# Cooley Dickinson Hospital BLOOD TRANSFUSION INFORMATION SHEET

CDH 21-12-Info Rev. 11/21

Blood transfusions can be lifesaving therapy for patients with a variety of medical and surgical conditions. Current practice is not to transfuse patients with whole blood, but to transfuse them with the specific blood component they need. Component therapy provides more specific treatment for patients, and conserves blood resources.

#### **Sources of Blood:**

Blood used for transfusion is obtained from carefully screened volunteer donors. No one is paid for donating blood. Currently, there is no safe and effective substitute for blood (i.e. artificial blood).

#### **Indications for Transfusion:**

The most commonly transfused blood components and their indications are listed below:

<b>Blood Component</b>	Indications for Transfusion
Red Blood Cells (RBCs)	Increase oxygen-carrying capacity in anemic patients.
Platelets	Control or prevent bleeding associated with deficiencies in platelet number or function.
Plasma	Control or prevent bleeding associated with deficiencies of plasma clotting factors.

#### **Transfusion Procedure:**

The amount and specific blood component you will receive is determined by your provider based on your particular need. A blood specimen may be required to perform pre-transfusion testing. Your provider may order medications to be administered prior to transfusion to reduce the likelihood of minor reactions. Blood products are transfused into a vein, commonly in the arm, using sterile, disposable equipment. The transfusion procedure is carried out by trained and qualified personnel who will monitor you for adverse reactions during the transfusion procedure.

#### **Risks of Transfusion:**

Blood transfusion is a common procedure of low risk, but adverse reactions can occur. Most reactions are minor and temporary. The most common complication of a blood transfusion includes a fever, chills and minor allergic reactions. However, on rare occasions, serious and sometimes fatal reactions may occur. Current published risks for the more common non-infectious complications of transfusion are listed below:

Reaction Category	Estimated Risk per Unit Transfused	
Minor Reactions		
Bruising, swelling, or local reaction at transfusion site	Not uncommon (no published risk estimate)	
Febrile non-hemolytic (headache, fever, and/or chills)	1:25 -1:100	
Allergic (localized hives or mild skin rash)	1:25 -1:100	
Major Reactions		
Delayed hemolytic	1:1,500	
Transfusion-related acute lung injury (TRALI)	1:5,000	
Fatal hemolytic	1:100,000	
Anaphylaxis	1:150,000	
Pulmonary Edema (TACO)	<1%	

In addition, some infectious diseases can be transmitted by blood transfusion. The risk of acquiring an infectious disease from transfused blood is low. Blood donors and some blood components are tested as required by state and federal regulations to keep potentially infectious blood products from entering the blood supply. However, these tests are not fool-proof and some risk of disease transmission exists. Current published risks for the more common infectious disease complications are listed below:

Infectious Agent or Outcome	Estimated Risk per Unit Transfused
Human Immunodeficiency Virus (HIV 1/2)	1:1,900,000
Hepatitis C Virus (HCV)	1:1,600,000
Human T-Cell Lymphotropic Virus (HTLV I/II)	1:641,000
Hepatitis B Virus (HBV)	1:63,000
Syphilis	No new transfusion-transmitted cases reported in > 30 years
West Nile Virus (WNV)	Rare breakthrough transmissions may occur despite WNV screening by Nucleic Acid Testing
Bacterial Contamination of Blood Components:	
Platelets Pheresis	1:2,000 (1:13,400 result in clinical sepsis)
Red Blood Cells	1:1,000 (1:10,000,000 result in fatal sepsis)

## **Transfusion Alternatives:**

Blood volume expanders may be used in place of blood transfusions in some clinical situations. However, in cases where decreased tissue oxygen levels may cause organ failure, or uncontrolled bleeding is present, transfusion of blood components may be required to preserve life. Only your provider is qualified to make these clinical judgments.

Alternative sources of blood components are:

<u>Autologous Donation</u>: This is donating one's own blood in advance for elective medical procedures. Although this eliminates the risk of infectious disease transmission, autologous transfusion still carries the risk of febrile reactions and bacterial contamination. Previously donated autologous blood may not always be available in adequate amounts to meet a patient's transfusion needs.

<u>Directed Donation</u>: In some cases, blood donations from specific donors (e.g., friends or relatives) can be arranged. Transfusions from such donors are no safer than blood from the volunteer blood supply. Designated units may not always be available in adequate amounts to meet a patient's transfusion needs. Blood related directed donations must be irradiated.

### Cooley Dickinson Hospital Consent for Transfusion of Blood Products and Blood Components CDH 21-21 Rev. 11/2021



I understand that I have the right to accept or refuse transfusion.

I consent to transfusion of blood products and/or components if they are needed for my treatment.

I understand that the benefits of/reasons for the transfusion(s) include:

I am aware that there are risks to transfusion. These include but are not limited to reactions including fever, chills, hives, rash, or shortness of breath, and in rare cases, complications may include kidney damage. I understand other serious complications may occur. I understand that all units of blood are tested for infections including Hepatitis B, Hepatitis C, Syphilis and HIV. I understand that even though the tests show there is no infectious disease in the blood, there is still a chance that I may get an infection from the blood product(s) or blood component(s).

The above risks and benefits were explained to me. I have had a chance to ask questions about the risks, benefits, alternatives, side effects, likelihood of achieving the goals of this transfusion. All my questions were answered to my satisfaction, and I give permission to have the transfusion.

Patient/Surrogate Decision Maker	Printed Name if not Patient	Date	Time AM PM
Signature			

If patient is unable to sign, please explain why\_\_\_\_\_

I attest that I have discussed the risks/benefits of blood transfusion with the patient and answered their questions.

Practitioner Obtaining Consent Signature	Printed Name	Date	Time AMPM
If not the Attending			

Telephone/Verbal Consent			
Date:	Time:	_AM/PM	
Reason for Telephone/Verbal Consent:			
Legal Surrogate Decision Maker Name:			
Consent Received by:			
Consent Witnessed by:			
If interpreter was used please complete name or number of interpreter:			