BLOOD TRANSFUSION

Information for patients and their relatives from The British Association of Urological Surgeons (BAUS)

This leaflet contains evidence-based information about blood transfusion. We have consulted specialist clinicians during its preparation, so that it represents best practice in UK urology. You should use it in addition to any advice already given to you.

There is no legal requirement in the UK to obtain formal consent for the transfusion of blood or blood products. Most doctors consider it good clinical practice to discuss options with their patients before reaching a decision to prescribe blood or blood products. We normally record any such discussion in your medical notes.

To view the online version of this leaflet, type the text below into your web browser:
http://www.baus.org.uk/_userfiles/pages/files/Patients/Leaflets/Blood transfusion.pdf

Why might I need a blood transfusion?

Most people manage well if they lose a moderate amount of blood (e.g. up to two or three pints out of a total of eight to 10 pints). This loss can be replaced with a salt solution and, over the next few weeks, your body makes new red cells to replace those that have been lost.

If you lose blood rapidly, a transfusion is the best way of replacing it (e.g. during surgery, childbirth and after accidents). Nowadays, we also use blood transfusion if your bone marrow cannot produce enough red blood cells (e.g. after chemotherapy treatment).

When you have lost so much blood that you are not receiving enough oxygen, the function of vital organs (brain and heart) may be affected, with potentially serious effects. During surgery, you can lose blood over a short space of time and we normally replace this as quickly as possible, by transfusion. This is so that you do not suffer any of the weakening effects of blood loss.

Are there any alternatives to transfusion?

- **Medications** – specific type of anaemia can sometimes be treated with iron supplements, Vitamin B12 injections, folate tablets or erythropoietin (EPO) to stimulate the bone marrow
- **Use of blood products** – we sometimes use components of blood for transfusion (e.g. platelets, white cells, clotting factors or plasma with no blood cells)

If we cannot use these alternatives, a standard blood transfusion is the only viable option.

Is there anything I can do to reduce the need for a blood transfusion?

Yes. All the measures below may help to reduce the need for a blood transfusion:

- eat a well-balanced diet in the weeks before your operation;
- if you know you have suffered from low iron levels in the past, boost your levels with iron supplements - ask your GP or Consultant for help with this;
- if you are taking warfarin or aspirin, stopping these drugs (if it is safe to do so) may reduce the amount of bleeding - do not stop them without consulting your GP or Consultant;
- reduce your alcohol intake as much as possible; and
- stop smoking.

Can my own blood be used instead of donated blood?

Yes, but only in certain situations. This is called **autologous blood transfusion**. There are several ways of doing this:

- **Intra-operative cell salvage** – we collect blood lost at the time of your operation via a suction device, filter it and return it to you during your time in the operating theatre;
- **Post-operative cell salvage** - we collect blood lost during surgery in a drainage device and return it to you. This is used mainly in knee replacement surgery; and
- **Acute normovolaemic haemodilution** – we collect blood from you just before the start of the operation and immediately replace it with a salt or glucose infusion. We then return the collected blood to you at the end of the operation. This technique is **NOT** currently recommended by UK Blood Transfusion & Tissue Transplantation Services.

Your doctor will decide whether any of the above methods are suitable for you. Despite these techniques, many patients still need transfusion with

donated blood. If you need more information, or if you wish to find out whether autologous blood transfusion is appropriate for you, please speak to your doctor.

Are blood transfusions safe?

Yes. In the UK, all blood donors are unpaid volunteers who go through a strict health-screening process. Before being allowed to donate blood, they are rigorously tested to make sure that the blood they donate is as safe as possible.

Each individual unit of donated blood is then tested further. We discard any blood which fails these rigorous tests, and notify the donor. We monitor the testing process regularly to ensure that the highest standards are kept.

What tests will I need before I have a blood transfusion?

There are many blood groups in the UK. Before a blood transfusion can be given, we need a sample of your blood so that it can be matched with a suitable donor. We normally match for the two most important blood group systems, **ABO** and **Rhesus D**.

If you have had previous transfusions and have been given a card indicating that you need to receive blood of a special type, please show it to your doctor or nurse and ask them to let the Transfusion Laboratory know.

The staff will discuss the risks of blood transfusion with you, but these must always be balanced against the risks of not having a transfusion. Common daily activities such as smoking, or driving a car, carry a greater risk to your life than the risk of infection from a blood transfusion.

Will there be enough blood available?

Thanks to the support of over a million dedicated blood donors across the country, there is enough blood to treat every patient who needs a transfusion of blood or blood products.

Are there any after-effects?

The possible after-effects and your risk of getting them are shown below. Some are self-limiting or reversible, but others are not. The impact of these after-effects can vary a lot from patient to patient; you should ask your doctor's advice about the risks and their impact on you as an individual:

After-effect	Risk
Development of antibodies to minor blood groups which have no effect on your health but may influence what sort of blood we can transfuse in the future	 Between 1 in 10 & 1 in 12 patients (8 to 10%)
Low-grade fever, especially if you are pregnant or have had a previous blood transfusion	 1 in 100 patients (1%)
Mild allergic reaction (e.g. itchiness or "hives"); severe allergy is extremely rare	 1 in 300 patients (0.3%)
Acute haemolysis (where your body reacts to a transfusion by destroying the donated red blood cells)	 1 in 25,000 patients
Hepatitis-B infection (which can cause serious liver damage)	 Less than 1 in a million patients
Human immunodeficiency virus (HIV-AIDS) infection	 Approximately 1 in 6.5 million patients
Variant Creutzfeldt-Jakob disease (vCJD)	 Risk is difficult to assess but is generally felt to be extremely low

What is my risk of a hospital-acquired infection?

Your risk of getting an infection in hospital is approximately 8 in 100 (8%); this includes getting *MRSA* or a *Clostridium difficile* bowel infection. This figure increases if you are in a "high-risk" group of patients such as patients who have had:

- long-term drainage tubes (e.g. catheters);
- bladder removal;
- long hospital stays; or
- multiple hospital admissions.

Can I refuse to have a blood transfusion?

Yes, of course you can. You have the right to refuse a blood transfusion at any time.

Some religious faiths do not permit blood transfusion and we will always respect these beliefs. In this event, we will ask you to complete a supplementary form: "**Consent to investigation or treatment by a patient who refuses to have a blood transfusion**".

Before refusing a blood transfusion, it is important that you discuss the possible consequences with your doctor. We only make the decision to give you blood when it is vital to ensure your safety and wellbeing.

If you are worried about consenting to a blood transfusion, your doctor or nurse will be able to explain the risks and benefits, and can advise you about other forms of treatment.

What should I do with this information?

Thank you for taking the trouble to read this information. Please let your urologist (or specialist nurse) know if you would like to have a copy for your own records. If you wish, they can also arrange to file a copy in your hospital notes.

What sources were used to prepare this leaflet?

This leaflet uses information from consensus panels and other evidence-based sources including:

- the Department of Health (England);
- the Cochrane Collaboration;
- the National Institute for Health and Care Excellence (NICE);
- the Advisory Committee on the Safety of Blood, Tissue & Organs;
- NHS Choices; and
- NHS Blood & Transplant.

It also follows style guidelines from:

- the Royal National Institute for Blind People (RNIB);
- the Information Standard;
- the Patient Information Forum; and
- the Plain English Campaign.

How can I arrange to become a blood donor?

If you would like to enrol as a blood donor or get further information about donating, please contact the "Give Blood" website or telephone them on **+44 (0)8457 711 711.**

In the UK, thousands of lives are saved every year by volunteer blood donors. It is vital that as many healthy people as possible participate by donating blood. This will guarantee an adequate, safe blood supply for everyone.

Disclaimer

We have made every effort to give accurate information but there may still be errors or omissions in this leaflet. BAUS cannot accept responsibility for any loss from action taken (or not taken) as a result of this information.

PLEASE NOTE

The staff at BAUS are not medically trained, and are unable to answer questions about the information provided in this leaflet. If you do have any questions, you should contact your urologist, specialist nurse or GP.