Estimates of the risks from transfusions

- A minor allergic reaction or rash occurs in 1% to 2% of transfusions.
- A major incompatibility reaction: 1 case in every 100,000 transfusions (1 case per year in NZ).
- The risks of acquiring hepatitis C, HIV/AIDS and HTLV I virus from a blood transfusion is very low and estimated to occur less than 1 in every 1,000,000 transfusions in New Zealand.
- For hepatitis B the risk is estimated as 1 in 300,000 transfusions (1 case every 2-3 years).
- Serious Bacterial Infection: are rarely seen with red cells and plasma transfusion but approximately one case per year is seen with platelets transfused in New Zealand.

Blood and fresh blood components have a high level of safety. Refusing a blood transfusion when it is needed may lead to serious health problems.

What alternatives are there to blood transfusion?

No Transfusion

The health risks from ***not*** having a transfusion when needed are much greater than from having a transfusion.

Many types of surgery and treatments for cancer are usually not possible without transfusions of blood components.

Blood Substitutes

So far, no substitutes for red cells, platelets or plasma are available for routine use.

Providing Blood for Yourself

People who are healthy and planning a non urgent operation sometimes ask to have their own blood collected for their own use.

This is called ***autologous blood collection***.

This technique is not routinely available in New Zealand except in special circumstances (such as a very rare blood type).

Directed Donations

Blood collected from relatives or friends has been shown to be no safer than blood from healthy, unpaid, voluntary donors. For this reason, directed donations are not routinely available in New Zealand.

If your doctor believes an autologous or directed donation may be required they can make a referral to NZBS.

Remember that:

- **A transfusion of blood or blood components is only given when the benefits outweigh the risks.**
- **If you refuse to have a transfusion when needed, the risks to your health are likely to increase.**
- **You can ask as many questions as you need to ensure you are making the right choice.**

If you have any more questions after reading this document, please discuss them with your Doctor or a member of your local Transfusion Medicine Department.

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111I01107 NZBCL105 11/22

NZBLOOD

Fresh Blood Components

INFORMATION

Your guide to blood transfusion

You have been given this leaflet because your Doctor considers you may need or you will need, a blood transfusion.

As with any treatment you have the right to decide whether you want to have the treatment or not. You will be asked to sign a Consent Form to show that:

- the benefits, risks and alternatives for your treatment, including transfusion of blood components, have been explained to you,
- you have been able to ask any questions about the treatment, and
- you agree to receive the treatment.

This leaflet answers common questions about blood transfusions. It may help you discuss any concerns you have.

What is a blood transfusion?

A blood transfusion is a treatment arranged by your doctor. It involves giving blood, or blood components made from blood, into a vein.

Where does blood come from?

In New Zealand, blood is obtained only from unpaid and voluntary donors.

Blood is collected with sterile equipment that is used only once.

The standards of the New Zealand Blood Service meet or exceed internationally recognised standards for:

- selecting blood donors, and for
- collecting, testing, processing and storing blood components for transfusion.

What types of blood components are used for transfusions?

Fresh blood components given in **blood transfusions** are:

Red Cells

- Used to treat **anaemia** that is causing a moderate or severe health problem, or
- Severe **bleeding** (e.g. during or after surgery, or following an accident).

Platelets

- Platelets are tiny blood cells that are needed to stop **bleeding**. They are sometimes transfused during treatment in Intensive Care Units and as part of cancer treatment.

Fresh Frozen Plasma and Cryoprecipitate

- Used for **replacing clotting factors** and rarely other blood proteins (sometimes used during treatment in Intensive Care Units or for people with liver disease).

What tests are done on blood?

Blood donations are always tested for:

Infections

- Hepatitis B and C
- HIV/AIDS
- Syphilis

Blood groups

- ABO group
- Rh type
- Blood group antibodies

Red cells are carefully checked to minimise the chance for an incompatibility reaction during a transfusion. The checks may include a special test, called a crossmatch, that uses a sample of your own blood and the blood selected for transfusion.

How safe is a blood transfusion?

The main risks from fresh blood components are described below. They are no greater than the risks people experience in every day life and from other health treatment procedures.

Blood transfusions are an extremely safe and effective form of treatment. They save many lives. Some complex surgical operations cannot be performed without giving a blood transfusion.

The risks from a transfusion must be weighed up against the risks from not having a transfusion. If your doctor considers you need a transfusion, the doctor believes the benefits for you are greater than the risks.

What are some of the risks from blood transfusions?

- Temporary reactions including a mild fever or skin rash may occur.
- A major incompatibility reaction from a transfusion is rare. It may cause kidney failure, breathing difficulties, and sometimes other life threatening complications.
- Rarely, the treatment may not produce the desired result.
- Transfusion of blood components may occasionally cause an infection:
  - Minor virus infections that are common in the community may be passed on occasionally.
  - Hepatitis B and C, Yersinia, HIV/AIDS virus and HTLV-1 virus are very unlikely, but these infections can be severe and in some cases life threatening. Tests and checks on blood donations minimise the risk for these infections.
- The risks of acquiring CJD/vCJD from transfusion remains very low and has never been reported in New Zealand. Rare cases have been reported in the UK.