

## Targeted treatments and antibody therapies available for lymphoma

New targeted treatments and antibody therapies are being developed to treat lymphoma all the time. This information lists specific drugs that are currently approved to treat lymphoma, including who might have them, how to take them and their main side effects. We have separate information on [how targeted treatments and antibody therapies work](#) and on [CAR T-cell therapy](#). We also have more information on the [side effects of treatment](#), including tips on how to cope with them.

You may wish to use this information to look up a particular treatment, rather than reading the whole page.

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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](mailto:information@lymphoma-action.org.uk).

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## Acalabrutinib

Acalabrutinib is a type of targeted drug called a **BTK inhibitor**.

### Who can have it?

Acalabrutinib is approved:

- On its own for adults with **chronic lymphocytic leukaemia or small lymphocytic lymphoma** (CLL/SLL) who haven't had treatment before if they have high-risk genetic mutations or if chemo-immunotherapy is not suitable for them.
- Combined with **obinutuzumab** for adults with CLL/SLL who haven't had treatment before. At present, it is not available on the NHS for this use.
- On its own for adults with CLL/SLL that has come back or not responded to at least one previous course of treatment.

### How do you have it?

Acalabrutinib is a capsule that you take by mouth twice a day. You carry on taking it unless your CLL/SLL gets worse or you develop side effects that are difficult to cope with.

### What are the main side effects?

The most common side effects of acalabrutinib are:

- low blood counts (**anaemia**, **thrombocytopenia** or **neutropenia**)
- **infections**
- **fatigue**
- headache and dizziness
- **diarrhoea, constipation or tummy pain**
- bleeding or bruising
- muscle or joint pain
- **feeling sick or being sick**
- cough
- **skin rash**
- a higher chance than usual of developing some types of cancer in the future.

Even when side effects are listed as 'very common', it only means that more than 1 in 10 people having the treatment get them. Many people do **not** get them. Side effects vary from person to person and it can be hard to predict how treatment might affect you.

If you experience any side effects, tell your medical team. They can often prescribe things to help, or give you advice on how to cope.

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## Bortezomib

Bortezomib is a type of targeted drug called a **proteasome inhibitor**.

### Who can have it?

Bortezomib is approved for adults with **mantle cell lymphoma** who haven't been treated before and who can't have a **stem cell transplant**. It is given with **rituximab** and a combination of **chemotherapy** drugs.

### How do you have it?

You have bortezomib as an injection into a vein (intravenous injection) or just under your skin (subcutaneous injection). You usually have it twice a week for 2 weeks followed by a week off. This is a treatment cycle. Most people have up to 8 cycles.

## What are the main side effects?

The most common side effects of bortezomib are:

- **feeling sick or being sick**
- **diarrhoea or constipation**
- **fatigue**
- fever
- low blood counts (**anaemia**, **thrombocytopenia** or **neutropenia**)
- **peripheral neuropathy**
- loss of appetite
- muscle or joint pain.

Even when side effects are listed as 'very common', it only means that more than 1 in 10 people having the treatment get them. Many people do **not** get them. Side effects vary from person to person and it can be hard to predict how treatment might affect you.

If you experience any side effects, tell your medical team. They can often prescribe things to help, or give you advice on how to cope.

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## Brentuximab vedotin

Brentuximab vedotin is a type of antibody therapy called an **antibody–drug conjugate**. It sticks to a protein called CD30.

### Who can have it?

Brentuximab vedotin can only be used if your lymphoma cells make a protein called CD30. Cells from your **biopsy** sample might be tested for CD30 before you can have brentuximab vedotin.

Brentuximab vedotin is approved for:

- Adults with **stage 3** or **stage 4 Hodgkin lymphoma** who haven't had treatment before. It is given with a combination of **chemotherapy** drugs. It is not currently available on the NHS for this use.
- Adults with Hodgkin lymphoma that has come back or not responded after a **stem cell transplant**.

- Adults with Hodgkin lymphoma who have a high risk of their lymphoma coming back or getting worse after a stem cell transplant. It is not currently available on the NHS for this use.
- Adults with Hodgkin lymphoma who have had at least two previous courses of treatment and who can't have a stem cell transplant or a combination of **chemotherapy** drugs.
- Adults with **systemic anaplastic large cell lymphoma (ALCL)** who haven't had treatment before. It is given with a combination of **chemotherapy** drugs.
- Adults with **systemic anaplastic large cell lymphoma (ALCL)** that has come back or not responded after previous treatment. It is given on its own. It is not currently available on the NHS in Scotland for this use but it is available in the other UK nations.
- Adults with **T-cell skin lymphoma** who have already received at least one course of systemic (drug) treatment.

## How do you have it?

You have brentuximab vedotin through a drip into a vein. You have it every 2 to 3 weeks for up to 16 cycles.

## What are the main side effects?

The most common side effects of brentuximab vedotin are:

- flu-like symptoms when the treatment goes into your vein (an 'infusion site reaction')
- **infections**
- **peripheral neuropathy**
- **feeling sick or being sick**
- **fatigue**
- **diarrhoea, constipation or tummy pain**
- fever
- low white blood cell count (**neutropenia**)
- muscle or joint pain
- cough or breathlessness
- **skin rash or itching.**

Even when side effects are listed as 'very common', it only means that more than 1 in 10 people having the treatment get them. Many people do **not** get them. Side effects vary from person to person and it can be hard to predict how treatment might affect you.

If you experience any side effects, tell your medical team. They can often prescribe things to help, or give you advice on how to cope.

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## Duvelisib

Duvelisib is a type of targeted drug called a **PI3K inhibitor**.

### Who can have it?

Duvelisib is approved:

- On its own for adults with **chronic lymphocytic leukaemia or small lymphocytic lymphoma** (CLL or SLL) that has come back or not responded after at least two previous courses of treatment. It is not currently available on the NHS for this use.
- On its own for adults with **follicular lymphoma** that has come back or not responded after at least two previous courses of treatment. It is not currently available on the NHS for this use.

### How do you have it?

You have duvelisib as capsules that you take by mouth twice a day. You carry on taking it unless your lymphoma gets worse or you develop side effects that are difficult to cope with.

### What are the main side effects?

The most common side effects of duvelisib are:

- **infections**
- low blood counts (**anaemia, thrombocytopenia** or **neutropenia**)
- loss of appetite
- headache
- cough or breathlessness
- **feeling sick or being sick**
- **diarrhoea, constipation or tummy pain**
- **skin rash**
- muscle or joint pain
- fever
- **fatigue**
- changes in your liver function (found on blood tests).

Even when side effects are listed as 'very common', it only means that more than 1 in 10 people having the treatment get them. Many people do **not** get them. Side effects vary from person to person and it can be hard to predict how treatment might affect you.

If you experience any side effects, tell your medical team. They can often prescribe things to help, or give you advice on how to cope.

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## Epcoritamab

Epcoritamab is a type of **bispecific antibody**.

### Who can have it?

Epcoritamab is approved for:

- relapsed or refractory **diffuse large B-cell lymphoma** in adults after 2 or more systemic treatments. It is only available if they have previously been treated with **polatuzumab vedotin**, or if polatuzumab vedotin is not suitable.

### How do you have it?

You have epcoritamab as an injection just underneath your skin (subcutaneously). You have pre-medication first, to help prevent any reactions to the medicine. Epcoritamab is given in 28-day cycles. The first cycle includes two lower (priming and intermediate doses) and two full doses. Cycles 2 and 3 include weekly doses, reducing to doses every two weeks in cycles 4 to 9, and finally every four weeks from cycle 10 onwards. You carry on having it unless your lymphoma gets worse or you develop side effects that are difficult to cope with.

### What are the main side effects?

Even when side effects are listed as 'very common', it only means that more than 1 in 10 people having the treatment get them. Many people do **not** get them. Side effects vary from person to person and it can be hard to predict how treatment might affect you.

The most common side effects of epcoritamab are:

- pneumonia
- low blood counts (**anaemia**, **thrombocytopenia** or **neutropenia**)
- **cytokine release syndrome**

- headache
- abdominal pain
- **feeling sick (nausea)** and vomiting
- **diarrhoea**
- **fatigue**
- injection site reactions
- fever
- oedema

If you experience any side effects, tell your medical team. They can often prescribe things to help, or give you advice on how to cope.

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## Glofitamab

Glofitamab is a type of **bispecific antibody**.

### Who can have it?

Glofitamab is approved for:

- relapsed or refractory **diffuse large B-cell lymphoma** in adults after 2 or more systemic treatments.

### How do you have it?

You have glofitamab as a drip into a vein (intravenous infusion) over a few hours. To reduce the risk of side effects one dose of obinutuzumab is given a week before the first dose of glofitamab. Glofitamab is then started at a low dose and increased in weekly step-up doses for 3 doses. Pre-medications including steroids are also given to reduce the risk of side effects. Once at the target dose the drug is given every 3 weeks. You can have up to 12 cycles of treatment depending on response and side effects.

### What are the main side effects?

Even when side effects are listed as 'very common', it only means that more than 1 in 10 people having the treatment get them. Many people do **not** get them. Side effects vary from person to person and it can be hard to predict how treatment might affect you.

The most common side effects of glofitamab are:

- **cytokine release syndrome**



- **infections**
- tumour flare (temporary increase in symptoms)
- low blood counts (**anaemia**, **thrombocytopenia** or **neutropenia**)
- fever
- low levels, as measured in blood tests, of phosphate, magnesium, calcium or potassium
- **skin rash**
- **diarrhoea or constipation**
- **feeling sick (nausea)**
- headache

If you experience any side effects, tell your medical team. They can often prescribe things to help, or give you advice on how to cope.

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## Ibrutinib

Ibrutinib is a type of targeted drug called a **BTK inhibitor**.

### Who can have it?

Ibrutinib is approved:

- On its own for adults with **mantle cell lymphoma** that has come back or not responded after one previous course of treatment. During the COVID-19 pandemic, it has also been available (on its own or combined with **rituximab**) for people with mantle cell lymphoma who have not had treatment before.
- On its own for adults with **chronic lymphocytic leukaemia or small lymphocytic lymphoma** (CLL or SLL) who haven't had treatment before and who have high-risk genetic mutations.
- Combined with **rituximab** or **obinutuzumab** for adults with CLL/SLL who haven't had treatment before.
- Combined with **venetoclax** for adults with CLL/SLL who haven't had treatment before.
- On its own for adults with CLL/SLL who have had at least one previous course of treatment.
- Combined with rituximab and chemotherapy for adults with CLL/SLL who have had at least one previous course of treatment. At present, it is not available on the NHS for this use.
- On its own for adults with **Waldenström's macroglobulinaemia** (WM) who have had one previous course of treatment.

- On its own for adults with WM who can't have chemo-immunotherapy. At present, it is not available on the NHS for this use.
- Combined with rituximab for adults with WM. At present, it is available on the NHS in Scotland for this use in people who have had at least one previous course of treatment only. It is not currently available on the NHS for this use in other UK nations.

## How do you have it?

You have ibrutinib as tablets that you take by mouth once a day. You carry on taking it unless your lymphoma gets worse or you develop side effects that are difficult to cope with.

## What are the main side effects?

The most common side effects of acalabrutinib are:

- low blood counts (**thrombocytopenia** or **neutropenia**)
- **infections**
- **diarrhoea or constipation**
- muscle or joint pain
- **skin rash**
- bruising and bleeding
- **feeling sick or being sick**
- fever
- headache and dizziness
- changes in the levels of some salts in your blood.

Even when side effects are listed as 'very common', it only means that more than 1 in 10 people having the treatment get them. Many people do **not** get them. Side effects vary from person to person and it can be hard to predict how treatment might affect you.

If you experience any side effects, tell your medical team. They can often prescribe things to help, or give you advice on how to cope.

## Idelalisib

Idelalisib is a type of targeted drug called a **PI3K inhibitor**.

## Who can have it?

Idelalisib is approved:

- Combined with **rituximab** for adults with **chronic lymphocytic leukaemia or small lymphocytic lymphoma** (CLL or SLL) who haven't had treatment before, have high-risk genetic mutations and can't have any other treatments.
- Combined with **rituximab** for adults with CLL/SLL that has come back or not responded within 24 months of a previous course of treatment. In England, Wales and Northern Ireland, it is available on the NHS for this use only if CLL/SLL came back within 24 months of a previous course of treatment. In Scotland, it is available on the NHS for this use only for people who can't have chemo-immunotherapy.
- On its own for adults with **follicular lymphoma** that has come back or not responded after at least two previous courses of treatment. It is available on the NHS in Scotland for this use. It is not currently available on the NHS for this use in other UK nations.

## How do you have it?

You have idelalisib as tablets that you take by mouth twice a day. You carry on taking it unless your lymphoma gets worse or you develop side effects that are difficult to cope with.

## What are the main side effects?

The most common side effects of idelalisib are:

- **infections**
- increased levels of lymphocytes in your blood (lymphocytosis) – although this does not normally cause any problems
- low neutrophil count (**neutropenia**)
- **diarrhoea**
- **skin rash**
- fever
- changes in your liver function (found on blood tests).

Even when side effects are listed as 'very common', it only means that more than 1 in 10 people having the treatment get them. Many people do **not** get them. Side effects vary from person to person and it can be hard to predict how treatment might affect you.

If you experience any side effects, tell your medical team. They can often prescribe things to help, or give you advice on how to cope.

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## Lenalidomide

Lenalidomide is a type of targeted drug called an **immunomodulator**.

### Who can have it?

Lenalidomide is approved:

- With rituximab for adults with **follicular lymphoma** that has come back or not responded after previous treatment.
- On its own for adults with **mantle cell lymphoma** that has come back or not responded after previous treatment. It is not currently available on the NHS for this use.

### How do you have it?

You have lenalidomide as tablets that you take once a day for 21 days, followed by 7 days without treatment in each 28-day cycle. You usually have up to 12 cycles of treatment.

### What are the main side effects?

The most common side effects of lenalidomide are:

- **infections**
- low blood counts (**anaemia**, **thrombocytopenia** or **neutropenia**)
- **diarrhoea or constipation**
- **fatigue**
- **peripheral neuropathy**
- **feeling sick**
- fever
- cough
- **skin rash**
- muscle spasms
- changes in the level of some salts in your blood.

Even when side effects are listed as 'very common', it only means that more than 1 in 10 people having the treatment get them. Many people do **not** get them. Side effects

vary from person to person and it can be hard to predict how treatment might affect you.

If you experience any side effects, tell your medical team. They can often prescribe things to help, or give you advice on how to cope.

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## Loncastuximab tesirine

Loncastuximab tesirine is a type of antibody therapy called an **antibody–drug conjugate**. It sticks to a protein called CD19.

### Who can have it?

Loncastuximab tesirine is approved for:

- Adults with **diffuse large B-cell lymphoma (DLBCL)** and high-grade B-cell lymphoma that has come back or not responded to 2 or more systemic therapies. It is only available if they have previously been treated with **polatuzumab vedotin**, or if polatuzumab vedotin is not suitable.

### How do you have it?

You have loncastuximab tesirine through a drip into a vein over a period of 30 minutes. During treatment with loncastuximab tesirine you will also be given another medicine called dexamethasone to help reduce side effects of treatment. You take dexamethasone either by mouth or through a drip into your vein twice a day for three days, beginning the day before you receive loncastuximab tesirine treatment.

### What are the main side effects?

The most common side effects of loncastuximab tesirine are:

- **infections**
- **fatigue**
- swelling
- low blood counts (**anaemia, thrombocytopenia** or **neutropenia**)
- loss of appetite
- **feeling sick or being sick**
- **diarrhoea, constipation or tummy pain**
- skin reactions.

Even when side effects are listed as 'very common', it only means that more than 1 in 10 people having the treatment get them. Many people do **not** get them. Side effects vary from person to person and it can be hard to predict how treatment might affect you.

If you experience any side effects, tell your medical team. They can often prescribe things to help, or give you advice on how to cope.

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## Mogamulizumab

Mogamulizumab is a **monoclonal antibody therapy** that sticks to a protein called CCR4.

### Who can have it?

Mogamulizumab is approved for adults with skin lymphomas called **mycosis fungoides** or **Sézary syndrome** who have had at least one previous course of systemic (whole body) treatment. It is currently available on the NHS in Scotland only for people who can't have, or have not responded to, treatment with **brentuximab vedotin**. At present, it is not available on the NHS in other UK nations but this is under review. In England and Wales, it is available on the NHS for:

- adults with Sézary syndrome who have had at least one previous course of whole body (systemic) treatment
- adults with mycosis fungoides that is stage 2B or above, and who have had at least two previous courses of whole body treatment.

### How do you have it?

You have mogamulizumab through a drip into a vein. You have it every week at first, and then every 2 weeks. You carry on having it unless your lymphoma gets worse or you develop side effects that are difficult to cope with.

### What are the main side effects?

The most common side effects of mogamulizumab are:

- flu-like symptoms when the treatment goes into your vein (an 'infusion site reaction')
- **diarrhoea or constipation**
- **infections**
- **feeling sick**

- **fatigue**
- fever
- swelling in your hands or feet
- **skin rash**
- headache.

Even when side effects are listed as 'very common', it only means that more than 1 in 10 people having the treatment get them. Many people do **not** get them. Side effects vary from person to person and it can be hard to predict how treatment might affect you.

If you experience any side effects, tell your medical team. They can often prescribe things to help, or give you advice on how to cope.

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## Nivolumab

Nivolumab is a type of targeted drug called a **checkpoint inhibitor**.

### Who can have it?

Nivolumab is approved for adults with **Hodgkin lymphoma** that has come back or not responded after a **stem cell transplant** and a course of **brentuximab vedotin**.

### How do you have it?

You have nivolumab through a drip into a vein every 2 weeks. You carry on having it unless your lymphoma gets worse or you develop side effects that are difficult to cope with.

### What are the main side effects?

The most common side effects of nivolumab are:

- **fatigue**
- **itching or skin rash**
- **diarrhoea**
- **feeling sick**
- changes in your liver function (found on blood tests).

Even when side effects are listed as 'very common', it only means that more than 1 in 10 people having the treatment get them. Many people do **not** get them. Side effects

vary from person to person and it can be hard to predict how treatment might affect you.

If you experience any side effects, tell your medical team. They can often prescribe things to help, or give you advice on how to cope.

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## Obinutuzumab

Obinutuzumab is a **monoclonal antibody therapy** that sticks to a protein called CD20.

### Who can have it?

Obinutuzumab is approved:

- Combined with an oral chemotherapy drug called chlorambucil for adults with **chronic lymphocytic leukaemia or small lymphocytic lymphoma** (CLL or SLL) who haven't had treatment before and who can't have standard doses of chemotherapy.
- Combined with a targeted drug called **venetoclax** for adults with CLL/SLL who have not been treated before. In Scotland, Wales and Northern Ireland, this combination is currently only available on the NHS for adults with CLL/SLL with genetic changes that mean they're at high risk of relapse, or adults without high-risk genetic changes who can't have chemo-immunotherapy. In England it is available through the **Cancer Drugs Fund** for adults with CLL who have not been treated before regardless of genetic changes or suitability for other treatments.
- Combined with **chemotherapy** for adults with advanced **follicular lymphoma** who haven't had treatment before. It is not currently available on the NHS in Scotland for this use but it is available in the other UK nations.
- Combined with a chemotherapy drug called bendamustine for adults with follicular lymphoma that has come back or not responded within 6 months of treatment that included **rituximab**.
- On its own as **maintenance therapy** for adults with follicular lymphoma who responded to treatment.

### How do you have it?

You have obinutuzumab through a drip into a vein. You have pre-medication first, to help prevent any reactions to the medicine.



You usually have obinutuzumab once every 3 or 4 weeks. You might have it more frequently during your first month of treatment. You have 6 to 8 cycles of treatment.

People with follicular lymphoma might have obinutuzumab **maintenance therapy** after finishing their course of treatment, to help their remission last as long as possible.

## What are the main side effects?

The most common side effects of obinutuzumab are:

- flu-like symptoms, sickness, breathlessness and fast heart rate when the treatment goes into your vein (an 'infusion site reaction')
- **infections**
- low blood counts (**anaemia, thrombocytopenia** or **neutropenia**)
- **fatigue**
- headache
- muscle or joint pain
- fever
- weakness
- difficulty sleeping
- **hair loss**
- cough
- **diarrhoea or constipation.**

Even when side effects are listed as 'very common', it only means that more than 1 in 10 people having the treatment get them. Many people do **not** get them. Side effects vary from person to person and it can be hard to predict how treatment might affect you.

If you experience any side effects, tell your medical team. They can often prescribe things to help, or give you advice on how to cope.

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## Pembrolizumab

Pembrolizumab is a type of targeted drug called a **checkpoint inhibitor**.

### Who can have it?

Pembrolizumab is approved for adults and children over 3 who have relapsed or refractory **Hodgkin lymphoma** who have had at least 2 previous treatments and

cannot have an autologous stem cell transplant. Pembrolizumab is available as a treatment option only if previously treated with brentuximab vedotin.

## How do you have it?

You have pembrolizumab through a drip into a vein every 3 to 6 weeks. You carry on having it unless your lymphoma gets worse or you develop side effects that are difficult to cope with. At present, if you are having pembrolizumab on the NHS, you can have treatment for up to 2 years.

## What are the main side effects?

The most common side effects of pembrolizumab are:

- flu-like symptoms when the treatment goes into your vein (an 'infusion site reaction')
- **infections**
- low blood counts (**anaemia, thrombocytopenia** or **neutropenia**)
- **fatigue**
- **itching or skin rash**
- **diarrhoea, constipation or tummy pain**
- **feeling sick or being sick**
- headache or dizziness
- **peripheral neuropathy**
- cough or breathlessness
- muscle or joint pain
- fever
- loss of appetite
- changes in your thyroid function
- changes in the level of salts in your blood.

Even when side effects are listed as 'very common', it only means that more than 1 in 10 people having the treatment get them. Many people do **not** get them. Side effects vary from person to person and it can be hard to predict how treatment might affect you.

If you experience any side effects, tell your medical team. They can often prescribe things to help, or give you advice on how to cope.

# Polatuzumab vedotin

Polatuzumab vedotin is a type of antibody therapy called an **antibody–drug conjugate**. It sticks to a protein called CD79b.

## Who can have it?

Polatuzumab vedotin is approved for:

- adults with previously untreated **diffuse large B-cell lymphoma** (DLBCL) with an International Prognostic Index (IPI) of 2 to 5. The IPI is a tool used by your healthcare team to aid in predicting the likely outcome of treatment. Polatuzumab vedotin is given with **rituximab** and the **chemotherapy** regimen known as CHP (cyclophosphamide, doxorubicin, and prednisone).
- adults with DLBCL that has come back or not responded to previous treatment and who can't have a **stem cell transplant**. It is given with **rituximab** and a **chemotherapy** drug called bendamustine.

## How do you have it?

You have polatuzumab vedotin through a drip into a vein once every 21 days. You have pre-medication first, to help prevent any reactions to the medicine. You have up to six cycles of treatment.

## What are the main side effects?

The most common side effects of polatuzumab vedotin are:

- flu-like symptoms when the treatment goes into your vein (an 'infusion site reaction')
- **infections**
- low blood counts (**anaemia, thrombocytopenia** or **neutropenia**)
- **peripheral neuropathy**
- **diarrhoea, constipation or tummy pain**
- **feeling sick or being sick**
- **fatigue**
- fever
- cough
- loss of appetite and weight loss
- changes in the level of salts in your blood.

Even when side effects are listed as 'very common', it only means that more than 1 in 10 people having the treatment get them. Many people do **not** get them. Side effects vary from person to person and it can be hard to predict how treatment might affect you.

If you experience any side effects, tell your medical team. They can often prescribe things to help, or give you advice on how to cope.

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## Rituximab

Rituximab is a **monoclonal antibody therapy** that sticks to a protein called CD20.

### Who can have it?

Rituximab is approved:

- Combined with **chemotherapy** for adults with **diffuse large B-cell lymphoma** (DLBCL), **chronic lymphocytic leukaemia or small lymphocytic lymphoma** (CLL/SLL) or advanced-stage **follicular lymphoma**.
- Combined with chemotherapy for children 6 months and over with advanced stage DLBCL, **Burkitt lymphoma** or Burkitt-like lymphoma.
- Combined with chemotherapy or **lenalidomide** for adults with follicular lymphoma that has come back or not responded to chemotherapy.
- On its own for adults with follicular lymphoma that has come back or not responded to chemotherapy and who can't have any other options.
- On its own as **maintenance therapy** for adults with follicular lymphoma or **mantle cell lymphoma** who responded to treatment with rituximab and chemotherapy.

It is also widely used to treat other types of **B-cell non-Hodgkin lymphoma** and **nodular lymphocyte-predominant Hodgkin lymphoma** (NLPHL).

### How do you have it?

You have rituximab through a drip into a vein (intravenously) or as an injection just underneath your skin (subcutaneously). You have pre-medication first, to help prevent any reactions to the medicine. You have your first dose very slowly, so your medical team can check for any reactions.

You usually have rituximab once every 3 or 4 weeks, although this varies depending on the type of lymphoma you have and any chemotherapy drugs you are having (if any). Most people have up to 8 cycles of treatment.

If you are having rituximab as maintenance therapy for follicular lymphoma, you have it once every 2 to 3 months for up to 2 years. If you are having rituximab as maintenance therapy for mantle cell lymphoma, you have it once every 2 months for 3 years or more.

## What are the main side effects?

The most common side effects of rituximab are:

- flu-like symptoms, breathlessness and rash when the treatment goes into your vein (an 'infusion site reaction')
- **infections**
- low blood counts (**anaemia**, **thrombocytopenia** or **neutropenia**)
- headache
- fever
- **feeling sick**
- **itching or skin rash**
- low antibody levels.

Even when side effects are listed as 'very common', it only means that more than 1 in 10 people having the treatment get them. Many people do **not** get them. Side effects vary from person to person and it can be hard to predict how treatment might affect you.

If you experience any side effects, tell your medical team. They can often prescribe things to help, or give you advice on how to cope.

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## Tafasitamab

Tafasitamab is a **monoclonal antibody therapy** that sticks to a protein called CD19.

### Who can have it?

Tafasitamab is approved for adults with **diffuse large B-cell lymphoma** (DLBCL) that has come back or not responded to previous treatment and who can't have a **stem cell transplant**. It is given in combination with lenalidomide at first, and then on its own. At present, it is not available on the NHS for this use.

## How do you have it?

You have tafasitamab through a drip into a vein. You have pre-medication first, to help prevent any reactions to the medicine.

You have two doses in the first week followed by one dose a week for the next 7 weeks. You then have it once every 2 weeks. You carry on having it unless your lymphoma gets worse or you develop side effects that are difficult to cope with.

For the first 12 months of treatment, you have it combined with lenalidomide.

## What are the main side effects?

The most common side effects of tafasitamab are:

- **infections**
- low blood counts (**anaemia, thrombocytopenia** or **neutropenia**)
- **diarrhoea, constipation or tummy pain**
- **feeling sick or being sick**
- loss of appetite
- **fatigue**
- cough or breathlessness
- changes in the levels of salts in your blood
- **skin rash**
- muscle or joint pain
- fever.

Even when side effects are listed as 'very common', it only means that more than 1 in 10 people having the treatment get them. Many people do **not** get them. Side effects vary from person to person and it can be hard to predict how treatment might affect you.

If you experience any side effects, tell your medical team. They can often prescribe things to help, or give you advice on how to cope.

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## Venetoclax

Venetoclax is a type of targeted drug called a **BCL-2 inhibitor**.

## Who can have it?

Venetoclax is approved:

- Combined with **obinutuzumab** for adults with **chronic lymphocytic leukaemia or small lymphocytic lymphoma** (CLL/SLL) who have not been treated before. In Scotland, this combination is currently only available on the NHS for adults with CLL/SLL with genetic changes that mean they're at high risk of relapse, or adults without high-risk genetic changes who can't have chemo-immunotherapy. In England, Northern Ireland and Wales, it is available for adults with CLL who have not been treated before regardless of genetic changes or suitability for other treatments.
- Combined with **ibrutinib** for adults with CLL/SLL who haven't had treatment before.
- Combined with **rituximab** for adults with CLL/SLL who have had at least one previous course of treatment.
- On its own for adults with CLL/SLL with genetic changes that mean they're at high risk of relapse and who either can't have treatment with a **B-cell receptor inhibitor**, or whose CLL/SLL has not responded to B-cell receptor inhibitor treatment.
- On its own for adults with CLL/SLL that has come back after treatment with chemo-immunotherapy (**chemotherapy** combined with **antibody therapy**) and a B-cell receptor pathway inhibitor.

## How do you have it?

You have venetoclax as tablets that you take by mouth once a day. If you're having it on its own, you carry on taking it unless your lymphoma gets worse or you develop side effects that are difficult to cope with. If you're having it with rituximab or obinutuzumab, you usually carry on taking it for 1 to 2 years.

## What are the main side effects?

The most common side effects of venetoclax are:

- **infections**
- low blood counts (**anaemia**, **thrombocytopenia** or **neutropenia**)
- **diarrhoea or constipation**
- **feeling sick or being sick**
- **fatigue**
- changes in the levels of salts in your blood.

Even when side effects are listed as 'very common', it only means that more than 1 in 10 people having the treatment get them. Many people do **not** get them. Side effects

vary from person to person and it can be hard to predict how treatment might affect you.

If you experience any side effects, tell your medical team. They can often prescribe things to help, or give you advice on how to cope.

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## Zanubrutinib

Zanubrutinib is a type of targeted drug called a **BTK inhibitor**.

### Who can have it?

Zanubrutinib is approved:

- On its own for adults with **Waldenström's macroglobulinaemia** (WM) that has come back or not responded after at least one previous course of treatment.
- On its own for adults with WM who have not had treatment before and who can't have chemo-immunotherapy.
- For adults with **chronic lymphocytic leukaemia** (CLL) who have not had treatment before where there is either:
  - a 17p deletion or tumour protein 53 (TP53) mutation, **or**
  - no 17p deletion or TP53 mutation, **and** treatment with a chemo-immunotherapy regimen (fludarabine plus cyclophosphamide and rituximab, or bendamustine plus rituximab) is unsuitable.
- For adults with CLL that has come back or not responded after at least one previous course of treatment.

### How do you have it?

Zanubrutinib is a capsule that you take by mouth once or twice a day. You carry on taking it unless your lymphoma gets worse or you develop side effects that are difficult to cope with.

### What are the main side effects?

The most common side effects of zanubrutinib are:

- **infections**
- low blood counts (**anaemia**, **thrombocytopenia** or **neutropenia**)
- **diarrhoea or constipation**
- **feeling sick or being sick**



- bleeding
- high blood pressure
- **fatigue**
- cough or breathlessness
- changes in the levels of salts in your blood
- **itching or skin rash**
- bruising
- muscle or joint pain
- headache or dizziness
- fever.

Even when side effects are listed as 'very common', it only means that more than 1 in 10 people having the treatment get them. Many people do **not** get them. Side effects vary from person to person and it can be hard to predict how treatment might affect you.

If you experience any side effects, tell your medical team. They can often prescribe things to help, or give you advice on how to cope.

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## References

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

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