



ST VINCENT'S
HOSPITAL
MELBOURNE

A FACILITY OF ST VINCENT'S HEALTH AUSTRALIA

*Inspired
by
You*

Blood Transfusion

Information for patients

WHAT IS A BLOOD TRANSFUSION?

A blood transfusion is a procedure where you are given red blood cells, platelets, plasma, or other blood products (such as Intravenous Immunoglobulin or 'IVIg') as treatment for your medical condition. You are given the transfusion through an intravenous line inserted into one of your veins.

DO YOU NEED A BLOOD TRANSFUSION?

Your doctor will discuss your need for blood transfusion with you and will explain the benefits of your treatment, any risks and alternatives. You will be able to ask questions.

WHEN DO YOU NEED A BLOOD TRANSFUSION?

You may need a blood transfusion if you have:

- blood loss because of illness, accident or surgery
- anaemia (low red blood cell count)
- bleeding or blood clotting disorders
- immune deficiency/autoimmune disorders.

WHERE WILL YOUR BLOOD TRANSFUSION COME FROM?

Unpaid volunteer donors give blood and blood components at Australian Red Cross Blood Service donation centres. Plasma from some donations is sent to CSL, a company that manufacture plasma-derived products such as albumin (which increases blood volume), IVIg (for patients with poor immune systems), Rh(D) immunoglobulin and vaccines.

HOW IS DONOR BLOOD USED?

Whole blood or plasma is collected into specially designed sterile bags.

One donation of blood is divided into these products:

- **Red blood cells** (Figure 1), which contain haemoglobin which carries oxygen around the body. These are used to treat anaemia and bleeding.
- **Platelets** (Figure 2) which are given to prevent or stop bleeding. Some diseases, medications or treatments can lower the number of platelets in your blood or can cause your platelets to not work properly; platelets can be transfused to prevent or stop bleeding caused by this.



– **Fresh Frozen Plasma (FFP)** (Figure 3) and Cryoprecipitate, which contain clotting factors that work with platelets to promote blood clotting and seal wounds.

IS THIS BLOOD SAFE?

The Australian Red Cross Blood Service has many safeguards to ensure a safe blood supply for patients. Before giving blood, all donors must complete a confidential interview, donor declaration and health check.

In Australia all donations are tested for:

- ABO and Rh(D) blood group
- Red cell antibodies
- HIV, Hepatitis B, Hepatitis C, and Syphilis
- Human T-lymphotropic virus (HTLV)

Only blood and blood products that pass these tests are used for transfusion to our patients and in the manufacture of other blood products.



Figure 1
Red Blood Cells



Figure 2
Platelets



Figure 3
Fresh Frozen Plasma

ARE THERE ANY RISKS?

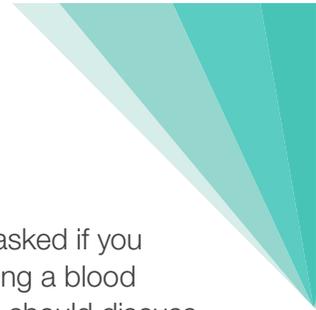
Every effort is made by the Australian Red Cross Blood Service to keep our blood supply safe.

Despite testing, there is a very small risk of disease transmission from blood transfusion.

Possible infections

DISEASE AGENT	ESTIMATE OF RISK
HIV	Less than 1 in 1 million
Hepatitis C Virus	Less than 1 in 1 million
Hepatitis B Virus	Less than 1 in 1 million
Human T-Lymphotropic Virus (HTLV) I & II	Less than 1 in 1 million
Variant Creutzfeldt-Jakob Disease (vCJD)	Possible – Not yet reported in Australia
Malaria	Less than 1 in 1 million

Source: Australian Red Cross Blood Service (www.transfusion.com.au) 2015



We minimise the risk of reactions caused by the transfusion of blood, not matched to your blood, by strict patient identification and checking processes.

When you are asked if you consent to having a blood transfusion you should discuss these risks further with your doctor if you have any concerns.

Other possible risks

ADVERSE REACTION		RISK PER UNIT TRANSFUSED
Bacterial Sepsis	– Platelets – Red Cells	At least 1: 75,000 At least 1: 500,000
Haemolytic reactions	– Acute – Delayed	1: 40,000 to 77,000 1: 2,500 to 11,000
Anaphylaxis/IgA deficiency		1: 20,000 to 50,000
Fluid overload/cardiac failure		Up to 1: 100 per transfused patient
Transfusion-related lung injury		1: 12,000 to 190,000
Transfusion-associated graft versus host disease		Rare

Source: Australian Red Cross Blood Service (www.transfusion.com.au) 2015

ARE THERE ALTERNATIVES TO YOU HAVING A BLOOD TRANSFUSION?

Your alternatives may include:

- Surgical and anaesthetic methods which minimise bleeding.
- Treating iron deficiency anaemia with iron supplements.

If you are a Jehovah's Witness or have other objections to blood transfusion, it is extremely important that you discuss this with your doctor and nursing staff.

- It is important to notify your doctor if you have experienced a reaction to blood in the past.

WHAT HAPPENS BEFORE YOUR BLOOD TRANSFUSION?

A blood sample is taken from you to establish your blood group before any transfusion.

This blood sample is then checked against donor blood for compatibility – this is called crossmatching.

The person taking the blood sample must verbally check your personal details and correctly label the sample.

- The nurse will ask you to tell him/her your full name and date of birth.

Speak up if this does not happen – this is important for your safety.

You should also be asked to consent to your transfusion at this stage or prior to the transfusion.

WHAT HAPPENS DURING YOUR BLOOD TRANSFUSION?

Blood and blood product transfusions are given intravenously through a drip (needle). Other than insertion of the drip the routine procedure is painless. The length of time it takes to complete your transfusion depends on the product used and your condition.

During the transfusion you will be closely observed. Your heart rate, blood pressure, temperature and general condition will be monitored by the nurse.

You must report to the nursing staff as soon as possible if you notice any chills, fever, shortness of breath, rash, pain, or if you are concerned or feeling unwell in any way during the transfusion.



FOR MORE INFORMATION

- Speak with your doctor or nurse
- Ask to speak to the Transfusion Nurse or Transfusion Quality Officer

You can find more information about blood transfusion by visiting the Australian Red Cross Blood Service website at:
mytransfusion.com.au

REFERENCES

Australian Red Cross Blood Service

Australian and New Zealand Society of Blood Transfusion

Department of Health Victoria: Blood Matters

National Health and Medical Research Council of Australia

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