Blood Transfusion

This leaflet has been developed to help provide information for patients who may need a blood transfusion.

**What is a blood transfusion?**
Blood transfusion is receiving blood donated by another person. Blood is stored in a plastic bag and given through a tube, which is connected to a needle inserted in the arm. The transfusion should not be painful but having a needle in your arm may be slightly uncomfortable.

**Why do patients need blood transfusions?**
Blood and blood products are used to replace blood loss and correct abnormalities in the blood, which cannot be corrected by any other means.

Common reasons for blood transfusions include:
- Severe blood loss because of an accident, surgery or childbirth.
- Anaemia,
- Bleeding or Clotting Disorders,
- Supportive treatment in certain diseases and blood disorders

If you lose a substantial amount of blood during an accident your doctor will want to replace the blood loss with a blood transfusion immediately so that you do not suffer the life threatening or serious effects of your blood loss.

If you have anaemia, which is a low blood count, your body does not have enough red cells to carry the oxygen you need and you may feel tired or breathless. Many cases of anaemia may be treated with medication, however not all cases respond and blood transfusion may be required.

Your doctor will discuss with you the reason why you may need blood. However your options may be limited and refusing of blood may have life threatening consequences

**What are the steps taken to ensure that blood is safe?**
The Australian Red Cross Blood Service [ARCBS] have many safeguards on our national blood supply. All the donors are voluntary and unpaid because such donors are the safest source of blood. Before giving blood, donors must answer detailed questions to ensure they are in good health and to rule out risk factors for diseases. Donors who have any risk factors are not allowed to donate. Every unit is tested for the following infections which can be transmitted through blood, i.e.
- Hepatitis B,
- Hepatitis C,
- HIV 1&2 [the cause of AIDS],
- Syphilis, and
- HTLV I&2

**What are the benefits and risks of having a blood transfusion?**
When needed blood both saves and improves the quality of life. It is important to realise that the risks of not having a necessary blood transfusion exceed the extremely low risk of transfusion and blood is only given when the benefits exceed the risks. The serious risks of a transfusion, although rare, include reactions to the blood or the transmission of infections. These risks are minimised by the careful selection of donors, testing and handling of the blood
What infections and viruses may be transmitted through a blood transfusion?
When you consider the risks of transfusion, it is important to realise that the risk of infection from blood transfusion is very low. Daily activities such as road travel are associated with much greater risks than the risks of a blood transfusion when you need it. The estimated viral risks are:

- HIV 1 possibility in 4 million units of blood transfused
- Hepatitis C 1 possibility in 4 million units of blood transfused
- Hepatitis B 1 possibility in 250,000 units of blood transfused

The careful collection and storage of the blood reduces the risk of bacterial infection in blood, which is rare but can be fatal.

How is blood matched?
If there is time hospitals will ‘crossmatch’ blood to check compatibility between the donor and you and label the units of blood to clearly identify you as the recipient. If crossmatched blood is transported with you, these labels will be used to ensure you receive the blood, or blood products, specifically checked for you.

In the pre-hospital environment (in an emergency) CareFlight utilises group O blood that is considered the universal donor and the safest to give a patient in an emergency.

What is meant by transfusion reaction?
Transfusion reaction is a rare complication of blood transfusion where the patient reacts against the transfused blood. Your CareFlight medical staff will observe you carefully during transfusion particularly at the beginning. Tell them immediately if you feel unwell or experience fever or chills during or after the transfusion. Even if you have a reaction to blood it does not mean that there is cause for concern. As a precaution, the nurse, or doctor, will stop the transfusion, your symptoms will be treated and the reason for the reaction investigated.

If I have a reaction, will I be able to receive subsequent transfusion?
If a patient develops a reaction to the blood transfusion, medication given prior to the next transfusion or giving a different blood product may prevent a further reaction. Rarely some months after a transfusion, patients may develop antibodies to the transfused red cells. These antibodies will not usually make the person ill, but it will be important to know about them for future transfusions or in pregnancy. They will be discovered when the blood is tested prior to the next transfusion and will help decide what blood should be given. If you have ever had a transfusion before tell us.

Are there alternatives to having a blood transfusion?
Currently there are no substitutes available for blood. Other intravenous fluids can replace minor blood loss and your body will then make new red cells over the next few weeks.

Can my relatives or friends donate blood for me?
When relatives or friends donate blood it is called directed donation. Research has shown that such transfusions are not any safer than carefully selected voluntary donations. Directed donations are not available in Australia.