Drug information **Rituximab**

RITUXIMAB

is used to treat rheumatoid arthritis, lupus (SLE), vasculitis, and myositis



Introduction

Rituximab is a drug that can help reduce the damage your condition causes to your body. You can discuss the benefits and risks of taking rituximab with healthcare professionals before you start treatment, so you're able to make an informed decision.

What is rituximab and how is it used?

Rituximab is a type of drug, known as a biological therapy, that can reduce inflammation and damage to your joints. It's also known by the trade names MabThera, Rixathon, Ruxience, and Truxima.

Normally, the immune system creates inflammation to protect the body from infections. But in some conditions a group of cells in the immune system, called B-cells, cause unnecessary inflammation which damages the body's healthy tissue.

Rituximab works by lowering the number of these B-cells, to reduce inflammation, pain, swelling and joint damage. If rituximab works for you, you'll probably start to feel some improvement after around six weeks.

Rituximab can be prescribed by a consultant rheumatologist for:

- rheumatoid arthritis
- lupus (SLE)
- vasculitis
- · myositis.



You can find more information about these conditions on our website www.versusarthritis.org or in one of the Versus Arthritis booklets available from your healthcare team or by calling our helpline on 0800 5200 520.

Is rituximab suitable for me?

Rituximab won't be started if:

- your condition isn't active
- you haven't tried other treatments for your condition first
- you have an infection.

Before you're prescribed rituximab, doctors sometimes use a scoring system to assess how many of your joints are painful or swollen and how it makes you feel. This helps them work out how active your arthritis is.

You'll also need blood tests before treatment to see whether the drug is suitable for you.

It's generally recommended that pregnant women in their second or third trimester should avoid taking rituximab until they have had their baby.

Your doctor may decide not to prescribe rituximab if:

- you have severe heart problems
- you have breathing problems

Before you are given rituximab you'll have blood tests to check your antibody and B-cell levels. If these levels are low you may be given a smaller dose of rituximab.

Your doctor may also check for previous infections of hepatitis or tuberculosis (TB), as rituximab can increase the risk of these infections starting up again. Treatment can be given for these infections before starting rituximab, and if you get them while taking the drug.

If you have HIV you won't be able to take rituximab. People in groups at high risk of HIV infection will be given an HIV test before starting treatment.

People who have cancer or who are at high risk of cancer might not be able to take rituximab, but your doctor will discuss this with you.

2 www.versusarthritis.org Helpline 0800 5200 520 3

When and how do I take rituximab?

Rituximab is given in hospital, through a drip into a vein. This is known as an intravenous infusion. This is done by a doctor or nurse, so they can monitor you for any side effects while you're taking rituximab.

The first infusion takes around six hours, but later infusions will take around two to four hours.

Usually, you'll start treatment with two infusions of rituximab, given two weeks apart. The infusions are then repeated when the improvement is wearing off, or to prevent a flare-up of your arthritis. This can be anything from six months to a few years later.

Many people need to have rituximab infusions at least once a year because of how long the treatment lasts. If you have vasculitis your treatment may be more frequent than this.

On the day of your rituximab infusion, you'll probably have some steroids, along with paracetamol and a drug to relieve the symptoms of allergies or reactions, known as an antihistamine.

Between infusions, you'll have blood tests and see a specialist doctor or nurse to check how you're getting on with the treatment.

Biosimilars

Rituximab was originally only available as a drug called MabThera. More recently, three new versions of rituximab, known as Truxima, Ruxience and Rixathon, have become available.

These drugs are known as biosimilars and work in a similar way to the original form of rituximab. If your rheumatology team suggests swapping MabThera for a biosimilar alternative, make sure you are comfortable with the change before beginning the new drug.

New versions of biologic drugs are becoming available all the time, so you may be prescribed rituximab under a different name.

Possible risks and side effects

A few people feel unwell or experience a fever, wheeziness, a rash or fall in blood pressure while they are having the infusion, or shortly afterwards.

If you start feeling unwell during your infusion tell the person giving it to you, they can slow down the infusion, so the drug enters your body more gradually. It's rare to have severe side effects but, if you do, the infusion may need to be stopped.

Rituximab affects your immune system, which can make you more likely to pick up some infections. Tell your doctor or rheumatology nurse straight away if you develop any new symptoms that concern you, such as a sore throat, fever or other signs of infection.

You should also see your doctor if you develop chickenpox or shingles, or come into contact with someone who has them. These illnesses can be more severe in people taking rituximab, and you will probably need to take anti-viral treatment.

After three or four courses of rituximab, the levels of antibodies in your blood that protect you from infections may go down. This may not be a big problem, but it might mean your risk of infection increases.

Your doctor and rheumatology nurse will discuss this with you before deciding if you need any more treatment. They might recommend you stop rituximab for a while if you develop a serious infection.

In rare cases, people have reported having severe skin reactions up to four months after a rituximab infusion. You should tell your doctor or rheumatology nurse straight away if you develop a rash after starting rituximab.

4 www.versusarthritis.org Helpline 0800 5200 520 5

Very rarely, patients treated with rituximab can develop a serious condition called progressive multifocal leukoencephalopathy (PML), which can damage the brain and spinal cord. You will need to see your doctor straight away if you notice any of the following:

- pins and needles
- weakness, shaky movements or unsteadiness
- sight loss
- speech problems
- changes in behaviour or mood
- difficulty moving your face, arms or legs.

PML has only affected a very small number of people who have been treated with rituximab.

Tips to reduce your risk of infection

- Try to avoid close contact with people you know have an infection.
- Wash your hands regularly and carry around a small bottle of antibacterial hand gel.
- Keep your mouth clean by brushing your teeth regularly.
- Stop smoking if you're a smoker.
- Make sure your food is stored and prepared properly.
- Try to keep your house clean and hygienic, especially the kitchen, bathrooms and toilets.

Taking other medicines

Rituximab is often given alongside other drugs, including methotrexate and steroids. You should discuss any new medications with your doctor before starting them, and tell anyone treating you that you've had rituximab.

You can carry on taking a non-steroidal anti-inflammatory drug (NSAID), such as ibuprofen, or painkillers if needed, unless your doctor tells you otherwise.

Don't take over the counter or herbal remedies without discussing this with your doctor or rheumatology team first.

It's recommended that you carry a biological therapy alert card, so that anyone treating you will know that you've had rituximab and that your antibody levels may be low. Your rheumatology team should give you a card.

Let your doctor know if you take medicines for high blood pressure or if you have taken other drugs that have affected your immune system.



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6 www.versusarthritis.org Helpline 0800 5200 520 7

Vaccinations

It's recommended that people on rituximab avoid live vaccines. However, in certain situations it may be necessary to have a live vaccine during treatment.

You should speak to your doctor before starting treatment if you think you might need a live vaccine against illnesses such as Bacillus Calmette-Guérin (BCG), yellow fever, or the mumps, measles and rubella vaccine (MMR). Most live vaccines should be given at least a month before you start rituximab.

Before starting rituximab, you might be offered a vaccination against hepatitis if you're thought to be at risk of this. You might also be offered the shingles vaccination (Zostavax), which you should have at least two weeks before starting rituximab.

If you haven't had chickenpox, you may be offered a vaccine against it before you start treatment. The chickenpox vaccine may also be offered to people living with you before you start treatment, if they haven't had the virus.

However, other treatments that affect your immune system, such as steroids, may prevent you from having these vaccines. Check with your rheumatology team if you're unsure.

Vaccines for flu and pneumonia, which are not live vaccines, can be given at least one month before your next course of rituximab.

Having an operation

If you need to have an operation, this will usually be scheduled for at least three months after your last infusion. Make sure your surgeon knows you're on rituximab.

Alcohol

You can drink alcohol while on rituximab, but you should keep within the recommended limits for adults of no more than 14 units per week. Try to have alcohol-free days every week, and don't save up units to drink in one go.

Fertility, pregnancy and breastfeeding

There is limited research into how rituximab effects an unborn baby. It's generally recommended that rituximab should be stopped six months before pregnancy. However, if you have recently had rituximab and find yourself pregnant it is not thought to be harmful to your baby.

Usually you will not be treated with rituximab during the last six months of your pregnancy. However, some women may have to take rituximab throughout their pregnancy if their condition remains active and poses a risk to them or their baby. There is no evidence to suggest this would harm their unborn child.

It is considered safe to take rituximab while you are breastfeeding. You should talk to your doctor about any concerns you may have.

It is considered safe for men to continue taking rituximab while trying to father a baby.

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Rituximab and COVID-19

This information has been produced during the COVID-19 pandemic. To check whether there are any updates regarding rituximab and COVID-19, since publication, visit our website www.versusarthritis.org

This leaflet is a guide to rituximab, its benefits and potential side effects. If there's anything else you'd like to know about this drug, just ask the healthcare professionals in charge of your care.

Thank you!

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