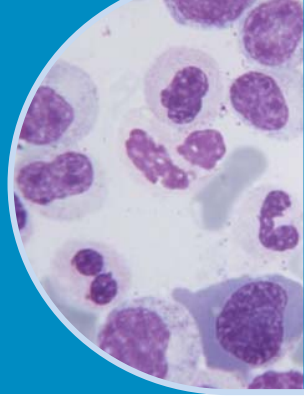
Leukaemia Foundation
VISION TO CURE
MISSION TO CARE

FACT SHEET

Chronic Lymphocytic Leukaemia & Small Lymphocytic Lymphoma



About us

The Leukaemia Foundation is the only national not-for-profit organisation dedicated to the care and cure of patients and families living with leukaemia, lymphoma, myeloma and related blood disorders.

We invest millions of dollars in the work of Australia's leading researchers to develop better treatments and cures and provide free services to support patients and their families.

We receive no ongoing government funding. We rely on the generosity of the community and corporate sector to further our Vision to Cure and Mission to Care.

We can help you

Our range of free services supports thousands of Australians, from diagnosis, through treatment and beyond. To learn more, please call 1800 620 420 to speak with one of our Support Services team.

You can help us

There are many ways that you can help us to improve the quality of life for people with blood cancer. From making a donation, to signing up for an event; from volunteering, or joining us as a corporate sponsor - please call 1800 500 088 or go to www.leukaemia.org.au to learn more.

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Small lymphocytic lymphoma (SLL) is a non-Hodgkin lymphoma affecting the B-lymphocytes of the immune system. These B-cells may be present in lymph nodes and lymphoid tissue such as the spleen and the tonsils.

SLL has many similarities to a type of leukaemia called chronic lymphocytic leukaemia (CLL) which also affects the B-cells, primarily in the blood and bone marrow, with lymph node involvement also possible. Like SLL, CLL is classified as a low grade disease and due to their likeness; SLL and CLL will usually be coupled together when explained in the literature and expressed as: SLL/CLL. The distinction of this grouping of non- Hodgkin lymphoma is made by a special laboratory test that identifies specific proteins on the surface of the B cells known as CD5 and CD19.

How does SLL affect the body?
The first sign of SLL is usually a painless swelling in the neck, armpit or groin which is caused by enlarged lymph nodes due to infiltration of normal lymph nodes by the cancerous B-cells. Often more than one group of nodes is affected. The cells may also be present in other areas such as the blood or bone marrow to a lesser extent than CLL. Other symptoms of SLL may include night sweats, fevers and unexplained weight loss.

How does CLL affect the body?
CLL is also generally slow-growing (indolent), with few or no symptoms initially. Early symptoms including enlarged lymph glands and the feeling of having the flu, may be the only real indication that something is wrong. Eventually, the cancerous cells multiply to the point where billions of abnormal cells infiltrate the bone marrow, blood, spleen, liver and lymph nodes, which is usually the point at which people seek medical advice as affects on the body are more obvious. If the cancerous cells significantly involve the lymph nodes, the disease may be referred to as SLL.

CLL/SLL can inhibit the immune system, and make fighting infections more difficult. It can also cause the immune system to attack itself which is known as auto-immunity. When this occurs, two life-threatening conditions may develop. When the immune system attacks red blood cells, a process referred to as 'auto-immune haemolytic anaemia' (AIHA) occurs. When platelets (the clotting component in blood) are attacked by the immune system, 'immune thrombocytopenic purpura' (ITP) occurs. AIHA and ITP may require urgent medical inpatient care which includes treatment of the underlying cancer.

Other symptoms that may occur in CLL include: tiredness, unexplained weight loss and sweating. These are a result of chemicals produced by the leukaemic (cancerous) B-cells. Disease in the bone marrow and the spleen can deplete the amount of healthy blood cells in the circulating blood (blood that flows throughout the body), causing low red blood cells (anaemia) and low platelet numbers in the bloodstream (thrombocytopenia). The result of this is fatigue, shortness of breath and a tendency to bruise or bleed. These conditions may require transfusions of red blood cells or platelets. This problem is referred to as 'bone marrow failure' and is due to the normal bone marrow being over-run by cancerous B cells.

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Who does SLL/CLL affect?
SLL/CLL affects adults and is usually diagnosed in people aged over 60 years. The median age of people at diagnosis is 65 years and is more common in men than in women. The disease may have a familial link (i.e. 'run' in families), but has no clear inherited basis, and the risk of other family members developing CLL/SLL is very small.

Do we know what causes SLL/CLL?
The exact causes of SLL/CLL are unknown, with doctors and researchers continually working to understand the exact mechanisms that cause this disease. It is not infectious and cannot be passed on to other people.

How is SLL/CLL treated?
People who feel well and do not have any symptoms are usually managed by 'watch and wait'. This involves regular appointments with the specialist who will monitor the person's condition. Should symptoms develop, or the person becomes unwell, or large tumours or bone marrow failure occurs, treatment will need to be commenced.

Treatment for SLL generally involves the use of the following chemotherapy drugs: cyclophosphamide, fludarabine, and chlorambucil. Cyclophosphamide and fludarabine are usually given in combination with one another– a regimen known as FC chemotherapy. Both of these drugs can either be given in tablet form or as an injection into a vein. Sometimes the monoclonal antibody rituximab (MabThera) is given with fludarabine and cyclophosphamide- known as FCR chemotherapy. Chlorambucil is a tablet that can be used on its own for treatment of SLL.

Another monoclonal antibody that is sometimes used is alemtuzumab (Campath), which can be given intravenously or as an injection under the skin (subcutaneously). Other drugs are in development and may be obtained through clinical trials in the major hospital setting. These include bendamustine, pentostatin, lenalidomide, next generation rituximab-like antibodies and 'small molecule' therapies.

Steroids are an important part of CLL treatment. They have many functions including the ability to improve blood counts of healthy cells; treat autoimmune problems; as well as act as an alternative to alemtuzumab, or be used in combination with other drugs for people whose disease is difficult to treat with standard therapy. Another monoclonal antibody called ofatumumab has also shown to be effective in people with CLL and is available for patients in whom fludarabine and alemtuzumab have been unsuccessful.

A bone marrow or stem-cell transplant may be offered to some people should they go into remission. Stem-cell transplants may be autologous (person's own stem cells are used), or allogeneic (stem cells are from a donor). Allogeneic transplants in people with CLL have proven to be quite successful in terms of curing people with this disease but there are significant risks and side effects associated with such transplants, which is why they are usually only given to relatively young, fit people. Your specialist will advise what is best for you.

New treatments for SLL and CLL are being researched all the time and people may be invited by their doctor to take part in a clinical trial to compare a new treatment against the best available standard treatment. Although SLL and CLL are currently considered incurable, there is continuing hope that new therapies will eventually provide the answer to treating these diseases. Involvement in clinical trials is pivotal to answering these questions.

The Leukaemia Foundation publishes the guides: *'Understanding Non-Hodgkin Lymphoma. A guide for patients & families'; 'Understanding Autologous Transplants'* and *'Understanding Allogeneic Transplants'.*

For more information, freecall 1800 620 420
email info@leukaemia.org.au or visit www.leukaemia.org.au