Alternatives to blood transfusion

As blood is both a limited resource and is human tissue 'transplant', it is important that transfusion is only given when absolutely necessary. This means that blood supplies are available for those patients who really need transfusion and that patients are not unnecessarily exposed to possible risk.
Alternatives to transfusion include:

- preoperative assessment and treatment to ensure that blood levels are maximised before any planned surgery
- improving surgical methods to prevent or reduce bleeding
- where possible, collecting blood that is lost during or after an operation and returning it back to the patient and
- using new procedures and medicines so as little blood as possible needs to be transfused

You may want to ask your doctor if any of these methods are suitable in your case.

Like all medical treatments, a blood transfusion should only be used when really necessary.

The decision to give a blood transfusion to a patient is made only after careful consideration. In making that decision your doctor needs to balance the risk of you having a blood transfusion against the risk of not having one.

Ask your doctor to explain why you need a transfusion, as there may be alternative treatments available.

Blood transfusion therapy checklist

The following list of questions may help you to make sure that you have received enough information about the transfusion which may have been recommended:

- ☐ **Do you understand why you may need a blood transfusion?** Your doctor should explain why the transfusion has been recommended and how it can be expected to improve your health.
- ☐ **Have the possible risks of transfusion been explained to you?** The risks and benefits of transfusion therapy for your particular problem should be clearly explained.
- ☐ **Have any alternatives to transfusion been discussed?** Possible alternatives to transfusion should always be considered and discussed with you by your doctor.
- ☐ **Have all your questions been answered?**

NSW HEALTH

Copies of this brochure are available from:

NSW Department of Health website

BLOOD WATCH
every drop counts

Blood Watch is a program of the Clinical Excellence Commission

For more information go to:
www.cec.health.nsw.gov.au

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Blood transfusion

Answers to some common questions for you and your family.

the Mater

Who needs a blood transfusion?

Blood transfusion may be an important part of the management of a wide range of medical problems such as cancer, blood disorders, injuries and accidents or the need for major surgical procedures. In some circumstances, some medical treatments or operations cannot be safely carried out without using blood or blood products.

What is a blood transfusion?

Donated blood is separated after donation into a number of important components or parts, and it is usually one of these components that is transfused.

Blood components include:

Red blood cells carry oxygen to your tissues. Red blood cells may be given in an emergency, if you are bleeding, to ensure that your tissues receive sufficient oxygen. Patients who are not bleeding, sometimes require transfusion as well. In deciding wether a transfusion is necessary your doctor will usually take into account the reason for your anemia, your haemoglobin (Hb) level and wether you have symptoms. As a guide if your Hb is:

- **below 70 g/L** transfusion is likely to be needed, though other therapies may be appropriate
- **between 70-100g/L** the need for transfusion will depend upon whether you have any symptoms such as breathlessness, chest pain or dizziness or other medical conditions
- **above 100g/L** transfusion is seldom necessary especially if you have no symptoms

Platelets help to stop bleeding by helping your blood to clot. A platelet transfusion may be necessary when your platelet numbers are low or when your platelets don't work properly due to disease or some medications.

Plasma is often used in emergencies to stop bleeding. It contains clotting factors that help your blood to clot.

Where does blood come from?

In Australia we take many precautions to ensure blood is as safe as possible. Blood is only obtained from volunteer donors. Prior to each donation, every donor is interviewed to ensure that they are suitable to donate. Each donation is also extensively tested to further check its safety. Any donated blood that fails these tests is discarded. The testing process is checked regularly to make sure that it meets very high standards.

Is blood safe? What are some of the possible risks of blood transfusion?

Although Australia's blood supply is very safe, as with all medical procedures, blood transfusion is not risk free and complications can occur.

- Reactions such as fever, hives and skin rashes occur quite commonly (one to two times in every hundred transfusions), however these are usually mild and temporary. Patients who receive regular transfusions are particularly at risk of such reactions.
- More severe reactions, although very uncommon, can result in major consequences. In the most severe situations problems can include kidney failure, shock and rarely even death.
- Immune or allergic complications, due to reaction between the patient's blood cells or immune system and the donated blood may occur. Some more recent studies have also linked transfusion with increased post operative infection and increased length of hospital stay.
- Blood transfusions may transmit infectious agents including viruses, bacteria, parasites, and other organisms. The risk of transmission of some of these agents are listed below:

Hepatitis C	Very Rare
Hepatitis B	Rare
HIV	Very Rare
Bacterial Infections	Rare

(ARCBS Blood Component Information Booklet 2007)

Giving your consent to blood transfusion

If a blood transfusion is necessary, you will be asked to give your consent. This is a NSW Department of Health requirement. Before you give your consent, you should understand why you need a transfusion and also its risks and benefits for you. If you have any religious or other reasons to object to blood transfusion, it is extremely important to discuss this with your doctor.

In the event of an emergency there may not be time to discuss your need for transfusion. However, the reasons for the transfusion should be explained to you when you are recovering. If not, you can ask your doctor or a member of the health care team.

What happens when I have a blood transfusion?

When you are ready to receive your blood transfusion you will be asked to confirm your identification and perhaps sign a form. This is very important because if the wrong blood (meant for someone else) is given to you then this could be very serious. Staff minimise the risk by ensuring the details on your wrist band identically match the details on the pack of blood. There are also strict checking procedures during the transfusion however if you have concerns during the transfusion, you should alert a staff member immediately.

What can I, my family and friends do to make sure that a safe supply of blood is available?

It is important that healthy Australians donate blood. This will help ensure a safe and adequate blood supply for patient care, without which many lives may be lost each year.