NHS
Blood and Transplant

Will I need a blood transfusion?

Patient information

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Important information for all patients who may need a blood transfusion

Like all medical treatments, a blood transfusion should only be given if it is essential. Your doctor will balance the risk of you having a blood transfusion against the risk of not having one.

Why might I need a blood transfusion?

Blood contains many different cells. The red cells are essential for carrying oxygen around the body. A lack of these red blood cells is called **anaemia**.

A blood transfusion may be given because of a shortage of red blood cells in the blood, either because the body is not making enough of them, or by loss of blood.

Sometimes the bone marrow, which produces blood cells, cannot make enough of them. This may be due to disease or a failure of the bone marrow to work properly. It may be temporary or a longer term problem. Some treatments, such as chemotherapy, can also affect the bone marrow in this way. In some cases anaemia can be treated with medicines; in other cases, a blood transfusion may be the best treatment.

Most people can cope with losing a moderate amount of blood without needing a blood transfusion, as this loss can be replaced with other fluids. However, if larger amounts of blood are lost, a blood transfusion may be the best way of replacing blood rapidly. A blood transfusion may be needed to treat severe bleeding, for example during or after an operation, childbirth or after a serious accident.

Is a blood transfusion my only option?

Certain medical conditions causing anaemia may be managed by treating the cause rather than by giving a blood transfusion. If you are told that you might need a blood transfusion, you should ask why it is necessary and whether there are any alternative treatments.

You do 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 cannot be safely carried out without a blood transfusion being given.

Blood transfusion is only needed for a small number of patients having an operation. Sometimes it is possible to recycle your own blood during or after an operation. Ask if this is appropriate for you.

What can I do to reduce the need for a blood transfusion before an operation?

If you do not eat enough foods containing iron, you may have low iron levels. A varied and balanced diet should normally provide an adequate iron intake. A leaflet called 'Iron in your diet' is available from NHS Blood and Transplant, which gives further advice on this. Please ask your nurse or doctor for a copy of this.

Shohanna pictured here with her younger sister needed a blood transfusion when she had her liver transplant as she was born without a bile duct.

Depending upon the type of operation you are having, you should have a blood sample taken 6-8 weeks before your operation to see if you are anaemic. Ask your doctor or nurse about this. A shortage of iron can cause anaemia and correcting this in good time, before your operation, may reduce the need for a blood transfusion.

Some medicines, such as warfarin, aspirin and some anti-inflammatory drugs may increase the risk of bleeding during your operation. Always check with your doctor to find out if you should stop taking these before your operation and if so, when you should restart them. Do not stop taking any medications without consulting your doctor first.

Are blood transfusions safe?

Yes, the risk that a blood transfusion will make you ill is very low. One of the most important ways of achieving a safe transfusion is to make sure you get the right blood. You can help reduce the small risk of being given the wrong blood by asking your nurse or doctor to check that it is the right blood for you.

You must be correctly identified at each stage of the transfusion to make sure that you get the right blood, including when blood samples are taken before the transfusion. If you are an in-patient, wearing an identification band with your correct details is essential. You will be asked to state your full name and date of birth, and this will be checked against your identification band. If you have your blood samples taken as an out-patient, you will not usually be given an identification band to wear, but it is still important that the staff ask you your full name and date of birth to confirm they are taking the samples from the right person. It is alright to remind your nurse or doctor to ask you for this information.

If you have previously been given a card which states that you need to have blood of a specific type, please show it as soon as possible to your doctor, nurse or midwife and ask them to tell the hospital transfusion laboratory.

Compared to other everyday risks, the likelihood of getting an infection from a blood transfusion is very low. All blood donors are unpaid volunteers and the risk of viral infections has almost been eliminated as a result of careful donor selection and testing.

It is calculated that hepatitis B might be passed on by fewer than 1 in 1.3 million blood donations. To put this in perspective, you are more likely to die in a gas incident (fire, explosion or carbon monoxide poisoning) than to get hepatitis B from a blood transfusion (Health and Safety Executive, 2010 http://www.hse.gov.uk/education/statistics.htm#various). The risk is many times smaller for HIV (1 in 6.5 million) and hepatitis C (1 in 28 million) (figures published October 2012).

The risk of getting variant Creutzfeldt-Jakob Disease (vCJD) from a blood transfusion is extremely low. Each year, approximately 2.5 million units of blood components are transfused in the United Kingdom and there have been only a handful of cases where patients are known to have become infected with vCJD. More information on variant CJD can be found here: http://www.nhs.uk/conditions/Creutzfeldt-Jakob-disease/Pages/Introduction.aspx.

How will my blood transfusion be given?

A blood transfusion is usually given through a tiny tube directly into a vein in the arm. It may take up to four hours to give each bag of blood, but it can be safely given more quickly if needed. You may be given more than one bag of blood as part of your treatment.

How will I feel during my blood transfusion?

Most people do not feel anything whilst receiving a blood transfusion. You will be observed before, during and after your blood transfusion; if you feel unwell during or after it, you should inform your doctor or nurse immediately. Some people may develop a temperature, chills or a rash. These reactions are usually mild and are easily treated with medicines such as paracetamol or antihistamines, or by slowing down or stopping the blood transfusion. Severe reactions to blood are extremely rare. If they do occur, staff are trained to recognise and treat them.

What if I have worries about receiving a blood transfusion?

If you have any concerns you should discuss these with your doctor, nurse or midwife. Many hospitals have a dedicated Hospital Transfusion Team and if appropriate they may be able to come and discuss your concerns with you.

Note that 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 donate blood.

Additional information

If you are interested in finding out more about blood transfusion and have access to the internet, you may find the following websites useful:

NHS Choices
www.nhs.uk/Conditions/Blood-transfusion/Pages/Introduction.aspx

UK Transfusion Services
www.transfusionguidelines.org.uk/index.aspx

This leaflet was prepared by NHS Blood and Transplant in collaboration with the National Blood Transfusion Committee. Healthcare professionals can obtain further supplies by accessing **ww3.access-24.co.uk** and entering their Regional Transfusion Committee code.

If you do not have a code please call **01865 381042**.

The public can get copies of this leaflet by calling **01865 381042**.

NHS Blood and Transplant (NHSBT) is a Special Health Authority within the NHS, and provides the blood that patients receive. In order to plan for future blood demands, information about which patients receive blood needs to be gathered. We may ask a hospital or GP to provide limited medical information on a sample of patients who have received blood transfusions.

Any information that is passed on to NHSBT is held securely, and the rights of these patients are protected under the Data Protection Act (1998).

NHS Blood and Transplant

NHS Blood and Transplant (NHSBT) saves and improves lives by providing a safe and reliable supply of blood components, organs, stem cells, tissues and related services to the NHS, and other UK health services.

For more information

Visit **nhsbt.nhs.uk**
Email **enquiries@nhsbt.nhs.uk**
Call **0300 123 23 23**

BLC607.2P INF64/2.2 Effective date 22/07/13