **Older age.** The risk of prostate cancer increases with age, most commonly after age 50.

- **Race.** For reasons not yet determined:
  - Black men have a greater risk of prostate cancer than White men and other races.
  - Black men are more likely than Whites to have aggressive or advanced prostate cancer.

- **Family history.**
  - Increased risk if a blood relative, such as a parent, sibling or child, has been diagnosed with prostate cancer.
  - Increased risk if you have a family history of genes that increase the risk of breast cancer (BRCA1 or BRCA2) or a very strong family history of breast cancer.

- **Obesity.** Studies have had mixed results.
  - In obese people, the cancer is more likely to be more aggressive and more likely to return after initial treatment.

Prevention

You can reduce your risk of prostate cancer if you:

- **Choose a healthy diet full of fruits and vegetables.** Whether you can prevent prostate cancer through diet has yet to be conclusively proved.
- **Choose healthy foods over supplements.** No studies have shown that supplements play a role in reducing your risk of prostate cancer.
- **Exercise most days of the week.** Exercise improves your overall health, helps you maintain your weight and improves your mood.
- **Maintain a healthy weight.** If your current weight is healthy, work to maintain it by choosing a healthy diet and exercise most days of the week.

Screening / Testing

Testing healthy men with no symptoms for prostate cancer is controversial.

There is some disagreement among medical organizations whether the benefits of testing outweigh the potential risks.

*Most medical organizations encourage men in their 50s to **discuss** the pros and cons of prostate cancer screening with their doctors.*

The discussion should include a review of your risk factors and your preferences about screening. Consider having the discussions sooner if:

- you're a black man,
- have a family history of prostate cancer or
- have other risk factors as discussed above.

Prostate Screening Tests:

- **Digital rectal exam (DRE).** **THIS TEST IS NO LONGER RECOMMENDED!**
  During a DRE, your doctor inserts a gloved, lubricated finger into your rectum to examine the texture, shape and size of the prostate.

  Due to the test's subjective nature and poor correlation with actual disease, this screening test is NOT recommended as an effective screening test.

- **Prostate-specific antigen (PSA) test.**
  A blood sample is drawn from a vein in your arm and analyzed for PSA, a substance that's naturally produced by your prostate gland. It's normal for a small amount of PSA to be in your bloodstream. However, if a higher than usual level is found, it may indicate prostate infection, inflammation, enlargement or cancer.

  Elevated PSA levels may indicate cancer, but the majority of men with an elevated PSA do NOT actually have prostate cancer.

  So, unfortunately, positive PSA tests can lead to more invasive testing than is truly necessary.

- **4K score.**
  This is a follow up blood test to the PSA test. It analyzes specific markers in the PSA that are correlated with age and prior biopsy status to assess for higher grade cancers.

  This is reliable and accurate (93-97% sensitive / 95% negative predictive value.

- **MyProstateScore test.**
  This test measures levels of cancer-specific genes in a patient's urine. This test is based on University of Michigan research that discovered that half of all prostate tumors harbor a certain genetic anomaly in which the genes create an on-switch for prostate cancer development.
  - It was validated for improved detection of clinically significant (grade group ≥2) prostate cancer (as opposed to low-grade group 1)
  - The test is practical and reliable: 96% sensitive / 97% negative predictive value
  - A MyProstateScore ≤ 10 provided exceptional sensitivity and negative predictive value for ruling out grade group ≥ 2 cancer with a simple urine test.

  It can rule out the need for more costly or invasive testing in men referred for a prostate biopsy due to a high PSA.

Diagnosis

More specific testing is used to try to see if cancer is actually present in the prostate and if it has metastasized (spread) to other areas, especially bone.

- **Ultrasound.**
  Ultrasound produces pictures of the prostate gland and helps to investigate a nodule found during a rectal exam, as well as any abnormalities or enlargement.

- **Magnetic resonance imaging (MRI).**
  MRIs provide more detailed pictures of the prostate tissue, shape and surrounding organs. However, MRIs can miss cancerous lesions and come with much higher costs and limited availability.

- **Transrectal prostate biopsy.**
  This is the traditional approach to taking a sample of the prostate tissue. A special needle is inserted into the prostate through the wall of the rectum to remove several small samples of tissue analysis. The sample is analyzed in a lab to determine whether cancer cells are present and how much they differ from healthy cells. A higher grade indicates a more aggressive cancer that is more likely to spread quickly.

- **Transperineal prostate biopsy.**
  This is an alternative approach. The prostate may also be accessed through the perineum (the area of skin between the base of the penis and the rectum).

The transperineal approach may be preferable if:

- transrectal ultrasound is not feasible due to prior rectal surgery,
- a mapping biopsy is being performed,
- physician preference or
- if cancer is suspected at the front (anterior) of the prostate gland, which is too far away from the rectum for transrectal ultrasound to adequately visualize.

To this point, a 2014 study found that black men are more likely than white men to have tumors in the front (anterior region) of the prostate.

Therefore, traditional biopsies may be more likely to miss areas of high-grade prostate cancer in black men than in white men and other racial/ethnic groups.

This leads to a higher likelihood of misdiagnosis of the cancer as low-grade disease.

During follow-up biopsy or surgery in that same study, more black men than white men and other races were upgraded to a more aggressive level of cancer.

- **US or MRI image-guided biopsy.**
  Though ultrasound (US) guidance is most commonly used, MRI imaging provides more detailed images of the prostate.
  - Before the biopsy, prostate MR images are examined, sometimes also with the help of computer-aided detection (CAD) software to pinpoint specific areas that may require further evaluation.
  - MRI-guided in-bore biopsy can be performed using either a transperineal or transrectal approach, using software to guide the course of the needle.
  - A hybrid imaging method can be used in which the MR images are fused with the real-time ultrasound images (MRI/TRUS fusion biopsy), which has the advantage of using the superior imaging of the MRI coupled with easier-to-use ultrasound guidance and can be done in the office setting.

Unfortunately, image-guided biopsies are NOT the standard of care and access may be limited.

Therefore, it is *imperative* that black men ask their doctor about these methods for improving detection of tumors in the front (anterior) of the prostate.

Current Recommendations for Standards of Care for Prostate Cancer Screening

- **US Preventive Services Task Force** (2018)
  - For men aged 55 to 69 years, the decision to undergo periodic PSA-based screening for prostate cancer should be an individual one and should include discussion of the potential benefits and harms of screening with their clinician.
  - In determining whether this service is appropriate in individual cases, patients and clinicians should consider the balance of benefits and harms on the basis of family history, race/ethnicity, additional baseline medical conditions, patient values about the benefits and harms of screening and treatment-specific outcomes, and other health needs.
  - Clinicians should NOT screen men who do not express a preference for screening.
  - Screening is NOT recommended for men 70 years and older.
- **The American Academy of Family Physicians and The Canadian TaskForce on Preventive Health Care**
  - Recommends against PSA-based screening for prostate cancer.
- **The American College of Physicians**
  - Recommends that clinicians discuss the benefits and harms of screening with men aged 50 to 69 years
  - Only recommends screening for men who prioritize screening and have a life expectancy of more than 10 to 15 years.
- **The American Urological Association**
  - Recommends that men aged 55 to 69 years with a life expectancy of more than 10 to 15 years be informed of the benefits and harms of screening and engage in shared decision making with their clinicians, taking into account each man's values and preferences.
  - To reduce the harms of screening, the screening interval should be 2 or more years.
  - Decisions about screening, including potentially starting screening before age 55 years, should be individual ones for black men and men with a family history of prostate cancer.
- **The American Cancer Society** (2016)
  - Recommends shared decision making of the patient with the doctor and the need for informed discussion of the uncertainties, risks and potential benefits of screening.
  - It recommends conversations about screening beginning at age 50 years and earlier for black men and men with a father or brother with a history of prostate cancer before age 65 years.

STANDARD OF CARE FOR PROSTATE CANCER SCREENING IN BLACK MEN

1. Schedule an appointment with your doctor to discuss the pros and cons of prostate cancer screening when you reach the following ages:
   - **Age 50 for men who are at average risk** of prostate cancer and are expected to live at least 10 more years.
   - **Age 45 for men at high risk** of developing prostate cancer. This includes black men and men who have a first-degree relative (father or brother) diagnosed with prostate cancer at an early age (younger than age 65).
   - **Age 40 for men at even higher risk** (those with more than one first-degree relative who had prostate cancer at an early age).
2. If no prostate cancer is found as a result of PSA screening, the time between future screenings depends on the results of the PSA blood test:
   - Men with a PSA of less than 2.5 ng/mL may only need to be retested **every 2 years.**
   - Men with a PSA level of 2.5 ng/mL or higher, should be retested **every year**.
   - Men without symptoms of prostate cancer who do not have a 10-year life expectancy, should NOT be offered testing**.** Overall health status, not age alone, is important when making decisions about screening.
3. If the PSA test is positive, request (**and insist upon**) either a MyProstateScore test or a 4Kscore test to check for higher grade cancers.
   - If the MyProstateScore test is negative (≤ 10), there is only a 3% chance that you have a higher grade (≤ Stage 2) cancer. This favorable risk-benefit would oppose invasive diagnostic testing (unless clinical and/or familial history suggests high risk), but support future screening.
   - If the MyProstateScore test is positive (>10), it is highly suggested to discuss additional diagnostic testing with your doctor.
4. If screening leads to a concern for prostate cancer, meet with your doctor to discuss the pros and cons of prostate cancer diagnostic testing such as imaging, biopsy and image-guided biopsy.
   - Request an ultrasound to visualize the prostate surface and contours
   - Request (**and insist upon**) an MRI to better assess the front part of the prostate. *It is even preferable if the MRI is read by the radiologist with computer-aided detection software* for better identification of areas of concern
   - If a biopsy is necessary, request (**and insist upon**) an MRI-guided transperineal biopsy, which gives better access to the front to the prostate.
   - **Do not be shy to ask about the doctor's expertise** (i.e number of cases performed, general success rates, major complications, deaths, etc,) with the transperineal approach over the traditional transrectal biopsy. *You do NOT want to be their test case!*

STANDARD OF CARE FOR PROSTATE CANCER SCREENING IN BLACK MEN (CONT'D)

5. If prostate cancer is confirmed, meet with your doctor to discuss treatment options.

- **Active surveillance.**
  - The benefits of treatment of low grade prostate cancer (Grade 1) are relatively small. Therefore, before recommending surgery or radiation therapy to men with low-risk prostate cancer, doctors should ensure that patients understand the potential harms of treatment intervention, such as erectile dysfunction and bladder and bowel complications.
  - However, because low-grade prostate cancer has more aggressive features in Black men, active surveillance MAY NOT be an appropriate option. The best approach for treatment can become better defined when a thorough, race/ethnic-relevant approach to care has been followed such as interactive informational and educational discussions, as well as appropriate evaluation techniques including MyProstateScore testing, 4KScore testing, MRI imaging and MRI-guided transperineal biopsy approaches.
- Radiation
- Surgery

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