Prostate Cancer Screening – Position Statement
January 2018

Background

Prostate cancer (PCa) is the most commonly diagnosed cancer and the third leading cause of cancer deaths in Canadian men. Nova Scotia’s PCa incidence and mortality rates are higher than the national average. The risk of PCa increases with age, especially after the age of 50. However, if diagnosed at an early stage, it can be treated with curative intent.

The aim of screening is to find cancers at an early stage, before the person experiences symptoms, and when the cancer can be most effectively treated. Prostate cancer screening involves the prostate-specific antigen (PSA) test and the Digital Rectal Exam (DRE).

Since screening for PCa using the PSA test was introduced, there has been a consistent drop in annual prostate cancer mortality. PSA testing has also led to a marked increase in the diagnosis of early cancers that would not have been expected to cause any symptoms had they not been detected (often described as “over diagnosis”). Over-diagnosis results in patients choosing treatment options that have serious side-effects that they would not have experienced if the cancer had not been found (referred to as “over treatment”). Two randomized control trials¹ ² have shown that in both screened and unscreened populations of men, a large number of men need to be treated to save one life from PCa. Therefore, the use of PSA testing for the screening of prostate cancer remains controversial given the risk for over-diagnosis and over-treatment.

Prior to initiating PCa screening with DRE and PSA, a number of risks need to be considered. Both the DRE and PSA have a high rate of false positives. Also, the subsequent prostate biopsies necessary to confirm a cancer diagnosis also carry risk. Furthermore, PCa treatment can result in serious potential consequences including urinary, bowel and erectile dysfunction, as well as the distress and anxiety caused by a cancer diagnosis. Therefore, at this time, it is not possible to state that screening is associated with more benefit than harm. The decision to proceed with screening must be made on an individual basis between a patient and his physician after consideration of the potential risks and benefits.

Men who present with urological symptoms or who have suspicious findings on DRE require appropriate diagnostic investigations, including age-adjusted PSA, regardless of age. The considerations associated with screening, as outlined above, do not apply to symptomatic individuals.

Men who have a family history of a first degree relative (parent, sibling, child) with PCa or men of African-Canadian ancestry are at a high risk for PCa should be identified by their primary care provider, and their primary care provider should initiate a discussion about screening. There is some evidence (Level 3) that the risk of being diagnosed with PCa can be reduced through lifestyle modification including weight control, increased exercise, and decreased red meat consumption.³

¹ Andriole, G.L. et al. Mortality Results from a Randomized Prostate-Cancer Screening Trial NEJM 360(13): 1310-9
² Schroder, F.H. et al. Screening and prostate-cancer mortality in a randomized European study. NEJM 360(13):1320-8
³ British Columbia Cancer Agency. PSA Screening
Nova Scotia Cancer Care Program Position on the Screening of Prostate Cancer

Nova Scotia Cancer Care Program (NSCCP) recognizes that PSA testing in conjunction with DRE can be used to detect early stage prostate cancer. Together with the province’s Genito-Urinary Cancer Site Team, NSCCP endorses the Canadian Urological Association’s (CUA) Prostate Cancer Screening: Canadian Guidelines 2011.

Based on current evidence which highlights significant limitations to the technologies and methods currently available, the Genito-Urinary Cancer Site Team of the Nova Scotia Cancer Care Program (NSCCP) does not support the implementation of a systematic, population-based prostate cancer screening program for Nova Scotian men. No such programs exist in Canada at present. Rather, screening should be undertaken on an individual basis, with informed decision-making, and as a partnership between the man and his health care provider.

This position statement and the associated recommendations do not apply to symptomatic men or men who have had a prostate cancer diagnosis.

This Position Statement will be re-evaluated as new evidence emerges.

Recommendations for Asymptomatic Men at Average Risk

Average risk men are defined as: men over the age of 50 who do not exhibit urological symptoms and who have at least a 10-year life expectancy.

- Physicians should discuss the potential benefits and harms of screening of prostate cancer with each average risk patient so he understands all of the factors to be considered in the shared decision-making about screening.
- Men who choose to be tested should do so annually;
- However, there is evidence from one randomized controlled trial that screening with PSA and DRE every 2-4 years may be just as effective and “safe” as annual screening.
- The benefits of prostate cancer screening decline with age. Prostate cancer screening should be discontinued in men over 75 years of age or men who have a life expectancy of less than 10 years.

Recommendations for Asymptomatic Men at Increased Risk

Men at increased risk are defined as: men who have a family history of a first degree relative (parent, sibling, child) with prostate cancer or men of African-Canadian ancestry.

- Physicians should discuss the potential benefits and harms of screening of prostate cancer with men at increased risk beginning at the age of 40.
- For those men at increased risk, there is evidence that a baseline PSA at age 40 may be a predictor of future risk and allow for the development of an appropriate screening strategy (with timing and intensity based on risk).
- Men who choose to be screened should be screened annually; however, there is evidence from one randomized controlled trial that screening with PSA and DRE every 2-4 years may be just as effective and “safe” as annual screening.
- As with men of average risk, discontinue prostate cancer screening in men over 75 years of age or men who have a life expectancy of less than 10 years.

The Genito-Urinary Cancer Site Team of the Nova Scotia Cancer Care Program makes the following recommendations for the health care system:

- The PSA test and DRE continue to be available to Nova Scotian men for prostate cancer screening through their family physicians following a discussion of the risks and benefits associated with screening, diagnosis and treatment. Men who have difficulty accessing these tests through their physician should request a referral to another physician.


January 29, 2018
• Student physicians should continue to be trained in the technique of proper male genitourinary examination including DRE, and learning opportunities for practicing physicians be provided.
• Age-specific PSA values should be reported in all lab reports

References:
Andriole, G.L. et al. Mortality Results from a Randomized Prostate-Cancer Screening Trial. *NEJM* 360(13): 1310-9


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