Oxford University Hospitals NHS Foundation Trust

Methotrexate in autoimmune liver disorders

Patient information



Methotrexate in autoimmune liver disorders

This leaflet answers some common questions patients ask about methotrexate.

Further information can be found in the information leaflet supplied by the manufacturer or from your pharmacist, liver nurse specialist or doctor.

Why have I been started on this medicine?

Methotrexate is prescribed for patients diagnosed with IgG4-related disease affecting the liver/bile ducts and pancreas. These conditions are examples of an immune mediated (autoimmune) liver disorders. It is not licenced for this condition, but studies have shown it to be an effective treatment option. It is more commonly used in other groups of patients including those with rheumatoid arthritis, psoriasis, and cancer.

IgG4 related disease is a chronic-fibroinflammatory disorder affecting a wide range of organs. These are commonly the salivary glands, pancreas, bile duct and liver, aorta and retroperitoneum. It is a rare disease affecting an estimated 10 per 100,000 people.

Autoimmune disorders can develop when your body's own immune system mistakenly attacks the cells in your body. No one knows why this happens. If left untreated it can lead to organ damage/failure (scarring), and a higher risk of cancer.

Common symptoms associated with autoimmune liver disorders include fatigue, weight loss, nausea, abdominal pain, jaundice, dark urine. Because of related conditions, some people may have joint pains, diarrhoea and feel generally unwell. Most patients with well-controlled disease have no symptoms at all.

There is no cure for autoimmune liver disorders but there are effective treatments to control the disease and reduce the risk of progression including steroids and methotrexate. The main goal of treatment is to stop the inflammation by getting your immune system back under control. We can assess this with blood tests and imaging of the liver. Around 70% of patients will relapse within 12 months if treatment is withdrawn.

How does it work?

Methotrexate suppresses inflammation in the liver, bile ducts, pancreas and elsewhere, and 'turns off' the activity of the immune system (hence known as an 'immunomodulator'). Methotrexate is usually used initially in combination with a steroid e.g, prednisolone. It is used to maintain remission of disease and allows the steroid dose to be gradually weaned down. It is usually prescribed if you are intolerant or refractory or unresponsive to medications including azathioprine, mercaptopurine or mycophenolate.

Reducing inflammation will improve your symptoms, improve your blood tests, may reduce the degree of scarring, and help prevent long-term liver damage and liver failure.

How long does it take to work?

Methotrexate can take several weeks to work which is why it is initially added alongside a steroid which will achieve remission of your disease more quickly. The methotrexate is aimed to keep you in remission and the dose of steroid to be reduced.

What dose do I take?

The recommended dose of methotrexate in IgG4-related disease is initially 10mg **once a week** together with a steroid. The dose will be increased depending on response and side effects up until a usual maintenance dose of 20mg-25mg **once a week**. Folic acid will be prescribed in addition to this.

Treatment will be initiated by the liver/rheumatology team in hospital until the dose is stabilised. Thereafter treatment may be transferred to the GP.

How do I take it?

You will be prescribed methotrexate as either tablets or injection, both are which are taken once a week.

Tablets:

You should take the tablets by mouth, after food. Swallow the tablets whole with a glass of water while sitting upright or standing. Do not crush or chew them. If you have problems swallowing many tablets, they can be dispersed in a glass of water.

Methotrexate tablets come in two different strengths: 2.5mg and 10mg. The two strengths are different shapes but are a similar colour. It is important that you keep an up-to-date record of the dose you are taking and always check the strength of the tablet you have been given each time you get a prescription. To reduce the risk of confusion and possible overdose, many pharmacies only stock 2.5mg strength tablets.

Injection:

A nurse will train you on injecting the methotrexate yourself, usually into the tummy or thigh, just under the skin (subcutaneously) or deeper into the flesh (intramuscularly). All syringes should be disposed of in a dedicated bin given to you for this purpose by the liver team.

If you take too much methotrexate, contact your doctor or local emergency department immediately.

How long will I be taking it?

If tolerated, you will remain on methotrexate for at least 2 years and for at least 12 months after normalization of blood tests.

Steroid-free monotherapy with methotrexate (or alternatively azathioprine, mercaptopurine or mycophenolate if not tolerated) is the goal of maintenance therapy.

What happens if I forget to take a dose?

If you miss your dose on the normal day, you can take it one of the two following days. Do not take the dose if you are three or more days late. In the following week take the dose on your usual day. Do not double up your dose. Page 7

What are the common side effects?

The most frequent side effects are nausea and vomiting (especially at the start of treatment), inflammation and soreness of the mouth, diarrhoea, rash or generalized itchiness and fatigue. You may notice some hair loss while taking methotrexate although this will usually grow back on stopping treatment.

To minimise gastrointestinal side effects (nausea, vomiting or diarrhoea), a vitamin supplement called folic acid (5mg tablet) is recommended. This should be taken once weekly, on a different day to the methotrexate. We suggest you take folic acid on Fridays and methotrexate on Mondays to help you remember. Taking methotrexate with food may help reduce gastrointestinal irritation. If symptoms persist or are severe you should contact your GP or liver team as soon as possible.

Methotrexate can very occasionally affect the production of some of the cells in your bone marrow and make you more open to infections. It can also cause problems with clotting of your blood.

Methotrexate can sometimes cause unintended damage to the liver. You must let us know if you develop yellowing of the skin and/or whites of the eyes that is new.

Methotrexate can under exceptional circumstances cause inflammation in the lung tissue leading to a feeling of breathlessness or persistent cough. This is very rare.

Methotrexate can increase the risk of skin cancer. You should avoid excessive exposure to sunlight and UV light, apply high factor sunscreen and wear protective clothing when outside. The use of sunbeds should be avoided.

You should refer to the patient information leaflet supplied by the manufacturer for other possible side effects.

What do I do if I experience side effects?

If you experience any signs of illness or side effects that you are worried about you must let us know.

You should contact your GP or liver team as soon as possible if you develop:

- Features of blood disorder e.g. unexplained bruising, bleeding, or signs of infection such as sore throat, fever, mouth ulcers
- Liver damage e.g. nausea, vomiting, abdominal discomfort, dark urine, development/worsening yellowness of the skin or whites of the eyes, or severe itching
- Respiratory effects e.g. Persistent cough, pain or difficulty breathing, or become breathless
- Malaise
- Severe skin rash that causes blistering (this can affect the mouth and tongue)
- Spitting or coughing blood
- Skin rash and fever with swollen glands
- Loss of coordination, loss of ability to speak or understand speech, weakness and inability to move one side of the body or the whole body, convulsions or fits
- Swelling of the hands, ankles or feet (may be sign of kidney damage)
- Severe allergic reaction

Do I need any special checks while on methotrexate?

You will be under the specialist care of a hepatology consultant. When you are first diagnosed, you may require frequent outpatient appointments (every 2 weeks) so that we can adjust your medication and monitor your disease closely. Once your disease is well-controlled, your outpatient appointments and blood tests will become less frequent (every 3-6 months). It is important that you attend your appointments and have any tests that are recommended because they are vital to your care.

If you develop scarring of your liver (cirrhosis), you will have an ultrasound scan of the liver every six months. These ultrasound scans are important because people with cirrhosis have increased risk of liver cancer, and regular scans can help to detect liver cancer at an early and treatable stage.

As mentioned above, methotrexate can occasionally affect your blood, liver and lungs and it is important that you have regular blood tests to check for early signs of changes. It is recommended that this is done every 2 weeks for the first month then at 1 monthly intervals for 3-months and then at 3-monthly intervals.

You should also have your blood checked if you experience side effects described above such as a sore throat which could indicate infection. The blood tests can be done at the hepatology clinic or, in agreement of the GP, at your local surgery.

We will ask you to carry a patient alert card to let people know you are on methotrexate. You may be issued with a Monitoring and Dosage Record booklet which includes advice for inflammatory conditions, section for recording results of blood tests and dosage information.

You should let your dentist or pharmacist know you are on methotrexate.

You should be offered hepatitis A and B vaccination if not protected and at risk.

If you have not had chicken pox before and come into personal contact with someone who has chickenpox or shingles, you must see a doctor as soon as possible.

We will do our best to keep the monitoring of your condition up to date. We strongly encourage you to become familiar with the tests you need, however, to ensure these tests happen when they should.

Does methotrexate interfere with my other medicines?

Methotrexate can interact with other medicines, including those bought over the counter such as cold and flu remedies (especially non-steroidal anti-inflammatories like ibuprofen), herbal and alternative medicines. You should avoid the antibiotic co-trimoxazole which prevents the production of folic acid. Always check with your doctor or pharmacist first.

It is safe to drink alcohol in moderation whilst on methotrexate but it may aggravate the nausea and can contribute to liver damage. You will be advised not to drink alcohol if you have advanced fibrosis or liver cirrhosis.

You should avoid having 'live' vaccines whilst taking methotrexate e.g., Mumps, measles and rubella (MMR), yellow fever, BCG, some Typhoid vaccines, Varicella vaccines. If you require travel vaccines or your doctor, nurse or pharmacist advise that you need a vaccine always tell the healthcare professional that you are taking methotrexate. Seasonal vaccination against influenza, Pneumococcal and COVID vaccines are also recommended for adults taking methotrexate.

Is methotrexate OK in pregnancy and breastfeeding?

It is not safe to take methotrexate during pregnancy as methotrexate can damage the developing foetus.

It is essential that men and women of childbearing age use at least one reliable form of contraception during treatment and for at least 3-6 months after treatment has stopped.

If you are a woman of childbearing age (12-55), you must provide a negative pregnancy test before starting treatment and must follow the contraception advice given to you by your liver team or GP. We advise using birth control prior to treatment as pregnancy tests may not reliably detect pregnancy during the first month. Your doctor may request more than one test to ensure you are not pregnancy before starting treatment.

If you are planning a family, it is essential that you discuss this with the liver team first.

You should not breastfeed if you are taking methotrexate.

Where can I receive more information and support?

Hepatology pharmacist:

Tel: 01865 221 523

Hepatology Nurse advice line: Tel: 01865 222 057

AIH Support:

Help for those affected by Autoimmune Hepatitis: AIH Support

British Liver Trust:

British Liver Trust Helpline: **0800 652 7330** (10:00 to 15:00 Monday to Friday)

UK-AIH:

UK-AIH

Keep all medicines out of the reach of children.

Never give any medication prescribed for you to anyone else.

It may harm them even if their symptoms are the same as yours.

Further information

If you would like an interpreter, please speak to the department where you are being seen.

Please also tell them if you would like this information in another format, such as:

- Easy Read
- large print
- braille
- audio
- electronic
- another language.

We have tried to make the information in this leaflet meet your needs. If it does not meet your individual needs or situation, please speak to your healthcare team. They are happy to help.

Authors: Version 1 Sarah Cripps, Consultant Pharmacist, June 2022 Verified by Dr Emma Culver, Consultant Hepatologist, July 2022

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