

Treatments for skin lymphoma

This page provides information about the different treatments used for skin (cutaneous) lymphomas.

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There are many different types of skin lymphoma, which can be treated in many different ways. This page contains information on lots of different treatments. You may wish to read only the sections that apply to you.

How are skin lymphomas treated?

Although skin lymphomas are a form of cancer, in many cases they are very slow growing and behave more like a long-term (chronic) skin condition than like a cancer. In most cases, the aim of treatment is to control your symptoms with as few side effects as possible. Many different treatments are available, depending on the type of skin lymphoma you have, how advanced it is, how quickly it's progressing and how it is affecting you.

Some of these treatments are not **licensed** for skin lymphoma in the UK. Your doctor might recommend a treatment that is not specifically licensed for skin lymphoma if they feel you might benefit from it. This is called 'off-licence' treatment. These treatments might already be available for another form of lymphoma or used to treat other forms of skin disease.

Your medical team should discuss all the options with you before they advise on the treatments they think are best.

Many people with skin lymphoma have several different treatments for their lymphoma throughout their life, either one at a time or in combination. Any treatment your doctor recommends is tailored to your individual circumstances. Don't be concerned if your treatment is different from the treatments given to other people you might meet in the clinic. Try not to worry if your doctor advises no treatment at all; sometimes this is the best option.

Because skin lymphoma is rare, your local hospital might refer you to a centre with more specialist experience to ensure you get the best treatment. You can also request to be referred elsewhere.

Active monitoring

Many people with a slow-growing skin lymphoma don't need treatment straightaway. Instead, the doctor monitors your condition. This is called '**active monitoring**' or '**watch and wait**'. It is often used for early-stage lymphoma that would not benefit from starting treatment straightaway.

Some people find active monitoring difficult to cope with. It can be hard to find out you have lymphoma but that you won't be starting treatment straightaway. However, doctors know from research that the potential benefit of treating some early skin lymphomas is smaller than the risk of **side effects** from treatment.

If your symptoms become more troublesome or your lymphoma progresses, your specialist may recommend that you start treatment. The treatment you have depends on your type of skin lymphoma and its stage. We have information on staging on our pages about **T-cell skin lymphomas** and **B-cell skin lymphomas**.

Topical treatments

Topical treatments are applied directly to the areas of skin affected by lymphoma. They are usually used for early-stage skin lymphoma. The aim of these treatments is to control the lymphoma with as few side effects as possible.

Topical treatments include:

- emollients (moisturising creams, lotions or ointments)
- topical steroids
- topical chemotherapy
- other topical treatments.

Emollients

Your doctor might recommend using 'emollients' (moisturising creams, ointments or lotions). These hydrate your skin and help soothe symptoms such as dryness and itching. They may also improve the appearance of the skin. However, they do not get rid of the lymphoma.

You can use emollients whenever you need to, like a normal moisturiser. Apply a generous amount and smooth it gently into affected areas of your skin.

Topical steroids

Steroid drugs are anti-inflammatory medicines that also have anti-cancer effects. They are particularly helpful if the skin is itchy or inflamed.

Topical steroids come as creams, ointments or lotions.

- Creams are generally used to treat moist or weeping skin conditions.
- Ointments are suitable for dry or scaly skin.
- Lotions are useful to treat large or hairy areas of skin.

In the UK, topical steroids are classified into four strengths: mild, moderate, potent (strong) and very potent. Mild and moderate topical steroids are available over-the-counter from pharmacies. Stronger topical steroids have to be prescribed by your doctor.

Potent or very potent topical steroids can be very effective at clearing patches of skin lymphoma after 4 to 6 weeks of use. The effect may last for weeks or months after a course of treatment. However, the lymphoma usually comes back eventually. If this happens, you can usually have another course of topical steroids. If you have early-stage skin lymphoma, topical steroids may be the only treatment you need.

Topical steroids are safe if used carefully. If you use them for a long time, particularly the more potent ones, you may get side effects such as thinning of the skin, dilated (widened) blood vessels or an acne-like rash. Using the lowest strength that controls your symptoms helps prevent these side effects.

You should use topical steroids the way your doctor advises. Apply topical steroids thinly to affected areas of skin. In general, the amount of steroid cream you can squeeze out of the tube along your fingertip (sometimes called a 'fingertip unit') is enough to treat an area of skin twice the size of the flat of both your hands (with your fingers together).

Topical steroids can generally be stopped without problems. Your doctor might suggest carrying on with less frequent treatment (for example, twice-weekly) or with a lower strength steroid for a while after your symptoms have cleared. This is called 'maintenance treatment'.

Talk to your doctor or clinical nurse specialist (CNS) if you have any concerns about how to use topical steroids.

Topical chemotherapy

Chemotherapy drugs kill cells that are dividing rapidly, such as cancer cells. In early-stage skin lymphomas some chemotherapy drugs can be applied directly to the skin as lotions, ointments or gels.

Always follow instructions about where to apply the treatment, how much to use and how often. Your doctor may advise you to wear gloves because chemotherapy can harm normal skin. If you develop a reaction to your chemotherapy drug, your doctor might switch you to another one. You can't use topical chemotherapy if you are pregnant. You should not breastfeed while you are using topical chemotherapy.

Nitrogen mustard (mechlorethamine)

Nitrogen mustard (also known as mechlorethamine or chlormethine) is a topical chemotherapy that has been used to treat skin lymphoma for over 50 years. In the past, it was only available as a lotion that had to be made up at home each day, or as an ointment that was prepared in specialised pharmacy departments.

A new gel formulation has been licensed in Europe to treat **mycosis fungoides**. It is not currently available in the UK but it is expected to be available soon. It is effective for many people with early-stage skin lymphoma. The effects may last for several months but lymphoma usually comes back (relapses).

Topical nitrogen mustard should be applied as a thin layer to the affected areas of skin once a day. Take care to avoid areas of skin that are not affected by lymphoma. Topical nitrogen mustard causes skin irritation (such as rash, itching or a burning sensation) in up to 4 in 10 people. It is often used in combination with a topical steroid to reduce irritation. Some people may develop an allergic reaction. If this happens, you should stop treatment.

Nitrogen mustard is not absorbed through the skin and does not affect your blood counts, so you do not have to have blood test monitoring during treatment. You should not use it if you are pregnant or breastfeeding.

Fluorouracil

Fluorouracil (also known as Efudix®) is a chemotherapy cream that is used to treat some types of skin cancer and pre-cancerous skin conditions. Studies suggest it may help some people with skin lymphoma.

Fluorouracil cream should be applied thinly to affected areas of skin once or twice a day. It is usually used for 3 to 4 weeks but it can be used for longer. If you are being treated with fluorouracil, you should avoid exposure to sunlight (including tanning booths or salons).

During treatment with fluorouracil cream, your skin might initially become red and blotchy before peeling and then healing.

Carmustine

Carmustine (also known as BiNCU® or BCNU®) is a chemotherapy drug licensed to treat some brain tumours and blood cancers (including lymphomas). Although it is not licensed to treat skin lymphoma, it is sometimes used off-licence.

Carmustine is usually given as an injection or an implant. Topical carmustine has to be made by specialised pharmacy departments. It works well for early-stage skin lymphomas.

Carmustine should only be applied to the affected areas of your skin. You usually only use it for 3 to 4 months because it can be absorbed through your skin into your bloodstream. This might cause low blood counts (**anaemia**, **neutropenia** or **thrombocytopenia**). Your blood counts should be regularly monitored during your treatment.

Topical carmustine causes skin reactions in about 1 in 10 people. In some people, the patches and plaques can become darker during treatment with carmustine and you might notice fine dilated (widened) blood vessels appearing in the treated areas. They usually go away once the treatment has finished.

For faster-growing skin lymphomas, **systemic (whole body) chemotherapy** might be given.

Other topical treatments

Some other topical creams and gels are used for people with skin lymphoma. Although they are not licensed for skin lymphoma in the UK, some of them are available for other skin conditions. Your dermatologist can advise whether they could benefit you. They are particularly useful when only limited areas of your skin are affected by lymphoma and topical steroids have not helped.

Topical retinoids

Retinoids are related to vitamin A. They disrupt the growth and division of lymphoma cells. Some topical retinoids are licensed to treat psoriasis or acne, but may also help people with skin lymphoma. Examples include:

- isotretinoin gel (Isotrex®)
- tazarotene gel (Zorac®)
- adapalene cream or gel (Differin®).

Topical retinoids should be applied sparingly to the affected skin once daily. If your skin is very dry, you may also need to use a greasy emollient. Wash your hands after use.

It might take 6 to 8 weeks for your skin to begin to improve. Your skin is sensitive to sunlight during retinoid treatment so you should take care to avoid sunlight (including sunlamps, tanning booths and phototherapy) or to cover-up or use sunscreen. Up to 1 in 10 people experience skin reactions to topical retinoids, such as redness, pain, itching or peeling. You can't use topical retinoids if you are pregnant or breastfeeding.

If your skin lymphoma is faster-growing, you may be given **systemic (whole body) retinoid treatment**.

Drugs that modify your immune response

Imiquimod (Aldara®) is a drug that triggers your **immune system** to recognise and destroy abnormal cells. It is available as a cream to treat genital warts and some cancerous and pre-cancerous skin conditions. Studies have shown that it can help some people with skin lymphoma too.

You apply imiquimod cream before you go to bed, leave it on overnight and then wash it off with mild soap and water in the morning. Your dermatologist will tell you how often to use it but it's usually three to five times a week for a few weeks or months. Up to 1 in 3 people experience skin reactions where it touches the skin.

Tacrolimus (Protopic®) is an ointment that modifies your immune response. It is normally used to treat eczema but it may also help reduce inflammation in skin lymphoma. It is sometimes used when steroid side effects are a concern, such as treatments of the face.

Tacrolimus ointment is applied thinly to affected areas of the skin twice a day until your skin clears. You should avoid exposure to sunlight, including tanning booths or salons, during treatment. You should not have phototherapy if you are on tacrolimus treatment.

About half of all people using tacrolimus ointment experience skin reactions such as redness, a burning sensation or itching, but this usually gets better within the first week of treatment. Some people develop facial flushing or skin irritation after drinking alcohol.

Light treatment (phototherapy)

The ultraviolet part of sunlight slows down the growth of skin cells and reduces inflammation. It can help with many skin conditions. It also works well for skin lymphomas, especially for plaques and large areas of skin affected by early-stage disease.

You may have treatment with either:

- long-wave ultraviolet light called ultraviolet A (UVA), which is usually combined with a light-sensitising treatment called psoralen (the combination is called PUVA)
- short-wave ultraviolet light called ultraviolet B (UVB)
- photodynamic therapy.

PUVA

PUVA is **p**сорalen plus **u**ltraviolet **A** (long-wave ultraviolet light) treatment. Psoralen is a medicine that sensitises your skin to ultraviolet light. It is generally only available in larger dermatology centres and you may have to travel further for PUVA treatment than for UVB.

PUVA can be very effective at clearing skin lymphomas. Some people remain free of skin lymphoma (in remission) for up to 5 years after receiving PUVA treatment. If the lymphoma comes back, you can have another course of phototherapy.

You have PUVA as a hospital outpatient. Around 2 hours before your phototherapy, you have psoralen treatment to sensitise your skin. This is usually a tablet but it can be a solution, lotion or gel that you apply directly to your skin. You then have your light therapy in an air-conditioned, walk-in cabinet containing long fluorescent light bulbs. It is similar to a sun-tanning booth. At first, you have a very short session and gradually build up over time to several minutes.

You usually have two to three treatments a week and carry on with treatment until your skin is clear or much improved. This usually takes 15 to 30 treatments.

Unless your skin lymphoma is only affecting a small area, all your skin is exposed to the UVA. You should wear goggles to protect your eyes. If your face is not affected, your doctor might ask you to wear a face shield. Males should cover their genitals.

Temporary side effects of PUVA include reddening of the skin (like sunburn), itching or a rash. Some people get dizzy or have headaches. PUVA can reactivate cold sores. If you get them, put sunblock on the affected areas before each treatment.

Some people find that psoralen pills make them feel sick. If this affects you, your doctor can give you **antiemetics** (anti-sickness tablets) to take before your psoralen medication.

Skin is very sensitive to the sun for up to 24 hours after PUVA. Avoid exposing your skin to sunlight during this time. You should wear sunglasses for 12 to 24 hours after each treatment because psoralen sensitises your eyes as well as your skin to ultraviolet light. Follow usual sun precautions at other times.

UV light can damage the skin. This treatment could also increase your risk of developing skin cancer in the future. For this reason, there is a limit on the number of PUVA treatments you can have in total (usually around 250 sessions). To reduce your exposure to PUVA, it is sometimes combined with **systemic treatments** such as **interferon-alfa** or **retinoids**. Combined treatment can be effective at treating skin lymphoma with a lower overall dose of UVA.

UVB phototherapy

UVB phototherapy is similar to PUVA, but you don't take a drug to sensitise the skin first. It is more widely available than PUVA.

UVB works as well as PUVA for treating patches, but it is less effective for treating hard, thickened areas of affected skin (plaques). It is typically given three times a week in a walk-in cabinet similar to that used in PUVA. If you live in Scotland, you may be able to have UVB at home in a portable phototherapy unit, supported by a phototherapy nurse.

Two types of UVB can be used: broadband UVB or narrowband UVB. Both types can be very effective for skin lymphomas. However, the effects are usually temporary and the lymphoma comes back after a while. You can have more UVB treatment if you need it.

Side effects of UVB are similar to those of PUVA, but UVB is thought to carry a lower risk of developing skin cancer later on. You can have up to 400 UVB treatments before you need annual skin checks to look for skin cancer.

You can find more information on phototherapy from the **British Association of Dermatologists**.

Photodynamic therapy

Photodynamic therapy uses a light-sensitive drug that is activated by a certain wavelength of light (usually red). It is used to treat some types of skin cancer or pre-cancers. It may also be effective for people with single plaques of skin lymphoma that have not responded to **topical treatments**.

When you have photodynamic therapy, a drug is applied to the affected area of skin as a cream. After a few hours, a specific wavelength (colour) of light is shone on the treated area. This activates the drug, which kills abnormal, cancerous cells. When your treatment is finished, the cream is washed off and the treated area of skin is covered with a dressing.

Photodynamic therapy may be painful or uncomfortable and the treated skin can become inflamed for a few days afterwards.

You can find more information on photodynamic therapy from the **British Association of Dermatologists**.

Radiotherapy

Radiotherapy uses high energy X-rays and electrons to destroy abnormal cells. Skin lymphomas are usually very sensitive to radiotherapy. You may have local radiotherapy (to treat individual areas of lymphoma) or **total skin electron beam therapy** (to the whole skin surface).

Local radiotherapy

Local radiotherapy is used in low doses to treat small, localised plaques or tumours, or for clearing up areas of skin that haven't responded to other treatments. It is particularly useful for treating the face or parts of the body (such as folds of skin) that aren't well exposed to UV light in a PUVA or UVB cabinet. It aims to improve symptoms but it does not usually cure the lymphoma.

Local radiotherapy can be used in combination with **topical treatments** and **phototherapy**.

Side effects of local radiotherapy are skin redness (similar to sunburn) and temporary **loss of hair** in treated areas. Your skin might scab over.

Total skin electron beam therapy (TSEBT)

Total skin electron beam therapy (TSEBT) is a specialised type of radiotherapy used to treat the whole skin surface. It uses beams of high energy electrons that only penetrate the skin. Treating your whole skin surface with conventional radiotherapy would expose your body to too much radiation. Because TSEBT doesn't travel deep into the body, it can be used to treat all of your skin with fewer side effects than conventional radiotherapy.

TSEBT is usually used for treating skin lymphomas that have not responded to topical treatments (such as topical chemotherapy or PUVA) or have come back (relapsed) after treatment. It is very effective at treating skin lymphoma but the lymphoma usually comes back eventually. If this happens, you can have another course of treatment.

TSEBT is only available at specialist centres, so you might have to travel to have treatment. You usually have TSEBT 4 or 5 days a week for 1 to 3 weeks. Each treatment takes about 30 to 45 minutes. You have to stand up in the treatment room and move into different positions from time to time.

Side effects of TSEBT include **fatigue, itching** and peeling of the skin, **temporary hair loss** in the treatment area, brittle nails and reddening and swelling of the skin. Your skin will be more sensitive to sunlight than usual, including sunlamps and tanning booths.

These side effects usually settle down within 4 weeks of finishing treatment, though hair re-growth takes longer. Fatigue can take a while to improve.

In the longer term, you may be left with skin dryness, some hair loss, changes in skin pigmentation (colouring) and scattered areas of dilated (widened) fine blood vessels. TSEBT can also increase your risk of skin cancers (not the melanoma type) many years later. These are usually easier to treat than skin lymphoma.

More information on TSEBT is available in a **leaflet published by Guy's and St Thomas' NHS Foundation Trust**.

Systemic treatments

Systemic treatments affect the whole body. You usually have a systemic treatment if your skin lymphoma is advanced when it is diagnosed, or if it is not responding to topical treatments. The aim is to control your skin lymphoma or put it into remission (no sign of lymphoma).

Systemic treatments include:

- immunotherapy
- systemic chemotherapy
- systemic steroids
- immunosuppressants
- extracorporeal photophoresis (ECP), a type of light treatment.

Immunotherapy

Rather than fighting cancer directly, immunotherapy stimulates your **immune system** to attack cancer cells. It makes your immune system react to the cancer cells the same way that they would react to an infection of a 'foreign' substance, such as bacteria. It is still not clear how some of these immunotherapies work. Researchers believe that they slow down or stop the growth of cancer cells, prevent them from spreading, and allow the body's immune system to be more effective at killing them.

Immunotherapies are based on chemicals that your body produces naturally but they can also be made in a laboratory. Examples of laboratory-made immunotherapies used to treat skin lymphomas are interferon-alfa, retinoids and antibodies.

Interferon-alfa

Interferon-alfa stimulates the immune system to fight cancer cells and stops cancer cells dividing. It can be used on its own or in combination with **PUVA** for skin lymphoma that is advanced or has come back (relapsed). Although interferon-alfa improves skin lymphoma for many people, it doesn't usually clear up completely.

It is given as a subcutaneous injection (just under your skin). Sometimes it is injected directly into nodules and tumours. You usually have it three times a week. If you respond to the treatment, you might keep having it for a year or more. You might be taught how to inject it yourself at home, or a family member could be shown how to do it for you.

Like other treatments for lymphoma, interferon-alfa can cause a number of side effects, though nearly all of these are short-lived. It can cause flu-like symptoms such as fever and chills, nausea and loss of appetite. It can also make you feel very tired. You may have low blood counts (**anaemia**, **thrombocytopenia** or **neutropenia**). Some people have low mood or even **depression** as a result of having interferon-alfa. If you develop troublesome side effects, the dose can be reduced or stopped.

Retinoids

Retinoids are chemicals that are related to vitamin A. They disrupt the growth and division of lymphoma cells.

Bexarotene (Targretin®) is a systemic retinoid that is licensed to treat skin lymphomas. It is used for people with advanced stage **T-cell skin lymphoma** that has not responded to at least one other systemic (whole body) treatment. You can have it on its own or alongside **PUVA**.

Bexarotene is available as capsules that you take every day. Most people need to take it for several months before noticing an effect. If you don't have troublesome side effects, you carry on taking it for as long as it is helping you.

Side effects include headaches, skin rash and itching. It is quite common for levels of lipids (fats) to rise in your blood and your doctor should give you drugs to reduce your lipid levels from the start of treatment. Bexarotene can also lead to a drop in thyroid hormone levels. If this happens, you should be given thyroid hormone from the start of treatment. Your white blood cell count might drop. You will have **blood tests** regularly to monitor these side effects.

You can't take bexarotene if you are pregnant. You should not breastfeed if you are taking bexarotene.

Antibodies

Antibodies are proteins that recognise 'foreign' substances in your body (such as lymphoma cells) and bind to them. This can trigger the body's own immune system to destroy the lymphoma cells.

Rituximab (MabThera[®]) is an antibody that binds to a protein called CD20 on B cells. It is used to treat many types of non-Hodgkin lymphoma. It can be very effective for people with **B-cell skin lymphomas**. For early-stage low-grade lymphoma, it can be used on its own. For advanced low-grade lymphoma or high-grade lymphoma it is usually combined with **chemotherapy** (called chemo-immunotherapy). It is usually given once a week for up to 8 weeks.

Alemtuzumab (Campath[®]) is an antibody that binds to a protein called CD52 on T cells and B cells. It is licensed to treat multiple sclerosis but it is used off-licence to treat people with **T-cell skin lymphoma** that is advanced or that has come back after other treatments (described as refractory). It is usually given three times a week.

Brentuximab vedotin (Adcetris[®]) is an antibody that binds to a protein called CD30 on the surface of some lymphoma cells. The antibody is attached to a chemotherapy drug, taking the drug directly to the lymphoma cells. It can be used to treat people with a subtype of T-cell skin lymphoma called **CD30-positive cutaneous T-cell lymphoma (CTCL)** who have not responded to at least one other systemic (whole body) therapy. It is given once every 3 weeks. You can have up to 16 doses in total.

You have antibody therapy through a drip (intravenous infusion) or sometimes by direct injection into skin lymphoma tumours (intralesional injections). They can sometimes cause 'infusion-related' side effects within the first few hours of dosing. You are monitored carefully for these. They may also cause infections, headache, **fatigue**, or a drop in your **blood counts**. Your blood counts will be closely monitored when you have immunotherapy.

Other immunotherapies

Other drugs that act directly on the lymphoma might be available through clinical trials for advanced T-cell skin lymphomas. Check with your doctor to see if there is a trial that is suitable for you. You can find out more about clinical trials and search for a trial that might be suitable for you at [Lymphoma TrialsLink](#).

Systemic chemotherapy

Systemic chemotherapy means treatment to your whole body with drugs that kill cancer cells. **Chemotherapy** drugs work on cells that are **dividing**, such as cancer cells. Unfortunately, this means they also affect healthy cells that divide quickly, such as blood cells, skin cells and hair cells. This can cause **side effects**.

Skin lymphomas can respond well to chemotherapy drugs, but unfortunately the effects tend to last only a few months. You usually have this type of treatment for more advanced skin lymphomas. They aim to relieve symptoms but they don't cure the lymphoma.

Different chemotherapy drugs for lymphoma are given in different ways. For skin lymphomas, they are usually given intravenously (into a vein) or, sometimes, by mouth as tablets or capsules. Chemotherapy may also be given as a cream (topical) to treat smaller areas of skin lymphoma.

Some chemotherapy drugs for skin lymphomas are given on their own. These include:

- **methotrexate**
- pentostatin
- gemcitabine
- etoposide
- chlorambucil.

Other chemotherapy drugs can also be used on their own. Your specialist should tell you what the most suitable option is for you.

Your skin lymphoma might be treated with several chemotherapy drugs at the same time, known as a **chemotherapy regimen**. The most common regimens used to treat skin lymphoma are:

- CHOP (cyclophosphamide, doxorubicin [hydroxydoxorubicin], vincristine [also known as **Oncovin**®] and prednisolone)
- CVP (cyclophosphamide, vincristine and prednisolone).

For B-cell skin lymphomas, doctors often give chemotherapy along with the antibody rituximab (R-CHOP or R-CVP). You usually have treatment several times over a few months, with each cycle of treatment taking 3 or 4 weeks.

Chemotherapy drugs can cause many different **side effects**. The side effects you might experience depend on which type of chemotherapy drug you have. However, side effects can vary a lot even between different people having the same treatments. Your specialist should talk to you about what side effects you might expect with your particular treatment.

You have a higher chance of experiencing troublesome side effects with combined chemotherapy regimens than with other types of treatment. You are only likely to have combination chemotherapy if you have advanced skin lymphoma or a type of skin lymphoma that needs intensive treatment.

Systemic steroids

Steroids are anti-inflammatory drugs that can kill lymphocytes. Topical steroids are commonly used to treat skin lymphomas. Systemic steroids can be given orally (as tablets, capsules or oral solution). The steroid most commonly used to treat skin lymphomas is called prednisolone.

You usually start steroid treatment with a high dose that is gradually reduced over 2 to 3 weeks. After a few weeks, you might stop the treatment or you might carry on taking a low dose for a longer period of time.

You have steroid tablets on their own for some types of skin lymphoma (such as **subcutaneous panniculitis-like T-cell lymphoma**). They can also be used alongside **chemotherapy** treatment – for example, as part of a combination of drugs known as 'CHOP' or 'CVP'.

Steroids have **side effects** if you take them for a long time. They can cause too much water to be stored in your body (fluid retention), weight gain, increased blood pressure, raised blood sugar levels, mood changes or sleep disturbance. Note that side effects are less likely with a short course of treatment typical for skin lymphomas.

Immunosuppressants

Immunosuppressants are drugs that dampen your **immune system**. An immunosuppressant medicine called ciclosporin, licensed to treat eczema and dermatitis, is sometimes used off-licence for a type of skin lymphoma called **subcutaneous panniculitis-like T-cell lymphoma (SPTCL)**.

Ciclosporin is usually given as a tablet that you take twice a day. It can have serious side effects, including kidney damage, high blood pressure, diarrhoea, loss of appetite, nausea and vomiting. You have regular blood tests to check your kidney function during treatment.

Extracorporeal photopheresis

Extracorporeal photopheresis (ECP) is similar to **PUVA** but it treats your **white blood cells**, not just your skin. You may have it if you have advanced **mycosis fungoides** or **Sézary syndrome**. White blood cells that have been treated start to break down and release proteins. This stimulates your **immune system** to make cells that bind to these proteins and kill the lymphoma cells.

To have the treatment, you have very thin plastic tubes inserted into a vein in both your arms. Blood is removed through the tube in one arm. The blood flows through a machine that separates out the white blood cells. A drug called psoralen is added to the cells, which makes them sensitive to light. They are then exposed to UV light.

The treated white blood cells are then given back to you through the tube in your other arm. You have this treatment on two successive days every 2 to 4 weeks. You might feel a bit dizzy or sick during treatment. Afterwards, your skin might feel red or itchy and you might have a fever.

It can take several months before you notice any difference in your skin. If there isn't much improvement after a few months, you might switch to another treatment or you might have interferon-alfa or bexarotene added to ECP.

The **National Blood Transfusion Service** has a leaflet on ECP.

Stem cell transplants

A few people with advanced T-cell skin lymphoma have a stem cell transplant. This is a complicated and intensive treatment. It involves high-dose chemotherapy followed by treatment with immature cells (stem cells) to help your bone marrow recover. You have to stay in hospital for a few weeks. Stem cell transplants are usually only suitable for people who are fit enough. For more detailed information, visit our **stem cell transplant** pages.

Research and future treatments

As skin lymphoma is rare, it is difficult for drug companies to conduct clinical trials that are large enough to show that a drug is beneficial and to allow it to be **licensed**. Many treatments used for skin lymphoma are used off-licence. They are often medicines that are licensed for another form of lymphoma or another skin condition.

The treatments listed below have been shown to be effective against certain types of skin lymphomas. At the time of writing, they are not routinely available in the UK. Some treatments are experimental and might be available in a clinical trial.

You can find out more about clinical trials and search for a trial that might be suitable for you at [Lymphoma TrialsLink](#).

Topical bexarotene

Bexarotene is a **retinoid** that is available as a capsule to treat advanced T-cell skin lymphomas. In the US, it is also available as a gel that can be applied directly to the skin. The gel is not currently available in the UK.

HDAC inhibitors

HDAC inhibitors alter the activity of genes to make cancer cells die. They also modify the body's immune response to cancer cells.

Clinical trials have shown that these drugs might be helpful in people with more advanced skin lymphomas. Several HDAC inhibitors are licensed to treat T-cell skin lymphomas in the USA but they are not currently licensed in Europe. They may be available in the UK as part of a **clinical trial**.

Toxin therapies

Denileukin diftitox is a drug that contains the diphtheria toxin. It targets a protein called CD25 on B cells and T cells, taking the toxin to them and destroying them. In the US, it is licensed to treat advanced skin lymphomas that have not responded to previous treatments. At the time of writing, it is not available in the UK.

Bortezomib

Bortezomib is a targeted drug that is licensed to treat people with **mantle cell lymphoma** who cannot have a stem cell transplant. Early clinical trials have shown it may also be effective for people with advanced T-cell skin lymphomas.

Pralatrexate

Pralatrexate is a chemotherapy drug that is licensed in the US to treat people with **peripheral T-cell lymphoma (PTCL)** that has not responded (refractory), or has come back (relapsed), after previous treatment. In clinical trials it has shown promising efficacy in T-cell skin lymphomas.

Temazolamide

Temozolamide is a chemotherapy drug that is licensed in the US to treat certain types of brain cancer. It may also be effective for people with advanced skin lymphomas, including people whose lymphoma has spread to the central nervous system (brain or spinal cord).

We have separate information about the topics in **bold font**. Please get in touch if you'd like to request copies or if you would like further information about any aspect of lymphoma. Phone 0808 808 5555 or email information@lymphoma-action.org.uk.

References

The full list of references for this page is available on our website. Alternatively, email publications@lymphoma-action.org.uk or call 01296 619409 if you would like a copy.

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