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Information for You from Your Health Care Team

Blood Transfusion

Over four million Americans receive blood transfusions each year. Blood is used to save the lives of people who need surgery, are accident victims, have cancer, hemophilia or other serious diseases.

Blood products include:

- Red Blood Cells- given to support oxygen levels
- Platelets- needed for some bleeding problems
- Fresh frozen plasma (thawed)- cryoprecipitate, and/or concentrated forms of plasma needed for some bleeding problems
- White blood cells- given in certain serious diseases

What are the benefits of receiving a blood transfusion?

- Increasing the amount of oxygen in your blood needed to support your body functions
- Help stop bleeding by replacing factors or cells in your blood
- Replacing blood that may be lost due to bleeding, surgery or a treatment procedure
- Other benefits your doctor will explain

What are the risks of receiving blood?

Risks of not receiving blood in most cases outweigh risks of receiving blood if a transfusion is needed during a surgical procedure or medical treatment. Some risks include but are not limited to:

- **Infectious Disease-** Despite careful donor selection and extensive testing of blood products for viruses, the risk of infection cannot be completely eliminated. This is because a minimum time must pass before some infectious agents can be detected. The transmission of infectious disease occurs very rarely. The risk of getting AIDS/HIV from a blood transfusion has received a great deal of attention in the media. It is important to know that since 1985, all donated blood in the United States is tested for the AIDS/HIV virus, reducing the risk to a negligible level. Currently, all donated blood is screened for Hepatitis B, Hepatitis C, HIV, HTLV 1/11, West Nile Virus and Syphilis. To aid in reducing the risk of infectious diseases for which there are no tests, donors are screened for recent diseases and travel history. There are other infectious diseases such as Chagas, Babesiosis, Malaria and variant CJD for which there is no current FDA approved testing available.

The estimated per unit risk of transmitting infectious agents through blood transfusions

- **HIV** infection is about 1 in 2,135,000 units transfused
- **Hepatitis B** infection is about 1 in 205,000 units transfused
- **Hepatitis C** infection is about 1 in 1,935,000 units transfused
- **HTLV 1/11** infection is about 1 in 641,000 units transfused

- **Other adverse effects-** Some people may experience changes in the body's immune system after a transfusion, causing mild symptoms such as fever, chills or hives which require little or no treatment. A small number of people may also react by developing antibodies to the blood. This is called an immune reaction. Other risks include fluid overload, chemical imbalances, and breakdown of red blood cells.

Alternatives to transfusion:

- There may be other options available to use in place of receiving blood donated by a volunteer donor (referred to as an allogenic transfusion). An autologous blood transfusion is one in which you donate blood for your own use. Your blood may be collected and stored before a scheduled surgery if a blood transfusion is likely. In some cases, blood lost during surgery can be saved and returned to you. Directed donations can also be arranged in some cases from a person (usually a friend or relative) whom you select. However, these alternatives have risks and benefits.
- Some medications may be an alternative to transfusion.

Following your Transfusion:

If you have any of the following symptoms please call your health care provider:

- Rash
- Fever
- Tingling or itching
- Chest pain
- Flushed face
- Bloody Urine
- Difficulty Breathing or wheezing
- Shortness of breath
- Nausea or vomiting

Ask your doctor or health care provider for more information about your medical treatment and the possible need for blood products. Be sure to discuss any concerns with your doctor before you agree to have any blood transfusions.

*?This information is provided by the technical and professional staff at the Transfusion Medicine Service, Department of Pathology, State University of New York, and Upstate Medical University in Syracuse, New York 13210.

Dodd, R.Y., Notari, E.P., & Stramer, S.L. (2002). Current prevalence and incidence of infectious disease markers and estimated window-period risk in the American Red Cross blood donor population. *Transfusion*, 42(8):975-9

Speak up at any time if you have questions or concerns

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