

# CANCERtalk

> CONNECTING WITH MANITOBA'S HEALTH PROFESSIONALS

## DIAGNOSING CHILDHOOD LEUKEMIA

Dr. John Doyle



such as hepatosplenomegaly, bruising, pallor, fatigue, fever, and limb pain are each seen in approximately half of cases, while weight loss and anorexia are only seen in about one-third of cases.<sup>3</sup> Clearly the more of these signs and symptoms that are present, the higher the suspicion of leukemia. Given the vague nature of presenting signs and symptoms of childhood leukemia, a CBC is often the first confirmation that a child has leukemia. To make this diagnosis, the primary care provider must maintain a high index of suspicion, and a low threshold for ordering a CBC when evaluating the Pediatric patient. Commonly, the lab will report circulating abnormal cells or “blasts”. Less commonly, there will be no blast cells present but rather some combination of anemia, thrombocytopenia and leukopenia. While a single cytopenia can result from other pathologies, the presence of more than one cytopenia should prompt consultation for evaluation of the possibility of leukemia. When a child is suspected of having leukemia, an urgent referral should be made to the cancer treatment centre.

**Leukemia is the most common childhood malignancy, with Canadian statistics showing an annual rate of almost 50 cases per million children under the age of 15 years.<sup>1</sup> Most (80%) childhood leukemia cases will be acute lymphoblastic leukemia (ALL) with the remainder being acute myeloid leukemia (AML), and a small number of others such as chronic myelogenous leukemia or juvenile myelomonocytic leukemia.<sup>2</sup> In Manitoba, this translates to 15 children with ALL and 2 children with AML annually.**

Outcomes for childhood leukemia are excellent when treated in the early stages, making early diagnosis important. Presenting signs and

symptoms of childhood leukemia are non-specific and may be attributed to other disorders, most commonly viral infections. Signs and symptoms

CONTINUED ON NEXT PAGE

PG > 2	CANCERCARE MANITOBA AFTERCARE PROGRAM	PG > 3	LONGTERM FOLLOW UP GUIDELINES FOR CHILDREN RECEIVING RADIOTHERAPY	PG > 4	ADVANCED CARE PLANNING AND GOALS OF CARE AT CANCERCARE MANITOBA
--------	--	--------	--	--------	--

One category of child that creates a particular problem is the child that presents with arthritis. Approximately one-fifth of children with ALL will have joint pain at diagnosis with half of those children having objective evidence of arthritis. Many will have only one cytopenia initially, although over time the CBC findings become more characteristic. These children have a longer delay before therapy, and often are initially diagnosed with reactive arthritis, osteomyelitis, or Juvenile Inflammatory Arthritis (JIA). They will have received various treatments, most

commonly NSAIDs before the true diagnosis is realized. The importance of this presentation goes to the use of steroid therapy. The arthritic presentation is usually a B-cell precursor ALL, and has a very favourable outlook with treatment. Current therapies use as little treatment as possible by using risk-adapted therapy based on a constellation of age, initial white blood cell count, presence or absence of testicular or CNS disease, leukemic cytogenetics, and response to therapy. If a child receives pre-treatment with systemic steroid medications, then their risk features become unevaluable

and the child is upgraded to a higher risk category, often resulting in more treatment than they otherwise would have received. In evaluating a child with arthritis, attention needs to be paid to the general examination and the presence of bleeding manifestations, lymphadenopathy, and hepatosplenomegaly. If concern exists about the correct diagnosis then consultation should be obtained from either a Pediatric Rheumatologist or Hematologist before steroid treatment is initiated.

## CANCERCARE MANITOBA AFTERCARE PROGRAM

Wanda Knook, RN



In the CCMB AfterCare Program (CAP), survivors of childhood and adolescent cancer are assessed and screened for late effects of their treatment. Survivors are educated about and monitored for health problems that can occur as a result of their cancer or its treatment. They are provided with health promotion information and disease prevention strategies. Risk stratification criteria are used to determine the timing of transition to, and discharge from the program.

Prior to 2010, this patient population of 5 to 30 year olds was followed by their primary Pediatric Oncologists. There was no standard time-point for discharge to the family practitioner and provision of late effects education was informal and physician dependent. In 2009, a multi-disciplinary working group was established to develop a separate aftercare clinic. At its inception in the fall of 2010, the clinic was managed with existing resources. Since 2013, annual infrastructure grants have been secured to ensure the continued development of a sustainable clinic model. The program is currently working towards a nurse-directed model for provision of care to meet that goal.

The Children's Oncology Group (COG) Long-Term Follow-up Guidelines are used to determine late effects monitoring based on disease, age and treatment. These guidelines recommend monitoring strategies for late effects of cancer treatment, increase awareness of late effects and standardize and enhance follow-up care.

A major focus of this clinic is late effects education. This information empowers the survivor to take on the responsibility for their own healthcare, improves adherence to follow-up care and increases the quality of life for survivors. Ongoing education at yearly follow-up appointments prepares the survivor for a smooth transition to their family doctor.

To provide survivors with the most up-to-date late effects education and with a resource they can continue to access once they have been discharged, the CAP uses Passport for Care (PFC). This online resource provides patients with an individualized electronic health record and care plan. Passport for Care is linked to the COG survivorship guidelines, which provide late effects education for survivors in the form of "Health Links" ([www.survivorshipguidelines.org](http://www.survivorshipguidelines.org)). The survival portal of PFC provides a means of communication between the AfterCare program, primary physicians, and survivors. See [passportforcare.org](http://passportforcare.org) for further information.

Moving forward, the program is working towards the development of evaluation tools, such as a patient satisfaction survey, and strengthening connections with community physicians and programs. Long term goals are to obtain annualized funding for the CAP, and to expand access to a multidisciplinary team of healthcare providers.

## LONG TERM FOLLOW UP GUIDELINES FOR CHILDREN RECEIVING RADIOTHERAPY

*Dr. Saranya Kakumanu*

Children who receive extensive radiation treatment such as Craniospinal, Total Body Irradiation (TBI), or Mantle radiation are at substantial risk for long term side effects of radiation. Craniospinal radiation is used mainly for medulloblastoma and germ cell tumours of the brain; the radiotherapy dose is administered to the entire craniospinal axis. TBI is used as a conditioning regimen before bone marrow transplant; it is used less frequently now thanks to the development of more effective conditioning chemotherapy regimens. Mantle radiation (for lymphomas) is also being used less frequently.

The severity of the side effects is dependent upon the dose of the radiation and the age of the patient. Despite newer techniques of radiation which allow reduction of the radiation dose, children still suffer from long term toxicity. The following are some of the potential long term toxicities of TBI, CSI, Mantle radiation and the recommended follow up thereof.

**Skin:** secondary benign or malignant tumors of the skin. Yearly skin examination of the irradiated field is recommended.

**Bone:** secondary malignancies of the bone. Yearly examination of the irradiated bone is recommended, especially new onset bone pain in the irradiated field.

**Brain:** secondary benign and malignant tumors of the brain, cerebrovascular accidents, neurocognitive decline, and cranio-facial deformities. Neurological examination should be repeated yearly and for any complaints of headaches, vomiting or new neurological symptoms.

**Endocrine abnormalities:** risk of multiple endocrine abnormalities and hypothalamic dysfunction. History, physical examination and laboratory investigations as specified in *Children's Oncology Group Long-Term Follow-Up Guidelines for Survivors of Childhood, Adolescent and Young Adult Cancers\**. Referral to endocrinologist as appropriate\*.

**Eyes:** cataracts, dry eyes, and/or excessive tearing. Yearly eye exams including visual acuity and fundoscopy are advised.

**Ear:** otosclerosis, hearing loss, vertigo, and tinnitus. Yearly ear examination is recommended.

**Thyroid:** hypo- and hyperthyroidism and thyroid malignancies. Yearly thyroid examination is advised.

**Breast:** breast cancer. Yearly breast examination, and mammography and breast MRI beginning 8 years after irradiation or at age 25.

**Cardiac:** CHF and IHD. Yearly cardiac exam, ECG/echo depending upon the dose of radiation\* received by the heart.

Children are also at risk of long term toxicity to the liver and bowel.

\*The Children's Oncology Group has excellent guidelines for the long-term follow up of young cancer survivors.

[http://www.survivorshipguidelines.org/pdf/LTFUGuidelines\\_40.pdf](http://www.survivorshipguidelines.org/pdf/LTFUGuidelines_40.pdf)

## New Support in Manitoba for Adolescents and Young Adults with Cancer



CancerCare Manitoba now has a psychosocial oncology clinician exclusively focused on the unique needs of adolescents and young adults with cancer. Ian Scott is available to meet with patients and family at the St. Boniface and

McDermot sites. He also facilitates YACK, a support group for young adults.

**Ian Scott:** 204-787-2191 or [iscott@cancercare.mb.ca](mailto:iscott@cancercare.mb.ca)

## CancerCare Manitoba — Website Redesign

How easy is it to find information on the CCMB website? Are there features you would like to see added? We would like to hear from you.

CancerCare Manitoba is currently redesigning its website to be more user-friendly, mobile-friendly, and highly responsive. We want this to be a place where you can find the information you need quickly and easily.

If you have any comments or suggestions on how we can improve it to meet the needs of health care professionals, please send them to Ginette Bazin: [gbazin@cancercare.mb.ca](mailto:gbazin@cancercare.mb.ca)

## ADVANCE CARE PLANNING & GOALS OF CARE AT CANCERCARE MANITOBA

CancerCare Manitoba has recently completed an 18-month project funded by the Canadian Partnership Against Cancer recognising the importance of Advance Care Planning and Goals of Care. This project focused on normalizing and initiating Advance Care Planning conversations for all oncology patients across the province. This project resulted in the development of patient and health care provider resources on Advance Care Planning and Goals of Care to help facilitate these conversations. This new approach will help ensure that all patients have the opportunity to reflect on their goals, values, and beliefs, and to discuss current and future medical care decisions with their health care providers. For more information about Advance Care Planning

and the tools that have been developed to assist health care providers and oncology patients to have these conversations please go to: [www.advancecareplanninginoncologypractice.ca](http://www.advancecareplanninginoncologypractice.ca)



### ASK THE > **Cancer Experts**

**QUESTION:** Can patients on anastrozole eat soy products?

**EXPERT:** Beth Szuck RD

**ANSWER:** The only study<sup>1</sup> looking at soy and breast cancer recurrence that included women on anastrozole, showed a “high dietary intake of soy isoflavones was associated with a lower risk of recurrence among postmenopausal patients with breast cancer positive for estrogen and progesterone receptors and those receiving anastrozole”. This was one of the five prospective studies, two meta-analyses and an in-depth analysis that prompted the American Institute of Cancer Research, BC Cancer Agency and the American Cancer Society to say it was safe for breast cancer survivors to have one to two servings of soy foods daily.

<sup>1</sup> Kang X, Zhang Q, Wang S et al. Effect of soy isoflavones on breast cancer recurrence and death for patients receiving adjuvant endocrine therapy. *CMAJ* 2010; 182: 1857-1862.

**QUESTION:** Do ketogenic diets have a role in cancer prevention and treatment?



**EXPERT:** Angela Martens RD

**ANSWER:** Ketogenic (high fat, moderate protein, low carbohydrate) diets are gaining interest as an emerging metabolic therapy to treat and prevent cancer. When serum glucose availability is limited due to carbohydrate restriction, normal cells can use serum ketones (formed in the liver during ketosis or fat breakdown) as an alternative energy source. Due to mitochondrial dysfunction, cancer cells are reliant on glucose fermentation or aerobic glycolysis to meet their high-energy demands and cannot use ketone bodies.

Calorie-restricted ketogenic diets have been shown to have anti-angiogenic, anti-inflammatory and pro-apoptotic effects in pre-clinical trials. Human case studies and anecdotal evidence have also demonstrated suppressed tumor growth with ketogenic diets. Several clinical studies are currently underway investigating the use of these diets as an adjunctive therapy in malignant brain tumors ([www.clinicaltrials.gov](http://www.clinicaltrials.gov)).

Ketogenic diets have a long safety record in the treatment of refractory epilepsy. These diets have been shown to be safe and tolerable in cancer patients, but if not managed properly, can lead to weight loss, constipation and renal calculi formation, and are not currently prescribed in oncology. If used at all, restrictive ketogenic diets should be medically supervised and may not be appropriate for all cancer patients. More information on ketogenic diets may be found at:

[www.matthewsfriends.org](http://www.matthewsfriends.org)

[www.charliefoundation.org](http://www.charliefoundation.org)



## CERVIXCHECK'S HPV SELF-SAMPLE STUDY WILL BE LAUNCHED LATE MARCH

CancerCare Manitoba CervixCheck ensures Manitobans receive organized, high quality cervical cancer screening services. Its aim is to reduce the incidence and mortality from invasive cervical cancer in Manitoba.

Unfortunately, cervical cancer screening participation in Manitoba is steadily declining; Manitoba data shows that over 40% of cervical cancers are found in women who are unscreened.

CervixCheck is launching a prospective research study by the end of March to evaluate whether cervical cancer screening participation among unscreened women in Manitoba will increase by offering an alternative to the traditional Pap test, in the form of a mailed HPV self-sample test.

Five hundred women (250 urban/250 rural) have met the inclusion criteria to receive an HPV self-sample package. The packages include a self-sampling kit and an educational brochure about HPV, test results and what to expect during colposcopy. Women who do the HPV self-sample test will receive a letter with their test result from CervixCheck. Those who test positive for high-risk HPV types will be referred by CervixCheck to a colposcopy clinic in Winnipeg (HSC / St. Boniface), Brandon, or Thompson. Another 500 women are part of the control group and were randomly selected to receive no correspondence.

The study will be in field until October and results will be available shortly afterwards.

Stay tuned for study findings.



## MARCH COLORECTAL CANCER AWARENESS MONTH IS NOW OVER BUT YOU STILL CAN PROMOTE COLORECTAL CANCER SCREENING WITH YOUR PATIENTS.

### WHAT CAN YOU DO?

Talk to your average risk patients 50-70 years of age about the importance of regular colon cancer screening.

- Request a Fecal Occult Blood Test (FOBT) for your patients.
- FOBT Request forms available now on your EMR, or call ColonCheck at 1-855-95-CHECK (24325).
- Test instructions now available online in Cantonese, Vietnamese, Mandarin, French, German, Punjabi, Nepalese, Spanish, Tagalog, and Portuguese. Language interpreter services are also available.
- Order free educational resources for your clinic online.

#### NEW

Your patient's ColonCheck screening history can be easily accessed by completing a Request for ColonCheck History form found on our website. Visit [GetCheckedManitoba.ca](http://GetCheckedManitoba.ca) for more information.



## THIS SPRING, THE MOBILE BREAST SCREENING CLINIC VEHICLE WILL BE IN:

**April** – Steinbach, Boissevain, and Melita

**May** – Rosburn, Grandview, Winnipegosis, Dauphin

Appointments are available year round at our permanent locations in Brandon, Winnipeg, Thompson and Boundary Trails. To book an appointment at any of our locations, please call 1-855-95-CHECK (24325)

#### NEW

An interactive mobile site locator map to help women find their closest BreastCheck location (mobile or fixed). Visit [GetCheckedManitoba.ca](http://GetCheckedManitoba.ca) for more information.

## HOW TO REACH US

### CCMB REFERRAL CENTRE

204-787-2176  
FAX: 204-786-0621  
M-F, 0830-1630, closed Stat Holidays

#### Emergency Referrals:

HSC PAGING: 204-787-2071  
ST BONIFACE PAGING: 204-237-2053

### CANCER QUESTION? HELPLINE FOR HEALTH CARE PROVIDERS

204-226-2262 (call or text / sms)  
EMAIL: cancer.question@cancercare.mb.ca  
WEB FORM: cancercare.mb.ca/cancerquestion  
M-F, 08:30-16:30, closed Stat Holidays

### CCMB SCREENING PROGRAMS BREASTCHECK – CERVIXCHECK – COLONCHECK

1-855-952-4325  
GetCheckedManitoba.ca

### CANCERCARE MANITOBA

TOLL FREE: 1-866-561-1026  
(ALL DEPARTMENTS + CLINICS)  
www.cancercare.mb.ca

#### Inquiry & Reception

MACCHARLES UNIT (HSC) 204-787-2197  
ST. BONIFACE UNIT 204-237-2559

Pharmacy: 204-787-1902

### COMMUNITY CANCER PROGRAMS NETWORK (CCPN) OFFICE, CCMB

204-784-0225

### MANITOBA PROSTATE CENTRE, CCMB

204-787-4461  
FAX: 204-786-0637

### PAIN & SYMPTOM MANAGEMENT

204-235-2033 ask for pain & symptom  
physician on call  
M-F, 08:30-16:30

### PALLIATIVE CARE CLINICAL NURSE SPECIALIST

204-235-3363

### PATIENT AND FAMILY SUPPORT SERVICES, CCMB

Psychosocial Oncology, Dietitians,  
Speech Language Pathology, Guardian  
Angel Caring Room, Patient Programs,  
Navigator Newsletter  
204-787-2109

### BREAST AND GYNE CANCER CENTRE OF HOPE

204-788-8080  
TOLL FREE: 1-888-660-4866  
691 Wolseley St.  
Winnipeg, MB R3C 1C3

### WESTERN MANITOBA CANCER CENTRE

204-578-2222  
FAX: 204-578-4991  
300 McTavish Ave. East  
Brandon, Manitoba R7A 2B3

#### OTHER NUMBERS:

### CANCERCARE MANITOBA FOUNDATION

DONATIONS & INQUIRIES 204-787-4143  
TOLL FREE: 1-877-407-2223  
FAX: 204-786-0627

### CANADIAN CANCER SOCIETY

VOLUNTEER DRIVERS 204-787-4121  
TOLL FREE: 1-888-532-6982

CANCER INFORMATION SERVICE  
TOLL FREE: 1-888-939-3333

### CANADIAN VIRTUAL HOSPICE

virtualhospice.ca

### WRHA BREAST HEALTH CENTRE

204-235-3906  
TOLL FREE: 1-888-501-5219

## ANNOUNCEMENTS



**Dr. Tanya Brown** We are pleased to announce that Dr. Tanya Brown joined the Department of Pediatric Hematology/Oncology as a full-time Pediatric Hematologist/Oncologist on 5th January 2017. Dr Brown is also appointed as an assistant professor in the section of Pediatric Hematology/Oncology, Department of Pediatrics and Child Health, University of Manitoba.

Dr. Brown received a bachelor's degree in Medicine and Surgery from the University of West Indies in Jamaica, and an MSc Oncology with Merit from the University of Nottingham. Subsequently she completed a Pediatric Hematology/Oncology fellowship at the Children's Hospital in Vancouver, British Columbia before serving as a Pediatric Oncologist at the Allan Blair Cancer Centre in Regina, SK from September 2012 to the present.

Dr. Brown will be participating in the full range of clinical activity within the Pediatric DSG and will be taking on a leadership role in our group's participation within the Children's Oncology Group.

#### Community Oncology Program Staff update:

**Cody Watling** has moved into the role of Continuity of Care Manager

UPCON gratefully acknowledges the editorial contributions of  
**Dr. Adrian Fung**

**REGISTRATION IS  
NOW OPEN FOR  
CANCER DAY FOR  
PRIMARY CARE!**

**Friday, May 5, 2017  
Frederic Gaspard Theatre  
745 Bannatyne Avenue**

Also available by MBTelehealth & live  
web streaming

Registration is FREE for  
UPCON clinic staff.

Register at:  
[www.cancercare.mb.ca/cancerday](http://www.cancercare.mb.ca/cancerday)