

Prostate Cancer Screening

This practice algorithm has been specifically developed for MD Anderson using a multidisciplinary approach and taking into consideration circumstances particular to MD Anderson, including the following: MD Anderson's specific patient population; MD Anderson's services and structure; and MD Anderson's clinical information. Moreover, this algorithm is not intended to replace the independent medical or professional judgment of physicians or other health care providers.

The objective of this guideline is to maximize the detection of prostate cancer not to address whether or not early detection is appropriate. It is inherent that if we maximize the detection of prostate cancer, we will increase the detection of currently defined significant and insignificant prostate cancers. Due to the unique biology of prostate cancer, over-treatment is of concern because the results can potentially impact quality of life. The value of prostate cancer screening is controversial. For those men who, after informed consent, elect to undergo early detection, these general guidelines, in combination with patient preference, are the majority recommendations based on expert opinion at the University of Texas MD Anderson Cancer Center.

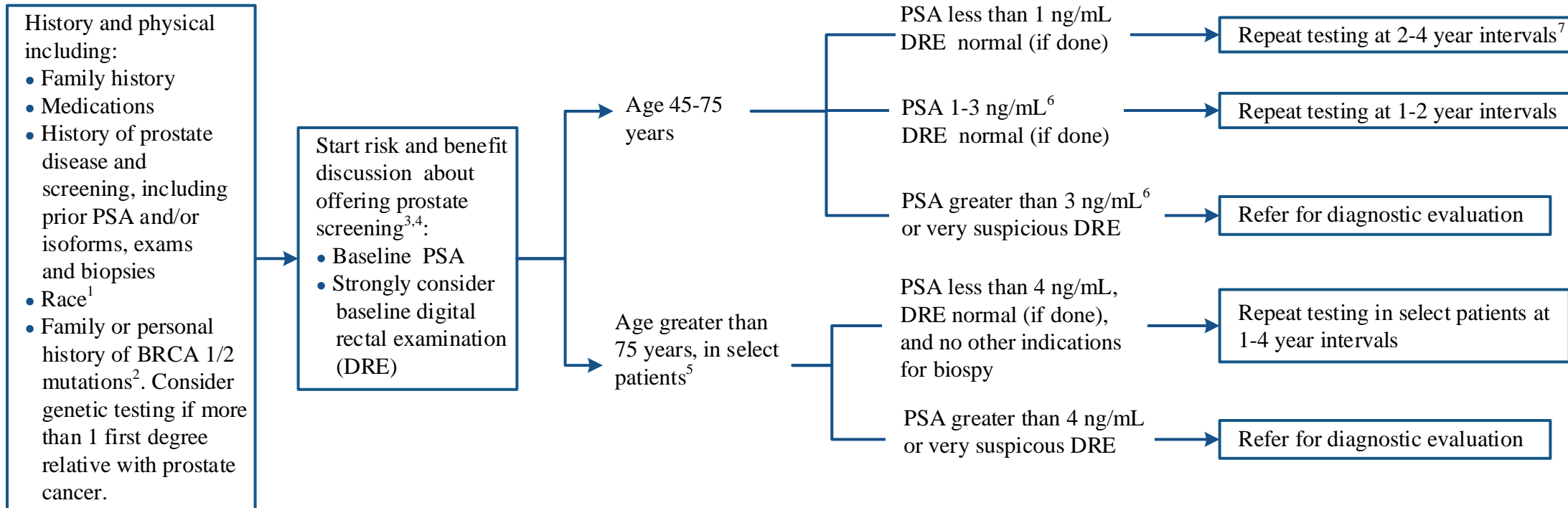
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EVALUATION

SCREENING

FOLLOW-UP



PSA = prostate specific antigen
 DRE = digital rectal exam

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FOOTNOTES

¹African-American men have a higher incidence of prostate cancer, increased prostate cancer mortality, and earlier age of diagnosis compared to Caucasian-American men. This is attributable to a greater risk of developing preclinical prostate cancer and a higher likelihood that a preclinical tumor will spread. Consequently, it is reasonable for African-American to begin discussing PSA screening with their providers several years earlier than Caucasian-American men and to consider screening at annual intervals rather than every other year.

²If there is a known or suspected cancer susceptibility gene mutation, referral to a cancer-genetics professional is recommended. BRCA1/2 pathogenic mutation carriers are associated with an increased risk of prostate cancer before age 65 years, and prostate cancer in men with germline BRCA2 mutations occurs earlier and is more likely to be associated with prostate cancer mortality. Information regarding BRCA1/2 gene status should be used as part of the discussion about prostate cancer screening.

³May begin at 40 years of age for men with more than one first-degree relative who had prostate cancer at an early age.

⁴The best evidence supports the use of serum PSA for the early detection of prostate cancer. DRE should not be used as a stand-alone test, but should be performed in those with an elevated serum PSA. DRE may be considered as a baseline test in all patients as it may identify high-grade cancers associated with “normal” serum PSA values. Consider referral for biopsy if DRE is very suspicious. Medications such as 5 α -reductase inhibitors (finasteride and dutasteride) are known to decrease PSA by approximately 50%. PSA values in these men should be corrected accordingly.

⁵Testing above 75 years of age should be done with caution and only in very healthy men with little or no comorbidity as a large proportion may harbor cancer that would be unlikely to affect their life expectancy, and screening in this population would substantially increase rates of over-detection. However, a clinically significant number of men in this age group may present with high-risk cancers that pose a significant risk if left undetected until signs or symptoms develop. Consider omitting PSA testing in men above the age of 75 years as very few will benefit.

⁶The reported median PSA values for men aged 40–49 year range from 0.5–0.7 ng/mL, and the 75th percentile values range from 0.7–0.9 ng/mL. Therefore, the PSA value of 1.0 ng/mL selects for the upper range of PSA values. Men who have a PSA above the median for their age group are at a higher risk for prostate cancer and for the aggressive form of the disease. The higher above the median, the greater the risk.

⁷Men age greater than or equal to 60 years with serum PSA less than 1.0 ng/mL have a very low risk of metastases or death due to prostate cancer and may not benefit from further testing. A PSA cut point of 3.0 ng/mL at age 75 years also carries a low risk of poor outcome.

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SUGGESTED READINGS

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DEVELOPMENT CREDITS

This screening algorithm is based on majority expert opinion of the Prostate Screening work group at the University of TexasMD Anderson Cancer Center. It was developed using a multidisciplinary approach that included input from the following

Therese Bevers, MD[†]
Powel Brown, MD
Joyce Dains, DrPH, JD, RN, FNP-BC[†]
John Davis, MD[†]
Ernest Hawk, MD
Jeri Kim, MD[†]
Christopher Logothetis, MD[†]
Curtis Pettaway, MD[†]
Gloria Trowbridge, MSN, RN[♦]
John Ward, MD[†]
Anita Williams, BS[♦]

[†] Core Development Team

[♦] Clinical Effectiveness Development Team