Children's Hospital and Health System
Patient Care Policy and Procedure

This policy applies to the following entity(s):
☒ Dialysis ☒ Milwaukee Hospital ☒ Specialty Clinics

SUBJECT: Blood and Blood Components: Verification Procedure, Administration and Monitoring

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Definitions

There are 2 roles in the double check/verification process:

First role: Transfusionist (Registered nurse, physician, physician assistant or perfusionist administering the blood/blood component)

Second role: Witness (Witness must be another registered nurse, physician, physician's assistant, perfusionist, respiratory therapist, technician or medical assistant)

POLICY

The entire blood verification process must occur at the patient's bedside with two individuals: a transfusionist and a witness. In an emergent situation, the blood/blood component may be double-checked by persons other than the transfusionist.

All required information must be verified in the presence of the patient and must match exactly. Blood may not be administered if there are any discrepancies.

EDUCATION

HOSPITAL STAFF OBTAINING BLOOD OR BLOOD COMPONENTS:
Must complete introductory safety training and annual safety competency.

REGISTERED NURSES and other transfusing personnel (includes personnel acting as either transfusionist or witness):
Must complete, in the online learning system, the following prior to administering blood and blood components:

Blood Administration: Administration of Blood & Blood Components
Blood Administration: Blood Components
Blood Administration: Transfusion Reaction

Must complete the following on an annual basis:

Annual Blood and Blood Product Administration Refresher

PROCEDURE

A. Factor Products

Please refer to the **Injectable Medication Resource documents** under "Blood Factors" for

details on the administration and monitoring of factor products.

B. <u>Obtaining Informed Consent for Blood and Blood Component Transfusion(s)</u>

1. **Consent is required** for all blood or blood components **except** IVIG, albumin and manufactured factor products. **Consent for blood administration given via the procedural consent is applicable for operative and postoperative treatment. The blood consent (encounter) is required if a non-emergent preoperative transfusion is indicated.** Patients receiving non-emergent transfusions must be advised of the risks, benefits and alternatives to blood transfusions. If refusal to consent occurs, consult social work and refer to the patient care policy and procedure "**Refusal of Consent to Treatment or Blood Products**". See Addendum E.
   a. Refer to the patient care policy and procedure "**Consent for Treatment**" for witness signature requirements.
2. **Types of Consent**
   a. **Consent for Surgery or Consent for Procedure:** the consent for blood that is within is valid for the length of the hospitalization.
   b. **Current hospitalization/ encounter:** located in the "consents" tab in the "skinny" chart and is valid for the current treatment period (one per hospitalization/encounter).
   c. **Chronic transfusion (annual):** a scanned image of the signed document will be located in the documents tab of the electronic health record (EHR) and is valid for a period not to exceed 12 months from date signed and will remain accessible in the EHR.
      i. **Chronically transfused patients may include but are not limited to:**
         - Patients being treated for a malignant disease.
         - Patients with sickle cell disease and/or thalassemia enrolled in the Chronic Transfusion Program. See patient care policy and procedure "**Sickle Cell/ Chronic Transfusions-Phlebotomy andTransfusions**".
         - Patients with congenital or acquired hematological diseases requiring transfusions more often than every 3 months.
         - Potential liver transplant candidates likely to be transfused at least once a year.
3. **Provider Responsibilities**
   a. Responsible for obtaining or verifying written consent or documenting "emergency/implied consent" (if parent/guardian isn't available) when ordering type and screen.
   b. Each transfuse order entered into the EHR must have the "written consent obtained" field checked prior to submission. If the order is emergent, "emergency use-consent implied" may be temporarily checked until actual consent is obtained; or if parent/legal guardian isn't available consent to transfuse will be implied.
4. **Registered Nurse Responsibilities**
   a. Responsible for verifying that consent has been obtained **prior** to administering any blood or blood component, and notifying the provider if consent is needed.

EXCEPTION: emergent situations

C. Ordering Blood/Blood Components

1. Provider Responsibilities

Evidence of informed consent for blood or blood component transfusion must be obtained in writing prior to ordering any blood product. Exception: life threatening/emergent situations

a. Order in the EHR will include:

i. Type of blood or blood component

ii. Urgency of blood or blood component administration specified in the following examples:

- Blood admin activate trauma massive transfusion
- Blood admin on hand
- Blood admin stat
- Blood admin life threatening emergency (single cooler)
- Blood admin emergent ECMO (single cooler)
- Blood admin routine

iii. Any special requirements

- Irradiated
  - All cellular blood and blood components (red blood cells, whole blood, platelets, and granulocytes) will be irradiated by the Transfusion Service. Irradiation will be waived during massive transfusion protocol and some emergency release instances (dependent on provider approval).
  - All patients may receive previously irradiated blood or blood components (irradiated > 24 hours) except for those with the following conditions:
    - Significant hyperkalemia
    - Severe renal impairment/anuria/oliguria
    - Neonatal exchange transfusion
    - Cardiopulmonary bypass surgery
    - ECMO initiation
    - Patients < 1-year-old going to surgery
  - While everyone will receive irradiated blood or blood components, irradiation is specifically indicated for:

    Patients with known or suspected T-cell immunodeficiency
    - Recipients or potential recipient of bone marrow (autologous and allogeneic) heart or lung transplant
    - Blood and/or marrow and solid organ transplant donors pre- or during harvest
    - Patients with Hodgkin disease, hematologic malignancy, aplastic anemia, solid organ tumor

        - Any patient the attending physician believes is at risk for transfusion-associated graft-vs-host disease
    - CMV-negative
        - CMV-negative may be requested for granulocyte transfusions only.
        - All red blood cells, whole blood, and platelets will be leukocyte-reduced. Leukocyte-reduced products are CMV-safe, therefore are acceptable for transfusion to patients who may be at increased risk for CMV infection.
    - Directed or autologous donor blood
    - Phenotype matched
    - Saline washed
    - Freshness
    - Volume reduced

iv. Whether minimum donor exposure is desired (answer the question: Anticipate a transfusion in the next 30 days?)

v. Answer whether patient has been transfused in past 3 months.

vi. Amount to be administered
    - In mLs
        - A maximum volume transfused may be identified by the provider at this time if the product sent from the Transfusion Service is greater than the volume ordered.
    - In units

vii. Time/date blood or blood component is to be administered (optional)

viii. Length of administration time (optional)

a. See Table 1: Product Administration Parameters for maximum infusion time allowed.

ix. Indication for transfusion

x. Pregnancy status for female and transgender male patients 11 years of age and older

xi. Consent status

xii. Ordering provider's name

xiii. Patient name and medical record number

D. Drawing A Type and Screen

1. A type and screen expires at 2359 on the third day from the date sample was drawn. (e.g. a sample drawn March 1 at 1800 will expire March 4 at 2359). Consult Transfusion Service with questions regarding when to acquire a new sample. Exceptions:

1. Pre-operative patients who have not been transfused, pregnant, had fetal loss within the last 3 months); document the date of surgery in the type and screen order. For these patients:
    a. A type and screen may be drawn up to 14 days prior to the expected date of

surgery.

b. The sample expires at 2359 on the third day after surgery or 14 days after draw, whichever is less, as long as there have been no transfusions in the interim.

2. Neonate (Infants < 4 months old) samples expire the day prior to the patient turning four months old.

2. Responsibility When Drawing A Type And Screen

a. Positive patient identification and order verification is required. Refer to patient care policy and procedure "**Patient Identification: Matching Correct Patient with the Correct Intervention**."

b. Draw and label the specimen. See lab test directory for details.

i. **Note: Both tubes drawn for a Type and Screen must have the same collect time.**

ii. Note: In Critical Care Areas, draw amounts may be individualized for patients by contacting the Transfusion Service.

c. Compare lab specimen labels with patient's identification band (verify outpatient information with parent/patient). All information must match exactly.

E. ABO Verification (ABOV)

1. A sample for ABO Verification is required for all new patients who do not have a previous blood bank history, except for patients weighing < 1500 g. This test will be prompted to be ordered in the EHR when there is no previous ABORh result, no current order for ABOV already exists, or the patient weighs < 1500 g (to avoid redraw from very low birth weight infants).
2. Positive patient identification and order verification is required. Refer to patient care policy and procedure "**Patient Identification: Matching Correct Patient with the Correct Intervention**."
3. **The ABO Verification sample must be drawn and labeled at different time than the Type and Screen.**

F. Obtaining Blood or Blood Components

All blood and blood components are to be obtained from the Transfusion Service immediately prior to administration. If administration is to be delayed, the blood or blood component must be returned to Transfusion Service within 15 minutes (pediatric units) or 30 minutes (adult units).

1. Registered Nurse Or Designee Requesting Blood/Blood Component Responsibility

a. Place a "transport blood product" order in the EHR

i. Ensure correct patient and blood or blood component

ii. EXCEPTION: Stat, life threatening emergency and ECMO orders will be sent automatically.

2. Health Care Personnel Removing Blood/Blood Component From Tube System Responsibility

a. Notify registered nurse or designee requesting blood/blood component of arrival via the tube system.
b. If blood will not be used, it must be returned to the Transfusion Service.
    i. Pediatric units must be returned within 15 minutes.
    ii. Adult units must be returned within 30 minutes.

3. Transfusion Service Responsibility

a. Verification of:
    i. Type of blood/blood component
    ii. Patient's name and medical record number
    iii. Patient's ABO group and Rh type and blood/blood component ABO group and Rh type on:
        - Transfusion Service Compatibility Label attached to blood/blood component
        - Record of Transfusion
        - Donor Unit
    iv. Crossmatch interpretation on:
        - Transfusion Service Compatibility Label attached to blood/blood component
        - Record of Transfusion
    v. Blood unit number on:
        - Donor unit
        - Transfusion Service Compatibility Label attached to blood/blood component
        - Record of Transfusion
    vi. Expiration date of product on front of bag
    vii. Expiration date of crossmatch on Record of Transfusion
    viii. Any other information on/or attached to bag or Record of Transfusion (i.e.,irradiated and/or other special requirements).
b. If <u>any</u> discrepancy is noted during verification the blood or blood component, it is not released from the Transfusion Service until error is rectified.
c. Issuing tech will document their initials, date/time, and location in the laboratory information system (LIS).

G. <u>Storage of Blood and Blood Components</u>

1. When the patient is in the operating room (OR), whole blood, red cells and plasma may be stored in a designated, temperature monitored (1-6C) blood refrigerator in OR.
2. Blood or blood components may never be placed in the refrigerators in the inpatient units.
3. Cryoprecipitate, granulocytes, and platelet products should not be refrigerated, but stored in a designated, temperature-monitored device (20-24C).
4. Platelets should be continuously agitated in the OR and Cath Lab. (All other departments must return blood/blood components for storage by the blood bank as noted above.)

H. Transporting Blood/Blood Components with Patient

1. Blood/blood components currently transfusing (including blood from emergency services, such as Flight For Life, or an outside hospital) may be transported with the patient.
2. Blood/blood components may be transported under the following situations only after notification to the Transfusion Service:
   a. Trauma patients with massive transfusion protocol activated.
   b. Patients being transported from OR to the NICU or PICU requiring transfusion immediately upon arrival (maximum 2 units). See section H6a if a validated cooler at bedside is needed.
3. Blood/blood components not currently transfusing that was provided by emergency services, such as Flight For Life, or an outside hospital should not be used but the decision to transfuse will be left up to the patient's provider. Unused blood and blood products must be sent to the Transfusion Service for appropriate handling.
4. Blood/blood components not currently transfusing is/are packed appropriately and transported in a validated cooler with a coolant and a thermometer.
   i. Approved areas include but are not limited to:
      - Cath Lab
      - PICU
      - NICU
      - Special Procedure Rooms
      - Froedtert Hospital for the delivery of a newborn transported with the NICU Delivery team
   ii. Unused blood must be returned to the Transfusion Service as soon as possible.
   iii. If the temperature of the cooler is above 6 degrees Celsius, the blood may still be used if it is infused within 4 hours from the time it was placed in the cooler. If needed, call Transfusion Service to verify time of issue.
   iv. If the blood is returned to the Transfusion Service and the temperature is above 6 degrees Celsius, the blood will be discarded.
5. **Anesthesiologist Responsibility**
   a. Determine when a patient will be transported with blood/blood component.
6. **Operating Room Staff Responsibility**
   a. Notify the Transfusion Service to obtain a validated cooler.
      i. The Transfusion Service will pack the validated cooler and assess blood/blood components.
      ii. Return the blood to the Transfusion Service as soon as it is determined the blood/blood component is not immediately needed. Distribution may return blood.
      iii. If the temperature is above 6 degrees Celsius, the blood/blood component may still be used if it is infused within 4 hours from the time it was placed in the cooler.
      iv. If the blood/blood component is returned to the Transfusion Service and the

temperature is above 6 degrees Celsius, the blood/blood component will be discarded.

b. Cell salvage
    i. Cell salvage blood (aka cell saver blood) is collected from a circuit or medical device and may be used for administration until expiration date/time. The collection date/time is the point at which the product is taken from the medical device.
    ii. Cell salvage blood must be labeled with patient name, patient medical record number, blood/blood component type, collection date and time, expiration date and time (6 hours from time of collection), and the statement “for autologous use only.”
    iii. Cell salvage blood is to be transfused within OR or PICU only.
c. Blood/blood components that have been spiked (entered) but not fully transfused
    i. Blood may be withdrawn from a bag into a syringe for administration by hand or syringe pump.
    ii. If not immediately administered, the syringe must be labeled with the patient name, patient medical record number, patient ABORh, blood/blood component type, blood/blood component unit number, blood/blood component ABORh, date and time that blood/blood component was drawn into syringe, and expiration date and time.
    iii. Expiration date and time is 4 hours from the time of initial entry or original date/time documented on the original blood/blood component bag, whichever is less.

I. Double Check/ Verification Process of Blood/Blood Component Prior To Administration

1. Double Check/Verification Process

The entire verification process must occur at the patient’s bedside with two individuals: a transfusionist and a witness. In an emergent situation, the blood/blood component may be double-checked by persons other than the Transfusionist.

Note: DO NOT remove the Transfusion Service Compatibility Label attached to blood/blood component until transfusion is complete, if needed.

2. Procedure for Double Check/Verification Process

a. Transfusionist reads aloud from the blood/blood component container and Transfusion Service compatibility Label attached to blood/blood component.
b. Witness will look at the transfuse order in the EHR to verify information.
c. Witness will read back out loud all the information to the transfusionist to confirm accuracy.
d. Transfusionist will look at blood/blood component container and label to verify that the information the witness repeats is correct.
e. Both the transfusionist and the witness will inspect the integrity of the blood/blood component container.

f. Both the transfusionist and witness will match information simultaneously on the patient ID and blood bank band to the transfuse order and blood/blood component. (Both the transfusionist and the witness must visualize the ID band.)

3. Elements Of The Patient And Blood/Blood Component That Require Verification By The Transfusionist And The Witness

Note: All information below must be verified in the presence of the patient and must match exactly. Do NOT administer the product if there are any discrepancies. Contact Transfusion Service immediately if a discrepancy is noted.

a. Consent status
b. Name (spelled out), Date of Birth, and medical record number
c. Blood/blood component unit number and ABORh
d. Interpretation of crossmatch tests, if performed
e. Compatibility of donor and patient ABORh **(see Addendum B - ABO compatibility charts)**
f. Expiration date of the blood/blood component
g. Type of blood/blood component ordered to be transfused in the EHR.
h. Volume of blood/blood component to be transfused in the EHR.
   - It is acceptable to transfuse +/- 10% of the blood volume ordered without notifying the provider. At the time of ordering, the ordering provider may identify a maximum volume to be transfused if the volume of the product sent from the Transfusion Service is greater than the volume ordered.
i. Special requirements of the blood/blood component ordered in the EHR.
j. Inspect the blood/blood component container for any leaks, abnormal cloudiness, color, clots, excessive air, or bubbles. If any of these problems are detected, notify Transfusion Service immediately and hold the transfusion.
k. After double checking process is complete, the transfusionist may then prime the blood/blood component in the room. (For proper storage, the blood/blood component must be returned within 15 minutes for pediatric units and 30 minutes for adult units of being sent from the lab or being removed from the validated cooler if there is no intention to infuse. See section E. Obtaining Blood or Blood Components.)
l. Operating Room: If the verified blood/blood component is being returned to the refrigerator or platelet incubator, the blood/blood component must have two witness signatures in the “FOR OPERATING USE ONLY” section of the Record of Transfusion. Upon administration, the double check process must be repeated (steps 1-10), the reverification question answered, and the remaining documentation completed.
m. Blood/blood components drawn into a syringe and transported from OR to NICU or PICU
   i. Patient ID must be present on the syringe following section H6.c.ii. There will be no Transfusion Service Compatibility Label to verify when double-checking blood/blood components that have been drawn into a syringe after initial entry. Special requirements and the interpretation of crossmatch tests, if performed, also will not be documented. The double check/verification process shall follow

as instructed, with the lack of Transfusion Service Compatibility Label and documentation of special requirements and interpretation of crossmatch tests, if performed.

J. Administration & Monitoring

1. All blood and blood components should be administered with the following recommended line sizes:
   a. CVAD: 3.0 Fr. or larger
      i. Exception: After consultation with provider, smaller French sizes may be used for patients in critical condition
   b. PIV: 20-24G
      i. Exception: May use larger gauge if possible, for rapid infusion
2. Medication or IV solution will not be added to blood components or run simultaneously in the same line as blood components, except in the following situations and after approval from an attending physician:
   a. Life-threatening situations and under the direct order of a licensed provider.
   b. Operating room where approved medications may be added to blood bags for open heart surgery.
   c. ECMO patients only when medically necessary.
   d. Normal saline, Normosol-R-pH 7.4, and Plasmalyte used to start blood and blood product administration.
3. It is not recommended to interrupt blood transfusions for medications. Timing of blood/blood component transfusions should be coordinated with intravenous medication administration.
4. **Registered Nurse Responsibility**
   (In the Operating room the anesthesiologist is responsible for documenting blood/blood component transfusions)
   a. **Administration**
      i. Pressure cuffed infusion may be initiated by a registered nurse, but only continued under supervision of a provider.
      ii. Obtain a complete set of vital signs (including but not limited to heart rate, respiratory rate, blood pressure, and temperature) within an hour before starting the transfusion.
      iii. Adult units must be returned to Transfusion Service within 30 minutes and pediatric units within 15 minutes if unable to begin the transfusion unless the blood/blood component is stored in a validated cooler or TS-approved temperature-monitored refrigerator or platelet incubator.
      iv. Blood and blood components transfusion must be completed within 4 hours of spiking the product bag. All blood and blood components expiration date and time is on the front of the product (if no time is indicated, product expires at 2359).
      - A blood product must be spiked and transfusion started prior to the expiration date/time on the product bag. Once the transfusion has started, it can

continue beyond the expiration date/time on the product bag as long as the transfusion will not exceed the maximum 4 hour time limit.

v. Refer to table 1 for specific product administration parameters.

vi. Refer to table 2 for specific product special needs.

vii. All blood and blood components must be filtered, exceptions: do NOT filter Albumin, stem cells, lymphocytes, and clotting factor concentrates (see Addendum A – Blood and Blood Component Administration).

- Change filter per manufacturer's recommendation.
  - Most manufacturers recommend a 4 unit maximum per filter.
  - Vented blood set with 180-micron filter/tubing should be changed after every unit.
  - Rapid Infuser –replace the tubing every 4 hours or when the filter becomes clogged.

viii. Administer any premedication as ordered by the provider. Premedication may be recommended for patients with a history of transfusion reactions. Premedication is not given to every patient; consult with the patient's physician or the Transfusion Service Medical Director with questions.

ix. Flush patient IV line with normal saline prior to connecting blood to patient's IV. Assure that a 10-mL syringe of normal saline is at the patient's bedside. Note: When administering concurrent transfusions, it is not necessary to flush the line with saline in between removing a product and starting a new product.

x. In situations in which the patient care team determines necessary (such as in Operating Room and/or trauma) packed red blood cell and plasma components may be pooled within a closed system, for transfusion of both products to occur from a single line. Both products must be documented as transfused (above in I3c). No other components (whole blood, platelets, granulocytes) can be pooled with another product.

b. **Monitoring**

i. Remain with the patient for the first 15 minutes of the transfusion to monitor for potential transfusion reactions.

ii. Obtain a complete set of vital signs (HR, RR, BP, Temp) within 15-30 after starting the transfusion.

iii. Refer to table 1 for product specific monitoring requirements.

iv. Monitor blood glucose every 30-60 minutes for infant/child at high risk for hypoglycemia when IV fluids are not running.

v. Monitor for signs of hypothermia in small infants.

c. **Documentation**

i. Document the blood/blood component administration in the EHR.

- Note: At this time, Epic barcode scanning of blood and blood components does not verify blood product compatibility or match the correct unit to the correct patient. Scanning of any of the blood/blood component label only transcribes that information into Epic.

ii. Upon completion of the transfusion:
- Complete the transfusion documentation in the EHR.
- Clamp tubing on bag of blood or blood/blood component not transfused, keeping the bag and tubing as an intact unit, and discard it into biohazard container or bag.

K. Blood Warmers

1. **Provider Responsibility**
   a. Order blood warmer when indicated (examples when blood warmer may be indicated: rapid transfusion, exchange transfusion, and cold agglutinin disease).
      - Blood warmers are not indicated for transfusion of room temperature platelets.
2. **Registered Nurse/Anesthesiologist Responsibility**
   a. Warm blood with blood warmer only when ordered by the provider.
   b. Record temperature of blood warmer in the EHR at start of transfusion.
   c. Do not warm blood higher than 42 degrees Celsius.
   d. If the blood warmer alarms for temperature above 42 degrees Celsius, stop transfusion and document in the EHR.
   e. Do not use blood warmer if calibration sticker is out of date. Contact Clinical Engineering for calibration.
   f. Never warm blood by holding bag under hot tap water, immersing in an unmonitored water bath, or placing in a microwave oven.

L. Transfusion Reaction

See Addendum C – Transfusion Reactions.

1. If a transfusion reaction is suspected

a. **Transfusionist Responsibilities**

i. Stop the transfusion:
- Peripheral IV Line - Flush with 1 mL normal saline.
- CVL - Withdraw 3-5 mL of discard blood, flush with 3-5 mL normal saline.
- Connect the ordered IV to keep IV line patent. ***The only compatible IV fluid is normal saline.***

ii. Notify physician and Transfusion Service. The provider and/or RN may contact the Transfusion Service Medical Director to determine if workup for a potential transfusion reaction is warranted.

iii. Remain with the patient and assess patient's condition and obtain vital signs.

iv. Document assessment.

v. Check blood/blood component bag, compatibility label, and patient identification for clerical errors.

vi. Obtain patient's first urine sample, per order, immediately following a reaction or suspected reaction to red cell products. This may not be necessary in the case of a mild allergic reaction (<3 hives only) per provider discretion. Label "Post Transfusion UA - Reaction" and send to the lab.

b. **Provider Responsibilities**

i. Assess patient and determine type of reaction.
ii. Mild allergic reactions (no pulmonary or systemic changes) should be reported to Transfusion Service, but submission of specimen is not necessary. For reactions consisting of localized urticaria only, which resolves with antihistamine therapy, consult with attending physician and consider resuming transfusion.
iii. Document assessment.
iv. Complete a Transfusion Reaction Work Up – PRBC, WB, and Granulocytes or Transfusion Reaction Work Up in the EHR.

2. If transfusion reaction is verified by provider

a. **Registered Nurse/Anesthesiologist Responsibilities**

i. Notify the Transfusion Service.
ii. Document that a suspected transfusion reaction has occurred and complete the requested information in the EHR.
iii. Place blood bag with attached administration set and labels in red Biohazard Infectious Waste bag and send to Transfusion Service.
- The pneumatic tube system CANNOT be used.
- The blood bag and attached set must be walked down to the Transfusion Service.

iv. Assess and manage symptoms according to provider orders.
v. Blood and urine samples should be collected from the patient if reaction is due to red cell products.
- When collecting the blood, please label it in the same manner as a type and screen/crossmatch sample.

b. Transfusion Service Responsibilities

i. Ensure appropriate blood specimens are drawn.
ii. Perform appropriate reaction work-up.
iii. The Transfusion Service Medical Director will evaluate the suspected transfusion reaction and enter an assessment in the EHR
iv. Enter results in the EHR after the Transfusion Service Medical Director reviews the suspected transfusion reaction.

M. <u>Directed and Autologous Blood Donations</u>

1. Donations should be made a minimum of 72 hours prior to the date needed.
2. **Provider Responsibility:**
   a. If the patient's ABO and Rh type is unknown, order ABO/Rh typing.
   b. Order number and type of units
   c. Indicate special product requirements if applicable, e.g., CMV negative.
3. **Provider Or Registered Nurse Responsibility**
   a. Complete "Directed Donation Order" Form or "Autologous Donation Prescription" Form and fax to Versiti (fax number is on the bottom of the form) **or** call order and send a written prescription to Versiti (414-937-6188). Additional forms can be obtained by contacting Versiti.

4. **Directed/Autologous Blood Donors Responsibility**
   a. Call Versiti (414-937-6188) to make an appointment for donation.
   b. Donate a minimum of 72 hours prior to the date needed.
5. If directed/autologous blood is not used on anticipated date but will be needed before the blood outdates (example - child sick, surgery postponed, unable to make clinic visit) notify Transfusion Service. The blood will be kept available if a new expected date of blood administration is given to Transfusion Service and the unit does not outdate before that date. The Transfusion Service will obtain permission to release (into the community for general use) directed donations from the patient by the ordering physician.

N. Management of Infectious Disease Lookback Investigation [with special attention to those involving Human Immunodeficiency Virus (HIV) and Hepatitis C Virus (HCV)]

Lookback Definitions:

- **Lookback investigation** means the response taken by blood transfusion services establishment when a blood/blood product donor is newly reactive for a particular infectious disease marker, to prevent potential infection by transfusion recipient of previously collected blood/blood products from the same donor.
- **Recipient** means the transfusion recipient, parent or legal guardian if recipient is a minor, recipient's relative if recipient is deceased, or recipient's legal representative.
- **Physician** means the attending physician or the physician who ordered the blood or blood component

Lookback Procedure:

1. Versiti will notify the Transfusion Service Medical Director of potential infectious disease lookback Investigations.
2. The Transfusion Service Medical Director will determine if a Lookback Investigation is required following all pertinent federal guidelines and using clinical judgment. Lookback Investigations are required for HIV and HCV; Lookback Investigations for other potentially infectious diseases are at the discretion of Versiti and/or the Transfusion Service Medical Director.
3. The Transfusion Service staff will immediately initiate a Lookback Investigation by compiling all patient information for any blood or blood component that has been transfused.
4. For HIV or HCV Lookback Investigation, notification of the recipient must occur as soon as possible, but within 12 weeks from the date the Transfusion Service Medical Director received notification of the Lookback Investigation.
5. For HIV or HCV Lookback Investigation, at least three (3) attempts must be made to notify the Recipient.
   a. At least one notification attempt must be via certified mail. The certified letter must contain the following information:
      i. A basic explanation of the need for infectious disease testing.
      ii. Enough information so that an informed decision can be made about whether

to obtain testing and counseling for infectious disease.

iii. A list of programs or places where testing and counseling for infectious disease can be obtained, including any requirements or restrictions the program may impose.

6. Transfusion Service Medical Director will do the following
   a. Notify the Recipient's Physician, providing the information required in the notification letter (above in O5a).
   b. Notify CW Risk Management.
   c. Retain a file of all Infectious Disease Lookback Investigation forms and final reports.
   d. Send a copy of the completed Lookback Investigation form to CW Risk Management and Health Information Management ("HIM").
      Note: Affix the HIM barcode sticker to the file indicating the EHR location to which the file should be scanned.
   e. Notify Versiti when the process is completed.
7. Physician will do the following:
   a. For HIV or HCV, attempt to notify the Recipient by phone or mail, via the U.S. Postal Service or a personal delivery service, documenting all attempts. For other infectious diseases, notify per Physician's clinical judgment.
   b. After the Recipient has been notified, and laboratory results specific to the infectious disease are available, if appropriate, notify the Transfusion Service Medical Director.
   c. For HIV and HCV Lookback Investigation, notify risk management if unable to reach Recipient after three (3) attempts, or attempted to contact the Recipient less than three (3) times and believes further efforts would be unsuccessful. Document circumstances that prevented notification and notify the Transfusion Service Medical Director.
8. Risk Management will do the following:
   a. Notify the Medical College of Wisconsin Risk Management if the Physician is a Medical College of Wisconsin employee.
   b. Support Physician, as needed:
      i. If the Physician is unable to notify Recipient after three (3) attempts (for HIV or HCV Lookbacks Investigation), or attempted to contact the Recipient less than three (3) times and believes further efforts would be unsuccessful, Risk Management, when appropriate, will assume responsibility for attempting to notify the Recipient, as needed, documenting all attempts.
      ii. After three (3) unsuccessful attempts (for HIV or HCV Lookback Investigation) to notify the Recipient, document circumstances that prevented notification and notify the Transfusion Service Medical Director.
   c. After the Recipient has been notified, and results for the infectious disease are available, notify the Transfusion Service Medical Director.
   d. Keep a file of all Infectious Disease Lookback Investigations.
9. Health Information Management ("HIM") will do the following:
   a. Scan the completed Lookback Investigation form and final report into the EHR following the barcode instructions.

O. Emergent/Life Threatening Transfusion

- Refer to patient care policy and procedure "Trauma - Massive Transfusion of Blood and Blood Components" for trauma patients in the EDTC.
- This includes situations where the NICU Delivery team is attending the birth of a newborn at Froedtert Hospital. While the patient is not yet a Children's Wisconsin (CW) patient, the CW NICU Delivery team will utilize CW Transfusion Service to supply blood that needs to be on hand as requested by providers.

1. A physician or RN will notify blood bank that emergent group O (Rh Negative and/or Rh Positive) blood is needed emergently.
2. A blood sample for a type and screen/crossmatch will be collected as soon as possible and sent to lab.
3. If the patient's type and screen is complete, type-compatible blood and blood components will be provided. If the crossmatch is also complete, crossmatch-compatible blood will be provided.
4. **Transfusion Service Technologist Responsibility**
   a. Send blood to unit by tube system or lab personnel via a cooler, as appropriate.
   b. If blood is sent by cooler, the technologist places the blood with the Record of Transfusion, an attached compatibility label, and a thermometer in cooler.
   c. If blood is sent by tube system, the technologist sends the Record of Transfusion and an attached compatibility label with the blood in tube system.
5. **Registered Nurse Responsibility**
   a. Verification by two individuals prior to hanging that the unit is O Rh Negative, packed Red Blood Cells. If the patient has valid blood type confirmed, type-specific blood may be transfused. Check the patient using two patient identifiers.
   b. Once the patient's type, screen and crossmatch are complete, the double check/ verification process will be followed. Refer to section H.
   c. Documentation of the double check/ verification process will occur on the Record of Transfusion that arrives with the blood product.
   d. Label the Record of Transfusion form with patient identification sticker.
   e. It is not necessary to flush the IV line with saline between units of blood.
6. **Provider Responsibility**
   a. Enter the order: Blood Admin Life Threatening Emergency or Blood Admin Emergent ECMO (single cooler).

P. Downtime Procedures

1. **Provider Responsibilities**
   a. Complete all requirements for ordering blood as outlined in section C on a downtime order form.
   b. Complete one Transfusion Service Requisition for all blood orders (Refer to "Transfusion Service Requisition", Addendum D - Transfusion Forms).
   c. Give the Health Unit Coordinator the downtime order and Transfusion Service Requisition.
2. **Health Unit Coordinator Or Designee Responsibilities**

a. Place the completed Transfusion Service Requisition on the front of the chart for RN to pick up when they are drawing the type and screen.
b. If lab-draw, tube completed Transfusion Service Requisition to lab; if order is STAT call ext. 6-2554.
c. Call the Transfusion Service to initiate an order for the following products which may not require a type and screen: platelets, plasma, and cryoprecipitate.

3. **Registered Nurse Responsibility**
   a. Follow the policy and procedure for nursing responsibilities:
      i. Verify that consent for blood and blood component transfusion(s) has been obtained (section B).
      ii. Draw sample for a type and screen (section D).
      iii. Administration and Monitoring (section I).
   b. Complete the double check process as outlined in section H and document on the paper Record of Transfusion.
   c. Follow documentation downtime procedures.
   d. When the EHR is down, use the downtime Blood Product Transport form (see Addendum D - Transfusion Forms) Record patient's name and medical record number and bring to Transfusion Service. For components not requiring a type and screen, document only patient's name and medical record number.
   e. Blood/blood components may be picked up from the Transfusion Service or delivered via the tube system ***(Note: Stem cells, granulocytes, and lymphocyte infusions may <u>NOT</u> be transported via the tube system.)***
4. **Department Ordering The Blood Or Blood Component Responsibility During Downtime**
   a. Complete Blood Product Transport form (Addendum D - Transfusion Forms) with the following information:
      i. Patient label:
      ii. Location
      iii. Product requested
      iv. Date and time requested
      v. Requested by
   b. Send to lab via the tube system.
5. **Transfusion Services Responsibility**
   a. Issue the blood using the Blood Product Transport form.
   b. If <u>any</u> discrepancy is noted, blood or blood component is not released from the Transfusion Service until error is rectified.
   c. Place blood or blood component, Record of Transfusion, and attached compatibility label in a transport bag.
   d. Send unit via the tube system to the designated location.

<u>JIT</u>

Blood and Blood Component Administration
Blood Bank Lab Sample Requirements

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Approved by:
The Joint Clinical Practice Council February 17, 2025
The Milwaukee Medical Executive Committee April 7, 2025

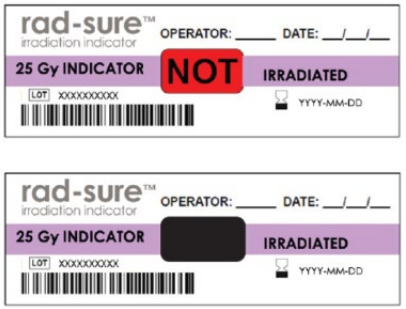
TABLE 1 – Product Administration Parameters

Albumin and Clotting and Anticoagulant Factor Concentrates	Administer with non-filtered IV tubing, see package insert. 25% Albumin is preferred to be administered through a CVAD but peripheral administration is acceptable. Obtain vital signs within one hour of start and at the end of infusion. Average pediatric dose and administration times: • Albumin 5% = 1 g/kg = 20 mL/kg at up to 2 mL/min (120 mL/hr) or faster if the patient is in shock. Albumin 25% = 1 g/kg = 4 mL/kg at up to 2 mL/min (120 mL/hr) or faster if the patient is in shock.
Cryoprecipitate	Must be administered within 4 hours of time thawed. Administer slowly over 5-15 minutes. Obtain vital signs within one hour of start and at the end of transfusion. Use of same infusion set for multiple product bags is acceptable. Infusion set expires after 4 hours.
Fresh Frozen Plasma	Must be administered within 4 hours of being signed out/removed from a monitored (1-6 degrees Celsius) refrigerator. Infuse within 4 hour; over 1 hour is preferred at a maximum rate of 30mL/kg/hour. Obtain vital signs within one hour of start, within 15-30 after starting the transfusion, and every hour until transfusion is complete. Repeat vital sign monitoring with each new unit.
Granulocytes	Expires 24 hours from collection. Never use a leukocyte reduction filter. Must be transfused within 24 hours of collection (preferably as soon as they are available as the life span of granulocytes is very short). Infuse over 2-4 hour (start at 1 mL/kg/hr). Obtain vital signs within one hour of start, within 15-30 after starting the transfusion, and every hour until transfusion is complete. Repeat vital sign monitoring with each new unit. Pre-medication with acetaminophen and diphenhydramine may be indicated to prevent

	reactions.Watch patient closely for fever, chills, and urticaria. Assess for acute pulmonary symptoms (occasional): Dyspnea, development of infiltrates, chest tightness and hypoxia. Do NOT administer Amphotericin B products within 4 hours of a granulocyte transfusion; concurrent or close administration has been associated with severe pulmonary reactions.
Packed Red Blood Cells (PRBCs)	Must be administered within 4 hours of being signed out/removed from a monitored (1-6 degrees Celsius) refrigerator. Usual Transfusion rates = 2-5 mL/kg/hr (start slowly). Example: 2.5 mL/kg/hr for the first 15 min, then if tolerated 5.0 mL/kg/hr for the remainder of the infusion. 5.0 mL/kg/hr is not an absolute maximum rate. It is ultimately up to the clinical provider to decide the ideal rate based upon the patient's situation. In certain situations (e.g. massive transfusion, hypertransfusion of thalassemia patients, etc.), it is acceptable to transfuse at a faster rate. Obtain vital signs within one hour of start, within 15-30 after starting the transfusion (before the rate increase), and every hour until transfusion is complete. Repeat vital sign monitoring with each new unit.
Platelets All Volume Reduced Platelets HLA-matched or non-matched Single Donor Pheresis platelet	Volume Reduced: Must be administered within 4 hours from time of volume reduction. All Types of Platelets: Administer by gravity, IV push, or via an infusion pump: Infuse over 1 hour (maximum of 4 hr) at 30 mL/kg/hr (maximum rate). Obtain vital signs within one hour of start, within 15-30 after starting the transfusion, and at the end of transfusion. Repeat vital sign monitoring with each new unit.

Whole Blood	Must be administered within 4 hours of being signed out/removed from a monitored (1-6 degree Celsius) refrigerator. Usual Transfusion rates = 2-5 mL/kg/hr (start slowly). Example: 2.5 mL/kg/hr for the first 15 min, then if tolerated 5.0 mL/kg/hr for the remainder of the infusion. Obtain vital signs within one hour of start, within 15-30 after starting the transfusion (before the rate increase), and every hour until transfusion is complete. Repeat vital sign monitoring with each new unit.

TABLE 2 – Product Special Needs

Order	Wording/appearance on unit	Where to find
Volume reduced	"Plasma reduced"	ISBT label (adherent to unit)
Saline washed	"Washed"	ISBT label (adherent to unit)
HLA-matched HPA-matched	"HLA-matched" "HPA-matched"	Lavender tie tag attached
Phenotype matched	Example: "antigen typing: (E) negative (K) negative"	Pink tie tag OR salmon antigen typing label attached
Irradiated	"Irradiated"	ISBT label (adherent to unit) Unit may also have irradiation sticker attached. 
Fresh	Green sticky dot with age of product	Compatibility tie tag (patient label) attached

ADDENDUM A - BLOOD & BLOOD COMPONENT ADMINISTRATION

Note: A valid ABO/RH is required for blood and blood components. A type and screen may not be required in all cases. The Transfusion Service will request a sample to be drawn if required. EXCEPTION: A type and screen is always required for red blood cells, whole blood and granulocytes.

A "valid ABORh" consists of two ABO/Rh types that are performed with two different samples drawn at different times.

- Two samples from the current admission.
- A sample from a previous admission and a sample from the current admission.
- Two samples from previous admissions.

COMPONENT	TYPE & SCREEN and CROSSMATCH REQUIRED	FILTER TYPE –REFER TO SECTION J *ADMINISTRATION & MONITORING*	INFUSION METHOD
Red Blood Cells	Yes **Exceptions:** -Infant < 4 months old may receive Type O, Rh compatible uncrossmatched, after initial evaluation. -Administration of all other uncrossmatched blood is restricted to life threatening situations and is the responsibility of the ordering physician.	Standard blood filter (180 micron) or blood transfusion filter (40 micron). 40 micron for patients currently on cardiopulmonary bypass or if volume is < 60mL.	IV pump, syringe pump or gravity.
Whole Blood	Yes	Standard blood filter (180 micron) or blood transfusion filter (40 micron). 40 micron for patients currently on cardiopulmonary bypass or if volume is < 60mL.	IV pump, syringe pump or gravity.
Fresh Frozen Plasma	See Note	Standard blood filter (180 micron) or blood transfusion filter (40 micron). 40 micron for patients currently on cardiopulmonary bypass or if volume is < 60mL.	IV pump, syringe pump or gravity.

COMPONENT	TYPE & SCREEN and CROSSMATCH REQUIRED	FILTER TYPE –REFER TO SECTION J *ADMINISTRATION & MONITORING*	INFUSION METHOD
Granulocyte Concentrate	Yes	**Standard blood filter (180 micron) only.**	IV pump, Syringe pump or gravity.
Platelet Concentrate	See Note	Standard blood filter (180 micron) or blood transfusion filter (40 micron). 40 micron for patients currently on cardiopulmonary bypass or if volume is < 60mL.	IV pump, syringe pump or gravity.
Cryoprecipitate	See Note	Standard blood filter (180 micron) or blood transfusion filter (40 micron). 40 micron for patients currently on cardiopulmonary bypass or if volume is < 60mL.	IV pump, syringe pump or gravity.

ADDENDUM B: ABO COMPATIBILITY CHARTS

RED BLOOD CELLS	
Recipient's Blood Type	**Acceptable Donor Unit's Blood Type**
O	O
A	A or O
B	B or O
AB	AB, A, B, or O
Rh Positive	Rh Positive or Rh Negative
Rh Negative *	Rh Negative
*To avoid the formation of anti-Rh antibodies, Rh-negative blood must be given to persons who type as Rh-negative, especially potentially childbearing patients.	

WHOLE BLOOD	
Recipient's Blood Type	**Acceptable Donor Unit's Blood Type**
O	O
A	A
B	B
AB	AB
Rh Positive	Rh Positive or Rh Negative
Rh Negative*	Rh Negative
*To avoid the formation of anti-Rh antibodies, Rh-negative blood must be given to persons who type as Rh-negative, especially potentially childbearing patients.	

GRANULOCYTES	
Recipient's Blood Type	**Acceptable Donor Unit's Blood Type**
O	O
A	A or O
B	B or O
AB	AB, A, B, or O
Rh Positive	Rh Positive or Rh Negative
Rh Negative*	Rh Negative
*To avoid the formation of anti-Rh antibodies, Rh-negative blood must be given to persons who type as Rh-negative, especially potentially childbearing patients.	

FRESH FROZEN PLASMA	
Recipient's Blood Type	**Acceptable Donor Unit's Blood Type**
O	O, A, B, or AB
A	A or AB
B	B or AB
AB	AB
Rh is not a factor	

CRYOPRECIPITATE	
Recipient's Blood Type	**Acceptable Donor Unit's Blood Type**
O	O, A, B, or AB
A	A or AB
B	B or AB
AB	AB
Rh is not a factor	

PLATELETS	
Recipient's Blood Type	**Acceptable Donor Unit's Blood Type****
O	O, A, B, or AB
A	A or AB
B	B or AB
AB	AB
Rh Positive	Rh Positive or Rh Negative
Rh Negative*	Rh Negative
*To avoid the formation of anti-Rh antibodies, Rh-negative blood must be given to persons who type as Rh-negative, especially potentially childbearing patients.	
**If platelet is volume-reduced (i.e. plasma volume is reduced), any donor unit ABO is acceptable.	

Note: For post-BMT recipients, blood product must match both BMT recipient and donor blood types. See Post-BMT Transfusion Compatibility Chart below.

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Post-BMT Transfusion Compatibility Chart

Recipient	Donor	RBCs	Plasma and Cryoprecipitate	Platelets, not volume-reduced*
O	O	O	O, A, B, AB	O, A, B, AB
O	A	O	A, AB	A, AB
O	B	O	B, AB	B, AB
O	AB	O	AB	AB
A	O	O	A, AB	A, AB
A	A	O, A	A, AB	A, AB
A	B	O	AB	AB
A	AB	O, A	AB	AB
B	O	O	B, AB	B, AB
B	A	O	AB	AB
B	B	O, B	B, AB	B, AB
B	AB	O, B	AB	AB
AB	O	O	AB	AB
AB	A	O, A	AB	AB
AB	B	O, B	AB	AB
AB	AB	O, A, B, AB	AB	AB
Rh positive	Rh positive	Rh positive, Rh negative	n/a	Rh positive, Rh negative
Rh positive	Rh negative	Rh negative	n/a	Rh negative
Rh negative	Rh positive	Rh positive, Rh negative	n/a	Rh positive, Rh negative
Rh negative	Rh negative	Rh negative	n/a	Rh negative

*If platelets are volume reduced, then any ABO type is acceptable for transfusion regardless of recipient or donor ABO type.

Note: Rh is not applicable for plasma or cryoprecipitate.

ADDENDUM C - TRANSFUSION REACTIONS

Do not transfuse additional blood/blood components until cause of problem has been ascertained and/or Transfusion Service Medical Director, in discussion with patient's physician, has agreed on course of action.

Management of all transfusion reactions include: Stop transfusion immediately. Recheck verification of unit. Notify provider immediately. Transfusion may resume per provider discretion. Deliver blood bag, saline, tubing and filter intact to Transfusion Service (do **not** send via pneumatic tube system). Order a Transfusion Reaction Work-up in the EHR or send a downtime Transfusion Reaction Report form to Transfusion Service. Send first voided urine specimen and blood samples to Lab. Blood work is not needed for transfusion reactions to plasma, platelets, or cryoprecipitate.

Acute Transfusion Reactions

REACTION	CAUSE	CLINICAL MANIFESTATIONS	MANAGEMENT	PREVENTION
Acute Hemolytic	Infusion of ABO-incompatible whole blood, red blood cells, or components containing 10 mL or more of red blood cells. Antibodies in the recipient's plasma attach to antigens on transfused red blood cells causing red blood cell destruction.	Fever (rise of 1°C during the transfusion or within 1-2 hours after the transfusion) occurs in greater than 70% of all hemolytic transfusion reactions. Fever is the most common initial manifestation of immune hemolysis. Chills, low back pain, flushing, tachycardia, tachypnea, hypotension, vascular collapse, hemoglobinuria, hemoglobinemia, bleeding, acute renal failure, shock cardiac arrest, death.	Stop transfusion immediately. See section L. Treat shock, if present. Maintain BP with appropriate IV solutions. Give diuretics as prescribed to maintain urine flow. Monitor hourly urine output. Dialysis may be required if renal failure occurs.	Meticulously verify and document patient identification from sample collection to component infusion.
Febrile, non hemolytic	Sensitization to donor white blood cells, platelets, or plasma proteins.	Sudden chills and fever (rise in temperature of greater than 1°C), headache, flushing, anxiety, muscle pain.	Stop transfusion immediately. See section L.	Consider premedication with antipyretics.

REACTION	CAUSE	CLINICAL MANIFESTATIONS	MANAGEMENT	PREVENTION
			Give antipyretics as prescribed--avoid aspirin in thrombocytopenic patients.	
Mild Allergic	Sensitivity to foreign plasma proteins.	Flushing, itching, urticaria (hives).	Stop transfusion immediately. See section L. Transfusion may resume after antihistamine treatment, per provider discretion. Typical therapy includes administration of antihistamines.	Treat prophylactically with antihistamines. Saline-washed red cells, and/or platelets may be required for patients with recurrent reactions failing premedication strategies.
Anaphylactic	Severe allergic reaction to a plasma protein or infusion of IgA to an IgA deficient recipient who has developed IgA antibodies.	Anxiety, wheezing, progressing to cyanosis, shock, and possible cardiac arrest.	Stop transfusion immediately. See section L. Initiate CPR, if indicated. Have epinephrine ready for injection.	Premedication with antihistamines and corticosteroids may be considered. Saline-washed red blood cells and/or platelets may be necessary in severe cases. When Anti-IgA has been documented, products from IgA deficient donors may be considered.
Transfusion Associated Circulatory Overload (TACO)	Fluid administered faster than the circulation can accommodate.	Cough, dyspnea, pulmonary congestion (rales), headache, hypertension, tachycardia, distended neck veins.	Stop transfusion immediately. See section L. Place patient upright with feet in dependent position. Administer prescribed diuretics, oxygen, and morphine.	Adjust transfusion volume and rate based on patient size and clinical status. Order divided RBC's into smaller aliquots for better spacing of fluid input.

Sepsis	Transfusion of contaminated blood components.	Rapid onset of chills, high fever, vomiting, diarrhea, and marked hypotension and shock.	Stop transfusion immediately. See section L. Obtain culture of patient's blood. Send to Lab for further study. Treat septicemia as directed -- antibiotics, IV fluids, vasopressors, steroids.	Collect, process, store and transfuse blood products according to blood banking standards.
Transfusion Related Acute Lung Injury (TRALI)	Donor HLA or WBC antibodies attach to antigens on the recipient's WBC cells - one of the possible causes	Acute respiratory distress, bilateral pulmonary edema, hypoxemia, tachycardia, fever, hypotension, cyanosis, dyspnea, up to 6 hours post transfusion	Stop transfusion immediately. See section L. Give respiratory support as needed (oxygen supplementation, intubation, mechanical ventilation).	Permanent deferral of donors implicated in TRALI. Limit plasma components from multiparous women.

Addendum D: Transfusion Forms

Children's Hospital of Wisconsin®
A member of Children's Hospital and Health System.

TRANSFUSION SERVICE REQUISITION

DATE

NAME
LAST FIRST MI

SEX RACE

MEDICAL RECORD NUMBER

DATE OF BIRTH / /

VISIT NUMBER

REQUISITIONED BY M.D.			WEIGHT kg.
DIAGNOSIS			
STAT ☐	☐ FOR SURGERY DATE	☐ ml DATE TO BE GIVEN	☐ ON HAND
INDICATION (ANEMIA, BLEEDING, ETC.)			
☐ PATIENT HAS NOT BEEN TRANSFUSED AND / OR PREGNANT WITHIN THE LAST 3 MONTHS			
☐ WRITTEN CONSENT HAS BEEN OBTAINED AND/OR VERIFIED			

# OF UNITS	BLOOD PRODUCTS
	CELL MASS - ADULT 250 ± 50ml
	CELL MASS - PEDIATRIC 80 ± 15ml
	CELL MASS - MINI PEDIATRIC # _____ ml
	WHOLE BLOOD - ADULT 450 ± 45ml
	OTHER:

CHECK	SPECIAL REQUIREMENTS
	IRRADIATED
	CMV NEG
	LEUKO REDUCED
	SALINE WASHED
	DIRECTED DONOR
	AUTOLOGOUS
	OTHER:

	SPECIAL INSTRUCTIONS

# OF UNITS	COMMERCIAL PRODUCTS
	Factor VIIa NOVOSEVEN (Recombinant)
	Factor VIII HELIXATE FS/KEGONATE FS (Recombinant)
	HUMATE P (For von Willebrand Disease)
	OTHER:
	Factor IX BENEFIX (Recombinant)
	OTHER:
	Antithrombin III
	Other:

COMPUTER ACCESS NO.	BLOOD BANK NO.
PERSON DRAWING SAMPLE:	

PATIENT REPORT

ABORh
ANTIBODY SCREEN
ANTIBODY IDENTIFICATION
DIRECT ANTIGLOBULIN TEST

CHECK	SERVICES
	ABO & Rh
	TYPE & SCREEN
	CROSSMATCH
	NEONATAL CROSSMATCH
	ANTIBODY SCREEN (INDIRECT ANTIGLOBULIN TEST)
	DIRECT ANTIGLOBULIN TEST
	RBC PHENOTYPE
	ABO TITER
	OTHER

Time In Transfusion Service

LAB SERVICES PERFORMED BY TRANSFUSION SERVICE
THE BLOOD CENTER OF SOUTHEASTERN WISCONSIN
638 N. 18TH STREET MILWAUKEE, WI 53233

C2074N (4/05)

DT238

Original: 11/1992
Revised: 8/2/2021, 12/16/2021, 5/15/2023
Effective: 5/18/2023
Blood and Blood Components Verification Procedure, Administration and Monitoring/Process Owner: Blood Bank Manager

RECORD OF TRANSFUSION

NURSING SERVICE

PRE-TRANSFUSION BEDSIDE VERIFICATION

☐Yes ☐No	1. There is a current (valid) blood consent signed. N/A for emergency consent implied
☐Yes ☐No	2. Patient's name and D.O.B. on the form, unit label, and the patient's I.D. band are identical.
☐Yes ☐No	3. Unit number and ABO/Rh, when applicable, on the bag, form, and unit label match.
☐Yes ☐No	4. Donor blood and patient ABO/Rh are compatible.
☐Yes ☐No	5. Performed verification simultaneously by two transfusing personnel **at the bedside**
☐Yes ☐No	6. Performed bedside checks using a **read/read back** confirmation method.
☐Yes ☐No	7. Blood or blood component is **not** expired.
☐Yes ☐No	8. Checked **Transfuse Order** for type of product ordered and amount _____mL or unit(s) to be transfused (document amount in space above).
☐Yes ☐No	9. Product is irradiated. N/A for FFP, cryo, psoralen-treated platelets or emergency release
☐Yes ☐No	10. Visual inspection is okay.
11. Product meets patient special requirements: ☐ Yes ☐ No ☐ N/A Washed ☐ Yes ☐ No ☐ N/A Volume Reduction	

DO NOT TRANSFUSE IF THERE IS ANY DISCREPANCY-

Immediately return product to the Transfusion Service.

Check in signatures/initials:

Transfusionist: _____ Witness: _____

COMPLETE FOR UNCROSSMATCHED BLOOD

I certify that this patient's life would be endangered by waiting for routine compatibility testing. I accept all responsibility for this action.

_____, M.D.

(Attending physician's signature required)

TRANSFUSION SERVICE

Patient Information

Name:

MRN: **DOB:**

ABO,Rh:

Donor Information

ABO,Rh: **Unit:**

Comp: **Div:**

Compatibility Testing

Crossmatch:

Comment:

Patient Information

Name:

MRN: **DOB:**

ABO,Rh:

Donor Information

ABO,Rh: **Unit:**

Comp: **Div:**

Compatibility Testing

Crossmatch:

Comment:

FOR USE OUTSIDE THE OPERATING ROOM

Date/Time Started: _____/_____

Date/Time Completed: _____/_____

Discontinued by: _____

Amount Transfused: All_____ or Part _____ mL

Blood Warmer used: No____ Yes____, if Yes ____°C

FOR OPERATING USE ONLY

Check in signatures/initials:

Witness:_____ Witness:_____

Transfusionist:_____

Infusion volumes/times per anesthesia record

Transfusion of full unit completed in OR:

Yes **No**

If **No**, document time started: _____ and document Date/Time completed in **FOR USE OUTSIDE THE OPERATING ROOM** section.

Transfusion Service

MEDICAL RECORD-RETAIN IN CHART

Document No:	BCW.TS.FM-0008
Version:	9
Page:	Page 1 of 1

BLOOD PRODUCT TRANSPORT

Blood Bank Number:_____ Location: Addressograph	Blood/Blood Product Requested: (Specify):		
	Request Date:	Request Time:	Requested By:
	AKA Name:_____ AKA MRN:_____		

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Transfusion Service

Addendum E: Consent Forms

Children's Wisconsin

CONSENT FOR BLOOD/ BLOOD PRODUCT TRANSFUSION (ANNUAL)

PATIENT LABEL

I agree to the use of blood, blood products or both. The doctor will decide if it is needed.

The risks, benefits and alternatives of receiving blood or blood products have been explained to me.

Risks: I understand that there are risks such as fever, chills, itching and hives. I know that the blood bank takes many safety steps to match the blood and screen it for infections such as HIV and hepatitis.

Alternatives: The alternatives to transfusion, such as donating my/my child's own blood, receiving my/my child's own blood back, or having someone donate blood on my/my child's behalf have been explained to me.

Benefits: Anticipated benefits may include one or more of the following: stop bleeding, raise oxygen levels, and improve blood pressure to prevent death.

I have read this information. I hereby give my informed consent for blood and/or blood products under the terms stated above. I am legally able to sign for my child. By signing this form I give my permission for blood and/or blood product and agree to the terms listed above.

This consent is valid for continuous blood and/or blood products for a period not to exceed one year.

Signature: X _____ Relationship to Patient: _____
Patient, Parent or Legal Guardian

Date: _____ Time: _____ Phone Consent by: _____ / _____ / _____
Name Relationship to Patient Phone Number

_____ _____ _____ _____
Healthcare Team Witness to the Signature Date/Time Second Healthcare Team Witness to Phone Consent Date/Time

C1653N (11/13) DT649

Children's Wisconsin

CONSENTIMIENTO PARA TRANSFUSIÓN DE SANGRE O DE PRODUCTOS SANGUÍNEOS

PATIENT LABEL

Yo, comprendo que mi niño/yo podemos necesitar una transfusión de sangre y/o uno de sus productos durante el tratamiento. Esto fue determinado por uno de los médicos del equipo profesional de CHW basado en su juicio de los beneficios potenciales dado las necesidades individuales mías o las de mi hijo.

Me explicaron los riesgos, los beneficios y las alternativas de recibir sangre o productos sanguíneos.

Riesgos: Incluyen fiebre, salpullido, shock (baja en la presión sanguínea), reacción alérgica, daño a los riñones dañados, falta de aire, infección, y en circunstancias poco frecuentes, transmisión de enfermedades infecciosas tales como la hepatitis, o el SIDA. Entiendo que el banco de sangre toma precauciones para examinar a los participantes y para encontrar la sangre que corresponda a las transfusiones para minimizar los riesgos. Para mejorar la seguridad de nuestros productos de sangre, se les hacen nuevas pruebas no exigidas por la FDA. Ocasionalmente, productos de sangre especificados pueden ser transfundidos antes de llevar a cabo las pruebas preliminares. Su médico tratante podría determinar que no recibir el producto de sangre puede causarle a usted o a su hijo mayor riesgo que recibir un producto de sangre en la cual no se ha terminado de hacer pruebas, pruebas normalmente exigidas por la FDA para enfermedades infecciosas se realizarán antes de autorizar los productos sanguíneos.

Alternativas: Se me han explicado las alternativas a la transfusión, tales como donar mi sangre o la de mi hijo, recibir mi propia sangre o la de mi hijo, o que otra persona done sangre para mí o para mi hijo. Entiendo los riesgos y consecuencias de no recibir esta terapia, como anemia severa, hemorragias o la muerte.

Beneficios: Los resultados esperados podrían incluir uno o más de lo siguiente: Aumento en la oxigenación, prevención o detención de hemorragias, control de la presión sanguínea, mejora en el flujo sanguíneo, prevención de infecciones y mantenimiento de la vida.

Consiento voluntariamente en la sangre / los productos de sangre pedidos para mí o para mi hijo. Entiendo los contenidos de esta hoja y cualquier pregunta que yo tuve fue contestada adecuadamente por el médico antes de firmar.

Este es un paciente que ha sido transfundido crónicamente. Este consentimiento estará vigente por un periodo que no exceda un año.

Fecha:_____ A.M. P.M. (Time) Firma:_____
Paciente tutor

Testigo: _____ _____
Relación con el paciente

Informé al paciente o a su tutor sobre la disponibilidad de alternativas, modos viables de tratamiento médico y los beneficios y riesgos de cada uno de ellos. El paciente o su tutor recibieron toda la información necesaria para dar un consentimiento informado a los procedimientos propuestos.

_____
Firma del profesional médico tratante* Fecha Hora (Requerido)

* Profesional médico incluye: Médico tratante, Asociado Médico, Enfermera de Practica Avanzada (EPA), Enfermera de Practica Avanzada de atención directa (EPA/EDA) o Residente.

Children's Wisconsin

PATIENT LABEL

CONSENT FOR BLOOD/BLOOD PRODUCT TRANSFUSION (ENCOUNTER RELATED)

I agree to the use of blood, blood products or both. The doctor will decide if it is needed.

The risks, benefits and alternatives of receiving blood or blood products have been explained to me.

Risks: I understand that there are risks such as fever, chills, itching and hives. I know that the blood bank takes many safety steps to match the blood and screen it for infections such as HIV and hepatitis.

Alternatives: The alternatives to transfusion, such as donating my/my child's own blood, receiving my/my child's own blood back, or having someone donate blood on my/my child's behalf have been explained to me.

Benefits: Anticipated benefits may include one or more of the following: stop bleeding, raise oxygen levels, and improve blood pressure to prevent death.

I have read this information. I hereby give my informed consent for blood and/or blood products under the terms stated above. I am legally able to sign for myself/ my child. By signing this form I give my permission for blood and/or blood product and agree to the terms listed above.

Signature: X _____ Relationship to Patient: _____
Patient, Parent or Legal Guardian

Date: _____ Time: _____ Phone Consent by: _____ / _____ / _____
Name Relationship to Patient Phone Number

_____ _____
Healthcare Team Witness to the Signature Date/Time Second Healthcare Team Witness to Phone Consent Date/Time

C7961N (06/17) DT585

Children's Wisconsin

PATIENT LABEL

CONSENTIMIENTO PARA TRANSFUSIÓN DE SANGRE O DE PRODUCTOS SANGUINEOS (ENCUENTRO RELACIONADOS)

Yo, comprendo que mi niño/yo podemos necesitar una transfusión de sangre y/o uno de sus productos durante el tratamiento. Esto fue determinado por uno de los médicos del equipo profesional de CHW basado en su juicio de los beneficios potenciales dado las necesidades individuales mías o las de mi hijo.

Me explicaron los riesgos, los beneficios y las alternativas de recibir sangre o productos sanguíneos.

Riesgos: Incluyen fiebre, salpullido, shock (baja en la presión sanguínea), reacción alérgica, daño a los riñones dañados, falta de aire, infección, y en circunstancias poco frecuentes, transmisión de enfermedades infecciosas tales como la hepatitis, o el SIDA. Entiendo que el banco de sangre toma precauciones para examinar a los participantes y para encontrar la sangre que corresponda a las transfusiones para minimizar los riesgos. Para mejorar la seguridad de nuestros productos de sangre, se les hacen nuevas pruebas no exigidas por la FDA. Ocasionalmente, productos de sangre especificados pueden ser transfundidos antes de llevar a cabo las pruebas preliminares. Su médico tratante podría determinar que no recibir el producto de sangre puede causarle a usted o a su hijo mayor riesgo que recibir un producto de sangre en la cual no se ha terminado de hacer pruebas, pruebas normalmente exigidas por la FDA para enfermedades infecciosas se realizarán antes de autorizar los productos sanguíneos.

Alternativas: Se me han explicado las alternativas a la transfusión, tales como donar mi sangre o la de mi hijo, recibir mi propia sangre o la de mi hijo, o que otra persona done sangre para mí o para mi hijo. Entiendo los riesgos y consecuencias de no recibir esta terapia, como anemia severa, hemorragias o la muerte.

Beneficios: Los resultados esperados podrían incluir uno o más de lo siguiente: Aumento en la oxigenación, prevención o detención de hemorragias, control de la presión sanguínea, mejora en el fluio sanguíneo, prevención de infecciones y mantenimiento de la vida.

Consiento voluntariamente en la sangre / los productos de sangre pedidos para mí o para mi hijo. Entiendo los contenidos de esta hoja y cualquier pregunta que yo tuve fue contestada adecuadamente por el médico antes de firmar.

Firma: X_____
Paciente, padre, madre o tutor legal

Parentesco con el paciente:_____

Fecha:_____ **Hora:**_____

Consentimiento por teléfono: ☐ **Sí** _____
Parentesco con el paciente

_____
Testigo de CHHS para la firma

_____
Segundo testigo de CHHS para el consentimiento por teléfono

Informé al paciente o a su tutor sobre la disponibilidad de alternativas, modos viables de tratamiento médico y los beneficios y riesgos de cada uno de ellos. El paciente o su tutor recibieron toda la información necesaria para dar un consentimiento informado a los procedimientos propuestos.

_____ _____ _____
Firma del profesional médico tratante* Fecha Hora (Requerido)

* Profesional médico incluye: Médico tratante, Asociado Médico, Enfermera de Practica Avanzada (EPA), Enfermera de Practica Avanzada de atención directa (EPA/EDA) o Residente.

Plate: Black