

Let's Talk About: Blood Cancers



ST. PAUL'S HOSPITAL
COMMUNITY FORUMS

What is Blood Cancer?

Blood cancer is a generalized term for malignancy which attacks the blood, bone marrow, or lymphatic system. Blood Cancers are a significant health problem and affect individuals of all ages.

There are several types and subtypes of blood cancer which include leukemia, lymphoma, myelodysplasia, and myeloma.

Taken as a group, they are the fourth most common cancer in British Columbia.

In Canada (2009)

There are 70,000 people living with blood cancer.

- 1 in every 58 men and 81 women will develop leukemia in their lifetime
- 1 in every 46 men and 52 women will develop non-Hodgkin lymphoma
- Leukemia & lymphoma account for 52% of all childhood cancers (those 14 years of age & under). Leukemia accounts for 32% and lymphoma accounts for 12% of all childhood cancers.

In B.C. there are ~2000 new cases per year.

Some of the common blood cancer symptoms:

- Weakness, Fatigue, Malaise and Breathlessness
- Minimal body strain results in bone fractures
- Excessive or easy bruising
- Bleeding gums or frequent nose bleeds
- Recurrent infections or fever
- Excessive sweating of body during night
- Weight loss
- Frequent vomiting sensations
- Anorexia
- Lymph node (gland) enlargement
- Lumps or abdominal distension due to enlarged abdominal organs
- Abdominal pain, Bone pain and Back pain
- Delirium and confusion

- Abnormal bleeding in gums, nose, and cuts, which will result in platelet reduction
- Headaches with occurrence of visual difficulties
- Occurrence of fine rashes or dark spots
- Decreased urination and difficulty while urinating

About Leukemia

Leukemia is a malignant disease (cancer) of the bone marrow and blood. It is characterized by the uncontrolled accumulation of blood cells. Leukemia is divided into four categories: myelogenous or lymphocytic, each of which can be acute or chronic. The terms myelogenous or lymphocytic denote the cell type involved. There are four major types of leukemia:

- Acute Myelogenous Leukemia (AML)
- Acute Lymphocytic Leukemia (ALL)
- Chronic Myelogenous Leukemia (CML)
- Chronic Lymphocytic Leukemia (CLL)

How does leukemia develop?

The four types of leukemia each begin in a cell in the bone marrow. The cell undergoes a leukemic change and it multiplies into many cells. The leukemia cells grow and survive better than normal cells and, over time, they crowd out normal cells.

Normal stem cells in the marrow form three main cell-types: Red cells, platelets and white cells. There are two major types of white cells: germ-ingesting cells (neutrophils and monocytes) and lymphocytes, which are part of the body's immune system and help to fight to infection.

The rate at which leukemia progresses and how the cells replace the normal blood and marrow cells are different with each type of leukemia.

About Lymphoma

Lymphoma is the name for a group of blood cancers that develop in the lymphatic system. Hodgkin lymphoma and non-Hodgkin

Join medical experts from Providence Health Care for monthly community forums at St. Paul's Hospital. Each month features a different health topic with time to pose questions to the experts.

The forums are free and take place the third Wednesday of every month.

7:00 – 9:00 pm
(doors open at 6:30)
New Lecture Theatre
St. Paul's Hospital
1081 Burrard Street

For more information and to register, please email ownyourhealth@providencehealth.bc.ca or call 604-806-8495.

This evening's presentations will be available to view on our website:

www.phcmedicine.ca

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Treatment and Research at St. Paul's Hospital

lymphoma (NHL) are the two main types of lymphoma.

The incidence of Hodgkin lymphoma is consistently lower than that of NHL. Incidence rates for Hodgkin lymphoma tend to be higher among males than among females. NHL is also more common in males than in females. NHL is the fifth most common cancer in Canada.

Lymphoma is the third most common cancer in children.

About Myeloma

Myeloma is a cancer of the plasma cells, a type of white cell found in many tissues of the body, but primarily in the bone marrow. Plasma cells are part of the body's immune system.

Normal plasma cells make antibodies, which help fight infection. Myeloma cells cannot help the body fight infection. As the myeloma cells grow in the marrow they crowd out the normal plasma cells. They also crowd out normal white cells, red cells and platelets.

Complications of myeloma include osteoporosis, bony pains and fractures, spinal cord compression, infections and kidney failure.

About Myelodysplasia

Myelodysplasia is a diverse collection of blood related conditions that are characterized by abnormal blood cell formation.

This disease incidence is 10 per 100,000. Symptoms of MDS may include fatigue, infection and unexplained bleeding, but about 20 percent of patients have no symptoms.

Management of Blood Cancers:

- Diagnosis and staging
- General measures
- Supportive care
- Alternative therapy

- Observation
- Radiotherapy (local)
- Chemotherapy (systemic)
- Stem cell transplant
- New (targeted) therapy

Blood and Marrow Stem Cell Transplantation

Stem cell transplantation procedures continue to be improved as treatment options for patients.

There are two major types of stem cell transplants: autologous and allogenic. Autologous transplantation uses the patient's own marrow. The marrow is collected while the patient is in remission, and it may be treated with chemotherapy agents or monoclonal antibodies before being given back. Such procedures cleanse the marrow of the small proportion of leukemia and lymphoma cells that might still be present.

An allogenic transplant uses marrow from a donor, usually a brother or sister with the same tissue type as the patient. If a sibling is not available, a search of the National Marrow Donor Program registry of tissue-typed volunteers can be made for a matched unrelated donor.

Division of Hematology and Research Group at St. Paul's Hospital

The Providence Health Care Division of Hematology is actively involved in the care of patients with a wide spectrum of hematological disease from the province of BC and the Yukon.

The Hematology Research group at St. Paul's investigates a broad range of blood conditions including both benign and malignant disorders of blood proteins and blood cells. Significant contributions are made to national and international studies.

Sources:

The Leukemia & Lymphoma Society of Canada (LLSC)
<http://www.sllcanada.org>

St. Paul's Hospital is an acute care, teaching and research hospital located in downtown Vancouver. It is home to many world-class medical and surgical programs, including heart and lung services, HIV/AIDS and kidney care.

St. Paul's serves both the local community and patients from across BC and the Yukon. St. Paul's is one of 14 health care facilities in Vancouver operated by Providence Health Care, one of Canada's largest faith-based health care organizations. Providence's 1,000 physicians and 6,000 staff deliver compassionate care to patients and residents in British Columbia while training medical professionals and making innovative advances in research.

To support programs like this at St. Paul's Hospital, please visit www.helpstpauls.com to make a donation to the Department of Medicine Academic Fund.

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