#### NON HODGKINS LYMPHOMA

#### Understanding non hodgkins Lymphoma

- Non-Hodgkin's lymphoma is cancer that originates in your lymphatic system, the disease-fighting network spread throughout your body.
- Tumors develop from lymphocytes (a type of white blood cell).
- It occurs when your body produces too many abnormal lymphocytes.
- Non-Hodgkin's lymphoma is more common than the other general type of lymphoma (Hodgkin Lymphoma).
- The most common non-Hodgkin's lymphoma subtypes include diffuse large B-cell lymphoma and follicular lymphoma.
- Non-Hodgkin's lymphoma can begin in the:
  - B cells that fight infection by producing antibodies that neutralize foreign invaders. Most non-Hodgkin's lymphoma arises from B cells.
  - T cells involved in killing foreign invaders directly.
     Non-Hodgkin's lymphoma occurs less often in T cells.

# What are the risk factors for non-Hodgkin's lymphoma?

**Age:** Getting older is a strong risk factor for lymphoma **Gender:** Risk of non-Hodgkin lymphoma is higher in men than in women, but there are certain types of non-Hodgkin lymphoma that are more common in women.

**Exposure to chemicals from pesticides, herbicides and insecticides:** Certain chemicals, such as those used to kill insects and weeds, may increase your risk of developing non-Hodgkin's lymphoma.

*Immune system deficiency*: People with weakened immune systems have an increased risk for non-Hodgkin lymphoma. For example, HIV can weaken the immune system increasing the risk of non-Hodgkin lymphoma.

Infections: Certain viral and bacterial infections appear to increase the risk of non-Hodgkin's lymphoma such as HIV and Epstein-Barr virus as well as Helicobacter pylori bacteria.

Body weight and diet: Being overweight or obese may increase your risk of non-Hodgkin lymphoma especially a diet high in fat and animal protein.

### What are the signs and symptoms of non-Hodgkin's lymphoma?

- Enlarged lymph nodes in your neck, armpits, or groin
- Swollen abdomen (belly) or abdominal pain
- Feeling full after only a small amount of food
- Chest pain or pressure
- Shortness of breath or cough
- Fever and night sweats
- Weight loss and fatigue

#### How is non-Hodgkin's lymphoma diagnosed?

If the symptoms suggest you might have non-Hodgkin lymphoma, your doctor will

- want to get a thorough medical history,
- including information about your symptoms,
- possible risk factors,
- family history, and other medical conditions.
- Next, the doctor will examine you, paying special attention to the lymph nodes and other areas of the body that might

- be involved, including the spleen and liver.
- Because infections are the most common cause of enlarged lymph nodes, the doctor will look for an infection in the part of the body near the swollen lymph nodes.
- If the doctor suspects that nonHodgkin lymphoma might be causing the symptoms a biopsy of the area will be recommended.
- Once non-Hodgkin lymphoma is diagnosed, tests are done to determine the stage (extent of spread) of the disease.
- The treatment and prognosis (outlook) for a patient with non-Hodgkin's lymphoma depend on both the exact type and the stage of the lymphoma.
- Tests used to gather information for staging include:
  - Physical exam
  - Biopsies of enlarged lymph nodes or other abnormal areas
  - Blood and urine tests
  - o Imaging tests, such as CT scans

#### What are my treatment options?

Your treatment options are determined based on:

- the type
- the stage of your lymphoma,
- your age
- overall health.

If your non-Hodgkin's lymphoma is aggressive or causes signs and symptoms, your doctor may recommend treatment which can include:

**Chemotherapy**. Drug treatment that kills cancer cells. Depending on the type and the stage of the lymphoma, chemotherapy may be used alone or combined with radiation therapy. Doctors give chemo in cycles, in which a period of treatment is followed by a rest period to allow the body time to recover. Each chemo cycle generally lasts for several weeks. Chemotherapy is given as a combination of different drugs for better outcomes.

**Radiation therapy**. Involves the use of high-powered energy beams to kill cancerous cells and shrink tumours. If detected early radiation therapy is used as the main treatment because these tumours respond very well to radiation. For more advanced lymphomas and more aggressive lymphomas, radiation is sometimes used along with chemotherapy.

## NB; THIS INFORMATION IS ONLY A GUIDE AND IS NOT MEANT TO REPLACE EXPERT OPINION



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