

PATIENT INFORMATION ON

RITUXIMAB

(Brand name: MabThera)

This information sheet has been produced by the Australian Rheumatology Association to help you understand the medicine that has been prescribed for you. It includes important information about:

- How you should take your medicine;
- What are the possible side effects;
- What tests you must have to monitor your condition and to detect unwanted effects; and
- Other precautions you should take.

Please read it carefully and discuss with your doctor.

What is rituximab?

Rituximab (brand name MabThera) belongs to a new class of medicines called **biological disease modifying antirheumatic drugs** (biological DMARDs).

B-cells are white blood cells which normally produce 'antibodies' which help protect the body from infections. In rheumatoid arthritis however, some B-cells produce harmful 'autoantibodies', which cause inflammation in the joints. This results in pain, joint swelling and stiffness, and can lead to joint damage.

By temporarily removing the harmful B-cells, rituximab reduces inflammation, lessens the symptoms and helps stop further joint damage. Rituximab also removes some 'good' B-cells, but these return some months after treatment.

Because of its effects on harmful B-cells, rituximab has been used for many years to

treat lymphoma, a cancer of the B-cells in lymph nodes.

For more information about RHEUMATOID ARTHRITIS see the Arthritis Australia website www.arthritisaustralia.com.au/index.php/arthritis-information/information-sheets.html.

What benefit can you expect from your treatment?

The improvement in your arthritis from rituximab may take a number of weeks. Benefits will usually be seen by 3 months.

Current Australian prescribing restrictions for all biological DMARDs mean rituximab will only be given if your disease is active and if standard treatments have been unsuccessful.

It will also only be continued if the response is adequate. Response will be assessed at least 12 weeks after the first treatment.

How is rituximab given?

Rituximab is given as a drip (infusion) into the vein. The infusion normally takes 2 to 4 hours. You will need to stay for at least an hour after the infusion to make sure you don't have any side effects.

A course of treatment consists of 2 doses given 2 weeks apart. The dosage is 1000mg for each of the infusions.

What other medicines can be taken with rituximab?

Rituximab is given in combination with the DMARD methotrexate. It is also usually given with a boost of injected steroid (cortisone or closely related medicine) to reduce side effects.

It can also be used with other arthritis medicines including:

- other DMARDs;
- steroid medicines such as prednisolone, or cortisone injections into the joint;
- anti-inflammatory medicines (NSAIDs) such as naproxen (Naprosyn) or ibuprofen (Brufen, Nurofen); and/or
- simple pain medicines such as paracetamol.

Rituximab should not be given within 4 weeks of treatment with etanercept (Enbrel) or within 8 weeks of receiving infliximab (Remicade) or adalimumab (Humira). It should not be given with other biological DMARDs.

How long is the treatment continued?

A course of treatment can be repeated only when the improvement is wearing off, which may be anything from 6 months to years later. Many people receive rituximab about once a year.

Your rheumatologist will monitor your progress with your help. If you do need a second course it is likely that it will be just as effective as the first course with no greater risk of side effects.

Are there any possible side effects?

Experience with using rituximab in people with rheumatoid arthritis is still quite limited. Below are side effects that you might experience with your treatment.

Most common possible side effects:

- **Blood pressure:** Because rituximab may cause a drop in your blood pressure, your doctor may advise you to stop

taking your blood pressure medicine temporarily before your treatment.

- **During infusion:** Side effects may include fever, chills, shaking, fatigue, tongue swelling, itch, flushing, fast heart beat, chest pain, shortness of breath or muscle and joint pain. These effects can usually be reduced by giving corticosteroids (e.g. prednisone or cortisone), antihistamines and paracetamol before the treatment.
- **Headaches, cough and stomach/bowel discomfort** may also occur.
- **Infections:** So far there is no indication that infection is a major problem, but repeated courses may increase the risk of infections. Infections, (e.g. colds and sinusitis) may occur more frequently than usual.
- **Allergies:** If you have received previous treatment with other biological medicines, you may experience an allergic reaction with rituximab

Tell your doctor if you experience any possible side effects.

Less common or rare possible side effects:

Rarely, rituximab may cause serious side effects requiring urgent medical attention.

Tell your doctor immediately or go to Accident and Emergency at your nearest hospital if you notice any of the following:

- Severe skin rash, itching or hives.
- Swelling of the face, lips, mouth or throat causing difficulty in swallowing or new swelling of hands and feet.
- Severe shortness of breath, wheezing or coughing.

Other less common side effects include:

- **Diarrhoea.**
- **Muscle stiffness,** pins and needles, or numbness in the skin.
- **Nervousness,** feeling anxious or agitated or inability to sleep.
- **Sweating** or night sweats.

- **Serious infections:** A rare virus infection of the brain (progressive multifocal leukoencephalopathy) has been reported in a few people given rituximab. This is thought to be more common in patients with systemic lupus erythematosus (SLE). There is no evidence that it is increased in people with rheumatoid arthritis receiving rituximab.
- **Cancer:** It is unclear if there is an increased risk of cancer when rituximab is used to treat rheumatic diseases.

Lymphoma, a cancer of lymph glands, is more common in patients with persistent active rheumatoid arthritis than in the general population. Studies are in progress to see if treatment with rituximab changes this.

If cancer has been previously treated and cured, it may be possible for rituximab to be used safely.

For general cancer prevention, stopping smoking is recommended, so too are skin cancer prevention measures (see *Precautions* overleaf).

Talk to your doctor, if you have any concerns about issues relating to cancer risk.

What precautions are necessary?

Infections:

- Rituximab should not be given if you have active untreated HIV (AIDs) infection, as it is likely to make this condition worse.
- Hepatitis B infection also presents a risk, but you may still be able to have treatment with rituximab. Rituximab can usually be given safely if you have Hepatitis C.
- The following tests are recommended before commencing treatment with rituximab:
 - blood tests for Hepatitis B and C;
 - chest x-ray;
 - HIV (AIDs) tests for those at risk of this infection.

- If you have an active infection of any kind, it should be treated quickly. See your doctor if you think you have an infection. Treatment with rituximab may be withheld until the infection is treated successfully.

Ongoing blood tests:

- Blood tests will be required during your treatment to monitor your condition and to determine the effectiveness of treatment.
- The frequency of blood tests will depend on what other medicines you are taking and what other illnesses you might have. Your rheumatologist will determine the frequency of tests required.
- You may require blood tests to check your antibody and B-cell levels before you commence a course of treatment and before repeated treatment.

Other medicines:

- Rituximab can interact with other medicines. You should tell your doctor (including your general practitioner, rheumatologist and others) about all medicines you are taking or plan to take. This includes over the counter or herbal/naturopathic medicines. You should also mention your treatment when you see other health professionals.
- The risk of side effects from the low doses of aspirin used to prevent heart attack and strokes is not increased when taken with rituximab.
- Combined medicines such as Panadeine and Panadeine Forte, can be used while you are receiving rituximab treatment provided you take them as directed.

Other diseases:

- Rituximab should not be given to people with moderate to severe heart failure.

Surgery:

- If you require surgery for any reason, treatment with rituximab may be stopped before surgery. It will be restarted again after the operation, at a

time determined by your surgeon and rheumatologist. Treatment will only be restarted once the wound is healed and if there is no infection present.

Vaccines:

- Most vaccines can be given safely with rituximab. Talk with your rheumatologist before receiving any vaccines.
- Pneumovax and yearly flu vaccinations are safe and recommended in order to reduce your risk of these infections.
- Because rituximab removes antibody-forming B-cells, vaccinations are less effective for some months after a course of treatment. You should plan vaccinations before a course of rituximab, or between courses. You should discuss this with your rheumatologist or general practitioner.

Alcohol:

- You may drink alcohol while taking rituximab. However, since you are likely to be also taking methotrexate, you

should be cautious about your alcohol intake. It is not known precisely what level of drinking is safe when taking methotrexate, although there is general agreement that 1 to 2 standard drinks taken once or twice a week is unlikely to cause a problem.

- Drinking more than 4 standard drinks on one occasion, even if infrequently, is strongly discouraged.

Pregnancy and breastfeeding:

- Until more is known about its effects on the unborn baby, you should not take rituximab if you are pregnant or if you plan to become pregnant.
- You should also not breastfeed when taking rituximab.

Skin cancer prevention:

- When taking rituximab, it is important to use sunscreen and avoid prolonged sun exposure. A yearly skin check is recommended.

All patients taking rituximab should be seen regularly by the rheumatologist who prescribed the medicine to optimise treatment and to minimise any potential side effects.

If you have any questions or concerns write them down and discuss them with your doctor.

Your doctor's contact details:

REMEMBER – Keep all medicines out of reach of children

The information in this sheet has been obtained from various sources and has been reviewed by the Australian Rheumatology Association. It is intended as an educational aid and does not cover all possible uses, actions, precautions, side effects, or interactions of the medicines mentioned. This information is not intended as medical advice for individual problems nor for making an individual assessment of the risks and benefits of taking a particular medicine. It can be reproduced in its entirety but cannot be altered without permission from the ARA.

The NHMRC publication: *How to present the evidence for consumers: preparation of consumer publications* (2000) was used as a guide in developing this publication.