Venetoclax + rituximab

Venetoclax and rituximab is a combination of medicines. It is used to treat some people with chronic lymphocytic leukaemia (CLL).

Summary

- Venetoclax and rituximab is a combination of medicines. It is used to treat some people with chronic lymphocytic leukaemia (CLL).
- Venetoclax is a targeted treatment. It comes as film-coated tablets that you take by mouth every day.
- Rituximab is an antibody therapy. You have it through a drip into a vein at a hospital day unit.
- You have venetoclax and rituximab treatment in cycles. One cycle is 28 days.
- Your haematology team will monitor how your body is coping with treatment.
- You will also have blood tests to check how well your CLL is responding.
- Some people get side effects. Some people have mild side effects, whereas others get more severe side effects.
- Some side effects can be serious if they are not treated promptly. Contact your haematology team straight away if:
    - You think you might have an infection
    - Your pee is dark or cloudy
    - You have a seizure (fit)
    - You feel weak, exhausted or confused
    - You have pain or bloating in your tummy, diarrhoea or sickness
    - You have difficulty breathing or shortness of breath
    - Your heart rate is fast or uneven, or your pulse is weak or uneven
    - You develop a rash or blue, grey or pale, blotchy skin, lips or tongue (on black or brown skin, look on the palms of the hands or soles of the feet)
- Tell your haematology team if you get any other side effects. They may be able to suggest things to help.

Download our leaflet about venetoclax and rituximab

What is venetoclax and rituximab?

Venetoclax and rituximab is a combination of medicines. It is used to treat some people with chronic lymphocytic leukaemia (CLL).

Venetoclax

Venetoclax is a targeted medicine that helps slow down the progression of CLL. It blocks a protein in CLL cells called BCL-2. This protein stops CLL cells dying when they should. Blocking it makes the cells self-destruct and die.

The brand name for venetoclax is Venclyxto.

Rituximab

Rituximab is an antibody therapy made with antibodies produced in a lab. They are monoclonal antibodies, which means they are all of one type. The antibodies stick to a protein on the surface of CLL cells called CD20. This triggers your immune system to destroy the CLL cells.

Brand names for rituximab are:

- MabThera
- Rixathon
- Ruxience
- Truxima

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Who might have it?

Venetoclax and rituximab is suitable for adults. Your haematology team might recommend it if you have CLL that needs treatment and you have had at least one treatment for it before.

Treatment aims to reduce your symptoms and keep your CLL under control for as long as possible with as few side effects as possible.

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Before starting this treatment

Before prescribing venetoclax and rituximab, your haematology team will make sure it is suitable for you. You'll have:

- Blood tests to check your blood cell counts
- Blood tests to check your liver and kidney function, and the levels of salts and minerals in your body
- Blood tests to check whether you have an active infection or infections that could flare up during treatment, such as viral hepatitis
- Checks of your heart health
- A CT scan to find out if CLL is affecting your organs, like your spleen

Your team may recommend other tests, depending on your circumstances.

Your haematology team may ask if there is any possibility you might be pregnant. Venetoclax and rituximab is not recommended during pregnancy.

Things to tell your haematology team

Some medicines, supplements and food may interact with venetoclax. Or they may increase your risk of side effects. It is important to tell your haematology team about any medicines you are taking. This includes prescribed medicines and medicines you have bought yourself without a prescription.

Examples include:

- Herbal medicines such as St John's Wort.
- Some blood thinners or medicines used to prevent blood clots, like warfarin.
- Some medicines to treat infections, including some antibiotics, antifungal and antiviral medicines.
- Some medicines used to treat high blood pressure or heart problems.
- Some medicines used to prevent or treat stroke, or blood clots in your legs or lungs.
- Some medicines used to lower cholesterol.
- Some medicines used to treat epilepsy.
- Some medicines used to treat a rare sleep problem called narcolepsy.
- Blood pressure medicines. You may need to stop these on the day of each rituximab dose, to reduce the chance of low blood pressure.

Venetoclax and rituximab contain several ingredients. Tell your haematology team if you have any allergies or sensitivities.

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How do you have venetoclax?



Venetoclax comes as tablets you take by mouth.

- Swallow your tablets whole with a glass of water.
- Do not chew, crush, or break your tablets and do not dissolve them in water.
- Try to take your tablets at about the same time each day. Take them with a meal because this helps your body absorb the right amount of venetoclax.
- You should drink plenty of water to help reduce the side effects of venetoclax. Especially on the days before and the day you start taking it. Also, whenever you increase your dose.
- You need to take medicine to help control your uric acid levels. You'll start this a few days before you begin your course of venetoclax. You carry on taking it until you are on a stable dose of venetoclax, or longer if needed. Your doctor will prescribe it for you.
- You may be given medicine to help prevent shingles or herpes flare-ups.
- Avoid grapefruit, bitter oranges (Seville oranges) or starfruit (carambola) while taking venetoclax. This includes the fruit, fruit juice, or foods or supplements containing them. These foods affect how much medicine your body absorbs.
- Do not take supplements containing St John's Wort while taking venetoclax. This is because it affects how much medicine your body absorbs.

If you miss a dose

If you forget to take venetoclax:

- Take it as soon as you remember, if it's **within 8 hours** of your dose time.
- If it's **longer than 8 hours** by the time you realise you forgot to take your tablet:
    - Skip the missed tablets
    - Take your next tablets at the usual time the following day

- If you are sick (vomit) after you've taken your tablets, don't take any more tablets that day. Take your next dose at the usual time the following day.

> **It is important not to take a double dose. If you've taken more venetoclax than you should, talk to your doctor, nurse or pharmacist. Or go to the hospital immediately. Take your medicine and the leaflet from its box with you.**

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How do you have rituximab?



Rituximab is an antibody infusion. You have it through a drip into a vein.

- Two days before having rituximab, you may start medicine to control your uric acid levels. Your doctor will prescribe it for you and tell you when you need to take it.
- You also need to have plenty of fluids before you have rituximab. This helps prevent serious side effects.
- Before each dose of rituximab, you'll have medicine to help prevent any reactions to it. This may include:
    - Paracetamol.
    - Antihistamines, which may make you feel sleepy or drowsy. You should not drive yourself to the clinic if you feel this way.
    - Steroids.
- You then have rituximab through a thin tube (cannula). This is usually in your arm or the back of your hand. It usually takes around 4 to 6 hours the first time you have the drip.

If you miss an appointment to have rituximab, your haematology team should rearrange it as soon as possible.

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Dose

You start venetoclax treatment first. You start with a low dose. Once you are on a full dose of venetoclax, you start venetoclax and rituximab treatment in 28-day cycles:

- You have 6 cycles of venetoclax and rituximab
- You have another 18 cycles of venetoclax alone

Venetoclax

Venetoclax comes as film-coated tablets containing 10mg, 50mg or 100mg of venetoclax. The number of tablets you need to take should be printed on the medicine packaging. If you are not sure, ask your doctor or nurse.

You take venetoclax once a day, starting on a low dose of 20mg. Your doctor usually increases the dose over the next 4 weeks until you reach the full dose of 400mg. Your dose is increased slowly to help prevent tumour lysis syndrome. You might hear people call this the 'ramping up' stage.

Most people have their dose increased like this:

- Week 1: Take two 10mg tablets once a day
- Week 2: Take one 50mg tablet once a day
- Week 3: Take one 100mg tablet once a day
- Week 4: Take two 100mg tablets once a day
- Week 5 onwards: Take four 100mg tablets once a day

For the first 4 weeks of treatment with venetoclax, you'll get a new pack each week. They usually come as blister packs with the daily dose you need contained within each blister. This will help you take the right dose each day while your doctor is increasing your dose.

Rituximab

You start your rituximab infusions 1 week after you reach the full dose of venetoclax. This is called day 1 of cycle 1.

Most people have one dose of rituximab every cycle for 6 months:

- Your doctor works out the best dose for you based on your size

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- You have a lower dose the first time, to make sure you do not react to it
- After that, you have a full dose each time

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Where to have it

You usually go to a hospital day unit for your first dose of venetoclax, and when your dose is increased. This is so you can be monitored closely. Some people may need a short hospital stay.

The rest of the time, you can take venetoclax at home (or wherever you are staying). You can store venetoclax at room temperature. Keep your tablets safe where children cannot see or reach them.

You usually have rituximab at a hospital day unit and go home the same day. Some people may need a short hospital stay.

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How often to have it

You take **venetoclax** tablets once a day, every day. Try to take your tablets at the same time every day, with food.

During the first few weeks of treatment with venetoclax, you should take it in the morning, with food. This will help with follow-up blood tests while your doctor increases your dose. Your doctor may give you an exact time to take it.

From week 6, you start having **rituximab** once a month.

How long to have it for

> **Do not stop taking venetoclax without discussing it with your haematology team.**

When you're on a combination of venetoclax and rituximab:

- You take venetoclax at the full dose for up to 2 years
- You have rituximab for up to 6 months

Once you have completed your treatment, you may go on to active monitoring. If you need treatment again in the future, you may be offered the same treatment again if it worked well for you.

Your haematology team may suggest stopping venetoclax and rituximab early and trying a different treatment if:

- It is not working well
- It stops working
- You are having side effects that are difficult to cope with
- Check-ups show it is affecting other parts of your body, like your heart, spleen or kidneys
- You become pregnant

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Monitoring

Your haematology team will monitor you throughout your treatment.

When you first take venetoclax and for each dose increase, you'll have blood tests:

- Before you take your tablets.
- 6 to 8 hours after taking your tablets. Or more often, if your team think you need it.
- Around 24 hours after taking your tablets. You usually come back to the hospital for this.

The exact timing of your blood tests may vary. It may depend on where you live and how long it takes you to travel to and from the clinic.

During each dose of rituximab, a nurse will check your blood pressure regularly and monitor you closely.

Once you are on a stable dose of venetoclax and rituximab, your haematology team will continue to monitor you. This is to check how well your treatment is working and how well your body is coping with it.

- You'll have regular blood tests to check:
    - Your blood cell counts
    - How well your liver and kidneys are working
    - The levels of salts, minerals and uric acid in your body
- You'll have regular blood pressure checks
- Your doctor or nurse will examine you to check for signs of infection, or signs of other side effects
- You may have other examinations and scans to check the size of your lymph nodes and organs, like your spleen
- Your team might recommend other tests, depending on your circumstances

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Precautions

There are some precautions to be aware of when you are taking venetoclax and rituximab.

- Both venetoclax and rituximab can make you vulnerable to infections. You might need to take medicines to prevent infections while you're having treatment.
- You should avoid eating grapefruit and starfruit (carambola). This includes the fruit, fruit juice, or foods or supplements containing them.
- You should avoid eating bitter oranges (Seville oranges). This includes the fruit, bitter orange juice or food made with bitter oranges, like marmalade.
- Venetoclax may make you very tired or dizzy. This might affect your ability to drive or operate machinery.
- Rituximab can lower your blood pressure. If you are on blood pressure medication, your haematology team may tell you not to take it the day before or on the day of rituximab treatment.
- Other medicines might interact with venetoclax and affect how well it works. Your haematology team will tell you whether or how to take other medicines while you're taking it. Or whether you need a different dose of venetoclax than usual.

- You should not have live vaccines when you have CLL or when you are on venetoclax and rituximab. It is safe to have non-live vaccines. But they might not work as well as they do in other people.



"If you're taking venetoclax and rituximab and your GP prescribes you a new medicine, ask them to check that it's safe to take while on your treatment. Your pharmacist can check for interactions with your other medications, too."

— Helen, living with CLL since 2015

Precautions to prevent tumour lysis syndrome

When you're taking venetoclax and rituximab, you'll have medicine to help prevent tumour lysis syndrome.

You need to drink plenty of water too, as this will also help prevent it. Try to aim for 1.5 to 2 litres of fluid every day. Especially:

- For 2 days before starting venetoclax
- The day you start venetoclax
- Every time you increase your dose
- Before you have rituximab

You can include non-alcoholic drinks and non-caffeinated drinks in this amount. But **not** grapefruit, Seville orange or starfruit juice.

If you're struggling to drink enough, your haematology team might give you fluid through a drip before your treatment.



"The weeks when venetoclax is introduced and ramped up are extra busy. You need to have blood tests at certain times before and after each new venetoclax dose to check you aren't developing tumour lysis syndrome."

— Jane, living with CLL since 2004

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Fertility, pregnancy and breastfeeding

We do not know what effect venetoclax and rituximab has on pregnancy. Based on animal studies, venetoclax may damage sperm and harm unborn babies.

- If you could get pregnant, it's important to use effective contraception:
  - While you are taking venetoclax and for at least 30 days after stopping treatment.
  - While you are having rituximab and for 12 months afterwards.
- We do not know whether venetoclax affects the way hormonal contraceptives work. So, you need to use a barrier method like condoms, a diaphragm or cap.
- If you're on venetoclax and rituximab and you think you might be pregnant, tell your haematology team as soon as possible.
- Venetoclax may cause male infertility. If you are planning to make someone pregnant in the future, tell your haematology team. They will talk to you about options to preserve your fertility, such as freezing your sperm.

Breastfeeding

We do not know if venetoclax passes into breastmilk or what effect it might have on breastfed babies or children.

Rituximab passes into breastmilk at low levels. We do not know enough about how rituximab affects breastfed babies or children in the short or long term.

> **You should not breastfeed:**
>
> - **While you are on venetoclax**
> - **While you are on rituximab and for 6 months after stopping it**

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Possible side effects

You may get some side effects while you are taking venetoclax and rituximab. Some people have very few side effects, whereas others get more serious side effects. They may differ from day to day.

Your haematology team should tell you what side effects to look out for and who to contact if you need to.

> **If you are worried about any symptoms or side effects, contact your haematology team. You do not have to wait until your next appointment.**

Your haematology team might:

- Prescribe medicines to help manage some side effects
- Suggest things you can do to help you cope with side effects
- Lower your dose of venetoclax, if your side effects are serious or difficult to cope with
- Pause or slow down your rituximab drip, if you react to it
- Recommend pausing or stopping venetoclax and rituximab, if needed

You can also report side effects via the MHRA Yellow Card Scheme.

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Side effects you might notice

This is not a full list of all the side effects that can happen. The patient information leaflets in your medicine packages have more information. Or you can find the leaflets by searching for 'venetoclax' and 'rituximab' at the Electronic Medicines Compendium.

Here, we list some of the more common side effects of venetoclax and rituximab. These affect at least 1 in every 100 people who take venetoclax and rituximab.

Infections

Contact your team straight away if you think you have an infection. Look out for:

- A high temperature (38°C or higher)
- Shivering, chills or sweating
- Sore throat, sneezing, blocked or runny nose or earache
- Cough, chest pain or shortness of breath

Tummy problems

You might get diarrhoea or constipation. You might feel sick or be sick. If you have these side effects, your team can give you medicines to help.

Fatigue

You might experience extreme tiredness or lack of energy.

Other problems

You might get other side effects including:

- Headache
- Difficulty sleeping
- Rash



"Some people have nausea as a side effect and find that taking venetoclax at bedtime helps, after the ramping up stage ends. It reduces side effects, as they sleep through them. Once I was on 400mg a day, with the agreement of my consultant, I changed to taking my tablets at bedtime."

— Jane, living with CLL since 2004

Reaction to the drip

Some people develop a reaction to the rituximab drip. This can happen while you're having the drip or within 24 hours. It can sometimes be serious. You may have symptoms like:

- Breathlessness
- Wheezing, coughing or tightness of the chest
- Rapid heart rate, restlessness and confusion

It's most likely to happen the first time you have rituximab. This is why you have a lower dose at first. You also have your first dose more slowly than later doses.

Your haematology team will monitor you closely for any signs of a reaction. This may include blood tests or a chest X-ray.

> **Tell the day unit team immediately if you develop any symptoms while you are having your rituximab drip.**

If needed, they will pause the drip to give you time to recover and give you medicine like an antihistamine or paracetamol. They may restart it at a lower rate once you're feeling better. If it is very severe or happens again, you may have to stop rituximab.

Tumour lysis syndrome

Venetoclax and rituximab is very good at killing cancer cells. It can cause many cancer cells to break down all at once. When this happens, the dying cells release a lot of chemicals into your blood. This can cause a serious condition called tumour lysis syndrome.

Tumour lysis syndrome affects around 3 in every 100 people taking venetoclax and rituximab. Around 97 in every 100 people do **not** get it.

Tumour lysis syndrome can make you very unwell while your body tries to cope with changes to your body salts and levels of uric acid:

- Your kidneys may work less well
- Your heartbeat may become irregular
- You may have seizures (fits)

It can happen to anyone having venetoclax and rituximab to treat CLL. But it's more likely to happen if you have lots of CLL cells in your body. It's also more likely if you have other health problems like kidney disease or a swollen spleen. This is because it's harder for your body to cope with all the chemicals from the dead CLL cells.

You are closely monitored by your haematology team for tumour lysis syndrome. Most people who get tumour lysis syndrome only have changes on blood tests and do not get symptoms. This is known as 'chemical tumour lysis syndrome'. However, you still need to know what to look out for, just in case.

> **Contact your haematology team immediately if you develop any of the following symptoms of tumour lysis syndrome:**
>
> - **Fever or chills**
> - **Diarrhoea, feeling sick or being sick**
> - **Muscle or joint pain**
> - **Cloudy or dark-coloured pee**
> - **Feeling weak, exhausted or confused**
> - **Irregular heartbeat or shortness of breath**
> - **Pain or bloating in your tummy**
> - **Seizures (fits)**

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Side effects your team might notice

There might be some side effects that your haematology team find during regular checks and blood tests. These include:

- Low levels of white blood cells called neutrophils (neutropenia). This can make you more vulnerable to infection.
- Low levels of red blood cells (anaemia).
- Low levels of platelets (thrombocytopenia).

- Changes to the level of salts in your blood, which may be a sign of tumour lysis syndrome:
    - High levels of potassium and phosphate
    - Low levels of calcium
    - High levels of uric acid
- Changes to your blood sugar levels.
- Changes to your antibody levels.

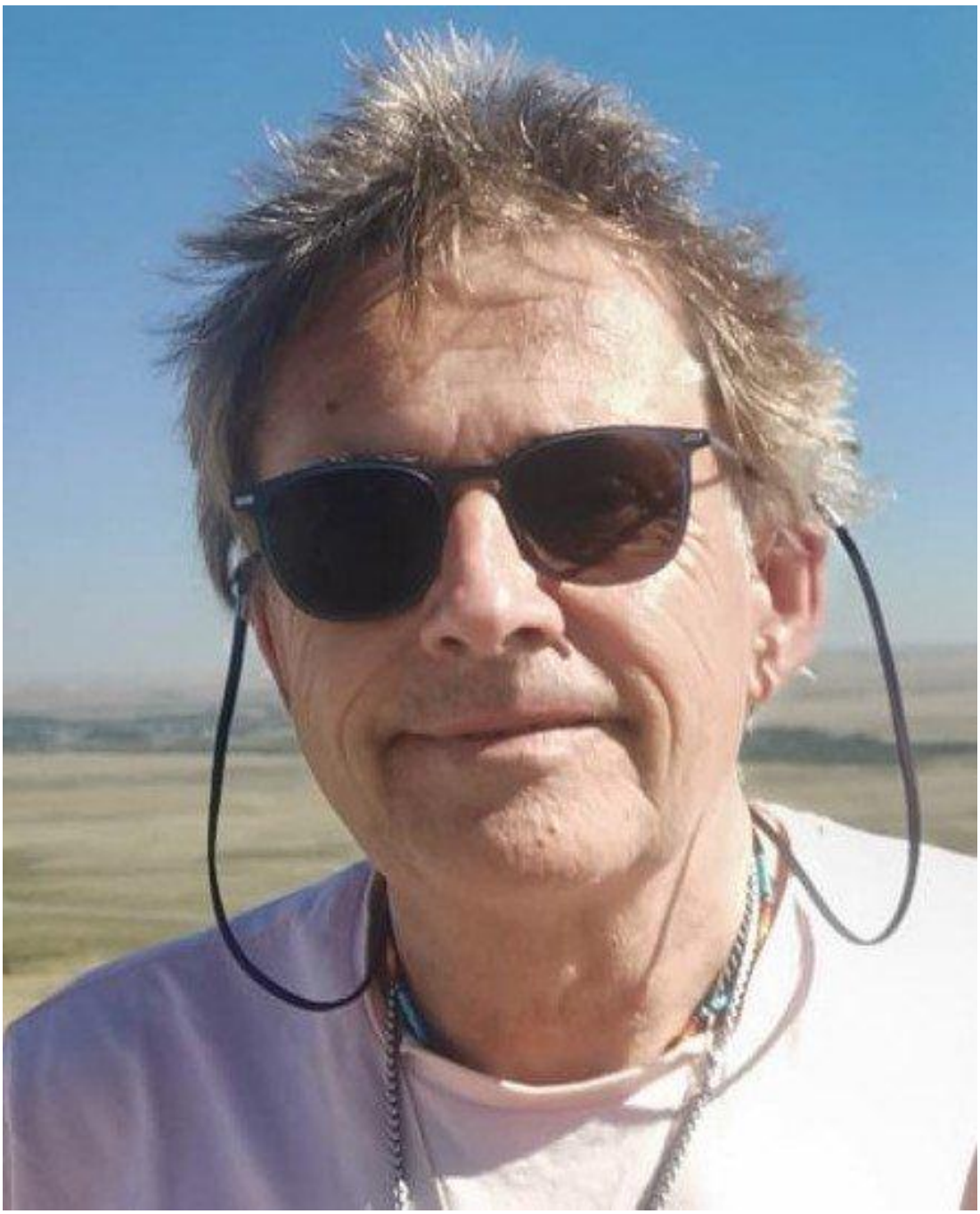
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Rare side effects to know about

Rarely, venetoclax and rituximab might cause a serious side effect called sepsis. This is a severe response to an infection that needs prompt treatment.

Sepsis affects less than 1 in every 100 people taking rituximab. It does **not** happen to more than 99 in every 100 people.

However, if it does happen, it can be serious, so it's sensible to know what to look out for.



"If you have to go to A&E, tell the staff you have blood cancer and the treatment you're on. Your team might give you a Medication Alert Card or a Neutropenic Sepsis Alert Card to keep with you. In a medical emergency, these cards let people know what medicine you're taking and what treatment you may need. They help keep you safe."

— Steve, living with CLL since 2011

Contact your doctor straight away if you get symptoms like:

- **Confusion, slurred speech or not making sense**
- **Blue, grey or pale, blotchy skin, lips or tongue (on black or brown skin look on the palms of the hands or soles of the feet)**
- **A meningitis-like rash, which does not fade when you roll a glass over it**
- **Breathing difficulties, such as breathlessness or rapid breathing**

The Electronic Medicines Compendium has a Venetoclax Patient Alert Card.

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If this treatment doesn't work

If venetoclax and rituximab is not working well for you, your doctor will discuss your options with you. They might suggest changing your dose, pausing or stopping treatment. They will talk to you about other treatment options that might be suitable.

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Need support?

You are not alone. We're here for you whether you have a diagnosis yourself or know someone who has. If you'd like advice, support, or a listening ear, call our freephone helpline on 08088 010 444 or send a WhatsApp message to 07500 068 065.

Helpline and WhatsApp →

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