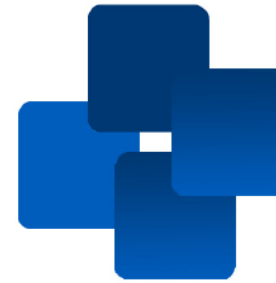
East and North Hertfordshire
NHS Trust

Patient Information

Thinking of declining blood or blood products?

Women's Services



Introduction

This leaflet is for all pregnant women using the Maternity Services at the East and North Hertfordshire NHS Trust, who may wish to decline a blood transfusion. You may be thinking about refusing treatment with blood or blood products for religious, cultural or social reasons. This leaflet may help you to make an informed decision on receiving blood or blood products.

What is a blood transfusion?

A blood transfusion involves taking blood from one person (the donor) and giving it to someone else.

You may need a blood transfusion for a number of reasons

including:

- to replace blood lost during major surgery, childbirth or a severe accident;
- to treat anaemia that has failed to respond to other treatments; anaemia is a condition where a person has low levels of red blood cells;
- to treat inherited blood disorders, such as thalassaemia or sickle cell anaemia;
- Anti D (if you are rhesus negative).

Anti D is offered to pregnant women who are rhesus negative in order to prevent the development of a condition in their baby called haemolytic disease of the newborn. If you are rhesus negative, your midwife will explain this in more detail.

If you're told that you might need a blood transfusion, you should ask why it's necessary and whether there are alternative treatments.

You have the right to refuse a blood transfusion, but you need to fully understand the consequences of this before doing so. Some medical treatments or operations can't be safely carried out without a blood transfusion being given.

Safety

Blood donors are unpaid volunteers. They're carefully selected and tested to make sure the blood they donate is as safe as possible.

In the UK and other Western countries, there are strict regulations regarding blood donations and blood transfusions. The aim is to reduce the risk of a person being given blood contaminated with a virus, such as hepatitis C, or receiving blood from a blood group that's unsuitable for them.

Before making a blood donation, the potential donor is asked about their health, lifestyle and history.

After blood has been donated, it's always tested for the following infections:

- hepatitis B
- hepatitis C
- HIV and AIDS
- syphilis
- human T-cell lymphotropic virus (HTLV). A rare but potentially serious virus, which in some people can cause a type of leukaemia that's usually fatal.

Compared to other everyday risks, the chances of getting an infection from a blood transfusion is very low.

What does blood do?

When a donor has given blood, special equipment is used to separate the donation into different blood components, including:

- **red blood cells** – these transport oxygen around the body and are used to treat anaemia
- **platelets** – these help to stop the bleeding when a person is cut or injured; platelet transfusions can be used to prevent excessive bleeding in certain groups of people with low platelet counts.
- **plasma** – a liquid that makes up most of the volume of blood; plasma contains many nutrients needed by the body's cells, as well as proteins that help the blood to clot if a patient is bleeding
- **white blood cells** – these are used to fight infection

Why a blood transfusion is necessary?

There are several different types of blood transfusion. Whether you need one depends on a number of factors. These include:

- your health
- your medical history
- the type of operation you're having
- the seriousness of your condition

An average-sized adult has about five litres of blood in total. Small amounts of blood loss (up to 1.5 litres) can be replaced with a salt solution, which your body replaces with new red blood cells over the following weeks.

The different types of blood transfusions are described below:

Red blood cell transfusions

The main reason for a red blood cell transfusion is to treat anaemia. Anaemia occurs when the body does not have enough red, oxygen-

carrying blood cells, which means the body's tissues and cells aren't getting enough oxygen.

Anaemia can develop as a result of severe blood loss, for example, as a complication during childbirth or as a result of injury or surgery.

Platelets

A platelet transfusion is used to treat people who have very low levels of platelet cells in their blood. This is known as thrombocytopenia.

If you have thrombocytopenia, you're at risk of excessive bleeding, either through a minor accident, cut or graze, or as a result of surgery or dental work.

Plasma

Plasma is the fluid in the blood containing proteins that help the blood to clot. A transfusion of plasma may be needed if there's severe bleeding, such as after surgery, trauma or childbirth.

Granulocytes

Granulocytes are a type of white blood cell that help to fight infection. Granulocyte transfusions aren't commonly used.

Surgical operations

Surgeons always try to carry out surgery to minimise the amount of blood lost. However, some types of surgical operations and procedures have a higher risk of blood loss; therefore, a blood transfusion is more likely to be needed.

It may be possible to use a procedure called intra-operative cell salvage. It collects your blood that's lost during the surgery, and it can be returned back to you. Cell salvage can be used for elective procedures. There is more information about this later on in this booklet. It is no longer possible to routinely collect your own blood in advance of your surgery.

What alternatives are there?

Erythropoietin is a drug that can sometimes be used as a transfusion alternative. This is a naturally occurring hormone

produced by the kidneys, which can not be made artificially. It is given by injection and stimulates the body to produce more red cells. Most patients are able to receive erythropoietin but there are some exceptions. Please discuss this with your doctor.

If you are currently on anti-coagulation medication, e.g. Warfarin, aspirin, or non-steroidal anti-inflammatory drugs, you should check with the doctor to see if this treatment may be stopped before your delivery as they may lead to increased blood loss during childbirth.

Risks of a blood transfusion

Blood transfusions are a fairly common procedure. The risk of serious side effects is low, as your blood is tested against the donor blood to make sure it is compatible, and you will be monitored regularly during the transfusion.

Allergic reaction

Having an allergic reaction to the donated blood is a rare complication of a blood transfusion.

In 2013, there were 320 reported cases of allergic reactions after a blood transfusion in the UK.

An allergic reaction is caused by the body's immune system reacting to proteins or other substances in the donated blood. The symptoms of the reaction are usually mild and occur during or shortly after the transfusion.

These types of reactions can usually be successfully managed by slowing down or stopping the transfusion and treating the symptoms with antihistamines and, in some cases, paracetamol.

Anaphylaxis

Anaphylaxis is a more serious and potentially life-threatening allergic reaction to antibodies or other substances in the blood.

In 2013, there were 33 cases of anaphylaxis associated with blood transfusions in the UK.

Treatment for anaphylaxis is usually an injection of a type of medication called adrenaline.

Fluid overload

Occasionally, too much blood is transfused into the body in too short a time for the body to properly cope with it. This is known as fluid overload. It's more common in people who are elderly or frail, and in those who have a lower body weight.

There were 34 cases of fluid overload due to blood transfusion reported in the UK during 2013.

It is treated by giving a medicine to remove excess fluid from the body (diuretic), and by reducing the speed of the transfusion in the future.

Lung injury

A rare but very serious risk associated with blood transfusions is transfusion-related acute lung injury (TRALI). It occurs more often with platelets and plasma than with red cells.

TRALI is a poorly understood condition, in which a person's lungs suddenly become very inflamed within six hours of the transfusion. The high levels of inflammation cause the lungs to become starved of oxygen. In some cases, this can be fatal.

Treatment for TRALI requires using a ventilator to provide the body with oxygen until the inflammation of the lungs subsides.

Haemolytic reactions

A haemolytic transfusion reaction (HTR) is when the immune system reacts to the donated blood and begins attacking the blood cells.

HTRs can happen during or soon after transfusion, or they can be delayed, happening a few days or even a week after transfusion. Haemolytic reactions can cause symptoms like other transfusion reactions, but the urine may turn darker, due to destruction of red blood cells. HTRs are rare.

Bacterially contaminated blood

Despite every effort being made to keep donated blood germ-free (sterile), bacteria can occasionally develop in donated blood, but this is very rare. Donations of platelets are particularly vulnerable to contamination, because they need to be stored at room temperature.

If a person receives a donation of contaminated blood, they may develop symptoms of blood poisoning (sepsis). Sepsis usually needs to be treated with injections of antibiotics.

There have been no cases of bacterial infections associated with contaminated blood in the UK since 2009.

Viral contaminated blood

It's extremely rare for someone to develop a viral infection from a blood transfusion, as the blood services use strict testing processes.

For example, it is estimated that:

- the risk of getting hepatitis B is about 1 in 1.3 million
- the risk of getting hepatitis C is about 1 in 28 million
- the risk of getting HIV is about 1 in 6.5 million

There hasn't been a recorded case of someone developing a viral infection from a blood transfusion since 2005.

Variant Creutzfeldt-Jakob disease (vCJD)

Creutzfeldt-Jakob disease (CJD) is a rare and fatal condition that causes worsening brain damage over time.

A form of this condition called variant Creutzfeldt-Jakob disease (vCJD), which is usually caused by eating meat infected with bovine spongiform encephalopathy (BSE, or "mad cow disease"), can be passed on through a blood transfusion. However, this is extremely rare.

In the UK, about 2.1 million units of blood components are transfused each year, and to date there have only been four cases of vCJD linked to transfusions. As a precautionary measure, to reduce the risk of transmitting vCJD, people who have received a blood transfusion since 1980 are not currently able to give blood.

Can I donate my own blood before my operation?

The Department of Health does not recommend this technique as evidence shows it is not effective in reducing the need for blood donated by another person. However, here at the East and North Hertfordshire NHS Trust, a process called **cell salvage** is offered to eligible patients for elective procedures.

Cell salvage is a process of collecting blood lost during the operation into a special container which is then processed, cleaned and may be transfused back into the patient.

At the end of some surgical operations and procedures, it may be possible to insert a special drain that allows collections of blood that may still be draining from the operation site. This blood may then be transferred back into the patient. This may be possible if you are having a planned caesarean section.

The National Institute for Clinical Excellence (NICE) has issued guidance for its use in the UK. Many patients are able to receive cell salvage but there are some exceptions. Your doctor will be able to give advice as to your suitability for this procedure.

Declining a blood transfusion

We want to be sure that we treat every woman in a way which recognises her individual choices and respects her religious beliefs.

Before giving a blood transfusion, we will discuss the risks and benefits of having or not having a blood transfusion with you carefully, to ensure you are aware of any possible consequences. It is up to you to decide if you are willing to accept these risks.

If you are pregnant, and you think you would decline a transfusion, it is very important that you inform your midwife or doctor as soon as possible. You will be seen by a consultant obstetrician during your pregnancy, who will make a plan with you to reduce possible blood loss at the time of delivery.

Currently there is no legal requirement in the UK to give written consent to receive a blood transfusion but it is a legal requirement to give verbal consent.

If you decline to be transfused you will be asked to complete a form stating which blood products, if any, you will accept. You will also be asked to complete a form if you do not wish to receive blood or blood products.

In some cases, such as members of certain religious groups, you will be familiar with the form ‘Advance Decision to Refuse Specified Medical Treatment’ (sometimes known as a ‘no blood form’) which contains written details of your wishes about any future medical intervention. This form must be reviewed and updated regularly, and carried with you at all times in case you require medical help and are not able to communicate.

Additional information

The National Blood Service has produced a detailed information leaflet: '**Will I need a blood transfusion?'**.

You can view this online at:

http://hospital.blood.co.uk/media/28307/160511-27360-will-i-need-a-blood-transfusion-final.pdf

Alternatively, please ask the hospital's transfusion team for a copy of the leaflet or contact them if you require further information about blood transfusion.

Useful contact details

Transfusion Team, Lister Hospital:

☎ 01438 781714 (Direct line, 24 hours)

☎ 01438 314333 Extension 4779 (During office hours)

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