Receiving a transfusion.

Information for patients and relatives.
Receiving a transfusion

This leaflet has been prepared to explain the reasons why you may be advised to have a blood transfusion and the different kinds of transfusions available.

Like all medical treatments, a transfusion should only be given when it is necessary. The decision to give a transfusion to a patient is made only after careful consideration. The risk of you having a transfusion will be balanced against the risk of not having one.

In an emergency, it may not be possible to discuss all options at the time. If this happens, the doctors will talk to you about your transfusion as soon as they can.

All staff involved in your transfusion have had specialised training in the clinical transfusion process.
Is a blood transfusion my only option?

Your doctor or nurse will explain why you need a transfusion and will discuss if any alternative treatments are available. It is important that you understand why a transfusion is required and you have an opportunity to ask any questions.

Blood transfusion is only needed in a small number of patients. Sometimes your own blood can be recovered and re-infused into you during an operation. Ask if this is suitable for you. Many causes of anaemia (low haemoglobin levels in the blood) are treated by ways other than by giving a blood transfusion.

Why may I need a transfusion?

Most people can cope with losing a moderate amount of blood without needing a blood transfusion. Your body will make new red blood cells over the following few weeks. However, if larger amounts of blood are lost, a blood transfusion may be the only way of replacing blood rapidly.

Red blood cells may be used to replace blood lost during major surgery, following accidents and for emergencies during childbirth. They are also transfused when illnesses such as cancer cause anaemia, for premature babies whose bone marrow is immature and to treat patients who are bleeding for other reasons.
What can I do to reduce my need for a transfusion?

- Are you having an operation soon? It might help to take an iron supplement in the few weeks before your surgery – ask your GP or consultant, especially if you know that you have suffered from low iron levels in the past.

- If you are on warfarin, clopidogrel, aspirin or other anticoagulants, check with your GP or consultant if you should stop these before your operation. Stopping these drugs may reduce the amount of bleeding, but this decision can only be made by your doctor.

What checks are carried out?

Transfusions can be lifesaving but, like other medical treatments, are not completely free of risk. The main risk from a red blood cell transfusion is receiving the wrong blood.

To ensure you receive the correct transfusion, the clinical staff will make careful identification checks when taking the sample and administering the transfusion. They will ask you for your full name and date of birth. They will then check the details on your wristband to ensure that you receive the correct transfusion.

Blood for transfusion is specifically matched to the most important blood
groups. Some patients can develop antibodies to some of these blood groups, and specially selected blood will have to be given. In this case, you will be given a card to show to any healthcare professional looking after you.

**Is it safe to have a transfusion?**

- The risk of getting hepatitis B from transfusions is about 1 in 2 million, which is much lower than the risks to health associated with common activities such as driving a car.

- The chance of HIV infection due to blood transfusion is extremely rare, at less than 1 in 5 million.

- Experts advise the transfusion services, that the chance of contracting variant Creutzfeldt-Jakob Disease (vCJD) from a transfusion is very small; nevertheless we exclude blood donors who may be at a higher risk of vCJD.
• Bacteria (germs) could contaminate red cells and other components of blood. This could cause a dangerous reaction in any patients who receive contaminated units. We work hard to prevent this happening and the risks are now similar to the other infections listed above.

Transfusions occasionally cause allergic reactions, which most commonly result in skin rashes, fevers or feeling breathless. Clinical staff will regularly monitor you during your transfusion and ask you how you feel in order that any side effects are picked up quickly.

Severe reactions to a blood transfusion are extremely rare, but staff are trained to recognise and deal with these. If you feel unwell at any time during your transfusion, you must immediately contact the nurse looking after you.
How is a transfusion given?

- Blood is normally given through a small plastic tube called a cannula. This is inserted into a vein in your arm using a sterile needle and connected to a drip. The blood runs through the drip and the cannula into your vein.

- One bag of blood (a unit) takes about two to three hours to give (but can be given more quickly if needed). A platelet or plasma transfusion takes around 30 minutes to an hour to give.

- Sometimes platelet or plasma transfusions may be needed daily or every other day for a period of time – your doctor or nurse will let you know.

Are there any side effects?

- Most people feel no different at all during their transfusion.

- Some people develop a slight fever, chills or a rash, which is usually due to a mild immune reaction or allergy. This is easily treated, for example by giving paracetamol or giving the transfusion more slowly.

The nurses looking after you will check your transfusion regularly and ask you to tell them how you feel. They will also check your temperature, pulse rate and blood pressure. Do tell the nurse immediately if you feel unwell.
What if I have other worries about transfusion?

You may be afraid of needles, worried about feeling squeamish at the sight of blood or have had a bad experience in the past with a blood transfusion.

Please tell your nurse or doctor about any concerns you may have. They will not think that these fears are trivial or of no importance, so it’s important to speak up.

Different types of transfusion

When blood is donated, it is separated into components. These components are red blood cells, platelets and plasma, and each of these components can be used separately in the transfusion process depending on the medical condition to be treated.

Why might I need a red blood cell transfusion?

- To replace blood lost in surgery or accidents.
- To treat anaemia (shortage of red blood cells).
- During treatment of cancer or leukaemia.

If you are anaemic, your body does not have enough red blood cells to carry the oxygen you require. You may feel
tired or breathless and look pale. Most people can cope very well with losing a moderate amount of blood (for example, two to three units from your body’s total of around eight to ten units).

- Occasionally blood lost can be replaced with a salt solution given via an IV drip.

- Over the next few weeks your body will make new red blood cells.

However, if larger amounts are lost, it may be necessary to replace this by blood transfusion so that you do not become too anaemic.

- A blood transfusion is effective treatment when rapid improvement is needed.

- Medicines and vitamins may be a better option when the situation is less urgent.
• Many medical treatments or operations cannot be safely carried out without using blood.

**Why might I need a platelet transfusion?**

• To increase the number of platelets in your blood.
• To replace platelets which are not working properly.

Platelets are small cells found in the blood which help your blood to clot. If there are not enough, or they are not working properly, you may bruise easily, have small red spots on your skin or bleed a lot from cuts.

Platelets are made in the bone marrow, and the number of platelets in your blood is reduced if your bone marrow is not working properly. This is most commonly due to cancer treatment (chemotherapy drugs). Following chemotherapy the bone marrow stops making these cells for a short time, and then starts back up again.

In some cases the body is using up platelets faster than they can be produced so platelet transfusion may be needed for a short period of time, for example for patients with haematological conditions or after some heart operations.
Why might I need a plasma transfusion?

Plasma is a pale yellow liquid which carries red cells, white cells and platelets around the body through your blood vessels. It also has proteins, called clotting factors, in the blood. If your levels of clotting factors are low, you may bruise easily or bleed from a wound for a longer time than other people.

Plasma transfusions may involve the use of Fresh Frozen Plasma (FFP), which contains many different clotting factors, and cryoprecipitate which contains more of one clotting factor called fibrinogen. A transfusion of these plasma components increases the level of clotting factors in your blood.

- The blood thinning drug warfarin is one of the most common causes of low
clotting factors. Correcting this is usually with medicines containing precise clotting factors rather than FFP.

- Low levels of clotting factors (often more than one) can also develop when there has been liver damage or infection, or after a large blood transfusion.

- Some individuals are born with a deficiency of one clotting factor. This can often be treated with a specific clotting factor, but some need FFP or cryoprecipitate.

FFP is made from UK donor plasma. However patients born on or after 1 January 1996, receive plasma obtained from countries with a significantly lower risk of vCJD which is treated further as an additional safety measure.

**What happens after I have been transfused?**

For most people a single transfusion is all you may need. However, depending on your treatment you may need repeated transfusions of blood or its components. If you take unwell at home following a transfusion please contact the ward or call NHS 24 on 111. Please note that if you have received a transfusion you will no longer be able to donate blood. This a precaution against vCJD transmission.

Those patients who receive many
transfusions may be at risk of developing other health problems and should take advice from their doctors.

We are required to keep a record of the transfusions you receive for 30 years.

**Data protection act**

If you experience anything unexpected due to your transfusion, the details may be passed to a national adverse event reporting system. If this occurs your personal details will not be shared. If you have any concerns about this, please discuss with your doctor.

In order to plan for future blood demand, the Scottish National Blood Transfusion Service may ask a hospital or doctor to provide limited information on the patients who have received transfusions.
Other information

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

Scottish National Blood Transfusion Service  
www.scotblood.co.uk

British Blood Transfusion Society  
www.bbts.org.uk

Handbook of Transfusion Medicine  
www.transfusionguidelines.org.uk

Serious Hazards of Transfusion  
www.shotuk.org

National Patient Safety Agency  
www.npsa.nhs.uk

This publication can also be made available in large print, braille (English only), audio tape and in different languages. Please contact nss.communications@nhs.net for further information.

The Scottish National Blood Transfusion Service is part of NHS National Services Scotland.

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IMPORTANT

Attention all nursing and medical staff.

Complete the label below, peel off and place securely in the patient’s notes or transfusion care pathway in the appropriate section.

Hand the leaflet to the patient.

NHSScotland; Blood Transfusion

I have discussed the need for transfusion with the patient / welfare guardian / power of attorney: *

Name ......................................................

According to the guideline blood transfusion is indicated  Y  N

This leaflet has been given to the patient  Y  N

Possible alternatives to transfusion have been discussed  Y  N

Does the patient agree to transfusion  Y  N

Signature ......................................................

Print name ......................................................

Designation ......................................................

Date .................................

This label should be signed by a member of the clinical team informing the patient of transfusion.

* Please delete as appropriate.