

Choices for patients who may refuse blood products

Information for Patients

What is this leaflet about?

This leaflet is designed to give you more information about the products which may be considered to treat a low blood count (anaemia) or control bleeding during your hospital stay. It also provides information about a number of procedures which involve your own blood.

This leaflet relates mainly to the beliefs of Jehovah’s Witnesses. However there are also a growing number of patients who, for a variety of reasons, may refuse blood products or treatments. NHS Lothian will ensure the individual’s beliefs and preferences are acknowledged and respected.

Ahead of a planned procedure, the healthcare professionals involved in your care will complete a checklist which ensures all the options available in this hospital are explained to you. This provides an up-to-date record of your wishes. In an emergency situation, there may not be time for a detailed discussion, however if you have an ‘Advance decision to refuse specialist medical treatment form’ (sometimes known as a ‘no blood form’) which tells us of your wishes about treatments, this will be respected.

These decisions are important because without treatment, bleeding can be life threatening.

What are primary blood components?

Jehovah’s Witnesses often decline the transfusion of whole blood and primary blood components for reasons of religious faith.

These components are described in the table below:

Blood Components	What is it?	How is it made?
Red Cells	The red cells are essential for carrying oxygen around the body. A lack of these red blood cells is called anaemia.	Red blood cells are collected from a single blood donor.
Plasma	Plasma is the yellow liquid that carries red cells, white cells and platelets within the blood vessels around the body. It contains vital proteins known as clotting factors that help to control bleeding.	Fresh frozen plasma (FFP) is made from plasma which is separated from donor blood and frozen to preserve it.
Platelets	Platelets are tiny cell fragments found in blood. They play an essential role in stopping bleeding. When damage occurs to the blood vessels, such as a cut, platelets are attracted to the damaged site and together with proteins in the blood, form a clot.	Platelets for transfusion are either collected from a single donor or produced by combining platelets taken from four separate blood donations.

What are derivatives, or fractions, of primary blood components?

These treatments are a matter of personal choice for Jehovah's Witnesses. It is important to consider these options carefully.

Many of these products contain clotting factors. Clotting factors are vital proteins that help form a blood clot. This stops blood escaping from a blood vessel. It also allows healing to occur.

The following products may be available in NHS Lothian:

Derivative or Fraction	What is it?	How is it made?
Cryoprecipitate	A concentrated source of clotting factors (see above). These include factor VIII, von Willebrand factor, and fibrinogen.	It is made from plasma which is repeatedly frozen and thawed in a laboratory.
Prothrombin Complex Concentrate	A concentrated source of clotting factors (see above). These include factors II, VII, IX and X.	It is made from human plasma. It is considered a fraction of plasma.
Fibrinogen Concentrate	A concentrated source of a clotting factor (see above) called fibrinogen.	It is made from human plasma but is considered a fraction of plasma.
Factor VIIa	A concentrated source of a clotting factor (see above) called Factor VIIa.	It is made in a laboratory using hamster kidney cells but it does NOT contain human plasma.
Human Albumin Solution	This is a fluid that can be used to replace body fluids lost during bleeding or dialysis.	It is made from human plasma but is considered a fraction of plasma.
Immunoglobulins	Immunoglobulins (antibodies) can sometimes be used to treat blood problems like a low platelet count. They can also be used to prevent your baby becoming anaemic (having a low blood count) if you have antibodies to their blood type.	Immunoglobulins are made from human plasma and contain human antibodies. They are considered a fraction of plasma.
Plasma derived haemostatic gels and sealants	These products are applied directly to an area of bleeding. They may act as a compress to apply a firm pressure to an injured area. They allow clots to form more quickly. They do this by acting as a support for the clot to develop on, or by containing clotting factors (see above).	These products may contain human clotting factors made from pooled donations of human plasma. They may also contain gelatin.

What procedures involving your own blood are available? What methods for handling this blood would be acceptable?

A number of blood-related procedures are matters of personal decision for Jehovah's Witnesses. The following procedures may be available within NHS Lothian to treat a low blood count (anaemia):

Procedures	What is it?	
Cell salvage	This is a process for collecting the blood that is lost during your operation. It is then filtered so that it can be given back to you.	This is your own blood, and contains no donated blood components.
Acute normovolaemic haemodilution	Several units of a patient's blood can be collected into blood donation bags immediately before surgery (usually in the operating room). The patient's blood volume is maintained by infusing fluids into a vein. The blood is stored in the operating theatre at room temperature and re-infused at the end of surgery, or if significant bleeding occurs.	This is your own blood, and contains no donated blood components.

Some procedures involve a patient's blood being pumped through a machine and then returned to the patient.

The following procedures may be available within NHS Lothian:

Procedures	What is it?	
Plasmapheresis	The blood of a patient with an immune system disease is circulated through a machine to be cleared of abnormal proteins or antibodies and returned to the patient.	A plasma substitute (with no donated blood products) can be used to prime the circuit.
Haemodialysis/haemofiltration	The blood of a patient with kidney failure is circulated through a dialysis machine to be cleaned of waste products and returned to the patient.	A plasma substitute (with no donated blood products) can be used to prime the circuit.
Cardiopulmonary bypass	A cardiopulmonary bypass or "heart-lung machine" is connected to a patient through tubes placed into veins and arteries near the heart. The blood flows out through one of these tubes, is filtered and oxygen is added. It is then returned to the patient through another tube.	A plasma substitute (with no blood products) can be used to prime the circuit. In practice, transfusion of blood products including red cells, platelets, FFP and cryoprecipitate is often required during treatment.

Extracorporeal membrane oxygenation (ECMO)	ECMO can be thought of as an artificial lung outside the body. It puts oxygen into the blood. Tubes are placed in to blood vessels in the side of the neck to connect the patient to the ECMO machine. The blood circulates through the machine and back to the patient continuously. It helps maintain oxygen delivery to vital organs.	A plasma substitute (with no donated blood products) can be used to prime the circuit. In practice, transfusion of blood products including red cells, platelets, FFP and cryoprecipitate is often required during treatment.
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Where is further information available?

Further information is available from the healthcare professionals involved in your care.

If you are a member of a Jehovah's Witness community, you can also seek advice from the Jehovah's Witness Hospital Liaison Committee.