

Issues

- Although the mortality rates from prostate cancer are declining, it is unclear whether this decline is attributable to prostate specific antigen (PSA) testing
- PSA testing is critical in the ongoing surveillance and management of men with proven prostate cancer
- The natural history of prostate pathology is that most men with prostate cancer will die with it rather than from it

Goals

- To provide guidance about the appropriate use of PSA testing
- To help physicians and their patients make informed decisions about the early diagnosis of prostate cancer in asymptomatic men of any age

Recommendations

There is increasing evidence to support the use of PSA in making an earlier diagnosis of prostate cancer.

- We suggest men be advised of the reliability of PSA testing, as well as the potential benefits and risks of the test, as the latter may occur if further investigations are required
- We suggest PSA testing be discussed with the following asymptomatic individuals:
 - Most men over 50 years of age¹
 - Men at higher risk for the development of prostate cancer (family history of prostate cancer^{*,2,5} or African-Canadian descent^{3,4})
 - Men who express a concern about the development of prostate cancer

What constitutes family history is somewhat uncertain but it has been suggested as a first degree relative with prostate cancer diagnosed before age 65.^{,2,5}
- The appropriate use of PSA testing can include:
 - Evaluation of a man with an abnormal digital rectal examination (DRE)
 - Evaluation of a man with lower urinary tract symptoms (LUTS)
 - Assisting in the early diagnosis of prostate cancer in a man who has been advised of the risks and benefits of the tests and through shared-informed decision making would like to proceed with testing
 - Follow-up of a man with prostate cancer
- If proceeding with testing, then we suggest both DRE and PSA be performed:
 - DRE is not as sensitive as PSA, however, DRE may provide useful information:
 - i. Might identify some cancers missed by PSA
 - ii. Might help decision-making regarding referral
 - iii. Is useful in assessing the size of the prostate and staging cancer if present
- Please note that many of the associated risks of PSA also apply to DRE (eg, false positive)

**Practice
Points**

- Until the laboratory requisitions in current use are updated, family physicians wanting to order the serum PSA should add the test to the requisition form and indicate “medically required” (no cost to the patient)
- Utilization of the PSA as a screening procedure or for the early diagnosis of prostate cancer is inappropriate in men with a life expectancy of less than 10 years
- PSA should not be measured in patients in the presence of an acute urinary tract infection (UTI)
- An abnormality in either DRE or PSA should trigger further assessment

References

1. Patel AR, Klein EA. Risk factors for prostate cancer. *Nature Clinical Practice. Urology* 2009;6(2):87-95.
2. Woolf CM. An investigation of the familial aspects of carcinoma of the prostate. *Cancer*.1960;13:739-44.
3. Quinn M, Babb P. Patterns and trends in prostate cancer incidence, survival, prevalence and mortality. Part II: individual countries. *BJU Int.* 2002;90:174-84.
4. Prostate Cancer Canada [Internet]. Toronto: Prostate Cancer Society; c2010 [cited 2010 Oct 12]. Prostate Cancer Canada – Early Detection Guideline; [8 p.]. **Available from:** <http://www.prostatecancer.ca/Prostate-Cancer/about-the-prostate/psa.aspx>.
5. Brandt A, Bermejo JL, Sundquist J, Hemminki K. Age at diagnosis and age at death in familial prostate cancer. *Oncologist.* 2009;14(12):1209-17.
6. Smith RA, Cokkinides V, von Eschenbach AC, Levin B, Cohen C, Runowicz CD, Sener S, Saslow D, Eyre HJ; American Cancer Society. American Cancer Society guidelines for the early detection of cancer. *CA Cancer J Clin.* 2002;52(1):8-22.

More Information

For those interested in more details regarding prostate cancer screening, benefits and risks, the American Cancer Society Guideline provides an excellent detailed review.⁶

For full guideline and summary, please see the *Clinical Practice Guideline for Screening and Early Diagnosis of Prostate Cancer* at the TOP web site:

http://www.topalbertadoctors.org/informed_practice/cpgs/prostate_cancer.html

Suggested Citation

Toward Optimized Practice-Prostate Cancer Access Project (TOP-PROCAP) Working Group. *Clinical practice guideline for screening and early diagnosis of prostate cancer*. Edmonton, AB: Toward Optimized Practice. 2010. Summary. Available from:

http://www.topalbertadoctors.org/informed_practice/cpgs/prostate_cancer.html

Toward Optimized Practice

12230-106 Avenue, NW
Edmonton, Alberta T5N 3Z1

2010 prostate guideline revisions were completed by the Toward Optimized Practice-Prostate Cancer Access Project (TOP-PROCAP) Working Group