Canadian Urological Association
Recommendations on Prostate Cancer Screening and Early Diagnosis

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## Disclosures

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Aims

1. To provide guidance on the current best prostate cancer screening and early diagnosis practices for Canadian men
2. To provide information on new and emerging diagnostic modalities
Methods

1. Aims/questions defined a priori
2. Review of existing guidelines – bibliographic review
3. Updated literature review for dates not covered by existing guidelines
4. Literature review on adjunct testing modalities not covered in existing guidelines
Questions

1. Should Canadian men undergo prostate cancer screening?
2. At what age should prostate cancer screening begin?
3. When can prostate cancer screening be stopped?
4. How frequently should prostate cancer screening be performed?
5. What additional diagnostic tests are available for the early diagnosis of prostate cancer?
The CUA recommends offering PSA screening to men with a life expectancy greater than 10 years. The decision of whether or not to pursue PSA screening should be based on shared decision-making after the potential benefits and harms associated with screening have been discussed.
Age to begin screening

For men electing to undergo PSA screening:
• Begin PSA testing at **age 50** in most men
  OR
• **Age 45** in men at an increased risk of prostate cancer
Frequency of screening

For men electing to undergo PSA screening, the intervals between testing should be individualized based on previous PSA levels.
Frequency of screening

- For men with **PSA <1 ng/ml**, repeat PSA testing every 4 years
- For men with **PSA 1–3 ng/ml**, repeat PSA testing every 2 years
- For men with **PSA >3 ng/ml**, consider more frequent PSA testing intervals or adjunctive testing strategies
When to discontinue screening

For men electing to undergo PSA screening, the age at which to discontinue PSA screening should be **based on current PSA level and life expectancy.**
When to discontinue screening

- For men aged 60 with a PSA <1 ng/ml, consider discontinuing PSA screening
- For all other men, discontinue PSA screening at age 70
- For men with a life expectancy less than 10 years, discontinue PSA screening
Adjunctive tests

- Multiparametric MRI
- PSA kinetics
- PSA density
- Free-to-total PSA
- 4K/PHI/PCA3
- Prostate cancer risk calculators
Multiparametric MRI

Endorsement of the **CCO guideline recommendations** on multiparametric magnetic resonance imaging in the diagnosis of prostate cancer
In patients with an elevated risk of clinically significant prostate cancer (according to PSA levels and/or nomograms) who are biopsy-naive, mpMRI followed by targeted biopsy (biopsy directed at cancer-suspicious foci detected with mpMRI) should not be considered the standard of care.
Multiparametric MRI – CCO recommendation

In men who had a prior negative TRUS-guided systematic biopsy who demonstrate an increasing risk of having clinically significant prostate cancer since prior biopsy (e.g., continued rise in PSA and/or change in findings from digital rectal examination), **mpMRI followed by targeted biopsy may be considered** to help in detecting more clinically significant prostate cancer patients compared with repeated TRUS-guided systematic biopsy.
The CUA does not recommend using PSAV alone for clinical decision making in men undergoing routine screening. However, **PSAV can provide additional information** about a patient’s risk of prostate cancer.
The use of PSAD alone for clinical decision-making is discouraged. However, use PSAD can be considered in men with known prostate volumes.
In men with a moderately elevated PSA, the 4K score, PHI, and PCA3 may improve the prediction of clinically significant prostate cancer and provide additional information over PSA alone. However, the CUA recognizes that these are expensive tests that are not currently publicly funded in Canada. At the present time, the CUA does not encourage the widespread use of these tests.
Prostate cancer risk calculators can be used to estimate the risk of clinically significant prostate cancer in men presenting with an elevated PSA.
Biopsy decision-making

Men undergoing screening should be involved in the decision-making regarding prostate biopsy, and the **decision to pursue biopsy should be based upon a discussion of the best evidence for estimating the risk for aggressive prostate cancer.**
Conclusions

• Shared decision-making is key to a successful prostate cancer screening program
• Smart screening practices may help reduce the over-treatment and over-diagnosis of indolent disease
• Use of information beyond PSA level can improve the prediction of clinically significant disease
• Difficult topic of great clinical interest that is rapidly changing. Aim is to update recommendations as evidence unfolds