Does PSA Screening Save Lives?
-The Jury is Still Out

Manitoba doctors have recently received postcards recommending annual PSA and rectal exam (DRE) screening to men over 50 with the belief that this will reduce deaths from prostate cancer. Although the idea has appeal, PSA screening and concepts such as “PSA velocity” have not as yet been shown in randomized trials to reduce mortality at a population level. Two large trials that address this issue will be reporting in the next year or two. A 2006 Cochrane review (1) found insufficient evidence for such screening, and most authorities take a more cautious approach and recommend that we discuss the pros and cons of PSA screening rather than simply ordering the test. The recent about-face on the benefits of hormone replacement is a reminder of the wisdom of waiting for RCT-level evidence.

But isn’t it likely that PSA screening will be found to be beneficial? Quite possibly. It’s clear that PSA screening can detect asymptomatic cancer, usually while it is localized. The initial round of the American “PLCO” trial (one of the RCTs mentioned above) screened about 34,000 healthy men 55-74 years of age with a PSA and DRE. Overall, 1.6% of the men screened were found to have prostate cancer, 83% of which was confined to the prostate (Stage I or II) and 43% was high grade (Gleason 7-10). (2)

It’s also clear that surgical treatment of early stage prostate cancer is effective. A RCT of prostatectomy vs observation in men under 75 showed improved overall and disease-specific mortality in the surgical group after 8 years of follow-up, although at the price of high rates of incontinence and impotence. (3)

The doubts are about the PSA test itself. There is a very large overlap of PSA levels between men with and without cancer, with no PSA value that rules out cancer. Age-adjusted cutoffs have been proposed (see table), but to achieve a reasonable sensitivity of 80%, a PSA cut-off of 1.1 ng/ml would be needed, at the cost of a very high false positive rate and many biopsies of men without cancer. (4)

The low sensitivity and specificity of the PSA test means we must be patient and await the results of the RCTs prior to recommending screening for all our patients. For an excellent patient handout, check out the B.C. brochure found at www.cancercare.mb.ca > Health Care Professionals> Prevention & Screening.

Proposed Age-specific ranges for PSA

<table>
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<th>AGE</th>
<th>NORMAL PSA</th>
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<td>50 – 69</td>
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<td>&lt;4.5</td>
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<td>50 – 69</td>
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<tr>
<td>70 – 79</td>
<td>&lt;2.5</td>
<td>&lt;4.5</td>
<td>&lt;6.5</td>
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2. Andriole GL et al. PLCO -The Jury is Still Out
Ask the Cancer Expert
Dr. Ethel MacIntosh
Medical Director, WRHA Breast Health Strategy

Question:
What is “locally advanced” breast cancer, and are women still eligible for the sentinel node biopsy procedure at the time of their mastectomy?

Answer:
“Locally advanced” breast cancer is most simply defined as a cancer that, as surgeons, do not think we can successfully remove it in its entirety. It is a clinical diagnosis that includes inflammatory breast cancer, women with large breast primaries (in part, relative to their breast size) and those with large fungating “neglected” cancers. The risk of involved axillary nodes for such patients is greater than 50%. A more precise definition is a primary breast cancer that is inoperable but has not spread beyond the breast and lymph nodes (axillary and ipsilateral supraclavicular). This is a clinical Stage IIIb cancer and presents a metastatic worksup is negative. It would be treated with preoperative (called “neo-adjuvant”) chemotherapy with a plan to follow this with mastectomy and nodal surgery (usually axillary node dissection or “AND”) followed by chest wall irradiation. Sentinel node biopsy is controversial in the management of such patients. Many expert surgeons would not offer these patients sentinel node surgery. Because of the high likelihood of nodal spread, many will have positive sentinel nodes and on that basis require a full AND. However, I do offer it in this setting as there is no clear evidence supporting a worse outcome in terms of survival, although there may be more local recurrence in the axilla. The challenge is that the technique of sentinel node mapping may fail—the materials used for mapping may not migrate to the axilla in which case an AND would be indicated.

Scholarships for Training
The CancerCare Manitoba Foundation is pleased to offer two scholarships to allow primary care physicians and nurse practitioners interested in the care of patients with cancer or blood disorders to pursue two weeks of training in this area. Each scholar will receive an honorarium and book allowance and will be eligible for Manitoba C credits. One rural and one Winnipeg clinician will be selected. Go to www.cancercare.mb.ca > Health Care Professionals > Education for more information.

Applications close November 3, 2008.

Brachytherapy: A new treatment option for prostate cancer

Brachytherapy is a minimally invasive treatment for early localized prostate cancer. This form of radiation therapy involves the insertion of multiple ‘seeds’ directly into the prostate gland. The seeds actually look like small pieces of pencil lead and are inserted through the perineum and into the prostate under general anesthesia. The seeds contain iodine-125 as the radiation source. This procedure is performed in the Manitoba Prostate Centre at CancerCare Manitoba. Long term outcomes are equal to those of the other common treatment modalities, external beam radiation and radical prostatectomy. Complications of brachytherapy affect urinary, bowel and sexual function. In the first 18 months after the implant, some men may experience urinary irritation; this usually resolves quite quickly. Some men may also experience signs of rectal irritation with bleeding in the first three years after the implant. Erectile function remains good in men who had good function prior to the implant; potency is preserved in 79% of men at three years and 59% at six years post procedure. Many men find this treatment appealing as it has a very short period of recovery and there is no hospital stay. Eligibility is determined by the radiation oncologist and is based on numerous factors including PSA, Gleason score, volume of disease and size of the prostate.

Reduce Your Cancer Risk Series
The REDUCE YOUR RISK series is a project of CancerCare Manitoba Foundation and the CancerCare Manitoba Screening Program.

A DVD is the basis of the series and provides information on the risk factors for cancer, how to lower your personal risk, and the screening guidelines (age and frequency). The DVD has four Reduce Your Risk chapters ranging from five to eight minutes, available in English, French, Chinese, Cree, Hindi, Ojibwe, Panjabi, Portuguese, Tagalog, Spanish and Vietnamese. A facilitator tool kit is available to accompany the DVD - for lay and health care workers. A Pass It On Copy can be ordered to share with family, friends and neighbours. The DVD will be available to view and order on the CCMB web site by September or contact any of the screening programs.

Life On The Highway
Ten years ago, x-ray technologists rolled into the community of Flin Flon and set up the first mobile breast screening clinic. Now the white van with the CancerCare Manitoba logo is familiar to many women in rural and northern Manitoba because its two mobile screening units cross-cross the entire province every two years, visiting nearly 90 locations throughout Manitoba. Through the mobiles, the Manitoba Breast Screening Program provides approximately 11,000 mammograms per year for women aged 50 to 69. To date, the number of breast cancers detected on the mobiles alone has reached 508.

To check out the mobile schedule or to book an appointment, call 1-800-903-9290 or visit the CancerCare Manitoba website at www.cancercare.mb.ca/MMSP.

Pap Test Week 2008 Aims to Screen 1000 Unscreened Women
This year’s goal for Manitoba Pap Week, October 20 – 24, is to reach 1,000 unscreened women. The Manitoba Cervical Cancer Screening Program will partner again with health centres all over the province to offer walk-in, appointment free Pap tests. Clinic participation has grown from seven clinics in 2003 to 104 clinics in 2007. Last year, 456 (about 32%) of the women who attended the clinics had not had a Pap test in at least five years.

The campaign this year has two new additions. Improvements to program promotional materials and the opportunity for women over the age of 70 to get an HPV test.

To confirm your participation in Manitoba Pap Test Week 2008, or for more information, contact Kim Templeton at 1-204-788-8648 or toll free at 1-866-616-8805.

Manitoba’s Mobile Breast Screening Program celebrates 10 years on the road!