Screening and Early Detection of Prostate Cancer with the PSA Test - Benefit versus Harm?

On October 27, the Canadian Task Force on Preventive Health Care (CTFPHC) published updated guidelines against screening for prostate cancer using the PSA test. The task force based its recommendations on published medical evidence and their assessment of the overall balance between the benefits and harms of PSA screening (with or without digital rectal examination), weighing the possible benefits against potential harms of early diagnosis and treatment of prostate cancer. The recommendation against PSA screening covers men of all ages and risk groups.

What You’ve Said About Our Press Release of October 29th Against the New Guideline

- I was somewhat shocked by their conclusion as well.
- I’m the 6th guy out of every 1000 tested who has benefited from PSA screening for early detection of my prostate cancer.
- Excellent response. Thank you.
- I just came back from the PCF meeting in USA and I do not recall hearing about PSA not saving lives.

Between the Sheets

In this issue of The Digital Examiner we present information concerning the PROS and CONS of PSA testing and screening for the early detection of prostate cancer. The two YouTube videos are informative and easy listening. There’s also lots of text and references for those looking for more detail.

It seems that PSA screening has unnecessarily crashed landed and we’re left to pick up the pieces. I have to ask What’s wrong with Smart Screening? Anyone?

Stewart Campbell
Executive Director

Tuesday, December 2, 2014 Meeting Schedule

5:00 PM: Moxie’s Grill & Bar
888 7th Ave. SW, Calgary, AB

6:30 PM: Ladies and Caregivers
NEW!! Room 313 at Kerby Centre
Kelly Fedorowich, Facilitator

6:30PM: Newly Diagnosed & Active Surveillance Group
Room 311 at Kerby Centre
Ron Singer, Facilitator

6:30 PM: Warriors Group
Board Room at Kerby Centre
Jim Swaile, Facilitator

7:30 PM: Holiday Reception. Kerby Centre Lecture Theatre

Celebrating Service and Advocacy

Our General Meetings are open to the public and free. Cookies, fruit and refreshments will be served.

Come join us Tuesday, December 2 at the Kerby Centre at 1133 - 7th Avenue SW, Calgary, AB T2P 1B2. Parking is FREE at the Kerby Centre in lots on both sides of 7th Ave. The WEST LRT stops at the Kerby Station, right at the front door of the Kerby Centre.

Celebrating Service to Calgary’s Prostate Cancer Community

Tuesday, Dec 2 will be a special evening at Kerby Centre when we meet to celebrate the work of Calgary’s Prostate Cancer Community. Please join us to celebrate:

- Clinicians, family doctors, speakers & community leaders for their hard work.
- Bob Shiell and his wife Cheryl for their advocacy for men and their families as they deal with prostate cancer.
The Oct 27 issue of the Canadian Medical Association Journal, the Canadian Task Force on Preventive Health Care (CTFPHC) reviewed evidence and international best practice to weigh the benefits and harms of PSA screening, with or without digital rectal exams.

**Key Points:**
- The prevalence of undiagnosed prostate cancer at autopsy is high and increases with age (> 40% among men aged 40–49 yr to > 70% among men aged 70–79 yr).
- Only a small proportion of men with prostate cancer have symptoms or die from the disease; most prostate cancers are slowly progressive and not life threatening.
- Screening with the PSA test may lead to a small reduction in prostate cancer mortality but not a reduction in all-cause mortality.
- Thresholds for PSA of 2.5 to 4.0 ng/mL are commonly used for screening; lower thresholds increase the probability of false-positive results, and no threshold completely excludes prostate cancer.
- Harms associated with PSA screening (e.g., bleeding, infection, urinary incontinence, a false-positive result and overdiagnosis) are common.
- The PSA test should not be used for screening without a detailed discussion with the patient, ideally with the use of decision aids to facilitate comprehension.

"Available evidence does not conclusively show that PSA screening will reduce prostate cancer mortality, but it clearly shows an elevated risk of harm. The task force recommends that the PSA test not be used to screen for prostate cancer," Dr. Neil Bell, chair of the prostate cancer guideline working group.

**CTFPHC Recommendations to clinicians & policy-makers**
The recommendations apply to all men without a previous diagnosis of prostate cancer.

- **For men aged less than 55 years, we recommend not screening for prostate cancer with the prostate-specific antigen (PSA) test.** *(Strong recommendation; low-quality evidence.)*
- **For men aged 55–69 years, we recommend not screening for prostate cancer with the PSA test.** *(Weak recommendation; moderate-quality evidence.)*
- **For men 70 years of age and older, we recommend not screening for prostate cancer with the PSA test.** *(Strong recommendation; low-quality evidence.)*

These recommendations apply to men considered high risk — black men and those with a family history of prostate cancer — because the evidence does not indicate that the benefits and harms of screening are different for this group.

"The key evidence was from a well-done European study. It showed inconsistent results, with a small potential positive effect over a long period of time, which the reviewers balanced against the clear evidence of harm" said Dr. James Dickinson, a member of the task force and professor of family medicine at the University of Calgary.

"Fundamentally this is not a good enough test to be worth using," Dickinson said in an interview. "Let's hope that better things come in the future, but right now it's not worth using. It's more likely to cause harm than benefit."


**More harm than good, or a test that saves lives? Arguments for and against PSA testing**
The link below is to interviews of Dr. Dickinson of the task force and Rocco Rossi of Prostate Cancer Canada. http://www.theglobeandmail.com/video/globe-now-more-harm-than-good-or-a-test-that-saves-lives-arguments-for-and-against-psa-testing/article21381309/

**Prostate-Specific Antigen (PSA)**

*inPractice* Author: Gary R. MacVicar, MD. Section Editor: Brian I. Rini, MD, Chief Editor: Ramaswamy Govindan, MD.

Prostate-specific antigen (PSA) was first identified in the 1970s [Ablin 1970; Zaviacic 1997; Wang 1979] and has since undergone more scientific scrutiny than any other tumor marker. [Lin 2008; Roobol 2013]

Originally used as a diagnostic test, the PSA test has since evolved into both a diagnostic and screening test for prostate cancer, as well as a tool for assessment of treatment efficacy and post-treatment surveillance.

Prostate cancer screening with either PSA or digital rectal examination has been credited with helping to decrease the rate of prostate cancer mortality and detecting early-stage prostate cancer that would otherwise have been missed. The resulting stage migration has been associated with a 5-year survival approaching 100% and fewer cases of metastatic disease at diagnosis; however, the longer-term benefits of PSA screening are less clear. [Roobol 2013]
Summary:
- PSA is used both in screening and diagnostics.
- Indicators for conducting a subsequent prostate biopsy:
  - PSA 2.5 - 4.0 ng/mL; lower cut-off for men at increased risk of prostate cancer [Carter 2013; NCCN Prostate]
  - Elevated PSA velocity, particularly for men younger than 50 years of age [NCCN Prostate]
  - Results of digital rectal examination (DRE) combined with PSA [Carter 2013; NCCN Prostate]
- Additional factors to consider: risk factors, free and total PSA, age, prostate volume, inflammation [Carter 2013; NCCN Prostate].

inPractice www.inpractice.com is US-based point-of-care clinical knowledge resource. For the complete text, visit http://www.inpractice.com/Textbooks/Oncology/GU/ch18_GUProstate/Chapter-Pages/Page-2/Subpage-1.aspx

Video: The Prostate Specific Antigen (PSA) Test
Dr. Mike Evans of St. Michael’s Hospital, Toronto, Ontario has created a video about the PSA test. He is a family physician at St. Michael’s Hospital, University of Toronto and is well known for his whiteboard series on YouTube, which has had almost 10 million views globally. See the video at http://canadiantaskforce.ca/ctfphc-guidelines/2014-prostate-cancer/the-prostate-specific-antigen-test-video/

Video: So Your PSA is High, What Now?
Prostate Cancer Research Institute www.pcri.org
Oct 30, 2014. Comment by Walt Shiel. An excellent video that presents a reasoned reasonable approach to PSA testing and ways to reduce the over-treatment “problem” that the USPSTF and the CTFPHC have attacked using a blunt instrument approach. See the video at https://www.youtube.com/watch?v=6QgcfVBzFNs&feature=youtu be

ERSPC: Screening and Prostate Cancer Mortality. Expert Comment
James A Eastmah, MD and Behfar Ehdale, MD. MPH.
August 7, 2014. Several large studies have addressed the hypothesis that PSA screening can reduce mortality for prostate cancer. The results to date remain controversial.

In 2012, the US Preventive Services Task Force recommended against PSA screening on the grounds that there is no net benefit and that the potential harms outweigh the benefits. However, the US Task Force’s conclusions have been criticized as premature in a rapidly evolving area of intensive research, including modeling studies that have showed that, with a 4-year screening interval, a gain of 52 life-years and a gain of 41 quality-of-life adjusted life-years were achieved per 100 men. Importantly, the reduction of quality-of-life in these analyses is primarily due to over-detection and long-term side effects of treatment.

In an recent update, the ERSPC researchers reported results of follow-up to 13 years. Their findings suggest that:
- 1 prostate cancer death is averted per 781 men screened, and
- An additional prostate cancer is detected in 1 per 27 men screened.

The results were consistent across all ages using 5-year spans. Importantly, the study did not address over-detection and consequent harms of over-treatment.

The researchers concluded that:
- Although the time to recommend population-based screening has not yet arrived, physicians should consider applying PSA screening to men who desire it and provide them with balanced information during counseling.
- Improved adherence to active surveillance for low-risk tumors and incorporation of novel imaging technology to avoid prostate biopsy are required to favorably shift the ratio of benefits to harms.

For the complete text, see www.practiceupdate.com/journalscan/11850

Possible Solution: MRI Imaging of the Prostate
Dr. Mark Scholtz, Prostate Cancer Research Institute.
Prostate cancer screening presents a unique challenge as only a minority of cases are deadly. This creates a serious problem. It’s good to detect high-grade disease because early treatment reduces mortality. But, PSA screening detects a lot of men with low-grade disease and these are the men harmed by unnecessary treatments.

Why do we over diagnose and what can be done? Physician propensity for overtreatment will only change slowly. The shortest pathway out of this dilemma is to stop diagnosing and thereby avoid the men harmed by unnecessary treatments.

The next evolutionary step is 3-Tesla Multiparametric MRI which can reliably detect high-grade disease without overdiagnosing low-grade disease; these scanners accurately differentiate high-grade tumours from low-grade tumours. 3-Tesla Multiparametric MRI is new technology with its own growing pain. It may however provide a solution to the prostate cancer screening and early diagnosis dilemma. For the complete text, see http://us7.campaign-archive1.com/?u=e61bab2d681f6500ca8a92f0e&id=9522a50f54&e=cf2ac1a3b6
Highlights from PROSTAID Calgary’s Press Release about PSA Testing.

October 29, 2014. As a support group which educates and advocates for men and their families dealing with prostate cancer, we strongly disagree with the task force's recommendations against all PSA testing for men of all ages and risk groups categories. Our group deals with the realities of prostate cancer on a daily basis. These recommendations have done a great disservice to men's health and the advancement of awareness and decision making for those facing this dreadful disease.

It is interesting the task force does not include a single urologist, medical oncologist, radiation oncologist or anyone directly affiliated with a clinic that treats men with prostate cancer. It appears the task force also did not seek the counsel of patient representatives, psychosocial practitioners and health care economists. We are uncertain of the rationale to exclude the critical inputs of others.

The task force has made recommendations against PSA screening yet offers no alternatives. Their recommendations sharply contrast those of the Canadian Urology Association (CUA) which is comprised of specialists who treat men with prostate cancer.

PROSTAID Calgary will continue to follow the guidelines of the CUA and Prostate Cancer Canada. We firmly believe:

- Men have the right to be empowered to make informed decisions based on a variety of trusted sources.
- The task force recommendations will diminish:
  - The opportunity for physicians to discuss prostate health with their patients, and
  - Significantly set back the opportunity for men to assume greater responsibility for their health and well-being.

For the complete text of our October 29th press release, see http://www.pccncalgary.org/n_psatesting.php

Seventeen Years of Service to Calgary’s Prostate Cancer Community

It is a doubly fitting coincident that I write this article as a prostate cancer survivor for publication in December:

- 17 years ago, December 7, 1997, I finished the last stage of my three part prostate cancer treatment with brachytherapy at NorthWest Hospital in Seattle.
- It’s also timely because of the controversy around PSA testing that is making headlines again. Let me be clear. I would not be here today if my family doctor had not started my PSA testing at age 50. Six years later, after watching my PSA steadily but slowly climb, a biopsy discovered an aggressive, well distributed prostate cancer. Thankfully the treatments worked, my PSA is undetectable and I enjoy an excellent quality of life.

PSA screening for early detection of my prostate cancer saved me!

When Ron Gorham introduced me to the local group in 1997, I was searching for answers. What I found was a group of men and their wives and caregivers that shared my concerns and fears, and were dedicated to helping others.

As President of the local Calgary and area group for many years, I am especially proud of the achievements our support group made under my watch:

- Our newsletter - The Digital Examiner,
- Naming PROSTAID Calgary,
- Achieving official charitable status allowing us to receive significant monetary grants and donations,
- Our mascot(s) PSA Pete and later Dr. Digital,
- Participating twice in the Calgary Stampede Parade,
- Producing two separate multimedia awareness campaigns using billboards, radio and television with partners in Calgary’s creative community,
- And even more important, the friendships Cheryl and I made during these years that endure to this day.

When the Canadian Prostate Cancer Network (CPCN) got on my radar, I was excited for the opportunity to join and be part of the national movement. As president of CPCN for 8 years, my wife Cheryl and I got to host three national conferences bringing groups leaders together in Calgary and to co-chair 6 other national conferences with partner groups across Canada. As a co-founder of the World Wide Prostate Cancer Network, I enjoyed meeting and interacting with medical professionals from around the world.

PROSTAID Calgary is associated with the national network, now Prostate Cancer Canada Network (PCCN). While serving as managing director of PCCN, I had the opportunity to continue to bring support groups from coast to coast together to present a united front against this disease.

The biggest reward I’ve received over the past 17 years has been the relationships I’ve developed with medical professionals, support group leaders and members, and especially the men and women associated with PROSTAID Calgary. To a man (and woman), they have all contributed to my feeling of accomplishment with the many projects completed.

Under the leadership of President Steve Belway and Executive Director Stewart Campbell, I have ‘retired’ knowing that men and their families in Calgary and Southern Alberta will continue to get the information and support they need.

A diagnosis of prostate cancer is best faced with the help, input and support from a wide variety of sources – friends, family, medical professionals, lay people and the Calgary community at large. I am blessed to have been lucky to have had this in spades, for which I will always be grateful.

Bob Shiell, Calgary Alberta. Prostate Cancer Survivor, Volunteer and Men’s Health Advocate