

Treatment of an ectopic pregnancy with methotrexate

Introduction

You have been given this leaflet to help answer some of the questions that you may have about the treatment of ectopic pregnancy using methotrexate.

What is methotrexate and how does it work?

Methotrexate is a medicine that is used to treat a variety of conditions including cancer and some inflammatory conditions. In a select group of patients, it can also be used, in small doses, to successfully treat an ectopic pregnancy without the need for surgery.

Studies suggests that the success rate of methotrexate ranges from 65 to 95% depending on certain factors. Success rates tend to the higher when the pregnancy hormone level is lower.

Methotrexate works by temporally interfering with the way that the body processes a vitamin called folate. Folate is crucial to help rapidly dividing cells, such of those in an early pregnancy. Giving methotrexate stops the pregnancy from developing any further and gradually, over time, the pregnancy will be reabsorbed by the body.

When would I be offered methotrexate?

Methotrexate is offered to a select group of patients for the treatment of ectopic pregnancy. This treatment is more suitable for some than others. Methotrexate is not suitable if your pregnancy hormone levels are high, there is evidence that the ectopic pregnancy may have ruptured (burst), if you have significant pain or if you have certain medical conditions. This will be discussed with you by your health care professional.

Reference No. GHPI0975_03_25 Department Gynaecology Review due March 2028



What are the advantages/disadvantages of methotrexate?

Methotrexate has a good success rate, and when given in small doses is generally well tolerated with minimal side effects. Having Methotrexate avoids the need to have a general anesthetic and the need for surgery.

After having methotrexate, it is important that you attend regular follow-up appointments at the hospital. This is to make sure that the pregnancy hormone levels are falling, and to monitor your kidney and liver function. This follow-up can take several weeks to complete. Some patients find attending follow-up appointments difficult and this may mean that methotrexate is not the best option for you.

Sometimes if the hormone level is not falling as expected there is a need to give a second dose of Methotrexate, or consider a surgical procedure. This will be discussed with you by your health care professional. Even after receiving methotrexate, there is still a risk of the ectopic pregnancy rupturing (bursting) causing significant bleeding in your abdomen. This would require an emergency operation.

What does the treatment involve?

Before you are given methotrexate, blood tests will be carried out to make sure that your liver and kidney function is normal and that you are not anaemic.

Your height and weight will be measured to calculate the dose of methotrexate that you will require.

Methotrexate will then be given as an injection into a muscle, usually in your buttock. The dose is often spilt into 2 injections given in each buttock. Some patients may need a second injection on day 7 following the first injection if your pregnancy hormone level does not fall adequately. Patient



What are the side effects?

Information

Many patients (60 in every 100) develop some lower abdominal pain, in the days following the injection. This can be reduced by taking pain relief medication such as paracetamol, please follow the dosage instructions within the pack.

It is normal to have vaginal bleeding after the injection and this can last anywhere between a few days to several weeks. It is also very common to notice increased levels of fatigue (tiredness).

Less common problems are nausea, diarrhoea, indigestion, soreness or ulcers in the mouth and nose bleeds. Rarely, temporary changes in your liver and kidney function may occur, this usually resolves during the follow-up period.

Will I need to stay in hospital?

You will need to stay in hospital for 1 hour after the injection. It is very important that you return for regular follow-ups so that we can check that the treatment is working.

You will be asked to attend for a blood test on day 4 and day 7 (the day you were given methotrexate is day 1). At each visit, you will be asked how you are feeling and if you have any abdominal pain, vaginal bleeding or any other symptoms that you are concerned about. A blood sample will be taken to check your pregnancy hormone level and that your liver and kidneys are working normally.

It is not uncommon for the pregnancy hormone level to rise on day 4 as the methotrexate does not work instantly and the pregnancy cells can continue to divide. By day 7 the pregnancy level should have fallen by 15% from the day 4 level, if this is not the case then a second dose of methotrexate will be discussed.

Studies have reported that approximately 14 in every 100 patients will need more than 1 dose of methotrexate and 29 in every 100 patients will require an operation to remove the ectopic pregnancy.



How long will I need to keep visiting the hospital?

This will depend on how quickly your hormone levels fall. It usually takes between 3 to 8 weeks to fall to a normal level.

At each visit, you will be told when to come in for your next follow-up (this is usually day 4, day 7 then weekly until your pregnancy hormone levels have fallen to less than 15).

During your follow-up appointments, if you are worried about lower abdominal pain, pain which does not go away, heavy vaginal bleeding or if you have any other concerns, it is very important that you seek medical advice. The contact details are at the end of this leaflet for the early pregnancy clinic.

If your symptoms are severe, you feel unwell or you are worried, please go to your nearest Emergency Department.

Do I need to take any special precautions?

We advise you not to have sexual intercourse during the methotrexate treatment and the follow up period.

Alcohol should also be avoided until your pregnancy hormone levels have dropped.

You must avoid taking extra vitamins and certain medications partially folic acid and non-steroidal drugs such as, ibuprofen or aspirin until your hormone levels have gone back to normal. If you are unsure, please call the number at the end of this leaflet for advice.

Methotrexate can make your skin become more sensitive to sunlight and can cause skin reactions that look and feel like sunburn. To reduce this, it is recommended that you stay out of the bright sun, use a high factor sun protection and avoid the use of sun lamps or sun beds.

Will I need any further investigations?

The need for further investigations is unlikely.



When can I try for another pregnancy?

The usual recommendation is to wait for 3 months before trying for another baby. You should use your usual method of contraception during this time. This is important as it will make sure that any traces of methotrexate are gone from your system.

Once your pregnancy hormone level is less than 15%, and you are planning another pregnancy in the near future, we advise you to take 5 milligrams of folic acid until the 12th week of your next pregnancy. This is because methotrexate can reduce the level of folate in your body which is needed to make sure that an early pregnancy develops well.

What is the chance of a successful pregnancy next time?

Three months after receiving methotrexate, it will be safe to try for a pregnancy. This will not increase your risk of miscarriage. However, following an ectopic pregnancy you are at a higher risk of having another one (10 to 18 in every 100). In view of this, it is important that you have an early pregnancy scan at around 6 weeks to make sure that the pregnancy is developing in your womb.

You can self-refer to the Early Pregnancy Clinic by calling the number at the end of this leaflet. If you have pain or bleeding before this, you should seek medical advice from your GP or NHS 111.

Will the treatment harm any of my future babies?

There is no evidence to show that methotrexate causes any problems to future pregnancies.



Contact information

If you are worried about severe or continuing lower abdominal pain, heavy vaginal bleeding or if you have any other concerns, please contact the number below:

Early Pregnancy Assessment Unit

Gloucestershire Royal Hospital Tel: 0300 422 5549 This line is open from 8:00am to 4:00pm, 7 days a week.

Further information

The Ectopic Pregnancy Trust Tel: 020 7733 2653

Website: www.ectopic.org.uk

Other written information is available from the hospital. Please ask your healthcare professional if you would like a copy the leaflet GHPI0770 Ectopic pregnancy.

Content reviewed: March 2025

Making a choice

Shared Decision Making If you are asked to make a choice, you may have lots of questions that you want to ask. You may also want to talk over your options with your family or friends. It can help to write a list of the questions you want answered and take it to your appointment. Ask 3 Questions To begin with, try to make sure you get the answers to three key questions if you are asked to make a choice about your healthcare. 1. What are my options? 2. What are the pros and cons of each option for me? 3. How do I get support to help me make a decision that is right for me? pted with kind pe n from the MAGIC Programme, supported by the Health Foundation Ask 3 Questions is based on Shepherd HL, et al. Three questions that patients can ask to improve the q Patient Education and Counselling, 2011;84: 379-85 AQUA Music NHS https://aqua.nhs.uk/resources/shared-decision-making-case-studies/