

Leflunomide

Leflunomide is a disease modifying anti-rheumatic drug (DMARD) developed specifically to control inflammatory arthritis.

The overactive immune system in RA causes pain, swelling, heat and redness. Leflunomide dampens down this process by 'switching off' the cells responsible for this over-activity. It may also work in several other ways.

Leflunomide is a 'prodrug', which means that it is inactive when it is taken. It is converted into the active medicine once it has been absorbed and passes through your liver.

Background

Leflunomide has been used to treat rheumatoid arthritis since the early 2000s. Since then it has been given to many people with RA for long periods of time and has been shown to be both safe and effective when used and monitored properly.

DMARDs are used to treat inflammatory arthritis by decreasing joint inflammation and damage, reducing the risk of disability and enhancing quality of life.

Research into RA has found that the earlier the treatment starts with a DMARD to control the inflammation the better the long-term outcome.

How does it work?

Leflunomide is only prescribed by a specialist experienced in the treatment of rheumatoid arthritis. A detailed medical history is very important to ensure the treatment is suitable for each patient. Blood tests are required before and during

treatment, though they are needed less frequently once the patient is stable on leflunomide.

Leflunomide is prescribed as a tablet of 10mg or 20mg daily dependent on the clinical judgment of the specialist.

Leflunomide acts on an enzyme in the body to limit the excessive reaction of the cells involved in inflammation, so reduces the swelling, pain and other problems of RA.

Leflunomide persists for a long time in the body. Changing from leflunomide to a different medicine needs to be carefully managed to avoid the combination of leflunomide and the new medicine causing problems.

Leflunomide can be removed from your body more quickly by taking another medicine such as activated charcoal for several days. This is known as a 'washout' procedure.

Most commonly reported side effects

As with any medication, leflunomide can cause side effects. It is important to remember that these are only possible side effects and may not happen. Side effects may include:

- Raised blood pressure, so this should be checked regularly (usually when you have blood tests)

- Changes in some blood test results eg liver tests, full blood count
- Diarrhoea
- Skin reactions such as rashes, blistering or inflammation and ulcers in the lining of the mouth
- Increased susceptibility to infections
- Shortness of breath, cough
- Numbness or tingling in your feet or hands

More information on side effects can be found in the patient information leaflet for leflunomide, which will come with your medicine.

Remember to report any concerns about possible side effects to the doctors, pharmacists or nurses.

Leflunomide with other medicines

- Non-steroidal anti-inflammatory drugs (NSAIDs) and steroid treatment may be continued together with leflunomide
- Oral contraceptives (birth control) will not be affected by leflunomide, unless it causes diarrhoea.
- If you are taking warfarin, you may need to have your blood clotting checked more regularly.
- Care is needed when leflunomide is prescribed alongside many other medicines, whether prescribed or bought over-the-counter.

- Your healthcare team can advise you of any known interactions with your medication, so it is important to let them know about all the medicines you are taking, whether they are prescribed or over-the-counter. You should also let them know if you are taking any supplements or herbal medicines as these can also interact with medicines.

If you start taking any new medicines, check with a doctor, nurse or pharmacist that they are safe to take with any medicines you are currently taking.

Leflunomide during pregnancy and breast-feeding

Recommendations for women

- Leflunomide might cause birth defects if it is taken during pregnancy.
- You must use effective contraception while taking leflunomide and for two years after stopping it, because it can stay in your body for a long time after you stop taking it. To avoid waiting two years before becoming pregnant, you can take a course of a medicine such as activated charcoal for 11 days. This will remove any leflunomide from your body more quickly. You will need to have two blood tests 14 days apart to check that this has worked before trying to become pregnant.
- You should seek advice from your specialist team on exactly when to stop taking using contraception.



- Leflunomide must not be taken while you are breast-feeding.

Recommendations for men

- Updated guidelines from the British Society of Rheumatology (BSR) (2023) now state that there is no reason for men who are taking leflunomide to avoid conceiving a child with their partner.

Pregnancy information in this booklet is based on British Society for Rheumatology (BSR) guidelines on prescribing medicines in pregnancy and breastfeeding.

Before starting a family it is recommended that you get advice from the consultant or clinical nurse specialist about when to start a pregnancy.

Leflunomide and alcohol

The recommendation is that alcohol consumption should be avoided during treatment with leflunomide as there is the possibility of increased toxic effects on the liver.

Leflunomide and immunisations/ vaccinations

Live vaccines cannot be given to anyone who is already taking leflunomide. The live vaccines used in the UK include: measles, mumps and rubella (MMR), chickenpox, BCG (for tuberculosis), yellow fever, oral typhoid or oral polio (injectable polio and thyroid vaccines can be used). If leflunomide has not yet been started, it is important to seek advice on how long a gap to leave after having a live vaccine.

Annual flu vaccine is strongly recommended. It is available in two forms: an injection for adults and a nasal spray for children. The injectable vaccine is not a live vaccine so is suitable for adults taking leflunomide. The nasal spray is a live vaccine and not suitable for adults taking leflunomide. You can have a flu vaccination at your GP surgery or local pharmacy.

Annual 'Pneumovax' vaccination (which protects against pneumococcal pneumonia) is not live and is strongly recommended. Vaccination with Pneumovax should ideally be given before starting leflunomide.

Shingles (Herpes zoster) vaccine is recommended for all adults turning 65, those aged 70 to 79 and those aged 50 and over with a severely weakened immune system. The vaccination is given as two doses, two months apart, at your GP surgery. It is available as a live or non-live vaccine, so it is important to make sure you are given the non-live version.

Covid-19 vaccines and boosters are not live and are generally recommended for people with RA.

Your GP can advise if you are eligible for free flu, Pneumovax, shingles and Covid vaccinations, depending on the medications you are taking and their doses.

Vaccination of close family members can help to protect someone with a lowered immune system from infection.

Other Medicines

There are other medicines that have been used to treat RA over the years. Azathioprine and Ciclosporin are now only used rarely since the development of more effective targeted treatments. Some older medications such as gold and penicillamine are no longer available.