Procedure Information Sheet

Introduction

Blood transfusion is the process of infusing whole blood or blood components (such as red blood cells, platelet and plasma) prescribed by a doctor to a patient in order to achieve a therapeutic effect. Red blood cells carry oxygen in our blood to our vital organs. Blood transfusion can alleviate the symptoms of anaemia and bleeding. Platelets can prevent or stop bleeding by forming blood clots at the site of an injury. Platelet transfusion may be required for patients who have a low number of platelets or whose platelets do not work efficiently. Plasma is the liquid part of the blood that contains many substances including the clotting factors that help blood to clot. Dependent upon one's clinical conditions, blood transfusions are administered to replace blood that has been lost or to correct serious or life-threatening conditions due to low blood counts or deficiency of clotting factor(s). A doctor will prescribe a blood transfusion according to the clinical conditions of the patient. If you have any doubts or questions, you should ask your doctor.

Indication

- Anaemia
- Replenish blood lost
- Low blood counts or deficiency of clotting factor(s)

The Operation / Procedure

1. Before blood transfusion, a blood sample will be taken from you to cross match for blood that is compatible to your blood group.
2. Intravenous puncture is needed for the blood transfusion.

Before the Operation / Procedure

A written consent is required.

After the Operation / Procedure

1. During blood transfusion, your blood pressure, pulse, temperature and other vital signs will be monitored.
2. Should there be any discomfort experienced during blood transfusion, report to the health care professionals immediately.

Risk and Complication

1. Similar to other medical procedures and treatments, there are risks associated with blood transfusion. Below is a list of risks related to blood transfusion:

   1.1 Allergy

   This is usually a mild reaction (e.g. skin rash and itching) and is easily controlled with drug. Severe allergic reactions are very rare (less than 1 in 100,000). It may, however, be life threatening in rare circumstances.

   1.2 Haemolysis

   If the blood group of the donor and blood receiver are mismatched, the immune system of blood receiver will destroy the donor red cells after infusion. This reaction is called haemolysis. Severe haemolytic reaction is exceptionally rare, at an incidence of less than 1 in 100,000. However, it can result in kidney failure and other serious complications that may be life-threatening if it occurs. The hospital blood bank will ensure that correct blood is given to the recipient by meticulous testing.

Patient's Label
Patient Name: _____
Hospital No:_____
Episode No:_____

1.3 Fever

Some patients may feel chills and feverish during or shortly after blood transfusion. Whether treatment is needed depends on the patient's clinical condition as the chilly or feverish feeling often subsides without any consequences. However, patients who have history of febrile reaction with transfusion in the past should inform their doctors.

1.4 Transfusion-transmitted Infection.

At present, the risk of transfusion-transmitted infection cannot be eliminated entirely by the testing technology that is currently available. Based on the observed epidemiology of infectious diseases in the local blood donor pool of 2016/17 and the window period of the infections, it is estimated that locally the residual risk of HIV in a blood product is approximately one in 3.4 million, hepatitis C is less than one in ten million and hepatitis B is approximately one in a hundred and twenty-six thousand. It is not feasible to generalise the exact risk of every infection for any patient receiving blood transfusion as there are many variable factors that would affect the risk estimation, such as the immune / infection status of the patient, the quantity of blood transfused etc. The residual risk of bacterial contamination in a red blood cell product that may cause serious transfusion-associated complications is estimated to be 1 in 500,000 and in platelet concentrate product is 1 in 10,000.

1.5 Others

Transfusion-related acute lung injury (TRALI) is rarely seen in Chinese.

What are the risks of not having a transfusion?

The purpose of giving blood transfusion to you is to replenish the blood or blood component(s) you need. Red blood cells carry the oxygen in your blood to your vital organs, such as the brain or heart. A decrease in oxygen can result in damage to these organs. If you have a low platelet count or a deficiency in clotting factors, you are at a higher chance of bleeding. In some cases, this can result in serious major organ damage. Transfusion may be needed to prevent such damage.

Disclaimer

This leaflet only provides general information pertaining to this operation / procedure. While common risks and complications are described, the list is not exhaustive, and the degree of risk could also vary between patients. Please contact your doctor for detailed information and specific enquiry.

To minimize the risk of transfusion, our hospital may request or disclose your personal information and medical record relating to transfusion with healthcare professional from other hospital or Hong Kong Blood Transfusion Service for related processing and consultation.

Reference

1. Smart patient. (2021). *Blood Transfusion.* Hospital Authority, Health InfoWorld. https://www.ekg.org.hk/pilic/public/ BT_PILIC/BldTransfusion_0052_eng.pdf
2. Hong Kong Red Cross Blood Transfusion Service. (2020) *Infectious Disease Testing*. https://www5.ha.org.hk/rcbts/ disease-test?lang=en

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Patient Name: _____
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Patient's Signature:_____ Date:_____