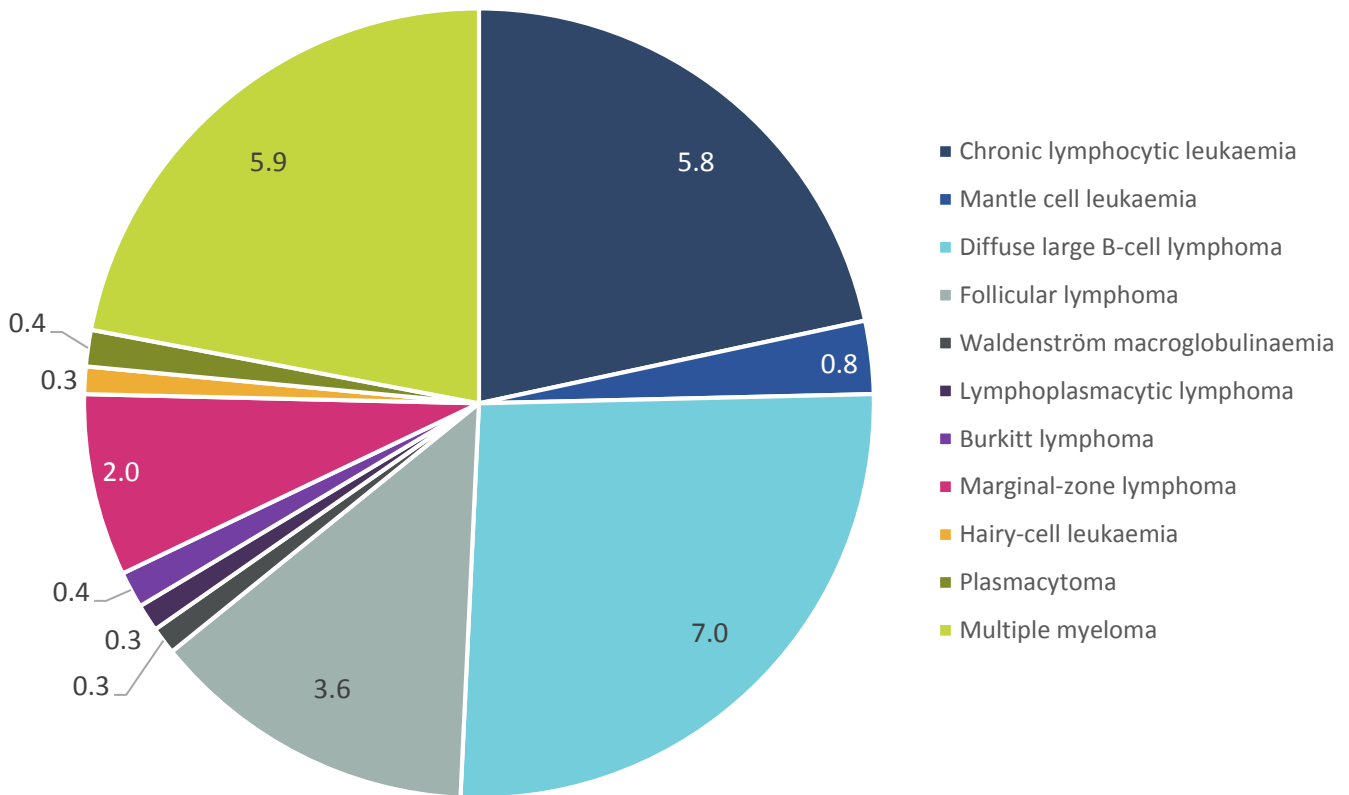


Non-Hodgkin Lymphoma

Non-Hodgkin lymphoma (NHL) is a group of blood cancers that includes all types of lymphoma except Hodgkin lymphomas. There are more than 61 distinct sub-types of NHL, which are broadly divided into two major groups: B-cell lymphomas and T-cell lymphomas.¹ B-cell lymphomas are the most common type of lymphoma.¹ See Table 1 for the most common subtypes of B-cell lymphomas.

Table 1: NHL Incidence by B-Cell Subtype³

Incidence of NHL by subtype 2004 - 2013
No. per 100,000



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Chronic Lymphocytic Leukaemia (CLL)

CLL is type of leukaemia in adults and it accounts for about one in four cases of leukaemia.³ The average age at the time of diagnosis is approximately 71 years of age.³ In CLL, too many blood stem cells in the bone marrow become abnormal lymphocytes and these abnormal cells have difficulty fighting infections. As the number of abnormal cells grows there is less room for healthy white blood cells, red blood cells and platelets. This could result in anemia, infection and bleeding.⁴

Treatment options for CLL vary and depend on the person's age, the disease risk group, and the reason for treating (i.e., which symptoms it is causing). Many people can live a long time with CLL, but in general it is very difficult to cure and early treatment has not been shown to prolong life. Additionally, treatments can cause side effects that are often intolerable to some people particularly those who are older. For this reason, many doctors recommend forgoing treatment until disease progression or the appearance of bothersome symptoms.⁵

Mantle Cell Lymphoma (MCL)

MCL is a rare, aggressive, B-cell NHL that represents around 5% of all NHLs and primarily affects men over the age of 60.⁶ MCL results from a malignant transformation of a B lymphocyte in the outer edge of a lymph node follicle (the mantle zone). The transformed B lymphocyte grows in an uncontrolled way, resulting in the accumulation of lymphoma cells, which causes enlargement of lymph nodes.⁷

The treatment plan for people with MCL is based on several factors including how fit they are. Treatment for aggressive MCL in younger and older fit people may include combination chemotherapy regimens. However, for most people the cancer eventually returns. Research continues to aim at discovering new therapies for people with MCL.⁷

Waldenström macroglobulinemia (WM)

Waldenström macroglobulinemia (WM) is a rare slow-growing B-cell lymphoma that occurs in less than 2% of people with NHL.⁸ The disease mainly impacts older people, with a median age of 60 at diagnosis.⁹ It is primarily found in the bone marrow, although it can also be seen in lymph nodes and the spleen.¹⁰ WM cells make large amounts of a certain type of antibody (immunoglobulin M, or IgM), which is known as a macroglobulin. Each antibody made by the WM cells is the same, so it is called a monoclonal protein, or just an M protein. The build-up of this M protein in the body can cause the symptoms of WM which include excess bleeding, problems with vision, and nervous system problems.¹⁰

There is no cure for Waldenström macroglobulinemia. There are a number of therapy options available to manage the symptoms of WM including a variety of chemotherapy regimens and targeted therapies. Watchful waiting is recommended in many cases.⁸ Because the disease is slow growing, the cancer will eventually return for most people requiring additional treatment.

¹ Lymphoma Research Foundation. Non-Hodgkin Lymphoma. <http://www.lymphoma.org/site/pp.asp?c=bkLTkaOQLmK8E&b=6292453> Accessed November 22, 2016

² Surveillance, Epidemiology, and End Results (SEER) Program (www.seer.cancer.gov) SEER* Stat Database: Incidence - SEER 9 Regs Research Data, Nov 2015 Sub (1973-2013) All Lymphoid Neoplasms With Detailed Non-Hodgkin Lymphoma Subtypes, released April 2016, based on the November 2015 submission.

³ American Cancer Society. What are the key statistics for chronic lymphocytic leukemia? <http://www.cancer.org/cancer/leukemia-chroniclymphocyticcll/detailedguide/leukemia-chronic-lymphocytic-key-statistics>. Accessed November 30, 2016.

⁴ National Cancer Institute. Chronic Lymphocytic Leukemia Treatment (PDQ®)—Patient Version: General Information About Chronic Lymphocytic Leukemia. <http://www.cancer.gov/types/leukemia/patient/cll-treatment-pdq>. Accessed November 30, 2016.

⁵ American Cancer Society. Typical treatment of chronic lymphocytic leukemia. <http://www.cancer.org/cancer/leukemia-chroniclymphocyticcll/detailedguide/leukemia-chronic-lymphocytic-treating-treatment-by-risk-group>. Accessed November 30, 2016.

⁶ Lymphoma Research Foundation. Mantle Cell Lymphoma. <http://www.lymphoma.org/site/pp.asp?c=bkLTkaOQLmK8E&b=6300157>. Accessed November 30, 2016.

⁷ Leukemia Lymphoma Society. Mantle Cell Lymphoma Facts.

https://www.lls.org/sites/default/files/file_assets/FS4_Mantle%20Cell%20Lymphoma%20Facts.pdf. Accessed November 30, 2016.

⁸ Lymphoma Research Foundation. Waldenström Macroglobulinemia.

<http://www.lymphoma.org/site/pp.asp?c=bkLTkaOQLmK8E&b=6300163>. Accessed May 13, 2016.

⁹ Oza and Rajkumar. Waldenstrom macroglobulinemia: prognosis and management. *Blood Cancer Journal* (2015) 5, e394; doi:10.1038/bcj.2015.28.

¹⁰ American Cancer Society. What is Waldenstrom macroglobulinemia?

<http://www.cancer.org/cancer/waldenstrommacroglobulinemia/detailedguide/waldenstrom-macroglobulinemia-w-m>. Accessed November 30, 2016.