

Drug information

Rituximab

February 2010

Rituximab (brand name MabThera) is a drug that removes B-cells, which are a type of white blood cell. B-cells produce antibodies, which are proteins produced by the body in response to germs, viruses or any other substances that the body sees as foreign or dangerous.

Why is rituximab prescribed?

In people with rheumatoid arthritis, some B-cells produce harmful 'autoantibodies', such as rheumatoid factors. The purpose of rituximab is to remove these B-cells. Rituximab also removes B-cells which make useful antibodies, but these return after some months.

Rituximab is available for people with rheumatoid arthritis. It will only be prescribed if the arthritis is causing symptoms such as pain and stiffness and you have already tried other treatments such as sulfasalazine, gold injections, methotrexate and the anti-TNF drugs (adalimumab, etanercept and infliximab), or cannot use these.

Rituximab will not be prescribed if:

- your rheumatoid arthritis is not active
- you have not tried standard treatments first

- you are pregnant or breastfeeding
- you have an infection.

Your doctor *may* decide not to prescribe rituximab if:

- you get short of breath very easily
- your B-cell or antibody levels are low.

Rituximab is also used for other diseases associated with autoantibodies, such as systemic lupus erythematosus (SLE). You are less likely to be given rituximab if you have seronegative rheumatoid arthritis (with no rheumatoid factor), because it may be less effective for this condition.

In addition, rituximab may be used for the treatment of certain types of cancer.

When and how do I take rituximab?

Rituximab is only available on prescription from a consultant rheumatologist.

Rituximab is given by intravenous infusion

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(through a drip into a vein) in a hospital clinic. A steroid injection is usually given first to reduce the risk of reactions to the infusion.

Usually two infusions are given 2 weeks apart. This course of treatment is repeated only when there are signs that improvement is wearing off, which can be anything from 6 months to 3 years later. Many people have rituximab about once a year. Your rheumatologist will depend on you, to some extent, to say when you are having trouble again. This is something which the two of you should discuss in advance.

If you are prescribed rituximab it is recommended that you carry a **biological therapy alert card**, which you can obtain from your doctor or rheumatology nurse specialist. Then if you become unwell, anyone treating you will know that you have had rituximab and that your B-cell count may be low.

How long does rituximab take to work?

If you respond to rituximab improvement may take several weeks. It is usually clear by 3 months whether or not rituximab will help you.

What are the possible risks or side-effects?

A small proportion of people have reactions to the infusion, with a fever, wheeziness, rash or fall in blood pressure.

If you develop any symptoms during the infusion you should tell the person giving you the infusion straight away, because it may be necessary to slow the infusion down. Very rarely, reactions are severe enough to need to stop the treatment.

Infections may be more common after the treatment and so if you develop fever or any other symptom of infection you should seek advice from your rheumatologist, GP or rheumatology nurse about taking antibiotics.

If you develop any other new symptoms after starting rituximab you should see your doctor or rheumatology nurse as soon as possible. If any of these symptoms are severe, you should see your doctor immediately.

After 3 or 4 courses of rituximab, the levels of useful antibodies in the blood may go down. So far there is no indication that this is a major problem, but it may mean that repeated courses increase the risk of infections.

As yet, the long-term side-effects of rituximab are not known because it is a relatively new drug.

What other treatments could be used instead of rituximab?

A number of other drugs are used in the treatment of rheumatoid arthritis and related conditions (see our leaflet 'Drugs and Arthritis'). Your doctor will discuss these other options with you.

Will I need any special checks while on rituximab?

Before your course of treatment and every few months after you should have blood tests to check your antibody and B-cell levels.

Can I take other medicines along with rituximab?

Most people prescribed rituximab are also taking methotrexate (see our leaflet 'Methotrexate'). You should discuss any new medications with your doctor before starting them, and you should always tell any other doctor treating you that you are having, or have recently had, treatment with rituximab.

Rituximab is not a painkiller. If you are already on a non-steroidal anti-inflammatory drug (NSAID) or painkillers you can carry on taking these as well as rituximab, unless your doctor advises otherwise.

Do not take over-the-counter preparations or herbal remedies without discussing this first with your doctor, rheumatology nurse or pharmacist.

What about immunisations?

Because rituximab removes antibody-forming B-cells there is probably no point in having immunisations for about 7 months after a course of treatment. If you think you might benefit from immunisations, it may be best to have them before a course of rituximab, or in between courses when the B-cells have come back. You should discuss

this with your rheumatologist, GP or rheumatology nurse.

It is recommended that you should not be immunised with 'live' vaccines such as yellow fever. However, in certain situations a live vaccine may be necessary (for example rubella immunisation in women of childbearing age), in which case your doctor will discuss the possible risks and benefits of the immunisation with you.

Pneumovax (which gives protection against the commonest cause of pneumonia) and yearly flu vaccines are safe and recommended.

Can I drink alcohol while on rituximab?

You can drink alcohol while on rituximab, but, because you are likely to be taking methotrexate as well, you should only drink it in small amounts. This is because methotrexate and alcohol can interact and damage your liver.

Does rituximab affect fertility or pregnancy?

We do not yet know if it is harmful to a baby if conceived shortly after the mother has had rituximab. The manufacturer suggests that avoiding pregnancy for up to 12 months might be advisable, but we have no way of knowing if such a long interval is necessary. You should take care to avoid becoming pregnant after treatment with rituximab unless you have discussed this in detail with your doctor. You should not have rituximab during pregnancy.

What about breastfeeding?

Rituximab is an artificially produced antibody of a sort known to be secreted in breast milk. You should not have rituximab if you are breastfeeding, and should not breastfeed for 12 months after a course of rituximab, because the baby's immune system might be affected.

Where can I obtain further information?

If you would like any further information about rituximab, or if you have any concerns about your treatment, you should discuss this with your doctor, rheumatology nurse or pharmacist.

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