

# **Handbook of Transfusion Medicine**

**Blood Transfusion Services  
of the United Kingdom**

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## Procedures

### Information for patients

Explain the proposed transfusion treatment to the patient or relatives and record in the case-notes that you have done so.

Patients or their relatives may be worried about the risks of transfusion. Some may wish to know more about the risks, about the need for transfusion and about alternatives such as autologous transfusion or drugs such as epoietin. Patients of the Jehovah's Witness faith are strictly banned by their religious beliefs from receiving blood components but may be prepared to accept plasma fractions or alternative treatments.

Research has shown that patients often have no recollection of being informed about treatment options, or feel that they have not had answers to questions that worry them. The balance of legal opinion is that a written record that the patient has been given information and that his or her questions have been answered is more valuable in a medicolegal case than the patient's signature on a consent form.

Answers to most patients' questions should be found in this book. We have also included an outline of an information sheet for patients on page 102. You should check if your hospital has a leaflet of this type and that your patients receive it.

### Recording the reason for transfusion

Before blood products are administered, the reason for transfusion (which should usually comply with local or national guidelines) should be written in the patient's case-notes. This is important. If the patient later has a problem which could be related to transfusion, the records should show *who* ordered the products and *why*.

### Ordering red cell products

This section may seem to be very pedantic but experience everywhere shows that **dangerous or fatal transfusion errors are usually caused by failing to keep to the standard procedures.**

Acute haemolytic transfusion reactions are usually caused by transfusing red cells that are incompatible with the patient's ABO type. These reactions can be fatal. They usually result from errors made in identifying the patient when samples are being taken or when blood is being administered.

When ordering and giving blood products it is therefore essential to follow the local procedures. These should cover the steps outlined in Figure 3.

## Information for patients

### Principle

The Patients' Charter offers every patient the legal and ethical right before agreeing to treatment to receive adequate information about the risks and benefits of, and alternatives to, such treatment. The material risks of transfusion are sufficiently small that formal consent is not generally considered necessary. However, it is good clinical practice to provide adequate information to the patient and to make sure that it is understood. It is recommended that discussion with the patient should include the information in the following outline for a patient information leaflet.

### An outline for a patient's guide

This leaflet explains why transfusion of blood is sometimes necessary. You may need transfusion as a planned part of your medical treatment or, if you are having an operation, it may be needed to replace blood loss. Although your consent to operation includes transfusion, it is important that you understand the reasons why blood transfusion might be advisable before you are asked to agree.

Transfusion of blood or individual constituents of it are given to correct abnormalities in your own blood system. This treatment is only advised when these abnormalities cannot be corrected by any other means. Common reasons for giving transfusion include:

#### 1. Loss of blood

An adult has about 10 pints of blood. Loss of small amounts, up to a pint of blood, for example during blood donation, causes no problems. Often loss of larger amounts does not need blood transfusion since other fluids, for example salt and water solution can be used to replace the loss. The loss of a larger amount of blood can be dangerous unless blood or a constituent of blood is given. For some operations, surgeons need to have blood available in case blood loss is more than expected.

#### 2. Anaemia

Anaemia means that the number of red cells in the blood is low. Anaemia often causes tiredness and breathlessness because the blood cannot carry enough oxygen to where it is needed in the body. There are many different causes for anaemia. Often treatment by drugs or vitamins is effective. If the anaemia does not respond or where rapid recovery is essential, blood transfusion may be the most effective form of treatment.

#### 3. Bleeding, blood clotting and other problems

Sometimes blood loses the ability to clot properly so that bleeding after injury continues for a long time. These problems can often be corrected by giving transfusions of blood products. These are usually purified clotting substances (for example the substance that haemophiliacs lack) or cells known as platelets that can be extracted from blood donations.

### *How does your doctor decide what to advise?*

Your doctor has to decide when transfusion is the best remedy for the problem you have. Alternative treatment may be available and your doctor will decide whether these can be used instead. Blood transfusion treatment like other forms of treatment including medicines carries a very small risk of harmful effects. Doctors weigh these potential risks very carefully against the benefits of transfusion.

### *What are the risks?*

Millions of transfusions, saving many lives, are given every year in the United Kingdom. The vast majority of these cause no harmful effects. HIV infection (the virus that causes AIDS) is perhaps the best known risk but the chance of this in the United Kingdom is less than one in a million. This safety is the result of very stringent measures taken by the Blood Transfusion Service to ensure the safety of the blood supply. Hepatitis (jaundice) is another possible complication. Every blood donation is tested for the viruses that cause hepatitis and AIDS.

Clotting factors and other blood protein products undergo virus killing processes that further reduce the risk of transmitted infection.

Other temporary side effects such as feverish reactions may occur. These are minimised by careful selection of blood in the hospital transfusion laboratory. They are usually insignificant compared with the expected benefit of transfusion.

### *Can I use my own blood for transfusion instead?*

In some circumstances this is possible and sometimes it may be recommended. Your doctor will advise you about whether this would be useful in your own individual circumstances.

The Blood Transfusion Service in the United Kingdom is fortunate in having the support of very large numbers of voluntary blood donors whose only reward is the knowledge that they are giving blood for the benefit of others. For this reason blood transfusion in the United Kingdom is recognised to be among the safest in the world.

## Sources of information

### Further reading

#### Albumin

McClelland, D.B.L. ABC of transfusion. Human albumin solutions. *Br med.J.* 1990, 300, 35-37.

Plasma substitutes: the choice during surgery and intensive care. *Drug Ther. Bull.* 1987, 25, 37-39.

#### Autologous Transfusion

British Committee for Standards in Haematology, Guidelines for Autologous Transfusion I. Pre-operative autologous donation. *Transfusion Med.* 1993, 3, 307-316.

#### Cardiac Surgery

Goodnough, L.T., Johnston, M.F.M., Ramsey, G., Sayers, M.H., Eisenstadt, R.S., Anderson, K.C., et al. Guidelines for transfusion support in patients undergoing coronary artery bypass grafting. *Ann. thorac. Surg.* 1990, 50, 675-683.

Spence, R.K., Alexander, J.B., DelRossi, A.J., Cernaianu, A.D., Cilley, J., Jr, Pello, M.J., et al. Transfusion guidelines for cardiovascular surgery: lessons learned from operations in Jehovah's Witnesses. *J. vasc. Surg.* 1992, 16, 825-831.

#### Collection and Production of Blood Components

UKBTS-NIBSC Liaison Group. *Guidelines for the Blood Transfusion Service*, 2nd Edition. London: HMSO, 1993 (ISBN 0 11 321560 6).

#### Erythropoietin

MacDougall, I.C., Hutton, R.D., Cavill, I., Coles, G.A., and Williams, J.D. Treating renal anaemia with recombinant human erythropoietin: practical guidelines and a clinical algorithm. *Br. med. J.* 1990, 300, 655-659.

#### General

McClelland, D.B.L. (Editor) *Optimal use of donor blood*. Report of a working party set up by the Clinical Resource and Audit group. London: HMSO, 1995 (ISBN 0 7480 2910 9).