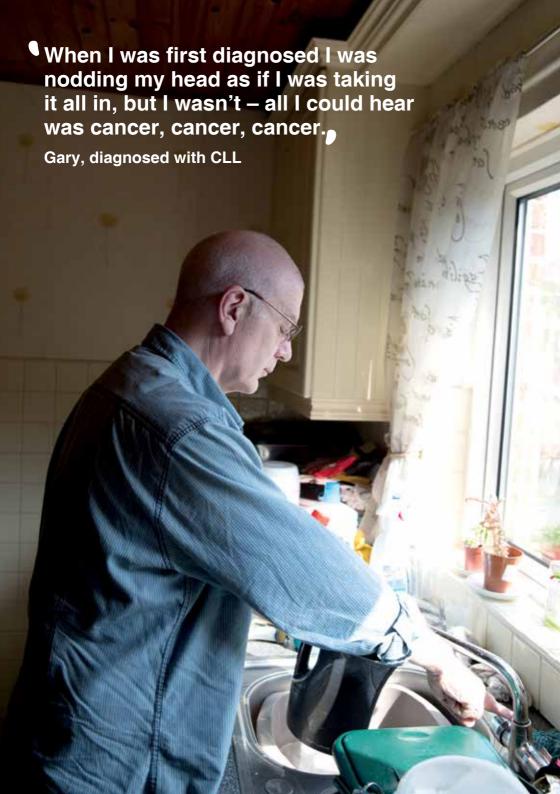
MACMILLAN
CANCER SUPPORT

UNDERSTANDING CHRONIC LYMPHOCYTIC LEUKAEMIA (CLL)





About this booklet

This booklet is about chronic lymphocytic leukaemia (CLL). It is for anyone who has been diagnosed with CLL. There is also information for carers, family members and friends.

The booklet explains:

- what chronic lymphocytic leukaemia is
- symptoms and diagnosis
- the different treatment options
- coping with chronic lymphocytic leukaemia.

We hope it helps you deal with some of the questions or feelings you may have. We cannot give advice about the best treatment for you. You should talk to your doctor, who knows your medical history.

For more information

If you have more questions or would like to talk to someone, call the Macmillan Support Line free on **0808 808 00 00**, 7 days a week, 8am to 8pm, or visit macmillan.org.uk

If you would prefer to speak to us in another language, interpreters are available. Please tell us, in English, the language you want to use.

If you are deaf or hard of hearing, call us using NGT (Text Relay) on 18001 0808 808 00 00, or use the NGT Lite app.

We have some information in different languages and formats, including audio, eBooks, easy read, Braille, large print and translations. To order these visit macmillan.ora.uk/ otherformats or call 0808 808 00 00.

How to use this booklet

The booklet is split into sections to help you find what you need. You don't have to read it from start to finish. You can use the contents list on the opposite page to help you.

It is fine to skip parts of the booklet. You can always come back to them when you feel ready.

We have included quotes from people who have had chronic lymphocytic leukaemia, which you may find helpful. Some quotes are from the website **healthtalk.org** and some are from our Online Community (macmillan.org.uk/community). Some names have been changed.

Some quotes are from Gary, who is on the front cover of this booklet. He has chosen to share his story with us.

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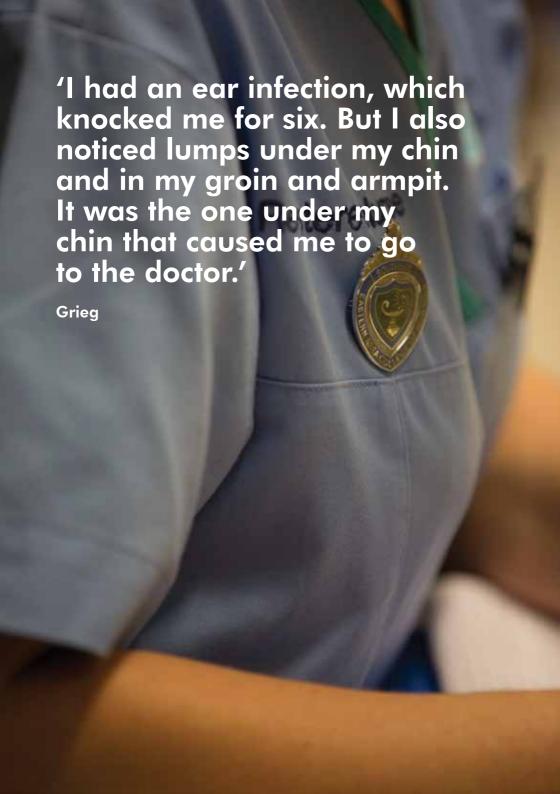
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What is leukaemia?

Leukaemia is a cancer of the white blood cells. People with leukaemia usually have more or fewer white blood cells than normal. Leukaemia cells behave differently from healthy white blood cells.

The four main types of leukaemia are:

- acute lymphoblastic (ALL)
- acute myeloid (AML)
- chronic myeloid (CML)
- chronic lymphocytic (CLL).

Each type of leukaemia is different. We have separate information about these different leukaemias. See page 96 for ways to order this.

The blood

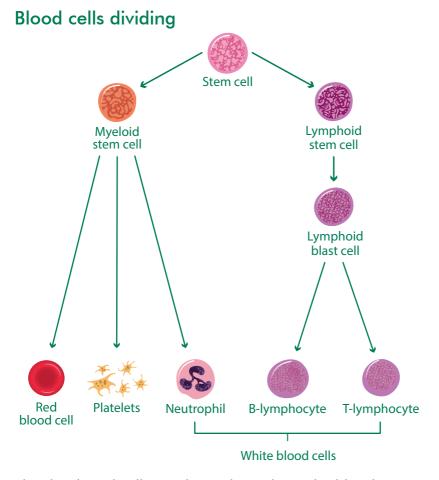
To help you understand CLL and its treatment, it is useful to know a bit about your blood, how it is made and what it does.

Blood is made up of blood cells, which move around in a liquid called plasma. Blood cells are made in the bone marrow. The bone marrow is a spongy material in the middle of our bones, mainly in the pelvis, backbone (spine) and breast bone (sternum). Normally, millions of new blood cells are made every day to replace old and worn-out blood cells.

All blood cells are made from blood stem cells. There are two types of blood stem cell:

- Lymphoid stem cells make a type of white blood cell called lymphocytes (see page 10).
- Myeloid stem cells make all the other types of blood cell. These include red blood cells, platelets, and other types of white blood cells, such as neutrophils.

Blood stem cells in the bone marrow divide and grow to make new blood cells. The new, developing blood cells are called blast cells. They do not look like fully developed cells and they cannot do the jobs that fully developed cells do. Usually, blast cells stay in the bone marrow until they have developed into red blood cells, platelets or white blood cells. The next page has a diagram that shows blood cells dividing.



The developed cells are then released into the blood to carry out different functions:

- Red blood cells contain haemoglobin (Hb). This carries oxygen from the lungs to all the cells in the body.
- Platelets are very small cells that help the blood to clot. They prevent bleeding and bruising.
- White blood cells fight and prevent infection. There are several types of white blood cell. The two most important types are neutrophils and lymphocytes.

The levels of these cells in your blood are measured in a blood test called a full blood count (FBC). The figures below are a guide to the levels usually found in a healthy person.

Type of blood cell	Levels found in a healthy person
Red blood cells (measured in	130-180g/l in men
haemoglobin Hb levels)	115–165g/l in women
Platelets	150-400 x 10 ⁹ /l
White blood cells (WBC)	4.0-11.0 x 10 ⁹ /l
Neutrophils	2.0-7.5 x 10 ⁹ /l
Lymphocytes	1.5-4.5 x 10°/l

These figures can vary slightly between hospitals. Your doctor or nurse can tell you the levels they use. The levels can also vary slightly between people from different ethnic groups.

The figures might look complicated when they are written down, but doctors and nurses use them in a straightforward way. For example, you will hear them saying things like, 'Your haemoglobin (Hb) is 140,' or, 'Your neutrophils are 4'.

Most people with CLL quickly get used to these figures and what they mean. But if you do not understand, you can always ask your medical team to explain in more detail. Your doctors will look at how your blood test results change over time. This helps them know if you need treatment, and what type you should have.

Lymphocytes and the lymphatic system

Lymphocytes

Lymphocytes are a type of white blood cell. They move around the body in the blood and the lymphatic system (see below). Lymphocytes are an important part of the body's defence. They fight against germs such as bacteria, fungal infections and viruses. They do this by:

- killing germs directly
- making special proteins called antibodies that stick to germs and make it easier for other white blood cells to find and kill them
- remembering and recognising germs lymphocytes can live for a very long time, so they can quickly fight any infection you have had before.

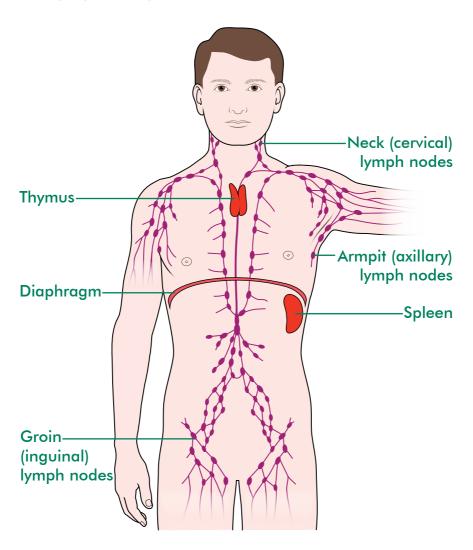
The lymphatic system

The lymphatic system is part of the immune system. It helps to protect us from infection and disease. It also drains fluid from the tissues of the body before returning it to the blood.

It is made up of lymphocytes and organs such as the bone marrow, thymus, spleen and lymph nodes. There are lymph nodes throughout the body connected by a network of fine tubes called lymphatic vessels. The lymph nodes filter disease and germs (bacteria and viruses) from lymph, a liquid that travels through the lymphatic vessels. If you have an infection, lymph nodes close by often swell as they fight the infection.

There are lymph nodes in the neck, armpits and groin. Doctors can feel them when they look at these parts of the body. There are also lymph nodes in the chest and the tummy (abdomen).

The lymphatic system



'It felt unreal – I had just been told this devastating news and yet for everyone else, life still goes on.'

Gary



Chronic lymphocytic leukaemia (CLL)

Chronic lymphocytic leukaemia (CLL) is the most common type of leukaemia. It is more common in older people. About 3,700 people in the UK are diagnosed with CLL each year. CLL usually develops very slowly, which is why it is called a chronic leukaemia. Acute leukaemias develop more quickly.

Many people with CLL do not need treatment for months or years. But if people have symptoms, they may need treatment sooner.

CLL is a cancer of the white blood cells, which develop from the lymphoid stem cells. In people with CLL, the bone marrow (see page 7) makes too many abnormal white blood cells called lymphocytes (see page 10). These cells look normal under a microscope. But they are not fully developed (immature) and do not work properly.

Over time, these abnormal lymphocytes build up in the lymphatic system (see pages 10 to 11) and may cause large, swollen lymph nodes. The abnormal lymphocytes can also build up in the bone marrow. This leaves less space for normal white blood cells, red blood cells and platelets to develop.

Causes and risk factors

We do not know what causes CLL, but research is going on to find out more about it. Certain things called risk factors can increase the risk of developing it.

Age

The risk of developing CLL increases with age. Most people diagnosed with CLL are over 60. It is rare in people under 40.

Sex

CLL is more common in men than women.

Family history

Most people with CLL have no family history of it. But studies show that there is an increased risk of developing CLL if you have a close relative (parent, sibling or child) who has it. If anyone else in your family has CLL, it is important to let your specialist know. But most people who have a relative with CLL will never develop it themselves.

CLL is not infectious and cannot be passed on to other people.

Ethnicity

CLL is most common in people of European origin.

Signs and symptoms

CLL develops slowly and many people have no symptoms in the early stages. It is often discovered by chance after a routine blood test. The symptoms of CLL can include the following:

- Feeling very tired (fatigued), becoming breathless easily and getting headaches regularly. This is caused by a lack of red blood cells (anaemia).
- Having frequent infections. This is caused by a lack of healthy white blood cells. Infections may be more severe and take longer to clear.
- Swollen lymph nodes in the neck, armpits or groin. This is caused by a build-up of CLL cells. It is usually painless.
- Bruising and bleeding easily. This may happen if there are not enough platelets in the blood. You may have nosebleeds that take a long time to stop (more than 10 minutes). You may get big bruises in unexpected places.
- A tender lump in the upper left-hand side of the tummy (abdomen). This is caused by an enlarged spleen.
- Heavy sweating at night.
- Weight loss.
- A high temperature (fever) without any obvious cause.



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How CLL is diagnosed

CLL is often diagnosed after a routine blood test, and you may have had no symptoms at all.

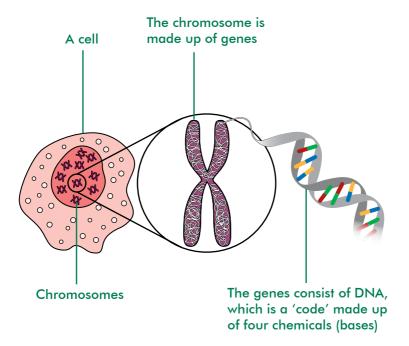
If you do have symptoms (see page 15), your GP will examine you and take a blood test. If they think you have CLL, they will refer you to a doctor who specialises in diagnosing and treating blood problems (haematologist). The haematologist will arrange further tests for you.

Understanding CLL cell changes

To help you understand some of the tests used to diagnose CLL, it can be helpful to know a bit more about cells.

The organs and tissues of our body are made up of cells. Every cell contains all the biological information we inherit from our parents. This information is stored in our genes in the centre (nucleus) of every cell. Genes control what the cell does. They are grouped together in chromosomes.

Genes and chromosomes



CLL can behave differently in different people. Most often, CLL progresses slowly over many years, sometimes 20 years or more. But in some people, CLL develops more quickly.

All CLL cells have abnormal gene changes. This is what makes them behave differently from normal blood cells. These gene changes happen when something goes wrong when the body is making new blood cells. The gene changes in CLL cells vary from person to person. This is why CLL can behave differently in different people.

Abnormal gene changes are not inherited and they cannot be passed on to any children you have.

At the hospital

The haematologist will ask you about any illnesses or health problems you have had. They will check whether your lymph nodes, spleen or liver are enlarged. They will also do more detailed blood tests to check whether you have CLL cells in your blood.

In many people with CLL, the leukaemia cells are mainly in the bloodstream and the bone marrow. If the leukaemia cells are mainly in the lymph nodes, the disease is called small lymphocytic lymphoma (SLL). CLL and SLL are now considered to be the same disease.

Blood tests

The blood tests you may have include the following:

- Fluorescent in situ hybridisation (FISH) testing this is an important cytogenetic test used to look for a small number of specific changes in genes or chromosomes in the CLL cells.
- Cytogenetic testing this looks at all the chromosomes in the leukaemia cells.
- Immunophenotyping this checks for CLL cells in the blood.
- Immunoglobulin testing this checks the levels of antibodies you have in your blood for fighting infection.
- Direct Coombs test these check if your CLL cells are making antibodies that can damage your red blood cells.

FISH testing

FISH testing gives information about the gene changes in chromosomes, such as whether a part is missing or 'deleted'. Information from these tests helps doctors know how well certain drugs may work. This helps them plan your treatment.

The most important change is when a gene called TP53 is missing or does not work. This can happen when part of chromosome 17 (17p) where the gene is usually found is missing (deleted), or when the gene has changed (mutated). You may hear this called a 'del 17p'. Often, doctors call this a 'p53 deletion', or 'p53 mutation'.

Fewer than 1 in 10 (10%) people with CLL have a p53 deletion or p53 mutation when they are first diagnosed. But the deletion is more common in CLL that has come back after treatment.

CLL with a p53 deletion or p53 mutation does not usually respond well to standard chemotherapy treatment. Doctors use different types of drugs to treat this type of CLL.

Further tests

Chest x-ray

A chest x-ray takes a picture of your chest, to check your lungs and heart. The x-ray also looks at lymph nodes in your chest.

CT scan

A CT scan takes a series of x-rays, which build up a three-dimensional picture of the inside of the body. The scan takes 10 to 30 minutes and is painless. It uses a small amount of radiation, which is very unlikely to harm you and will not harm anyone you come into contact with.

A CT scan is sometimes used to check how many lymph nodes are affected by CLL. It can also be used to see whether the spleen is enlarged.

You may be given a drink or injection of a dye, which allows some areas to be seen more clearly. This may make you feel hot all over for a few minutes. It is important to let your doctor know if you are allergic to iodine or have asthma, because you could have a more serious reaction to the injection. You will probably be able to go home as soon as the scan is over.

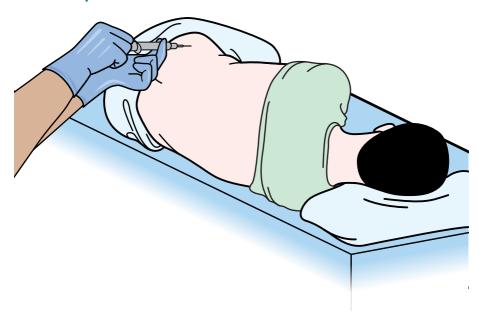


Bone marrow biopsy

A bone marrow biopsy is used to check how much CLL is in the bone marrow.

The doctor or nurse takes a small sample (biopsy) of bone marrow from the hip bone. They usually do this under a local anaesthetic in the outpatient department. It usually takes about 10 minutes. It can feel quite uncomfortable, but you can take painkillers if you need to.

A sample of bone marrow being taken from the back of the hip bone



Lymph node biopsy

People do not usually need a lymph node biopsy. But some people may have an enlarged lymph node removed so it can be examined under a microscope. You may have this done under a local or general anaesthetic. It is a small operation and most people can go home on the same day. After the operation, you have a small wound with a few stitches. The stitches are usually taken out after 7 to 10 days.

Waiting for test results

Waiting for test results can be a difficult time. It may take from a few days to a couple of weeks for the results of your tests to be ready. You may find it helpful to talk with your partner, your family or a close friend. You can also talk things over with one of our cancer support specialists on 0808 808 00 00.

Staging

Doctors use staging to find out how much leukaemia there is in the body. This helps them know when you may need treatment and which treatment is best for your situation.

There are 2 staging systems commonly used for CLL – the Binet system and the Rai system. The Binet system is most commonly used in the UK.

Binet staging system

This looks at the number of white blood cells, red blood cells and platelets in the blood. It also looks at how many areas of lymph nodes are enlarged. These areas are in the neck, armpits, groin, liver and spleen. If the lymph nodes in both armpits are enlarged, it is only counted as one area.

There are 3 stages in the Binet system:

- Stage A there are fewer than 3 areas of enlarged lymph nodes.
- Stage B there are 3 or more areas of enlarged lymph nodes.
- Stage C there are a reduced number of red blood cells, platelets or both.

Transformation

In up to about 10% of people with CLL, the leukaemia can change. It can start to grow more quickly and become harder to treat. This is called transformation.

CLL may change into:

- another type of leukaemia called prolymphocytic leukaemia
- a type of lymphoma (cancer of the lymphatic system) called diffuse large B-cell lymphoma (DLBCL) – this transformation is called Richter's syndrome
- a type of lymphoma called Hodgkin lymphoma (but this is rare).

Transformation may cause:

- a sudden swelling of affected lymph nodes, especially in the tummy (abdomen)
- heavy sweats at night
- weight loss
- high temperatures (fever) with no obvious cause.

There may be other reasons for these symptoms. But always tell your doctor if you notice any of them.

Doctors can diagnose transformation of CLL with a bone marrow biopsy (see page 24) or a lymph node biopsy (see page 25).

It is important to remember that transformation is unusual and does not happen for most people with CLL.

Your data and the cancer registry

When you are diagnosed with cancer in the UK, some information about you, your cancer diagnosis and your treatment is collected in a cancer registry. This is used to plan and improve health and care services. Your hospital will usually give this information to the registry automatically. There are strict rules to make sure the information is kept safely and securely. It will only be used for your direct care or for health and social care planning and research.

Talk to your doctor or nurse if you have any questions. If you do not want your information included in the registry, you can contact the cancer registry in your country to opt out. You can find more information at macmillan.org.uk/cancerregistry



'There are days where I am so tired. But I'm stubborn and my humour gets me through. I've met some wonderful, caring and inspirational people along the way.'

Gary



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Treatment overview

Only a small number of people with CLL need to start treatment straight away. Doctors usually wait until there are signs the CLL is progressing before suggesting you have treatment. There is no evidence that starting treatment before this helps, and it can cause side effects.

CLL usually develops very slowly, so you may not need treatment for months or years. Some people will never need treatment.

Even if you are not having any treatment, you will see your haematologist or GP regularly for check-ups and blood tests. This is called monitoring (watch and wait). See pages 40 to 41 for more information about monitoring.

Aims of treatment

The aim of treatment is to reduce the number of CLL cells to as few as possible. This is called remission. It is not usually possible to cure CLL, but it can be well controlled. Most people with CLL can have long periods of time when they have a normal life with no symptoms.

Types of remission

There are different levels of remission:

- Complete remission (CR). No CLL cells or enlarged lymph nodes can be found by standard tests and scans.
- Minimal residual disease (MRD). There are so few CLL cells remaining that they can only be found with special tests on the blood or bone marrow.
- Partial remission (PR). There are still CLL cells in the blood or bone marrow, but their number has reduced and the lymph nodes are smaller.

For most people, treatment is very successful at getting the leukaemia into complete or partial remission. This may last for years.

If the leukaemia does not respond well to the first treatment you have, your doctors can change the treatment. There are many different treatment options (see page 35) available for CLL.

When the leukaemia starts to grow again and starts to cause problems, you can have more treatment to put the leukaemia back into remission. This can be done several times.

If treatments to control CLL do not work, or stop working, you can have supportive therapy to manage symptoms. See pages 58 to 62 for more information.

Deciding when to start treatment

Stages of CLL and treatment

If you have stage A CLL (see page 26), you do not usually need treatment when you are diagnosed. Often, stage A CLL does not cause any symptoms and develops very slowly. Some people with stage A CLL may never need treatment. You will usually only start treatment if there are signs the CLL is progressing.

Some people with stage B CLL (see page 26) may not need to start treatment straight away. This depends on what signs and symptoms you have (see page 15).

If you have stage C CLL (see page 26), you usually need treatment soon after being diagnosed.

Reasons you may need treatment

There are a number of signs and symptoms your doctors will check for when they decide if you need treatment. These include:

- very enlarged or fast-growing lymph nodes
- a low level of red blood cells (anaemia) or platelets
- severe night sweats
- weight loss
- whether the number of white blood cells is high and increasing quickly.

Your doctor will check these symptoms are being caused by the CLL and not something else. This helps them decide whether to start your treatment.

Your doctor will also ask you about your general health and check your fitness when planning your treatment. They can explain the benefits and disadvantages of treatment to you.

Before starting treatment, you will have some blood tests to check for the hepatitis B virus and HIV. These are routine tests people have before starting treatment for CLL. Your doctor will talk to you about these tests.

Types of treatment

Most people are treated with a combination of 2 types of treatment. These are:

- chemotherapy (see pages 42 to 49)
- targeted therapy (see pages 50 to 53).

Other treatments that are sometimes used include the following:

- Supportive therapy (see pages 58 to 62). You may have this to help control any symptoms caused by CLL, such as infections or angemia.
- Donor stem cell transplant (see pages 54 to 55). Doctors may suggest this treatment if the CLL has not responded to other treatments or if it is a type of CLL that is unlikely to respond. It is only suitable for a small number of people. This is because it is an intensive treatment that can have serious side effects.
- Radiotherapy (see page 56). This is only used in certain situations. For example, you may have it if you have enlarged lymph nodes or an enlarged spleen.
- Surgery. This is occasionally used to remove an enlarged spleen (splenectomy).

There are many new treatments being developed to improve the outcomes for people with CLL. You may be invited to take part in a clinical trial (see pages 64 to 66) of one of these treatments. Ask your doctor about any clinical trials you could join.



How treatment is planned

In most hospitals, a team of specialists will meet to plan your treatment. This multidisciplinary team (MDT) may include:

- haematologists (doctors who specialise in diseases of the blood)
- a radiologist (a doctor who specialises in reading scans and x-rays)
- a pathologist (a doctor who specialises in looking at cells under a microscope and diagnosing the cell type)
- specialist nurses who give information and support.

It may also include other healthcare professionals, such as a dietitian, physiotherapist, occupational therapist, psychologist or counsellor.

The MDT will take a number of factors into account when deciding which treatment is best for you. These include the stage of the leukaemia (see page 26), test results and your general health.

Haematologists follow national and international guidelines for treating CLL. Your treatment will be based on these guidelines but will be adapted to your particular situation.

Giving your consent

Before you have any treatment, your doctor will explain its aims. They will usually ask you to sign a form saying that you give permission (consent) for the hospital staff to give you the treatment. No medical treatment can be given without your consent. Before you are asked to sign the form, you should be given full information about:

- the type and extent of the treatment
- its advantages and disadvantages
- any significant risks or side effects
- any other treatments that may be available.

If you do not understand what you've been told, let the staff know straight away so they can explain again. Some leukaemia treatments are complex, so it is not unusual to need repeated explanations. It is a good idea to have a relative or friend with you when the treatment is explained, to help you remember the discussion. You may also find it useful to write a list of questions before your appointment.

People sometimes feel that hospital staff are too busy to answer their questions. But it is important for you to know how the treatment is likely to affect you. The staff should be willing to make time for your questions.

You can always ask for more time if you feel that you cannot make a decision when your treatment is first explained to you.

You are also free to choose not to have the treatment. The staff can explain what may happen if you do not have it. It is essential to tell a doctor or the nurse in charge, so they can record your decision in your medical notes. You do not have to give a reason for not wanting treatment, but it can help to let the staff know your concerns so they can give you the best advice.

If you choose not to have treatment, you can have supportive (palliative) care, with medicines to control any symptoms.

Second opinion

Your multidisciplinary team (MDT) (see page 37) uses national treatment guidelines to decide the most suitable treatment for you. Even so, you may want another medical opinion. If you feel it will be helpful, you can ask either your specialist or GP to refer you to another specialist for a second opinion.

Getting a second opinion may delay the start of your treatment, so you and your doctor need to be confident that it will give you useful information. If you do go for a second opinion, it may be a good idea to take a relative or friend with you, and have a list of questions ready, so that you can make sure your concerns are covered during the discussion.

Monitoring (watch and wait)

Monitoring is used when you do not need to start treatment straight away. It is also called watch and wait. Your GP or haematologist monitors you regularly to check for any swollen lymph nodes and check your blood cell count.

They usually see you at least twice in the first year of being diagnosed. If your blood cell count changes or you develop symptoms, your doctors will think about whether you need to start treatment.

You feel in limbo, as if you want something to show you have got leukaemia. That's a strange thing to want people to know. I did get over that after a while."

Hazel

If you are worried about not having treatment, here are some helpful tips from people who have experienced monitoring:

- Make sure you understand why your doctor is recommending watch and wait. If you have any worries, talk to your doctor.
- Think of your time without treatment as an opportunity to make the most of your quality of life. Use it to do things you enjoy, and to get as fit and healthy as you can.
- Try to focus on the present rather than what might happen in the future.
- Talk about how you feel. You could do this by talking to family and friends, or joining a support group or online forum.

Watch and wait can be difficult to adjust to at first, but many people find it gets easier with time.

'I was shocked when told I wouldn't be treated, but put on watch and wait. Once I got my head around the reasons, it made sense.'

Elizabeth

Chemotherapy

Chemotherapy uses anti-cancer (cytotoxic) drugs to destroy or damage leukaemia cells. These drugs interfere with the way leukaemia cells grow and divide.

How chemotherapy is given

You can have the drugs as tablets (oral chemotherapy) or into a vein (intravenously). The chemotherapy moves around the body through the blood. It can reach leukaemia cells all over the body.

You may have either a single chemotherapy drug or a combination of different drugs given together. Chemotherapy is usually given with a targeted therapy (see pages 50 to 53). This is called chemo-immunotherapy.

You usually have chemotherapy as several sessions of treatment. Each treatment is followed by a rest period. This lets your body recover from any side effects. The treatment and the rest period together make up a cycle of treatment.

The chemotherapy drugs most often used to treat CLL are:

- fludarabine
- cyclophosphamide
- chlorambucil
- bendamustine.

Fludarabine and cyclophosphamide are usually given together with a targeted therapy called rituximab. This combination is called FCR or RFC. The chemotherapy drugs can be given into a vein or as tablets.

Chlorambucil chemotherapy is given as tablets. It is often given along with a targeted therapy.

Bendamustine is given into a vein. It is usually given with rituximab. This treatment is called BR.

There are lots of different drugs available to treat CLL. Your doctors may use other drugs and combinations of drugs. They will tell you what treatment they think is best for your situation.

You can usually have chemotherapy for CLL as an outpatient.

Side effects of chemotherapy

We have listed some of the most common side effects of chemotherapy over the next few pages. Different chemotherapy drugs have different side effects. Your doctor, nurse or pharmacist will give you more information about the chemotherapy you are having.

Your nurse will give you phone numbers for the hospital. If you feel unwell or need advice, you can call them at any time of the day or night. Save these numbers in your phone or keep them somewhere safe

Risk of infection

This treatment can reduce the number of white blood cells in your blood. These cells fight infection. If the number of white blood cells is low, you are more likely to get an infection. A low white blood cell count is called neutropenia.

If you have an infection, it is important to treat it as soon as possible. Contact the hospital straight away on the 24-hour contact number you have if:

- your temperature goes over 37.5°C (99.5F)
- you suddenly feel unwell, even with a normal temperature
- you have symptoms of an infection.

Symptoms of an infection include:

- feeling shivery
- a sore throat
- a cough
- diarrhoea
- needing to pass urine often.

It is important to follow any specific advice your cancer treatment team gives you.

The number of white blood cells will usually return to normal before your next treatment. You will have a blood test before having more treatment. If your white blood cell count is low, your doctor may delay your treatment for a short time.

Anaemia (low number of red blood cells)

Chemotherapy can reduce the number of red blood cells in your blood. These cells carry oxygen around the body. If the number of red blood cells is low, you may be tired and breathless. Tell your doctor or nurse if you feel like this. If you are very anaemic, you may need a drip to give you extra red blood cells. This is called a blood transfusion.

Increased bruising and bleeding

Chemotherapy can reduce the number of platelets in your blood. Platelets are cells that help the blood to clot. Contact your doctor or the hospital straight away if you develop any unexplained bruising or bleeding. This includes nosebleeds, bleeding gums, blood spots or rashes on the skin.

If your red blood cells or platelets take a while to recover, you may need a blood transfusion or a platelet transfusion. You can have transfusions as an outpatient.



Feeling sick

You may feel sick in the first few days after chemotherapy. Your doctor will give you anti-sickness drugs to help prevent or control sickness. Take the drugs exactly as your nurse or pharmacist tells you. It is easier to prevent sickness than to treat it after it has started

If you feel sick, take small sips of fluids and eat small amounts often. If you continue to feel sick, or if you vomit more than once in 24 hours, contact the hospital as soon as possible. They will give you advice and may change the anti-sickness drug to one that works better for you.

Sore mouth

You may get a sore mouth or mouth ulcers. This can make you more likely to get a mouth infection. Use a soft toothbrush to clean your teeth or dentures in the morning, at night and after meals.

If your mouth is sore:

- tell your nurse or doctor they can give you a mouthwash or medicines to help
- try to drink plenty of fluids
- avoid alcohol, tobacco, and foods that irritate your mouth.

Feeling tired

Feeling tired is a common side effect. It is often worse towards the end of treatment and for some weeks after it has finished. Try to pace yourself and plan your day so you have time to rest. Gentle exercise, like short walks, can give you more energy. If you feel sleepy, do not drive or operate machinery.

Hair loss

Some chemotherapy drugs may cause hair loss. You may notice your hair thinning. Some people may have total hair loss, including eyelashes and eyebrows, but this is not common. It depends on what chemotherapy drugs you have. Your doctor or nurse can tell you what to expect.

If you do have hair loss, your hair should start to grow back about 3 to 6 months after you finish treatment. Your nurse can give you advice about coping with hair loss and how to look after your scalp.

We have a booklet called **Coping with hair loss** that might be helpful. See page 96 for ways to order this.

Contraception

Your doctor will advise you not to get pregnant or father a child while having this treatment and for some time afterwards. The drugs may harm the developing baby. It is important to use effective contraception.

Fertility

Some of the drugs used to treat CLL may cause infertility (being unable to become pregnant or father a child). This may be temporary or permanent.

If you think you may want to have children in the future, talk to your doctors about this before starting chemotherapy treatment. They can tell you whether your fertility is likely to be affected.

If you have a partner, it is a good idea for both of you to be there during these discussions. You can then make an informed decision about your options.

If you have high-dose chemotherapy, or radiotherapy (see page 56) before a stem cell or bone marrow transplant, you are likely to become permanently infertile.

Men may be able to have sperm stored before they start treatment (sperm banking).

Sometimes women may be able to have eggs collected and frozen. It is important to speak to your medical team about this before your treatment starts.

Targeted therapies

Targeted therapies (also called biological therapies) are drugs that target something that is helping the cancer cells grow and survive. Because these drugs only 'target' the cancer cells, they have less effect on healthy cells.

There are different types of targeted therapy. They all act in different ways and have different side effects. They are often given with chemotherapy (see pages 42 to 49). Your haematologist can tell you which treatments may be suitable for you.

Monoclonal antibodies

Monoclonal antibodies treat CLL by targeting proteins on white blood cells called B-lymphocytes (B-cells). This makes the B-cells die.

Monoclonal antibodies are usually given with chemotherapy. They are usually given as a drip into a vein.

Monoclonal antibody treatments used for CLL include:

- rituximab
- obinutuzumab (Gazyvaro®)
- ofatumumab (Arzerra®).

Alemtuzumab is also occasionally used to treat CLL.

How monoclonal antibodies are given

Monoclonal antibodies are usually given into a vein as a drip. You can have them as an outpatient. Some people may be asked to stay in hospital overnight for their first treatment.

Some people may have a reaction during the infusion. A reaction is more likely with the first infusion, so it is given slowly over a few hours. Reactions are usually milder after the first infusion. You are also given medicines before each infusion to help prevent or reduce any reaction.

Symptoms of a reaction can include:

- a high temperature
- shivering and shakes
- a rash
- low blood pressure
- feeling sick (nausea).

If you have any of these symptoms or feel unwell during or soon after an infusion, tell your nurse or doctor immediately.

Alemtuzumab may be given as an injection under the skin (subcutaneously). In this case, it is less likely to cause a reaction.

B-cell receptor (BCR) inhibitors

BCR inhibitors are another type of targeted therapy. They work by targeting proteins called B-cell receptors on the surface of the CLL cells. B-cell receptors control how CLL cells grow. If they are switched off, the CLL cells die. Two drugs that can be used for CLL are ibrutinib (Imbruvica®) and idelalisib (Zydelig®).

BCR inhibitors target the B-cell receptors to stop the cancer growing and dividing. You may be given a BCR inhibitor:

- if CLL comes back after chemo-immunotherapy treatment (see page 42)
- as a first treatment instead of chemo-immunotherapy if you have CLL with a p53 deletion or p53 mutation (see page 21).

You take BCR inhibitors as tablets or capsules every day. You usually continue taking them for as long as they are working.

BCL2 inhibitors

One of the reasons that CLL cells continue to grow is that they make too much of a protein called BCL2. BCL2 inhibitors work by blocking (inhibiting) this protein. This helps kill the CLL cells.

Your haematologist may suggest treatment with a BCL2 inhibitor called venetoclax (Venclyxto®) if:

- you have CLL with a p53 deletion or p53 mutation, and BCR inhibitors are not suitable for you or are no longer working
- chemotherapy and other targeted therapy treatments have not worked for you.

You take venetoclax as tablets. You may have it with other treatments. This drug may only be available in some situations. Your haematologist can tell you if it is suitable for you.

Side effects of targeted therapies

Different targeted therapies can have different side effects. Your doctor, nurse or pharmacist will explain the possible side effects of the specific drugs you are having before you start your treatment.

Stem cell transplant

Stem cells are early blood cells that are inside the bone marrow. They make all the red blood cells, white blood cells and platelets in the blood

A stem cell transplant is a very intensive treatment. It is only usually used to treat CLL when other standard treatments are not suitable, or have not worked. Having a stem cell transplant may result in a long period of remission. But only a small number of people with CLL have one. This is because it can cause very serious side effects and there are many other effective treatment options available. Your doctor will tell you if it might be suitable for you.

People who have a stem cell transplant to treat CLL usually have a type called a donor stem cell transplant (allogeneic). Stem cell transplants are also called bone marrow transplants.

Donor stem cell transplant

For this treatment, you are given stem cells from someone else (a donor). This lets your doctor give a higher dose of chemotherapy than usual. The donor's stem cells will give you a new immune system, which can fight the CLL cells.

The transplant uses stem cells from a brother or sister who is genetically similar to you (a match). If you do not have a brother or sister who can donate stem cells, another donor may be found who has stem cells that genetically match you. This is called a volunteer unrelated donor.

Before you are given donor stem cells, you have intensive chemotherapy (see pages 42 to 49). Sometimes radiotherapy (see page 56) is also used. This destroys any remaining leukaemia cells and prepares your immune system for the donor stem cells.

Some types of donor stem cell transplant use less chemotherapy and radiotherapy. They are called reduced-intensity transplants.

Stem cell transplants are only done in specialist cancer treatment centres.

We have more information in our booklet **Understanding** donor stem cell (allogeneic) transplants. See page 96 for ways to order this.

Radiotherapy

Radiotherapy uses high-energy x-rays to destroy leukaemia cells, while doing as little harm as possible to normal cells. Radiotherapy is not often used to treat CLL. This is because radiotherapy usually only targets specific areas in the body.

Radiotherapy is sometimes used to target a specific area of the body where CLL cells have built up. For example, it might be used to treat the spleen or a group of enlarged lymph nodes.

You have radiotherapy in the hospital radiotherapy department. You have it as an outpatient. Treatment is usually given daily, from Monday to Friday with a rest at the weekend. You may have it over 1 or 2 weeks. Each session may last a few minutes and is painless.

CLL is very sensitive to radiotherapy. If just one area of your body is being treated, you only need a low dose. This means that side effects are not common. Your doctor, nurse or radiographer will tell you about the treatment plan and the possible side effects of the radiotherapy.

Radiotherapy is also sometimes given before a stem cell transplant. This is called total body irradiation (TBI).



Supportive therapy

Supportive therapies are treatments that help control any symptoms (see page 15) caused by CLL or its treatment. This section explains the more common problems that some people with CLL have, and the treatments that can help.

Infections

People with CLL are more at risk of getting infections. This is because both CLL and the treatments used affect the immune system.

You can usually be treated for infections as an outpatient. But some infections can be life-threatening. If you get one of these, you will need to stay in hospital for treatment. It is important to contact your doctor or specialist nurse straight away for advice if you develop:

- a cough
- a sore throat
- a fever
- any other sign of infection.

Shingles

People with CLL are at a higher risk of developing an infection called shingles. This is an infection of a nerve and the area of skin around it. It is caused by the same virus that causes chickenpox. Anyone who has had chickenpox may develop shingles.

The virus usually affects one nerve in one area of the body. The most common areas to be affected are one side of the chest, or one side of the tummy (abdomen). A nerve in the face can also be affected, but this is less common.

The first symptom is often a tingling or burning feeling in the affected area. This is followed by pain and a red rash. This develops 2 to 3 days later.

Contact your GP or the hospital immediately if you:

- think you have shingles
- come into contact with someone who has shingles or chickenpox.

Effective treatment can prevent or limit the infection. Shingles usually gets better within 2 to 5 weeks.

People over 70 are routinely offered a vaccine against shingles. But if you have CLL, this vaccine is not suitable for you because it is a live vaccine. Your haematologist can give you more information about this.

Vaccines

Most people with CLL are advised to have a yearly flu vaccine. This is to give them as much protection as possible. Your doctors may also recommend two specific vaccines when you are first diagnosed. These are to protect against:

- pneumonia
- a type of infection called streptococcus.

There are some types of vaccine that you should avoid. These are called live vaccines, because they contain the live virus in a weakened form. People with CLL have a weakened immune system, so a live vaccine may cause them harm. Your haematologist can tell you which vaccines are safe and if there are any you should avoid.

Low levels of antibodies

Many people with CLL have very low levels of infection-fighting antibodies (immunoglobulins) in their blood. This may mean they keep getting infections. Some people who are affected may need regular immunoglobulin treatment. A nurse gives the immunoglobulins:

- as a drip (infusion) into a vein
- as an injection under the skin.

Most people feel fine when they are having an immunoglobulin infusion, but sometimes it can cause a reaction. This can feel similar to the reaction a monoclonal antibody (see pages 50 to 51) infusion may cause. A reaction is more likely with the first infusion, so it is given more slowly.

Auto-immune reactions in CLL

CLL can sometimes cause the immune system to act against normal, healthy red blood cells or platelets. If red blood cells are affected, this is called auto-immune haemolytic anaemia (AIHA). If platelets are affected, this is called immune thrombocytopenic purpura (ITP).

If you have AIHA, the number of red blood cells in the blood can fall very quickly. This can cause:

- breathlessness
- tiredness
- a yellowish tinge to the whites of your eyes
- dark-coloured urine.

If you suddenly become very tired or breathless, contact the hospital straight away. You may need to have a blood test, and possibly treatment.

With ITP, the number of platelets in the blood can fall suddenly. This can cause:

- bruising
- areas of tiny, dark, purple-red dots on the shins or arms
- unusual bleeding from the gums
- a nosebleed that takes a long time to stop.

If you have any of these symptoms, contact the hospital straight away for advice.

Transfusions

If your bone marrow is not making enough red blood cells or platelets, you may need to have a blood or platelet transfusion. You can have this as an outpatient.

If you are treated with fludarabine or bendamustine, you should only be given blood and platelet transfusions that have been treated with radiation (irradiated).

Irradiated transfusions should always be used during and after you have finished your treatment. This lowers the risk of the donated blood cells reacting against your own blood cells. Your hospital team should give you a card to carry or a MedicAlert ID tag to wear. This is so hospital staff are aware of this if you ever need a blood transfusion in an emergency.

'They were giving me blood every couple of weeks to boost me. I'd feel like a new man with 3 pints of blood running through my veins."

Ash

Steroids

Steroids (sometimes called corticosteroids) are substances that are made naturally in the body. They control different functions in our bodies, such as the immune system or the way the body uses food. Steroids can also be man-made and used as part of your treatment.

The steroids most commonly used to treat CLL include:

- dexamethasone
- methylprednisolone
- prednisolone.

You may have treatment with steroids if the number of red blood cells in the blood falls very quickly, because of a condition called auto-immune haemolytic anaemia (AIHA).

Occasionally, people have high-dose steroid treatment called high-dose methylprednisolone (HDMP). With HDMP, you can have the steroids as tablets or as a drip into a vein. Your doctor may prescribe antibiotics, anti-viral drugs or anti-fungal drugs to help prevent infection during your treatment.

Research - clinical trials

Cancer research trials are carried out to try to find new and better treatments for leukaemia. Trials that are carried out on patients are called clinical trials. These may be carried out to:

- test new treatments, such as new chemotherapy drugs or targeted therapies
- look at new combinations of existing treatments or change the way they are given, to make them more effective or reduce side effects
- compare the effectiveness of drugs used to control symptoms
- find out how cancer treatments work
- find out which treatments are the most cost-effective.

Trials are the only reliable way to find out if a different type of treatment is better than what is already available.

Taking part in a trial

You may be asked to take part in a treatment research trial. There can be many benefits to this. Trials help to improve knowledge about leukaemia and develop new treatments. You will be carefully monitored during and after the study.

Usually, several hospitals around the country take part in these trials. But some treatments that look promising at first are later found not to be as good as existing treatments, or have side effects that outweigh the benefits. This is something for you to think about.

If you decide not to take part in a trial, your decision will be respected and you don't have to give a reason. But it can help to let the staff know your concerns so they can give you the best advice. There will be no change in the way you are treated by the hospital staff, and you will be offered the standard treatment for your situation.

Blood and biopsy samples

Blood and biopsy samples may be taken to help make the right diagnosis. You may be asked for your permission to use some of your samples for research into cancer. If you take part in a trial you may also give other samples, which may be frozen and stored for future use when new research techniques become available. Your name will be removed from the samples so you can't be identified.

The research may be carried out at the hospital where you are treated, or at another one. This type of research takes a long time, and results may not be available for many years. The samples will be used to increase knowledge about the causes of cancer and its treatment, which will hopefully improve the outlook for future patients.

Current research

There are a number of CLL trials happening in the UK. Many of the trials are organised by the National Cancer Research Institute (NCRI) CLL trials sub-group.

Some trials are testing new combinations of existing treatments, to find out if this makes them more effective. Other trials are looking for more effective treatments for CLL that is either difficult to treat or no longer responding to standard treatments. Some trials are looking at the possible causes of chronic leukaemias, including genetics.

Your haematologist will know if there are any trials you might want to take part in.

Follow-up and monitoring

CLL often progresses very slowly. This means that people who have CLL can live with it for a long time. If you do need treatment, it is usually very effective and can keep the leukaemia under control for many years. You will need to have regular check-ups and blood tests.

If you have any problems or notice any new symptoms (see page 15), let your doctor know as soon as possible. Do not wait until your next appointment.



LIVING WITH CLL

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Well-being

You may want to make changes to your lifestyle and find out more about healthy living. This will help you stay as well as possible. Even if you had a healthy lifestyle before your diagnosis, you may want to focus more on making the most of your health.

Having a healthy lifestyle is about making small, manageable changes to the way you live. This will improve your health and well-being, and lower your risk of getting other illnesses and some cancers.

Some examples of having a healthy lifestyle include:

- having a well-balanced diet
- being physically active
- reducing stress
- being involved in your healthcare.

When you plan changes, you need to consider how the side effects of treatment might affect you. Try not to do too much, too soon.

There are many benefits of having a healthy lifestyle. It does not have to be difficult or expensive.

Fat well

Eating well will help you keep your strength, increase your energy levels and improve your well-being. It can also help reduce the risk of new cancers and other diseases, such as heart disease, stroke and diabetes

A well-balanced diet should include:

- plenty of fresh fruit and vegetables aim to eat at least 5 portions a day
- foods high in fibre, such as beans and cereals
- plenty of water or other non-alcoholic drinks.

You should also try to reduce your intake of:

- red meat and animal fats
- alcohol
- salted, pickled and smoked foods.

Stop smoking

If you smoke, choosing to stop will benefit your health. Speak to your doctor or call a stop-smoking helpline for advice on how to stop smoking. They can also tell you where your local stop smoking service is. We also have a booklet called **Giving up smoking** that you may find helpful. See page 96 for ways to order this

Reduce stress

There are different ways of reducing stress. They will vary from person to person. Some people find it relaxing to meditate or pray, or you might decide to take up a new hobby. You could try a complementary therapy, such as aromatherapy or reflexology.

Some people find it helpful to talk about their feelings (see pages 74 to 75) to reduce stress. Being in contact with other people who have been through a similar experience can help. Other people find it helpful to write a journal or blog.

Get physically active

Physical activity can improve your sense of well-being and help build up your energy levels. It also reduces the risk of heart disease, strokes, diabetes and bone thinning (osteoporosis). Being active does not mean you have to exercise intensely. You can start gently and build up the amount you do.

We have a booklet called **Physical activity and cancer** that you might find helpful. See page 96 for ways to order this.

Get involved in your healthcare

This includes taking your medicines as prescribed and always going to your hospital appointments. If you have any problems or notice any new symptoms between appointments that do not go away within a couple of weeks, let your doctor know as soon as possible.

Understanding more about CLL and its treatment can also help you cope. It can help you talk to your doctors and nurses about your treatment, tests and check-ups. It can also help you be involved in making decisions. This can make you feel more confident and give you back a feeling of control.

'I do find that regular exercise helps. It was a great struggle to get outdoors and start, but the walks and cycle trips got longer and I do feel much better.'

Dick

Talk to someone or share your experience

Talking about your feelings can help reduce stress, anxiety and isolation. There are lots of different ways to communicate, and they can all help people feel less alone.

Self-help or support groups offer you a chance to talk to other people who may be in a similar situation and facing the same challenges as you. Joining a group can be helpful if you live alone or do not feel able to talk about your feelings with the people around you. Not everyone finds it easy to talk in a group, so it might not be for you. Try going along to see what the group is like before you decide.



Online support

Many people now get support on the internet. There are online support groups, social networking sites, forums, chat rooms and blogs for people affected by leukaemia. You can use these to ask auestions and share your experience. You can ask your nurse for advice if you are unsure of which sites might be useful.

Our Online Community is a social networking site where you can talk to people in our chat rooms, blog about your journey, make friends and join support groups. Visit macmillan.org.uk/ community to find out more.

Specialist help

It is common to still have difficult feelings after treatment is over, but most people find these get better as they recover. Some people only experience a few of these feelings and may be able to deal with them easily. Others may have more, and find them harder to cope with. Try to let your family and friends know how you are feeling so that they can support you. Talking about your feelings is not always easy.

Often it is easier to talk to someone who's not directly involved with your illness. You can ask your hospital consultant or GP to refer you to a specialist doctor or counsellor who can help.

Our cancer support specialists on freephone 0808 808 00 00 can tell you more about counselling and let you know about services in your area.

Your feelings

CLL usually develops very slowly. Many people are surprised at how little it affects their lives, particularly when they are first diagnosed. Your doctor may tell you that you do not need treatment for a long time.

If you have early-stage CLL and are not starting treatment straight away, you may find this difficult to understand or cope with. If you feel this way, tell your doctor or nurse about how you feel. They can listen to your fears and concerns and answer any questions you have. Talking to other people in a similar situation may also help.

It is common to feel overwhelmed by different feelings when you are told you have leukaemia. Partners, family and friends may also have similar feelings.

There is no right or wrong way to feel. You will cope with things in your own way. You might have different reactions to the ones we describe here. Talking to people close to you or other people affected by cancer can often help.

Shock and disbelief

You may find it hard to believe it when your doctor tells you that you have leukaemia. It is common to feel shocked and numb. You may not be able to take in much information and find that you keep asking the same questions again and again. At first, you might find it hard to talk to family and friends about the leukaemia. This usually gets easier as the shock wears off and it becomes more real to you. You may find you can't think or talk about anything but the leukaemia. This is because your mind is trying to process what you're going through.

Fear and uncertainty

People can be very anxious or frightened about whether treatment will work and what will happen in the future. It is important to remember that most people with CLL live for many years, and many people find it does not affect their day-to-day activities.

But uncertainty can be one of the hardest things to cope with. It can help to try to focus on what you can control. To do this, you may want to find out more about the leukaemia, its treatment and how to manage side effects. It can also help to talk about your feelings. Take time to do things that are important to you and that you enjoy.

Doctors often know roughly how many people can benefit from a type of treatment. But they cannot be sure what will happen to an individual person. They may not be able to answer your questions fully, but they can usually talk through any problems with you and give you some guidance.

Avoidance

Some people cope by not wanting to know very much about the leukaemia and by not talking about it. If you feel like this, let your family and friends know that you do not want to talk about it right now. You can also tell your doctor if there are things you do not want to know or talk about yet.

Sometimes, the opposite happens. Family and friends may seem to avoid you and the fact that you have leukaemia. They may not want to talk about it or they might change the subject. This is usually because they are also finding the leukaemia difficult to cope with. Try to let them know how this makes you feel and that talking openly with them about your illness will help you.



Anger

You may feel angry about your illness and sometimes resent other people for being well. These are normal reactions, especially when you feel frightened, stressed, out of control or unwell. You may get angry with the people close to you. Let them know that you are angry at your illness and not at them. Finding ways to help you relax and reduce stress can help with anger. This can include talking about or writing down how you feel, gentle exercise. breathing or relaxation therapy, yoga and meditation.

Guilt and blame

Some people feel guilty or blame themselves or others for the leukaemia. You may try to find reasons for why it has happened to you. In most cases, it is not possible to know exactly what has caused a person's leukaemia. The leukaemia may have been caused by several different factors acting together over time. Doctors do not fully understand all of these factors yet. Instead, try to focus on looking after yourself and getting the help and support you need.

Feeling alone

Some people feel alone because they do not have enough support. Family and friends may live far away, have other commitments or feel uncomfortable because of their own fears about leukaemia. Try to let your family and friends know how you feel and how they could support you more.

If you need more support, you can call the Macmillan Support Line free on 0808 808 00 00 and talk to one of our cancer support specialists. Our website macmillan.org.uk/ supportgroups can help you find out about local support groups. You can also talk to other people going through the same thing on our Online Community at macmillan.org.uk/community

It is normal to have times when you want to be left alone to deal with your feelings. But if you find you are avoiding people a lot of the time, then try to talk to your doctor or nurse.

If you need more help

If you feel anxious, panicky or sad a lot of the time, or think you may be depressed, talk to your doctor or nurse. They can refer you to a doctor or counsellor who can help. They may also prescribe antidepressants or drugs to help with anxiety.

These feelings can be very difficult to deal with and sometimes people need more help. This happens to lots of people and does not mean you're not coping. We have more information which discusses the feelings you may have in more detail, and has suggestions for coping with them.

If you are a relative or friend

Some people find it hard to talk about leukaemia or share their feelings.

Partners, relatives and friends can help by listening carefully to what the person wants to say. It may be best not to rush into talking about the illness. Often it is enough just to listen and let the person talk when they are ready.

You may find some of the courses on our Learn Zone website helpful. There are courses to help with listening and talking, to help friends and family support their loved ones affected by cancer. Visit **macmillan.org.uk/learnzone** to find out more.

We have information that has more suggestions if you have a friend or relative with leukaemia. See page 96 for ways to order this. We have more information about supporting someone with leukaemia at macmillan.org.uk/carers



Talking to children

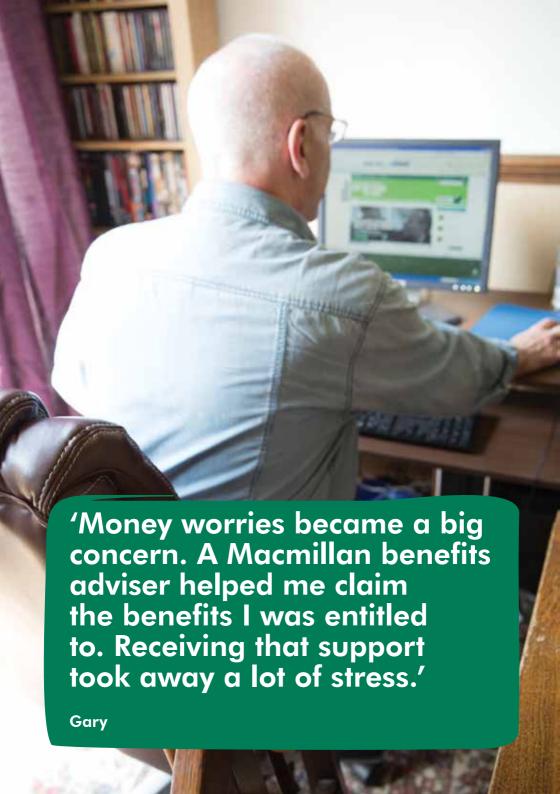
Deciding what to tell your children or grandchildren about your leukaemia is difficult. An open, honest approach is usually best. Even very young children can sense when something is wrong, and their fears can sometimes be worse than the reality.

How much you tell your children will depend on their age and how mature they are. It may be best to start by giving only small amounts of information, and gradually tell them more to build up a picture of your illness.

Teenagers

Teenagers can have an especially hard time. At a stage when they want more freedom, they may be asked to take on new responsibilities and they may feel over-burdened. It is important that they can go on with their normal lives as much as possible and still get the support they need.

If they find it hard to talk to you, you could encourage them to talk to someone close who can support and listen to them, such as a grandparent, family friend, teacher or counsellor. They may also find it useful to look at the website **riprap.org.uk** which has been developed especially for teenagers who have a parent with leukaemia.



WORK AND BENEFITS

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Financial help and benefits

When you are affected by cancer, you might need help with extra costs. Or you might need financial support if you have to stop working.

Statutory Sick Pay

If you work for an employer and take time off sick, you may be able to get Statutory Sick Pay. Your employer will pay this for up to 28 weeks.

Benefits

Benefits are payments from the government to people who need financial help. You can find out more about benefits and apply for them online. Go to **gov.uk** if you live in England, Wales and Scotland or **nidirect.gov.uk** if you live in Northern Ireland. Here are some benefits that you might be able to get if you are affected by cancer.

Employment and Support Allowance (ESA)

This benefit is for people under State Pension age who cannot work because of illness or disability. There are different types of FSA:

- Contribution-based ESA may be available if you have paid enough National Insurance.
- Income-related ESA may be available if your income and savings are low, or if you cannot get contribution-based ESA. Income-related ESA is gradually being replaced by a new benefit called Universal Credit.

Personal Independence Payment

This benefit is for people aged between 16 and 64 who have problems moving around and looking after themselves. You must have had these difficulties for at least 3 months and expect them to last for at least 9 months.

Attendance Allowance

This benefit is for people aged 65 or over who have problems looking after themselves because of an illness or disability. This could mean getting out of bed, having a bath or getting dressed. You must have had these problems for at least 6 months.

Special rules

If you are terminally ill, and your doctor thinks you may be expected to live for less than 6 months, you can apply for some benefits using a fast-track process called special rules. Your claim will be dealt with quickly and you will get the benefit you applied for at the highest rate. It does not matter if you live longer than 6 months. Your doctor or specialist nurse will need to fill out a form for you.

Help for carers

Carer's Allowance is a weekly benefit that helps people who look after someone with a lot of care needs. If you do not qualify for it, you can apply for Carer's Credit.

Carer's Credit helps prevent gaps in your National Insurance record if you have to stop working while you are caring for someone else. You do not get money, but it protects your right to a State Pension later in life.

Macmillan Grants

Macmillan Grants are small, mostly one-off payments to help people with the extra costs that cancer can cause. They are for people who have a low level of income and savings.

If you need things like extra clothing, help paying heating bills or even a relaxing holiday, you may be able to get a Macmillan Grant.

How much you get will depend on your situation and needs. The average grant is around £380. A grant from Macmillan would not normally affect the benefits you are entitled to. It is an extra bit of help, not a replacement for other support.

Insurance

If you have, or have had, cancer, you may find it hard to get certain types of insurance. This includes life and travel insurance. A cancer diagnosis might also mean that you can get a payout from an insurance scheme that you already have.

If you are looking into buying insurance or making a claim, one of our financial advisers can help. Call 0808 808 00 00.

We have a booklet called **Insurance** that can help. See page 96 for ways to order this. Our Online Community forum **Travel** insurance may also be helpful. Visit macmillan.org.uk/ travelinsurancegroup



More information

The benefits system and other types of financial support can be hard to understand. Macmillan has experienced welfare rights advisors and financial guides. You can speak to one by calling the Macmillan Support Line on 0808 808 00 00.

You can also get information about benefits and other types of financial help from Citizens Advice. You can find the contact details for your local Citizens Advice on page 106.

Our booklet Help with the cost of cancer has lots more information. See page 96 for ways to order this.

Work

You may not know how cancer will affect your work, now or in the future.

It is a good idea to talk to your manager early on. If your workplace has a human resources (HR) or personnel department, contact them as soon as you can. If they know how the cancer or treatment may affect your ability to work, they can support you better.

Some people stop working during cancer treatment and for a while after, until they feel ready to go back. Others carry on working, perhaps with reduced hours or other changes to their job.

Some people may decide not to go back to work. Or they may choose to do something different. Others may not be able to go back to work because of the effects of cancer on their health. Going back to work may depend on the type of work you do or how much your income is affected.

It is important not to take on too much, too soon. Your cancer doctor, GP or specialist nurse can help you decide when and if you should go back to work.

Our booklets about Work and cancer, Working while caring for someone with cancer and Self-employment and cancer may be helpful. See page 96 for ways to order these. There is also lots more information at macmillan.org.uk/work



Employment rights

If you have, or have ever had cancer, the law considers you to be disabled. This means you cannot be treated differently (less favourably) than other people at work because of cancer. If you are treated less favourably because of cancer, this is called discrimination.

The law also says your employer has to make reasonable adjustments (changes) to your workplace and their work practices.

If you live in England, Scotland or Wales, you are protected by the Equality Act 2010. If you live in Northern Ireland, you are protected by the Disability Discrimination Act 1995.

We have more information about your rights at work when you are affected by cancer. See page 96 for ways to order this.



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About our information

We provide expert, up-to-date information about cancer. And all our information is free for everyone.

Order what you need

You may want to order more leaflets or booklets like this one. Visit be.macmillan.org.uk or call us on **0808 808 00 00**.

We have booklets on different cancer types, treatments and side effects. We also have information about work, financial issues, diet, life after cancer and information for carers, family and friends.

Online information

All of our information is also available at macmillan.org. uk/information-and-support There you'll also find videos featuring real-life stories from people affected by cancer, and information from health and social care professionals.

Other formats

We also provide information in different languages and formats, including:

- audiobooks
- Braille
- British Sign Language
- easy read booklets
- eBooks
- large print
- translations.

Find out more at macmillan. org.uk/otherformats If you'd like us to produce information in a different format for you, email us at cancerinformationteam@ macmillan.org.uk or call us on 0808 808 00 00.

Help us improve our information

We know that the people who use our information are the real experts. That's why we always involve them in our work. If you've been affected by cancer, you can help us improve our information.

We give you the chance to comment on a variety of information including booklets, leaflets and fact sheets.

If you'd like to hear more about becoming a reviewer, email reviewing@macmillan. org.uk You can get involved from home whenever you like, and we don't ask for any special skills – just an interest in our cancer information.



Other ways we can help you

At Macmillan, we know how a cancer diagnosis can affect everything, and we're here to support you.

Talk to us

If you or someone you know is affected by cancer, talking about how you feel and sharing your concerns can really help.

Macmillan Support Line

Our free, confidential phone line is open 7 days a week, 8am to 8pm. Our cancer support specialists can:

- help with any medical questions you have about cancer or your treatment
- help you access benefits and give you financial guidance
- be there to listen if you need someone to talk to
- tell you about services that can help you in your area.

Call us on **0808 808 00 00** or email us via our website, macmillan.org.uk/talktous

Information centres

Our information and support centres are based in hospitals, libraries and mobile centres. There, you can speak with someone face to face.

Visit one to get the information you need, or if you'd like a private chat, most centres have a room where you can speak with someone alone and in confidence.

Find your nearest centre at macmillan.org.uk/ informationcentres or call us on 0808 808 00 00.

Talk to others

No one knows more about the impact cancer can have on your life than those who have been through it themselves. That's why we help to bring people together in their communities and online.

Support groups

Whether you are someone living with cancer or a carer, we can help you find support in your local area, so you can speak face to face with people who understand. Find out about support groups in your area by calling us or by visiting macmillan.org.uk/ selfhelpandsupport

Online Community

Thousands of people use our Online Community to make friends, blog about their experiences and join groups to meet other people going through the same things. You can access it any time of day or night. Share your experiences, ask questions, or just read through people's posts at macmillan.org.uk/ community

The Macmillan healthcare team

Our nurses, doctors and other health and social care professionals give expert care and support to individuals and their families. Call us or ask your GP, consultant, district nurse or hospital ward sister if there are any Macmillan professionals near you.

'Everyone is so supportive on the Online Community, they know exactly what you're going through. It can be fun too. It's not all just chats about cancer."

Mal

Help with money worries

Having cancer can bring extra costs such as hospital parking, travel fares and higher heating bills. If you've been affected in this way, we can help.

Financial guidance

Our financial team can give you guidance on mortgages, pensions, insurance, borrowing and savings.

Help accessing benefits

Our benefits advisers can offer advice and information on benefits. tax credits, grants and loans. They can help you work out what financial help you could be entitled to. They can also help you complete your forms and apply for benefits.

Macmillan Grants

Macmillan offers one-off payments to people with cancer. A grant can be for anything from heating bills or extra clothing to a much-needed break.

Call us on **0808 808 00 00** to speak to a financial guide or benefits adviser, or to find out more about Macmillan Grants. We can also tell you about benefits advisers in your area.

Visit macmillan.org.uk/ financial support to find out more about how we can help you with your finances.

Help with work and cancer

Whether you're an employee, a carer, an employer or are self-employed, we can provide support and information to help you manage cancer at work. Visit macmillan.org.uk/work

My Organiser app

Our free mobile app can help you manage your treatment, from appointment times and contact details, to reminders for when to take your medication. Search 'My Organiser' on the Apple App Store or Google Play on your phone.

Other useful organisations

There are lots of other organisations that can give you information or support.

Leukaemia support organisations

Anthony Nolan Tel 0303 303 0303 www.anthonynolan.org The UK's largest stem cell and bone marrow register.

Bloodwise Tel 0808 2080 888 (Mon to Fri, 10am to 4pm) **Email** support@bloodwise.org.uk www.bloodwise.org.uk Supports research into the causes, treatment and cure of leukaemia, lymphoma and myeloma. Provides information about blood cancers and treatments.

Chronic Lymphocytic Leukaemia Support **Association** Tel 0800 977 4396 Email info@cllsupport.org.uk www.cllsupport.org.uk A patient-led UK charity. Their mission is to support and empower chronic lymphocytic leukaemia (CLL) patients, their families and their carers through education and access to reliable, relevant and current information.

Leukaemia Care Careline 08088 010 444 (Mon to Fri, 9am to 10pm, Sat, 9am to 12.30pm) **Email**

support@leukaemiacare.org.uk www.leukaemiacare.org.uk Provides care and support to patients, their families and carers whose lives have been affected by leukaemia, lymphoma or an allied blood disorder. Offers emotional support and financial assistance through its network of volunteers and 24-hour helpline.

General cancer support organisations

Cancer Black Care Tel 020 8961 4151 **Email**

info@cancerblackcare.org.uk www.cancerblackcare.org.uk Offers UK-wide information and support for people with cancer, as well as their friends, carers and families, with a focus on those from BME communities.

Cancer Focus Northern Ireland Helpline 0800 783 3339 (Mon to Fri, 9am to 1pm)

Email nurseline@cancerfocusni.org www.cancerfocusni.org Offers a variety of services to people affected by cancer in Northern Ireland, including a free helpline, counselling and links to local support groups.

Cancer Research UK Helpline 0808 800 4040 (Mon to Fri, 9am to 5pm) www.cancerresearchuk.org A UK-wide organisation that has patient information on all types of cancer. Also has a clinical trials database.

Cancer Support Scotland Tel 0800 652 4531 (Mon to Fri, 9am to 5pm)

Email

info@cancersupportscotland.org www.cancersupport scotland.org

Runs cancer support groups throughout Scotland. Also offers free complementary therapies and counselling to anyone affected by cancer.

Macmillan Cancer Voices www.macmillan.org.uk/ cancervoices

A UK-wide network that enables people who have or have had cancer, and those close to them such as family and carers, to speak out about their experience of cancer.

Maggie's Centres **Tel** 0300 123 1801 **Email**

enquiries@maggiescentres.org www.maggiescentres.org Has a network of centres in various locations throughout the UK. Provides free information about cancer and financial benefits. Also offers emotional and social support to people with cancer, their family, and friends.

Penny Brohn UK Helpline 0303 3000 118 (Mon to Fri, 9.30am to 5pm) Email

helpline@pennybrohn.org.uk www.pennybrohn.org.uk Offers a combination of physical, emotional and spiritual support across the UK, using complementary therapies and self-help techniques.

Tenovus Helpline 0808 808 1010 (Daily, 8am to 8pm) **Email**

info@tenovuscancercare.org.uk www.tenovuscancercare. org.uk

Aims to help everyone in the UK get equal access to cancer treatment and support. Funds research and provides support such as mobile cancer support units, a free helpline, benefits advice and an online 'Ask the nurse' service.

General health information

Health and Social Care in Northern Ireland www.hscni.net

Provides information about health and social care services in Northern Ireland.

Healthtalk Email

info@healthtalk.org www.healthtalk.org

Has information about cancer. and videos and audio clips of people's experiences. Also provides advice on topics such as making decisions about health and treatment.

NHS.UK www.nhs.uk

The UK's biggest health information website. Has service information for England.

NHS Direct Wales www.nhsdirect.wales.nhs.uk NHS health information site for Wales.

NHS Inform Helpline 0800 22 44 88 (Daily, 8am to 10pm) www.nhsinform.scot NHS health information site for Scotland.

Patient UK www.patient.info

Provides people in the UK with information about health and disease. Includes evidence-based information leaflets on a wide variety of medical and health topics. Also reviews and links to many health and illness-related websites.

Cancer registries

The cancer registry

A national database that collects information on cancer diagnoses and treatment. This information helps the NHS and other organisations plan and improve health and care services. There is one in each country in the UK:

National Cancer Registration and **Analysis Service** Tel 020 7654 8000 Email enquiries@phe.gov.uk www.ncras.nhs.uk Tel (Ireland) 021 4318 014 www.ncri.ie (Ireland)

Scottish Cancer Registry Tel 013 1275 7777 Email nss.csd@nhs.net www.isdscotland.org/ **Health-Topics/Cancer/ Scottish-Cancer-Registry**

Welsh Cancer Intelligence and Surveillance **Unit (WCISU)** Tel 029 2037 3500 **Email** general.enquiries@wales.nhs.uk

www.wcisu.wales.nhs.uk

Northern Ireland **Cancer Registry Tel** 028 9097 6028 Email nicr@qub.ac.uk www.qub.ac.uk/nicr

Counselling

British Association for Counselling and Psychotherapy (BACP) **Tel** 01455 883 300 Email bacp@bacp.co.uk Promotes awareness of counselling and signposts people to appropriate services across the UK. You can search for a qualified counsellor at itsgoodtotalk.org.uk

UK Council for Psychotherapy (UKCP) **Tel** 020 7014 9955 **Email** info@ukcp.org.uk www.psychotherapy.org.uk Holds the national register of psychotherapists and psychotherapeutic counsellors, listing practitioners who meet exacting standards and training requirements.

Emotional and mental health support

Mind Helpline 0300 123 3393 **Text** 86463 Email info@mind.org.uk www.mind.org.uk Provides information, advice and support to anyone with a mental health problem through its helpline and website.

Financial or legal advice and information

Benefit Enquiry Line Northern Ireland Helpline 0800 022 4250 (Mon, Tues, Wed and Fri, 9am to 5pm, Thurs, 10am to 5pm) **Textphone** 028 9031 1092 www.nidirect.gov.uk/ money-tax-and-benefits Provides information and advice about disability benefits and carers' benefits in Northern Ireland.

Citizens Advice

Provides advice on a variety of issues including financial, legal, housing and employment issues. Use their online webchat or find details for your local office in the phone book or by contacting:

England Helpline 03444 111 444 www.citizensadvice.org.uk

Scotland Helpline 0808 800 9060 www.citizensadvice.org.uk/ scotland

Wales Helpline 03444 77 2020 www.citizensadvice.org.uk/ wales

Northern Ireland Helpline 0800 028 1181 www.citizensadvice.co.uk **Department for Work** and Pensions (DWP) **Personal Independence** Payment (PIP) Helpline 0345 850 3322 **Textphone** 0345 601 6677 (Mon to Fri, 8am to 6pm) Carer's Allowance Unit Tel 0345 608 4321 **Textphone** 0345 604 5312 (Mon to Thurs, 8.30am to 5pm, Fri, 8.30am to 4.30pm) www.gov.uk/browse/ benefits

Manages state benefits in England, Scotland and Wales. You can apply for benefits and find information online or through its helplines.

GOV.UK www.gov.uk

Has information about social security benefits and public services in England, Scotland and Wales.

Money Advice Scotland Tel 0141 572 0237 **Email** info@moneyadvice scotland.org.uk www.moneyadvicescotland. org.uk

Use the website to find qualified financial advisers in Scotland.

National Debtline (England, Wales and Scotland) Tel 0808 808 4000 (Mon to Fri, 9am to 8pm, Sat, 9.30am to 1pm) www.nationaldebtline.org A national helpline for people with debt problems. The service is free, confidential and independent. Has an online chat service with an expert

NiDirect www.nidirect.gov.uk Has information about benefits and public services

in Northern Ireland.

find-an-adviser

debt advisor.

Personal Finance Society – 'Find an Adviser' service www.thepfs.org/yourmoney/

Use the website to find qualified financial advisers in your area of the UK.

The Money Advice Service **Helpline (England)** 0800 138 7777 **Helpline (Wales)** 0800 138 0555 (Mon to Fri, 8am to 8pm, Sat, 9am to 1pm) **Typetalk**

18001 0300 500 5000 **Email** enquiries@ moneyadviceservice.org.uk www.moneyadviceservice. org.uk

Runs a free financial health check service and gives advice about all types of financial matters across the UK. Has an online chat service for instant money advice.

Support for older people

Age UK Helpline 0800 055 6112 (Daily, 8am to 7pm) www.ageuk.org.uk Provides information and advice for older people across the UK via the website and advice line. Also publishes impartial and informative fact sheets and advice guides.

Support for carers

Carers UK Helpline (England, Scotland, Wales) 0808 808 7777 (Mon to Wed, 10am to 4pm) Helpline (Northern Ireland) 028 9043 9843 Email advice@carersuk.org www.carersuk.org Offers information and support to carers across the UK. Has an online forum and can put people in contact with support groups for carers in their area.

Disclaimer

We make every effort to ensure that the information we provide is accurate and up to date but it should not be relied upon as a substitute for specialist professional advice tailored to your situation. So far as is permitted by law, Macmillan does not accept liability in relation to the use of any information contained in this publication, or third-party information or websites included or referred to in it. Some photos are of models.

Thanks

This booklet has been written, revised and edited by Macmillan Cancer Support's Cancer Information Development team. It has been approved by our Senior Medical Editor, Dr Helen Marr, Consultant Haematologist, and our Chief Medical Editor, Dr Tim Iveson, Macmillan Consultant Medical Oncologist.

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We welcome feedback on our information. If you have any, please contact cancerinformationteam@macmillan.org.uk

Sources

We've listed a sample of the sources used in the booklet below. If you would like further information about the sources we use, please contact us at cancerinformationteam@macmillan.org.uk

Eichhorst, et al. Chronic lymphocyctic leukaemia: ESMO clinical practice guidelines for diagnosis, treatment and follow-up. Annals of Oncology. 2015. 26 (5). ESMO 2017: Chronic Lymphocytic Leukaemia treatment recommendations: eUpdate-(accessed Jan 2018).

YOUR NOTES AND QUESTIONS

Can you do something to help?

We hope this booklet has been useful to you. It's just one of our many publications that are available free to anyone affected by cancer. They're produced by our cancer information specialists who, along with our nurses, benefits advisers, campaigners and volunteers, are part of the Macmillan team. When people are facing the toughest fight of their lives, we're there to support them every step of the way.

We want to make sure no one has to go through cancer alone, so we need more people to help us. When the time is right for you, here are some ways in which you can become a part of our team.



Share your cancer experience

Support people living with cancer by telling your story, online, in the media or face to face.

Campaign for change

We need your help to make sure everyone gets the right support. Take an action, big or small, for better cancer care.

Help someone in your community

A lift to an appointment. Help with the shopping. Or just a cup of tea and a chat. Could you lend a hand?

Raise money

Whatever you like doing you can raise money to help. Take part in one of our events or create your own.

Give money

Big or small, every penny helps. To make a one-off donation see over.

Call us to find out more 0300 1000 200 macmillan.org.uk/getinvolved

Please fill in your personal details Mr/Mrs/Miss/Other Name Surname Address Postcode Phone Email Please accept my gift of £ (Please delete as appropriate) I enclose a cheque / postal order / Charity Voucher made payable to Macmillan Cancer Support OR debit my: Visa / MasterCard / CAF Charity Card / Switch / Maestro Card number Valid from Expiry date Security number Issue no

Signature

Date

Don't let the taxman keep your money

Do you pay tax? If so, your gift will be worth 25% more to us – at no extra cost to you. All you have to do is tick the box below, and the tax office will give 25p for every pound you give.

I am a UK tax payer and I would like Macmillan Cancer Support to treat all donations I make or have made to Macmillan Cancer Support in the last 4 years as Gift Aid donations, until I notify you otherwise.

I understand that if I pay less Income Tax and/or Capital Gains Tax than the amount of Gift Aid claimed on all my donations in that tax year it is my responsibility to pay any difference. I understand Macmillan Cancer Support will reclaim 25p of tax on every £1 that I give.

Macmillan Cancer Support and our trading companies would like to hold your details in order to contact you about our fundraising, campaigning and services for people affected by cancer. If you would prefer us not to use your details in this way please tick this box.

In order to carry out our work we may need to pass your details to agents or partners who act on our behalf.

If you'd rather donate online go to macmillan.org.uk/donate

Please cut out this form and return it in an envelope (no stamp required) to: Supporter Donations, Macmillan Cancer Support, FREEPOST LON15851, 89 Albert Embankment, London SE1 7UQ

REGULATOR

This booklet is about chronic lymphocytic leukaemia (CLL). It is for anyone who has been diagnosed with CLL. There is also information for carers, family members and friends.

The booklet explains the signs and symptoms of CLL, and how it is diagnosed and treated. It also has information about emotional, practical and financial issues.

We're here to help everyone with cancer live life as fully as they can, providing physical, financial and emotional support. So whatever cancer throws your way, we're right there with you. For information, support or just someone to talk to, call **0808 808 00 00** or visit **macmillan.org.uk**

Would you prefer to speak to us in another language? Interpreters are available. Please tell us in English the language you would like to use. Are you deaf or hard of hearing? Call us using NGT (Text Relay) on **18001 0808 808 00 00**, or use the NGT Lite app.

Need information in different languages or formats? We produce information in audio, eBooks, easy read, Braille, large print and translations. To order these, visit **macmillan.org.uk/otherformats** or call our support line.



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This organisation has been certified as a producer of reliable health and social care information.

www.theinformationstandard.org