

# NEWS

## **A Growing Problem**

The number of cancer patients is expected to grow by 55 per cent by the year 2020, significantly outpacing the availability of oncologists. This could lead to a shortage of some 300 to 400 oncologists in Canada by 2020 if we extrapolate from US data.

## **PREVENTION OF CANCER OCCURRENCE**

### **PRIMARY PREVENTION**

#### **The Pill Cuts Ovarian Cancer Risk**

A review of data from 45 studies showed that for every five years they're on the pill, women who take oral contraceptives cut their risk of ovarian cancer by 20 per cent. These drugs may have prevented some 200,000 cases of ovarian cancer and 100,000 deaths to date worldwide.

#### **HPV Vaccine May Cut Oral Cancers**

The incidence of oral cancers linked to human papillomavirus (HPV) is increasing, even though oral cancers not linked to HPV are decreasing. That might be because of an increase in oral sex. If so, the HPV vaccine now approved for prevention of cervical cancer might also have a role in preventing oral cancers.

### **SECONDARY PREVENTION**

#### **Screening**

A research team in Germany claims they have developed a blood test that can not only identify lung cancer already established (prevalent) in smokers but it can also predict which asymptomatic smokers will get lung cancer (incident) in the next two years. They report identification of a lung cancer-specific gene expression profile in peripheral blood monocytes which predicts prevalent disease with an accuracy of 88 per cent and incident disease within two years with an accuracy of 80 per cent.

### **TERTIARY PREVENTION**

#### **Breast Cancer Prolonged hormonal therapy indicated**

Several studies show that reduction in the recurrence of early-stage breast cancer is improved with additional years of hormonal therapy (either aromatase inhibitors or tamoxifen) after the standard five years of tamoxifen.

#### **Low levels of vitamin D are associated with a predisposition to breast cancer recurrence**

In women with adequate levels of vitamin D at the time of surgery, 83 per cent remained breast cancer free after 10 years, compared to 74 per cent in women with low levels. It is too early to recommend that breast cancer survivors go on vitamin D supplements but more research is needed to explore its usefulness as an adjuvant treatment.

#### **Bone loss drug reduces early-stage breast cancer recurrence risk**

Zoledronic acid, a drug which reduces bone loss caused by some cancer treatments, was shown in a randomized trial to reduce the five-year relative risk of breast cancer recurrence by 35 per cent compared to the controls who received hormonal treatment (either tamoxifen or anastrozole) alone. The overall occurrence of side effects was low.

### **LUNG CANCER**

#### **Genetic analysis identifies who benefits from chemotherapy**

A genetic analysis of surgically removed tumors revealed a pattern which identified a patient group at high risk of recurrence. This patient group derived benefit from adjuvant chemotherapy whereas patients whose tumors showed a low risk pattern did not benefit from the same treatment.

### **PANCREATIC CANCER**

#### **Effective adjuvant chemotherapy**

After surgery for early stage pancreatic cancer, patients with no evidence of

remaining cancer who received gemcitabine had a two-fold greater chance of survival at five years compared to those who received the standard treatment of no additional therapy (21 per cent compared to nine per cent). Side effects included slight decreases in blood counts which were transitory. The results have established a new standard of care for localized pancreatic cancer.

### **UTERINE CANCER**

#### **Brachytherapy prevents recurrence with fewer side effects**

Vaginal brachytherapy (radiation therapy given internally, using implants) was compared with external beam therapy (radiation given from a machine outside the body) to treat uterine cancer that had a higher risk of recurrence after surgery. Brachytherapy was as effective as conventional external beam therapy, simpler to administer, and was attended by a lower incidence of side effects (diarrhea). It was claimed to be the new standard of care.

### **TESTICULAR CANCER**

#### **Single dose chemotherapy is effective treatment for early stage seminoma**

A single injection of carboplatin after surgical removal of the affected testicle was found to be as effective in preventing recurrence as two to three weeks of radiation (five year recurrence rate five per cent vs. four per cent). After seven years, men who received carboplatin were 78 per cent less likely to develop a tumor in the other testicle. Fatigue after treatment was also less marked in the carboplatin group.

### **MELANOMA**

#### **Better adjuvant therapy**

A European study showed that a year of treatment with pegylated interferon—a newer, more active form of interferon—cuts the risk of recurrent melanoma by 18 per cent in patients who had the deadly skin cancers surgically removed.

## TREATMENT OF ADVANCED DISEASE

### BREAST CANCER

#### Bevacizumab benefits women with advanced breast cancer

In women with newly diagnosed advanced breast cancer, the addition of bevacizumab (Avastin) to docetaxel chemotherapy increased the response rate to 63 per cent from 44 per cent and reduced by 28 per cent the likelihood of cancer progression at 11 months. Side effects were increased to 75 per cent from 67 per cent due largely to high blood pressure which was treatable.

### COLON CANCER

#### PET scanning spares futile laparotomies prior to resection of liver metastases

Patients about to undergo surgery for resection of metastases from their liver were randomized to have preoperative PET scanning or not. Futile surgery (resection could not be performed) occurred in 28 per cent of the scanned group vs. 45 per cent in the group that did not have preoperative PET scanning.

#### KRAS status predicts response to cetuximab (Erbix)

According to researchers from Belgium, cetuximab combined with conventional chemotherapy improved one year progression free survival from 25 per cent to 43 per cent in patients whose tumors showed a normal KRAS gene. Those with tumors carrying a mutant KRAS gene did not benefit from the added cetuximab.

### LUNG CANCER

#### Additional treatment after initial chemotherapy can delay lung cancer growth

Maintenance pemetrexed, an antifolate chemotherapy drug, increased overall survival when given after standard chemotherapy for advanced non-small cell lung cancer. Overall survival

was 13 months for those receiving pemetrexed compared to 10 months in the control group.

#### Erbix effective in advanced lung cancer

Adding Erbix to standard chemotherapy increased survival by up to 21 per cent in patients whose tumors carried a molecule called epidermal growth factor receptor or EGFR.

### EWINGS SARCOMA

#### Increased dose intensity of chemotherapy improves survival

Patients were randomized to receive chemotherapy every three weeks or every two weeks. After three years 76 per cent of those in the two week group were alive compared with 65 per cent in the every three week group. The incidence and severity of side effects were the same in both groups. About five per cent in each group experienced infection.

### KIDNEY CANCER

#### A fourth drug effective against kidney cancer

Treatment with the targeted therapy drug everolimus (Certican), can slow the growth and spread of renal cell carcinoma when other targeted therapies such as sunitinib and/or sorafenib stop working. After six months the cancer had not grown or spread in 26 per cent of patients receiving the drug compared to two per cent of the patients who received best supportive care. This brings to four the number of agents for treating a disease for which there was no effective drug treatment just a few years ago.

### CHRONIC LYMPHOCYTIC LEUKEMIA

#### A new old drug

Bendamustine (Treanda) had already been used in Europe for 30 years, but a new international trial showed it produced a higher remission rate and a doubling of progression free survival compared to the standard therapy with chlorambucil.

### SUPPORTIVE CARE

#### New drug reduces oral mucositis resulting from chemotherapy

Recombinant human intestinal trefoil factor (rhITF) showed striking benefit in patients with recurrent oral mucositis (ulceration of the lining of the oropharyngeal cavity) resulting from chemotherapy. Compared with placebo, the active agent reduced the incidence of mucositis from 50 per cent to nine per cent, and the severity of the mucositis was also milder when it did occur in the treated group.

#### Acupuncture reduces side effects of treatment of breast cancer

Treatments for breast cancer can induce early menopause and dampen the production of estrogen, leaving women with hot flashes, excessive sweating, and fatigue. Hormone replacement therapy cannot be given for fear of reactivating the breast cancer, so doctors often prescribe antidepressants which are effective but which have their own side effects. At Henry Ford Hospital in Detroit, women were randomly assigned to receive a 12-week course of the antidepressant Effexor or acupuncture. After the study intervention, both groups reported similar improvements in hot flashes and other menopausal symptoms. In addition, many of those receiving acupuncture reported having more energy, a greater sense of well-being, and an improved sex drive. The effect of acupuncture was also longer lasting. Moreover, there were no side effects reported in the acupuncture group, whereas some women in the antidepressant group had nausea, dry mouth, headache, trouble sleeping, constipation and other side effects. In Chinese medicine, it is believed that acupuncture works by unblocking the flow of energy along meridians. In Western medicine, the exact reason acupuncture might work is not clear, but some theorize that the placement of needles may release endorphins, a chemical that makes you feel good. The meridian lines from Chinese medicine closely correspond to the body's network of nerves.

## **SURVIVOR ISSUES**

### **Childhood cancer survivors face increased risk of heart disease**

Childhood cancer survivors are five to 10 times more likely than their healthy siblings to develop cardiovascular disease in early adulthood. The diseases covered the full spectrum including hardening of the arteries, congestive heart failure, heart attack, pericardial disease, and valvular disease.

## **ACROSS THE COUNTRY**

### **HEALTH CANADA**

The Drug Safety and Effectiveness Network was announced in July 2008, with \$1 million to link research centres of excellence and coordinate a common research agenda. The intent is to increase knowledge about the safety and effectiveness of drugs based on their use in the real world, outside the controlled experimental environments of clinical trials. A national oversight body (unnamed) will set the research agenda.

### **CANADIAN PARTNERSHIP AGAINST CANCER**

The Canadian Partnership for Tomorrow Project is a study of 300,000 Canadians that explores how genetics, environment, lifestyle and behaviour contribute to the development of cancer. The study will track randomly selected Canadians (ages 35 to 69) for at least the next 20 to 30 years. The information will help researchers, policy-makers and others understand how different combinations of risk-factors lead to cancer.

CPAC and the Terry Fox Research Institute are jointly funding an early lung cancer detection study to include 2,500 participants from Vancouver, Calgary, Toronto, Hamilton, Ottawa, Quebec City and Halifax. The study will screen current and former smokers between the ages of 50 and 75; higher-risk individuals would be recommended for in-depth examinations using spiral CT or bronchoscopy.

CPAC will launch the first phase of its web portal, Cancer View, in the

spring of 2009. The portal is intended to be a one-stop comprehensive source of information about cancer control in Canada with search tools for data, programs and services across the country. Cancer View will support collaboration and user communities by helping people collect and share information about cancer control.

### **PROJECT FALSE HOPE**

The Competition Bureau of Canada unveiled a campaign to help protect Canadians from internet sites that use false or misleading promotions about cancer cures. The Bureau's web site has a health fraud awareness quiz and information on how to recognize an online health scam.

### **CANADIAN MEDICAL ASSOCIATION**

CMA President Dr. Robert Ouellet initiated a European health care fact-finding mission in search of measures that could improve access to Canada's health system and address lengthy wait times. A series of regional and national consultations with the Canadian public will follow the first draft of the report; the final report is due in June 2009.

### **PATHOLOGY**

The Canadian Association of Pathologists released new guidelines that could address the increasing number of problems with laboratory services, with a five point plan:

- To demand certification for each prognostic test and predictive test performed by a medical laboratory.
- To have pathology test results verified by an external, independent laboratory.
- To disseminate the Canadian National Checklist for diagnostic immunohistochemistry. The checklist includes test validation, staff training and competency assessment, standardization of operating procedures and equipment maintenance.
- To create a body separate from government that will accredit all labs in Canada.
- To receive immediate and ongoing

support from all levels of government to address shortages of trained staff.

Class action suits are pending in both New Brunswick and Newfoundland and Labrador on behalf of patients whose cancer tests were botched. The Inquiry by Justice Margaret Cameron into breast cancer tests in the Eastern Health District of Newfoundland and Labrador has been underway since late 2007, hearing from hundreds of witnesses, and is expected to conclude early in 2009. The New Brunswick Inquiry, headed by Justice Paul Creaghan, reported in December 2008, criticizing both the Miramichi Regional Health Authority and the Department of Health for failing to ensure quality control in the lab.

### **CANADIAN HEALTH SERVICES RESEARCH FOUNDATION**

CHSRF released "Defining the Medicare Basket", a report that tackles the question of why some health services are funded while others are not. The authors recommend solutions to resolve the conflict between quality, access and sustainability:

- Improve decision-making about services to be included in the exclusively publicly funded core, at both macro- and micro-levels, based on transparent rationales which take into account scientific evidence, cost-effectiveness analysis, and public values.
- Ensure that certain goods and services currently included in the intermediate ring (with partial public subsidy limited by restricted eligibility and/or co-payments) are covered for all through a mix of public funding and regulated private insurance. The principal example here is out-of-hospital pharmaceuticals, based on the model of the Quebec plan.
- An additional category of coverage should be considered, on a limited and experimental basis, for enhanced alternatives to services within the public core, offered on a private basis within a closely regulated framework.

## THE PROVINCES

### Data Quality

The North American Association of Central Cancer Registries recognized four Canadian cancer registries for meeting the gold standard of excellence. Alberta, Manitoba, New Brunswick and Prince Edward Island met data quality criteria for timeliness, accuracy and completeness.

### Drug Programs

The Provincial and Territorial Health Ministers met in September, 2008 and released a communiqué expressing disappointment with the Federal Government for lack of action on the National Pharmaceuticals Strategy. Ministers stated their intention to host a series of forums, beginning in 2009, with governments, experts and stakeholders to advance collaborative work towards a sustainable health system that delivers excellent care at affordable cost.

Evaluation of the interim Joint Oncology Drug Review was completed at the end of 2008, with unspecified recommendations forwarded to Provincial Health Ministers. No decisions are expected about the future of JODR until the spring of 2009.

Alberta announced a new pharmaceutical strategy to take effect on January 1, 2009. It will establish a single, government-sponsored drug plan with a common drug list, invite public input through a new committee, introduce flexibility to meet the unique needs of some patients, and provide catastrophic coverage for certain rare diseases. Sixty per cent of Alberta seniors will see their drug costs reduced or eliminated. Premiums will increase for non-group coverage. Drug review guidelines and target timelines will be established. Later in 2009 announcements are planned for an expanded role for pharmacists and more cost-effective drug purchasing.

The Ontario Institute for Cancer Research announced the investment of \$500,000 in DVS Sciences Inc., for novel technology to facilitate the identification of biomarkers to study and diagnose cancer. OICR will actively participate in efforts to commercialize

the project by providing additional expertise and resources and working collaboratively with the company and its scientists.

### Ombudsmen

The Alberta Ombudsman is investigating the out-of-country health services program delivered by Alberta Health and Wellness. He invites Albertans who have had experiences with the program to contact his office.

Early in 2009, the Ontario Ombudsman is due to release a report on access to PET scans, a service tightly controlled in the province, with lower access for fewer indications than Quebec or Alberta.

The health ministry is due to report on the impact of changes made to the out-of-country approval process, following the Ontario Ombudsman's 2007 study that led to the health ministry retroactively reimbursing Suzanne Aucoin for her US cancer treatments. An overhaul of the program has been underway ever since.

### Patient Wait Time Guarantees

Manitoba implemented its patient wait times guarantee for radiation therapy (within four weeks), the first such guarantee and the shortest one expected. By 2010, BC, NB, NS and PEI will have guarantees in place for radiation therapy within eight weeks and the Yukon will have one for mammography. In 2007 the Federal Government offered special funding for the guarantee, for pilot projects and for Canada Health Infoway grants, if Provinces agreed to automatically offer an alternative source for the treatment when the time frame is missed.

### Patient Satisfaction

Once again, cancer patients in Nova Scotia reported a high degree of satisfaction with their care, higher than the Canadian average in all categories: overall impressions, emotional support, coordination and continuity of care, respect for patient preferences, access to care (not related to waiting times) and information/communication/education.

### Prevention and Screening

An Alberta cancer prevention study called BENEFIT will measure what affects people's participation in weight-management programs, why they enroll, why they quit or stay with the program and what effect the program has on their weight, diet, health and physical activity. Poor nutrition, physical inactivity, and obesity have been strongly linked to the incidence of certain types of cancer.

Ontario introduced legislation to ban smoking in cars if any passenger is under the age of 16. The law comes into effect in January 2009, with a fine of up to \$250 for offenders.

Most provinces now have plans for colorectal screening targeting the 50-74 age group, with public education and awareness programs to encourage participation. Ontario is the only province to offer province-wide screening; announced in 2007, screening began in 2008. BC, Alberta, Saskatchewan, Manitoba, Nova Scotia and PEI are all starting their programs in selected communities first, then planning to expand over several years. BC, Saskatchewan, Nova Scotia and PEI will begin screening in 2009. Alberta built a colon cancer screening centre in Calgary to cut wait times for colonoscopies. Saskatchewan has a two-year trial to determine whether a simple blood test can detect colorectal cancer risk.

Ontario will begin funding the PSA test for prostate cancer screening and monitoring on January 1, 2009. The test will be covered for men who have been diagnosed with cancer and for men whose physicians suspect prostate cancer because of history, race or the results of a physical examination.

### The End

The Alberta Cancer Board was dismantled in July 2008, along with all the regional health authorities. The new Alberta Health Services Board replaces Alberta's nine regional health authority boards, the Alberta Cancer Board and other boards. The AHSB assumes responsibility for the delivery of health services, and its new advisory council on cancer takes over the research agenda.