NHS
Oxford University Hospitals
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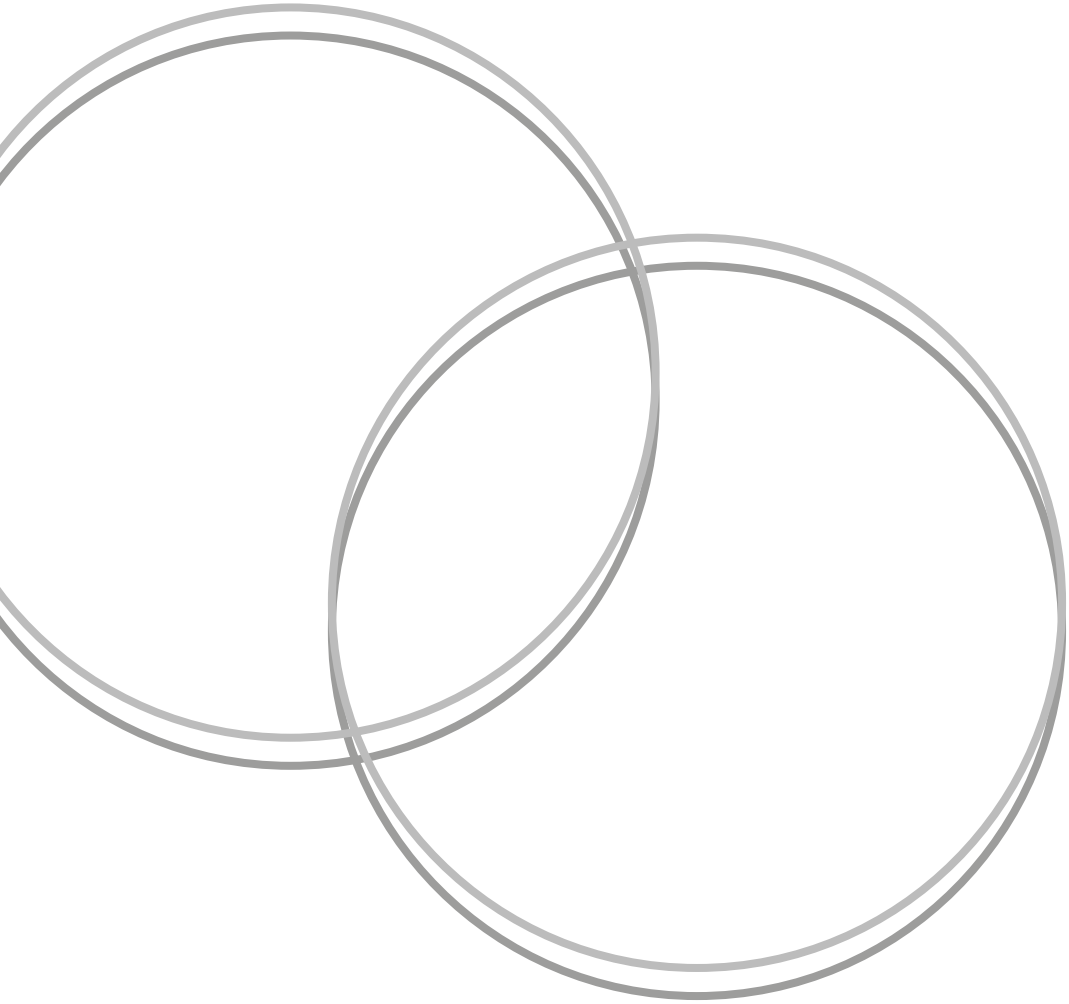
Fetal Medicine Unit Intrauterine Blood Transfusion (IUT)

Information leaflet



This leaflet is for pregnant patients whose babies require an intrauterine blood transfusion procedure. We will refer to this procedure as an IUT. Fetal transfusions take place in our Fetal Medicine Unit (FMU) and are performed by FMU consultants (senior doctors), alongside our FMU midwives and maternity support workers.

A fetal transfusion is a life-saving procedure for unborn babies with a condition which destroys their blood. An IUT would be recommended if your baby showed signs of fetal anaemia.

The leaflet aims to support the discussions you will have with the midwife and doctor. It is important that you take time to consider your options and to ask any questions you may have before you decide if to undergo a fetal blood transfusion.

Contents

Why does my baby need a blood transfusion?

Doctors can determine if a baby is at risk of anaemia through ultrasound scanning. If your baby shows signs of anaemia on scan, we would offer a transfusion to treat the anaemia.

Why could my baby be anaemic?

Haemolytic disease of the fetus: this is a condition where the mother or pregnant person produces blood cell antibodies which cross the placenta and destroy the baby's blood. Fetal transfusion is sometimes necessary for the pregnancy to continue until term. The condition will resolve naturally after the baby's birth.

Infection: the most common infection is from a virus named parvovirus B19. This virus causes a harmless infection in most children and adults. However, if contracted during pregnancy, there is a chance that the baby may become anaemic as a result. The baby might require a fetal transfusion, but in most cases the infection will resolve without other consequences.

Rare congenital anaemia: Some babies are born with a rare genetic condition that causes anaemia.

Unknown cause: there might be signs on scan that a baby is anaemic without a clear underlying cause. In this instance, a sample of your baby's blood can be taken at the time of procedure and sent for infection and rare congenital anaemia (genetic) testing with your consent.

How to prepare

Preparation for the procedure

Sometimes it helps to write questions down as you think of them prior to your appointment in FMU. You will speak with an FMU midwife prior to the procedure.

A fetal transfusion is performed as a daytime procedure under local anaesthetic and does not usually require hospital admission.

Blood Tests

A couple of days before the procedure you will have a blood test so that our blood bank can select and prepare the appropriate blood type for your baby's transfusion.

Food and fluids

You can eat and drink as normal before and after the procedure.

Antibiotics

On the day of the transfusion, you will be offered IV antibiotics which are administered through a cannula to minimise the risk of infection.

The midwife will insert a cannula so that they can administer the antibiotics and this will be removed prior to your discharge home.

Ultrasound Scan

An ultrasound scan is performed before the IUT to measure your baby and to plan the procedure.

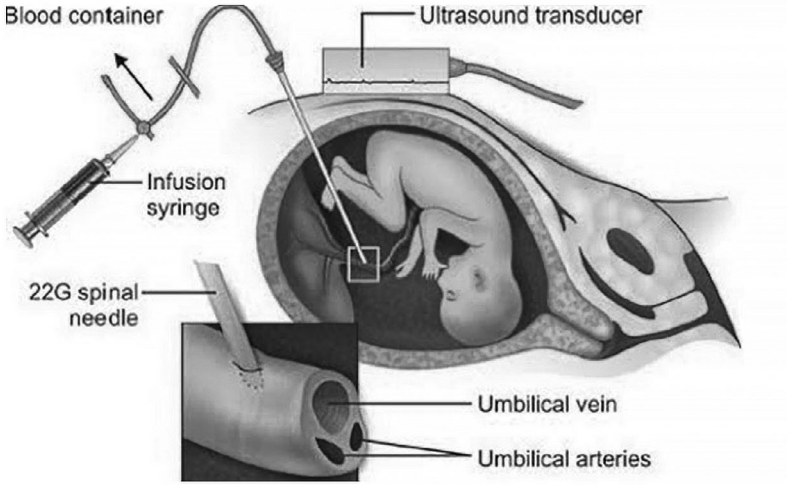
How is a fetal transfusion performed?

The procedure will be performed under direct ultrasound. You will be awake throughout the procedure. The consultant will administer local anaesthetic to your abdomen and your uterus before introducing a thin needle through the skin of your abdomen (tummy) into your uterus, and into a blood vessel of your baby's umbilical cord.

In some cases, your baby might be given medication to reduce their movements to enable the doctors to perform the IUT. This will last throughout the procedure, but the medication will wear off and movements should return to your baby's normal pattern prior to discharge home.

The baby's blood count will be measured before the start of the transfusion to estimate how much blood is needed. Their blood count will be measured again at the end of the procedure in order to confirm that the correct volume of blood was given.

The FMU team will monitor your baby by ultrasound scan to assess the need for further transfusions which could happen every 2 to 4 weeks. Sometimes, no repeat transfusion is required. This can also depend on the cause of the fetal anaemia.



Post procedure considerations

If more than 26 weeks pregnant

- Steroids might be offered as a precaution 24 hours apart as they can help to develop your baby's lungs should you go into premature labour.
- You might be offered a CTG monitoring of your baby following the procedure.

Sample testing

You may be offered testing on the blood sample taken from your baby's cord. This testing may include genetic testing for chromosome problems (such as Downs syndrome or others); a test for rare congenital anaemias; or a test for specific viruses. If any of these are indicated, we would explain these tests to you and ask for your consent prior to sending.

What are the risks of a fetal transfusion?

When a baby is showing signs of severe anaemia on scan, there is a significant risk of fetal death in utero if no action is taken.

There is a small risk of pre-term birth, severe disability or fetal death (approximately 3%) from this procedure which is why it is only performed when clinically indicated.

It is important to add that the risk and prognosis for your baby also depends on the underlying cause of anaemia.

Blood product safety

The blood given to your baby will be tested against your own sample to ensure it is safe for your baby

All donor blood is checked before it's used to make sure it does not contain serious infections such as hepatitis or HIV.

As your baby would have received a blood transfusion, this will prevent them from being able to donate blood in the future.

For more information about the risks of Blood Transfusion please visit:

Tests we carry out - NHS Blood Donation

www.blood.co.uk/the-donation-process/further-information/tests-we-carry-out

Frequently asked questions

Will I need to be admitted following my procedure?

No, it is unlikely that you will need to be admitted following the procedure. If you are well, and your baby's monitoring is normal, you can go home.

Does this mean my baby will need to be admitted to the neonatal unit?

This would depend on whether a cause for your baby's anaemia was found and if there were concerns about your baby's wellbeing prior to delivery. In the weeks leading to the birth of your baby, a plan will be made with the Fetal Medicine Consultants regarding the care of baby at birth.

In particular, if the reason for the fetal anaemia was haemolytic disease due to blood antibodies, a plan for the baby's birth could include:

- Neonatal team to be present at the baby's birth.
- Cord blood to be taken for further testing and to check anaemia levels at birth.
- Monitoring the baby for jaundice.
- Admitting the baby to the neonatal unit for close observation and further treatment.

IUTs in pregnancy may reduce the need for further treatments after birth, but some treatment might still be necessary, such as phototherapy (treatment with light) or further blood transfusions.

Aftercare advice and ongoing care

After the test today:

- You may wish to relax and avoid doing anything strenuous for the rest of the day.
- You may experience some mild cramping, like period type pain, that may last for 1 or 2 days.
- You can take paracetamol to ease any mild discomfort you experience (please follow the dosage instructions on the packet).
- Ibuprofen is **not** recommended in pregnancy so please avoid taking this.
- You may want to try using a hot water bottle (avoiding any areas where local anaesthetic was given).

You will receive follow up in the Fetal Medicine Unit where your baby will be closely monitored for recurring signs of anaemia.

You should continue your community midwifery and antenatal clinic care alongside any appointments you have in FMU.

When to seek medical advice

If you experience any of the following symptoms;

- Severe abdominal pain.
- Contraction-like abdominal pain.
- Vaginal bleeding.
- Vaginal fluid loss (if you think your waters might have broken/fluid is leaking from your vagina).
- Signs of an infection:
  - Feeling hot/cold or shivery.
  - Temperature above 38 degrees Celsius or a temperature above 37.5 degrees Celsius on 2 occasions more than 1 hour apart.

Please use the numbers highlighted to you below and explain you have had a CVS/amniocentesis:

If you live out of area:

- Your local screening team.
- Your local triage team.

If you live in the Oxford area:

- Maternity Assessment Unit: 01865 220 221 (24 hours).
- Fetal Medicine Unit Midwives: 01865 221 716 (Monday to Friday, 8.30am to 5.30pm).

We appreciate this time is often challenging and stressful. If you have any questions or concerns following your procedure, please do not hesitate to contact us. We have included some websites and support groups at the end of this leaflet that you may find helpful.

Support groups and useful websites

ARC: Antenatal results and choices

Website: www.arc-uk.org

Congenital Anaemia Network

Website: https://togetherwecan.uk

NHS blood and transfusion

Website: www.blood.co.uk

We would like to thank the Oxfordshire Maternity Voices Partnership for their contribution in the development of this leaflet.

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.

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