MEDICAL CENTER OF LOUISIANA
Organizational-wide Policy Signature Sheet

MEDICAL ADMINISTRATION

POLICY NUMBER:  5022

POLICY TITLE:  Blood and Blood Component Use, Handling, Distribution and Administration

EFFECTIVE DATE:  February 23, 1989   Last Revision Date: June 17, 2002

INQUIRIES TO:  Medical Director, Tel: (504) 903-3493

APPROVED:  Dwayne Thomas, M.D.,
Interim Chief Executive Officer and Medical Director

REVIEW/REVISION DATES:

<table>
<thead>
<tr>
<th>June 10, 1993</th>
<th>November 30, 1996</th>
<th>December 5, 1999</th>
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<tr>
<td>March 27, 2000</td>
<td>March 12, 2001</td>
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New and/or revised information since last revision is underlined for easy reference.
I. POLICY STATEMENT

It is the policy of the Medical Center of Louisiana (MCL) that blood and blood components administered to patients shall be provided in accordance with the procedures outlined within this policy which were developed and approved by the MCL Medical Executive Committee. Any deviation from these procedures is expressly prohibited.

II. INDICATIONS FOR TRANSFUSION OF BLOOD AND BLOOD COMPONENTS

A. The use of blood and blood components for adult and pediatric patients shall be based upon the clinical evaluation and judgement of the MCL clinical staff. The following are general guidelines for the use of blood and blood components:

- packed red blood cells may be given when the pre-transfusion hematocrit level is less than or equal to 24% or the hemoglobin level is less than or equal to 8 grams per deciliter (dl). It is recognized that patients with hematocrit and hemoglobin levels greater than these values who have co-morbid conditions may need a packed red blood cell transfusion. Unstable actively bleeding patients with normal hematocrit and hemoglobin levels may need also need transfusion. In emergency situations, it may not be possible to obtain pre-transfusion hemoglobin values.

- fresh frozen plasma may be given for a prothrombin (PT) level greater than or equal to 18 seconds or partial thromboplastin (PTT) time level greater than or equal to 50 seconds. Actively bleeding patients with suspected coagulopathy may be transfused with fresh frozen plasma before lab values are available.

- platelets may be given when the platelet count is less than 20,000. Platelet transfusion may be appropriate when the platelet count less than or equal to 50,000 in anticipation of an invasive procedure. Actively bleeding patients with possible qualitative platelet abnormalities may need a platelet transfusion at any platelet value.

B. Utilization of blood and blood components shall be monitored through the performance improvement activities of the clinical departments and the MCL Transfusion Review Committee, a subcommittee of the Medical Executive Committee.
III. HANDLING OF BLOOD SAMPLES

A. Labeling, Drawing, and Submitting Blood Samples for Crossmatch

For procedures relating to labeling, drawing and submission of blood samples for crossmatching, please refer to the Blood Component Administration Policy from the Division of Patient Care Services Standards of Clinical Nurse Practice Manual (See Attachment II).

B. Unacceptable Crossmatch Samples

Blood samples drawn for crossmatch purposes shall be rejected by the MCL Blood Bank as unacceptable for testing when the following conditions are present:

› a discrepancy between the Typenex label and the patient information on the request form and/or the MCL Laboratory Information System (LIS) when the LIS information is determined to be correct
› the absence of the staff member’s name who collected the blood sample from the Typenex band or the request form
› a discrepancy between the name in the “collected by” blank on the request form and the collector's name on the blood tube
› the accidental removal of the current Typenex band from the patient
› hemolyzed serum caused by mechanical trauma.

C. Submitting More than One Tube of Blood on a Patient at the Same Time

If more than one tube of blood is submitted for the same patient at the same time, one tube shall be labeled with the complete Typenex system label. The subsequent tube(s) shall have all information written on an addressograph label or similar label and a Typenex sticker placed on the subsequent tube(s). All tubes can accompany one requisition.

D. Transfer of Typenex Labeled Patient Samples Between Campuses

Upon notification by the patient’s health care provider that the patient is to be transferred from one campus of MCL to the other, the MCL Blood Bank shall facilitate the transfer of the patient’s Typenex labeled blood sample. The MCL Blood Bank is responsible for all documentation regarding the transfer of the specimen. Due to the length of time needed to expedite the specimen transfer, an analysis may be necessary to evaluate the need to draw another Typenex labeled specimen if the patient’s clinical situation so warrants.
E. Requesting Additional Components

If additional components are required for a patient, an order for additional components shall be placed using the MCL computer system. The patient’s Typenex armband number shall be recorded in the MCL computer system at the appropriate prompt. Areas of MCL without the ability to transmit orders via the MCL computer system shall use the Request for Crossmatch form (See Exhibit I).

F. Medical Emergency Situations

1. In an emergency situation when an error on the patient's blood sample is noted, and the time to procure another sample is deemed detrimental to the welfare of the patient by the physician, the Typenex identification system may be used in place of the routine identification system.

2. The following steps shall be taken by the MCL Blood Bank staff:
   - Document on the request form that the situation justifying the emergency action does truly exist. Record the name of the person declaring the emergency status.
   - Inform the responsible care giver who declared the emergency status that:
     a. the method of identification shall be the Typenex band only.
     b. issued blood shall be uncrossmatched. The MCL Blood Bank shall send an Emergency Request for Uncrossmatched Blood form (See Exhibit II) with the units which must be signed by the ordering physician.
     c. a new properly labeled Typenex sample must be obtained as soon as possible. Record on the request form that the identification shall be made by Typenex only.
   - Attach the comment IDTYPX to indicate, “identify the patient by Typenex number only” to all red cell units to be issued.
   - Emergency issue requested units.
   - Procure properly labeled sample as soon as feasible, crossmatch the blood and follow procedures as usual
   - Record the above information in LIS if patient’s medical record number is known. If the patient’s medical record number is unknown, the work shall be completed manually
   - record all MCL Blood Bank work on manual requisition and generate manual bag tags.

3. If the emergency is acute, and the patient's MCL identification bracelet is either missing or displays incorrect information and a new MCL identification bracelet cannot be obtained due to the urgency of the situation, staff from the clinical area
shall:
- note procedures to use in Medical Emergency Situations (Section III. F of this policy)
- band the patient with a Typenex wrist band and draw the sample. No name or medical record number will be on the Typenex wrist band
- submit an Emergency Request for Uncrossmatched Blood form (See Exhibit II) with the blood sample to the MCL Blood Bank. All forms must have a Typenex sticker attached to properly identify the patient. The Emergency Request for Uncrossmatched Blood form (See Exhibit II) must be signed by the ordering physician.

MCL Blood Bank staff shall:
- write “identification is by Typenex only” on the Emergency Request for Uncrossmatched Blood form (See Exhibit II)
- record all MCL Blood Bank work on manual requisition and generate manual bag tags.

4. If the emergency prevents drawing a blood sample and the request is for O negative red blood cells:
- band the patient with the Typenex wrist band
- call the MCL Blood Bank and report the patient’s name, medical record number and Typenex number
- the MCL Blood Bank shall write on the request form that identification shall be made by Typenex number only, if the patient’s name and medical record number are unknown, then attach the comment IDTYPX to indicate “identify the patient by Typenex number only” to all red cell units to be issued.

IV. DISTRIBUTION OF BLOOD OR BLOOD COMPONENTS

A. Routine Distribution of Blood or Blood Components

To ensure accurate patient identification, all couriers transporting blood or blood components must present an MCL Blood Bank Issue Form (See Exhibit III). Prior to issue, the unit numbers of all components to be issued must be written both on the MCL Blood Bank Issue Form (See Exhibit III) and on the MCL Blood Bank paperwork. These numbers must correspond exactly. The completed Blood Component Transfusion Report Form (See Exhibit IV) will be firmly attached to the bag containing the component to be issued and must not be detached at any time after issue until transfusion is completed.

After transfusion has been completed, the original Blood Component Transfusion Report Form (See Exhibit IV) shall be placed within the patient’s medical record. The lab copies shall be returned to the MCL Blood Bank.
B. Forms Needed for Distribution of Blood or Blood Components

Requisition for Crossmatch

Areas of MCL with the ability to transmit orders via the MCL computer system shall use the MCL computer system to place orders for crossmatch. See Exhibit V as an example.

Areas of MCL without the ability to transmit orders via the MCL computer system shall use the Request for Crossmatch form (See Exhibit I).

MCL Blood Bank Issue Form

The MCL Blood Bank Issue Form (See Exhibit III) shall be used by both campuses of MCL.

On the Charity Campus:
The patient care area shall call the MCL Blood Bank at 903-0365 for the courier service to deliver the requested blood component to the patient care area.

On the University Campus:
The patient care area must present an MCL Blood Bank Issue Form (See Exhibit III) to the MCL Blood Bank via courier.

The MCL Blood Bank must have a legibly completed MCL Blood Bank Issue Form (See Exhibit III) to provide blood component(s).

Both MCL Blood Bank couriers and patient care area couriers are permitted to deliver blood components for only ONE patient at a time.

General patient care units/wards may request one unit of red cells at a time. Emergency Department areas, operating rooms, delivery rooms, the dialysis unit, critical care areas, including the MICUs, SICUs, PICU, Neuro ICU, PACU and Nursery Level III, intermediate care areas including the MICA, SICA and Nursery Level II, may request multiple units.

The patient's name and medical record number must match exactly on the MCL Blood Bank Issue Form (See Exhibit III) and corresponding MCL Blood Bank paperwork/Laboratory Information System.
Blood Component Transfusion Report

The Blood Component Transfusion Report Form (See Exhibit IV) shall be generated by the Laboratory Information System (LIS). One form is necessary for each component requested and each separate unit of pooled products. A copy of the Blood Component Transfusion Report Form (See Exhibit IV) shall be returned to the MCL Blood Bank upon completion of the transfusion.

Emergency Release of Uncrossmatched Blood

An Emergency Request for Uncrossmatched Blood form (See Exhibit II) must be used on both campuses of MCL and must include the following information before the blood is released from the MCL Blood Bank:

- number of units requested
- patient's name, medical record number and Typenex number
- legibly printed physician's name - signature can be obtained at a later time
- the donor unit numbers released
- the ABO blood group and Rh of the donor units
- the signature of tech and courier, date and time.

When an Emergency Request for Uncrossmatched Blood form (See Exhibit II) is generated, a Type and Match - RBC Available shall also be sent to the MCL Blood Bank via the MCL computer system or a completed Request for Crossmatch form (See Exhibit I), as appropriate, as soon as the Typenex specimen is drawn.

Notice to Outpatients Who Have Received Blood or Components Form

A Notice to Outpatients Who Have Received Blood or Components form (See Exhibit VI) must be issued and explained to patients who receive blood or blood components on an outpatient basis. The Notice to Outpatients Who Have Received Blood or Components form (See Exhibit VI) provides a detailed listing of possible reactions to the blood or blood component transfusion and care instructions if any of these reactions should occur. Each patient and transfusionist must sign and date the form in the appropriate areas. One copy should be given to the patient. The second copy should become part of the patient’s medical record.

C. Issuance of Derivatives (Albumin, Plasma Protein Fraction [PPF], Factor VIII, Factor IX)

1. Requests shall be made via the MCL computer system, where applicable.
2. Initial requests for Factor VIII or Factor IX on new patients require MCL Blood Bank physician approval.

3. Plasma Protein Fraction (PPF) shall be issued in 50ml vials ONLY to pediatric patients under one year old.

4. The lot numbers of commercial blood products such as Albumin, Factor VIII and Factor IX must be recorded by the clinical staff in the patient’s medical record on the Multiple Blood and Blood Component Transfusion Sheet (See Exhibit VII).

5. The Blood Component Transfusion Report Form (See Exhibit IV) shall be generated by the Laboratory Information System (LIS). One form is necessary for each vial of the derivative issued. A copy of the Blood Component Transfusion Report Form (See Exhibit IV) shall be returned to the MCL Blood Bank upon completion of the transfusion.

D. Solvent Detergent Treated Plasma (PLAS + SD)

1. PLAS + SD shall be ordered as fresh frozen plasma with a notation that PLAS + SD has been specifically requested.

2. The Blood Component Transfusion Report Form (See Exhibit IV) shall be generated by the Laboratory Information System (LIS). One form is necessary for each component requested and/or each unit of pooled products. A copy of the Blood Component Transfusion Report Form (See Exhibit IV) shall be returned to the MCL Blood Bank upon completion of the transfusion.

V. ADMINISTRATION OF BLOOD OR BLOOD COMPONENTS

Only blood issued by the MCL Blood Bank shall be administered to MCL patients. ALL unused blood components, including those accompanying patients who are transferred into MCL from other healthcare facilities, must be sent to the MCL Blood Bank for evaluation. Administration of blood must comply with the Blood Component Administration Policy from the Division of Patient Care Service Standards of Clinical Nurse Practice Manual (See Attachment II).

As a general rule, any blood product, including but not limited to, packed red cells, fresh frozen plasma, platelets, cryoprecipitate, albumin or clotting factors, brought into MCL by a patient or any individual accompanying a patient shall not be administered by MCL personnel, nor shall MCL personnel facilitate such administration by provision of supplies or equipment; however, due to the rarity of some blood products not routinely stocked by
the MCL Blood Bank, it may be necessary to allow the use of the blood product brought into MCL by a patient or an individual accompanying the patient until the MCL Blood Bank is able to obtain the needed product.

Should this situation occur, the blood product in question **must** be brought to the MCL Blood Bank so that the lot number and other identifying data can be properly recorded. The MCL Blood Bank shall maintain the blood product in storage until a physician’s order is received requesting the administration of the blood product. If needed, the patient’s physician may consult the Hematology hospital service to assist with the determination of the appropriate blood product to be used and the dosage.

**Prior to administering any blood products brought into MCL by a patient or any individual accompanying a patient,** the patient’s physician must complete a Release of Liability for the Administration of Blood Products not Originating from the Medical Center of Louisiana Blood Bank form (See Exhibit VIII). The patient receiving the blood product brought into MCL or the patient’s authorized representative must sign a Release of Liability for the Administration of Blood Products not Originating from the Medical Center of Louisiana Blood Bank form (See Exhibit VIII) acknowledging that MCL is not responsible for any changes in the quality, purity, safety, potency or sterility of the blood product resulting from its storage and handling before its arrival at MCL.

Release of Liability for the Administration of Blood Products not Originating from the Medical Center of Louisiana Blood Bank forms (See Exhibit VIII) shall be stored in the MCL Blood Bank. A physician anticipating the use of a non-MCL obtained blood product shall:

- obtain a Release of Liability for the Administration of Blood Products not Originating from the Medical Center of Louisiana Blood Bank form (See Exhibit VIII) from the MCL Blood Bank
- complete the information requested on the Release of Liability for the Administration of Blood Products not Originating from the Medical Center of Louisiana Blood Bank form (See Exhibit VIII) including the possible risks and alternative treatment
- review the form and its contents with the patient or the patient’s authorized representative
- obtain the signature of the patient or the patient’s authorized representative
- return the completed Release of Liability for the Administration of Blood Products not Originating from the Medical Center of Louisiana Blood Bank form (See Exhibit VIII) to the MCL Blood Bank.

Staff from the MCL MCL Blood Bank shall issue the blood product with the original completed, signed Release of Liability for the Administration of Blood Products not Originating from the Medical Center of Louisiana Blood Bank form (See Exhibit VIII) which must be placed within the patient’s medical record. The blood product may then be administered to the patient per the physician’s orders and according the procedures
outlined within this policy. A copy of the completed, signed Release of Liability for the Administration of Blood Products not Originating from the Medical Center of Louisiana Blood Bank form (See Exhibit VII) shall be maintained within the MCL Blood Bank.

In an emergency situation, the patient’s attending staff physician is responsible for making the decision regarding the emergency administration of a blood product brought into MCL by the patient or an individual accompanying the patient and not routinely stocked within the MCL Blood Bank. If the blood product is used in an emergency situation, the empty container with its identifying information shall be sent to the MCL Blood Bank for appropriate documentation.

Any situation falling outside these guidelines or questions regarding this procedure should be referred to and managed by the Medical Director of the MCL Blood Bank.

VI. INVESTIGATION OF ADVERSE TRANSFUSION REACTIONS OR ERRORS

A. Transfusion reactions are defined within the Blood Component Administration Policy from the Division of Patient Care Services Standards of Clinical Nurse Practice Manual (See Attachment II).

B. The MCL Blood Bank physician shall be notified promptly by MCL Blood Bank staff when a possible adverse reaction to blood or blood components is reported.

C. The procedure to follow in the event of an adverse reaction can be found in the Blood Component Administration Policy from the Division of Patient Care Services Standards of Clinical Nurse Practice Manual (See Attachment II) AND on the bottom of the patient's medical record copy of the Blood Component Transfusion Report form (See Exhibit IV), the bag tag, attached to the blood component.

D. A hemolytic transfusion reaction involving the administration of blood or blood components is considered a sentinel event and should be reported by the MCL Blood Bank Medical Director and a member of the patient’s clinical team to the Department of Risk Management by the close of the next business day by calling 903-0323. Voice mail is available 24 hours a day, 7 days a week. Please refer to MCL Policy 5067 - Reporting Suspected Sentinel Events for complete details. The MCL Blood Bank Medical Director shall also report any hemolytic transfusion reaction to the Medical Director of Pathology Services as soon as possible.

E. All transfusion related deaths must be reported to the Food and Drug Administration (FDA) by telephone within one (1) working day and in writing within seven (7) days by staff within the Department of Risk Management. A member of the patient’s clinical team and the MCL Blood Bank Medical Director should contact the Department of Risk Management by the close of the next business day by calling 903-
F. Documentation and Evaluation of Transfusion Reactions and/or Transfusion Errors

1. Transfusion reactions shall be recorded on the Confidential Medication Variance Report (See Exhibit IX) and a Record of Transfusion Complication form (See Exhibit X). Both the Confidential Medication Variance Report (See Exhibit IX) and the Record of Transfusion Complication (See Exhibit X) shall be forwarded to the MCL Blood Bank along with the post-transfusion reaction blood sample, remaining component, blood tubing and IV solution hung with the blood for an investigation.

2. Transfusion errors shall be recorded on the Confidential Medication Variance Report (See Exhibit IX) and forwarded to the MCL Blood Bank for further investigation. Transfusion errors include all deviations from this policy inclusive of, but not limited to:
   - incorrect physician order
   - improper labeling
   - improper consent
   - inappropriate transfusionist
   - improper patient identification
   - transfusion without appropriate filter
   - additives to blood or blood component not approved by the MCL Blood Bank
   - administration of blood or blood components not processed by the MCL Blood Bank or blood inappropriately refrigerated
   - administration of blood or blood component with solution other than normal saline. ABO - compatible plasma, 5% Albumin or Plasma Protein Fraction (PPF) may be used with approval of the patient’s physician
   - administration of red blood cells/whole blood exceeding four (4) hours transfusion duration
   - deviation from appropriate monitoring of patient during transfusion
   - any situation wherein an issued blood component is not transfused and that component cannot be returned to the MCL Blood bank inventory for re-issue.

VII. TRANSFUSION REVIEW COMMITTEE INVESTIGATION PROCEDURES

A. The Transfusion Review Committee must receive and evaluate all reports of transfusion reactions and transfusion errors regardless of the severity of the score recorded on the Confidential Medical Variance Report (See Exhibit IX).

B. In the case of life threatening transfusion events, the Director of the MCL Blood Bank or designee shall immediately inform the patient's primary physician and document the occurrence on the patient's medical record.
C. A hemolytic blood reaction is considered a sentinel event, therefore the Director of the MCL Blood Bank or designee must report any hemolytic transfusion reaction to the Department of Risk Management by the close of the next business day by calling 903-0323. Voice mail is available 24 hours a day, 7 days a week. The Director of the MCL Blood Bank or designee must also notify the MCL Medical Director by the close of the next business day of any hemolytic transfusion reactions.

D. All significant transfusion events shall be documented, investigated and reported to the Transfusion Review Committee. Documentation shall include the corrective actions taken and all results.

VIII. REVIEW OF BLOOD AND BLOOD COMPONENTS USAGE

The Transfusion Review Committee shall monitor the usage of blood and blood components on a regular basis and shall review the findings collected by the Department of Quality Management from the primary and secondary chart review process for inappropriate blood components used.
I. STANDARD STATEMENT:
The patient can expect to be informed of the need for the transfusion, its relative risks, expected potential benefits, and alternatives, if any, so that an informed consent can be given. The patient can also expect that appropriate blood component therapy will be initiated for their particular clinical need and only at their physician’s request.

The patient can also expect the transfusion to be given with a sterile, pyrogen-free transfusion set designed to retain potentially harmful particles. The patient will be monitored for the signs and symptoms of a transfusion reaction, but will also be educated by medical staff with reinforcement by the Registered Nurse or Certified Clinical Perfusionist (CCP), as to the signs and symptoms of a reaction.

II. STANDARD OF PROFESSIONAL PRACTICE
Blood, blood components, and blood derivatives must be handled and stored in accordance with Hospital, Division of Patient Care, and Blood Bank policies to ensure safe and correct administration and handling. Physicians, Registered Nurses (RN), and CCP may act as transfusionists. Licensed Practical Nurses may be delegated monitoring of established transfusions.

For Rh Immune Globulin (RIG) administration, refer to the Perinatal/GYN Services Standards of Clinical Practice, section A. #3.
III. EXPECTED OUTCOMES

A. To provide standards for administering blood, blood components, and blood derivatives in accordance with Medical Center of Louisiana policy.

B. To delineate duties and responsibilities associated with blood component/derivative therapy.

C. To educate patient/significant other as to the importance of:
   1. Maintaining position of extremity;
   2. Reporting symptoms of reaction such as rash, flushed feeling, chills, shortness of breath, and chest pain;

IV. GUIDELINES

A. Appropriate universal precautions shall be utilized.

B. The physician must write the order for the type, crossmatch (when red cells are needed), and transfusion. The order must include:
   1. Date
   2. Time
   3. Blood product to be administered
   4. Amount of product
   5. Rate of flow (not to exceed 4 hours – refer to G below)

C. The physician is responsible for obtaining an informed consent and for explaining to the patient or legal guardian the reason for the transfusion as well as the benefits expected from the transfusion, risks, and alternatives as outlined on the consent form. The patient or legal guardian must sign the consent form. This form must be appropriately dated and witnessed. The consent form is valid for 30 days.

In developing urgent/emergency situations when the patient or legal guardian cannot give consent, the treating physician shall document in writing the indications for the transfusion. Two (2) physicians are to sign indicating they are in agreement. Nursing personnel will administer the transfusion only when the above steps are completed.

D. Only a physician, RN, CCP, or lab phlebotomist may draw blood samples for submission to the Blood Bank. The person who draws the blood sample must be the same person whose signature appears in the “collected by” space on the requisition for blood and the “PB” space on the Typenex arm band.

E. Blood and its components may only be stored in Blood Bank controlled and monitored refrigerators. Improper storage may cause hemolysis of the red cells and/or bacterial contamination. (exception: the UH OR where the tracking form is used).

F. Only authorized transfusionists (registered nurses, certified clinical perfusionists, and physicians) shall hang blood, blood components, or blood derivatives.

G. Each unit of red blood cells and/or whole blood must be given within four hours. Unless otherwise indicated, the rate should be adjusted to 40-60 ml/hr. for the first 15 minutes of the transfusion. Refer to procedure section V.B. #10.
For neonates, pediatric patients, and patients for whom fluid overload (cardiac compromise) would be a consideration, and ability to absorb a full component over four hours is questionable, ask the Blood Bank to divide the unit into amounts appropriate to deliver within four hours.

H. Each unit of blood or blood component received from the Blood Bank will be accompanied by a Blood Component Transfusion Report Form. The Blood Component Transfusion Report Form (HCSD MR 000001) MUST REMAIN ATTACHED to the blood component bag until the transfusion is completed. Positive identification of the recipient and blood container shall be documented on the Blood Component Transfusion Report Form prior to hanging the component.

The unit number of all blood components (RBC’s platelets, etc.) and the lot number of all commercially prepared blood products (factor VIII, albumin, etc.) must be recorded on the Nursing Progress Record (MCLN 0316Z) prior to transfusing.

I. Normal Saline, ABO compatible plasma, 5% Albumin and Plasma Protein Fraction are the only solutions, which may be used when administering blood/blood components.

J. NO medications or solutions, except as indicated in I above, may be added to blood or its components.

K. Piggybacking of medication(s) into the blood IS NOT acceptable.

L. Accurate I&O shall be documented on all patients receiving blood.

M. The Registered Nurse, CCP, or physician shall assess the patient and document vital signs (BP, temperature, pulse, and respiration) pretransfusion and 15 minutes after the transfusion has begun. The LPN may then be delegated the hourly monitoring of vital signs during and upon completion of the transfusion. Signs and symptoms of a transfusion reaction and/or change in the patient’s condition must be immediately reported to the Registered Nurse and Physician.

N. When a physician acts as a transfusionist in lieu of a nurse, the nurse shall be responsible for ensuring that the appropriate paperwork and documentation is completed.

O. If a blood component cannot be hung within 30 minutes of the issue time, the component must be returned to the Blood Bank so that it can be reused when needed. An unused blood component returned to the Blood Bank greater than 30 minutes past the issue time cannot be reissued. It can be kept in the patient care area and used on the original patient for whom it was issued as long as the blood component is completely infused within four hours of the original issue time.

P. The patient should remain in the same area for 30 minutes after blood is hung; the patient should remain under observation for at least one (1) hour prior to discharge.

Accepted variances to the 30 minute observation time would include patients transferred from the Emergency Department to the Operating Room or patients moved from the Operating Room to the Post Anesthesia Care Unit, for example.

Q. The Blood Bank will release multiple units of blood at one time only in an emergency and as ordered by a physician.
R. Requests for uncrossmatched blood will only be granted in an emergency and with responsibility for such documented by physician signature on the Emergency Request for Uncrossmatched Blood (MCLN0805). In extreme life threatening situations, it will be permissible for the RN to write the ordering physician’s name on the MCLN 0805, however, it will be the Blood Bank’s responsibility to obtain the actual physician’s signature as required by FDA. Presence of this completed form in the patient’s medical record may be considered the physician’s order to transfuse.

S. Platelets, Fresh Frozen Plasma, and Cryoprecipitate must be requested approximately 30 minutes prior to administration time to allow for preparation of the product. This request must be handled verbally and followed by an A2K requisition. A current blood type determined with a Typenex labeled sample must be on record.

When transfusing patients who require irradiated blood components such as Red Blood Cells and Platelets, allow two (2) hours preparation time.

T. The individual accepting a blood product from the Blood Bank must sign and indicate date and time received on the Blood Component Transfusion Report Form (HCSD MR 000001).

II. Filters:
1. Standard filters (those in blood transfusion sets and filter syringe sets/neonatal transfusions) must be used in the transfusion of ALL blood components (i.e. red blood cells, platelets, plasma, cryoprecipitate, granulocytes, etc.).

2. Microaggregate filters are not indicated for routine transfusions.

Microaggregate and leukocyte reduction filters are contraindicated when infusing granulocyte preparations. This information prints to the Blood Component Transfusion Report Form.

The use of microaggregate filters for neonatal transfusions is superfluous, since microaggregates do not accumulate significantly in blood stored less than one week.

3. Leukocyte reduction filters (third generation blood filters) are mandatory for patients (i.e. sickle cell patients, leukemias...) in need of leukocyte reduced blood components. Be sure to use the correct type of filter for RBCs and Platelets because they are different. Follow all manufacturers’ directions.

4. Filters should be changed in accordance with the manufacturer’s directions.

V. A Transfusion Reaction is any adverse symptom or physical sign occurring during or following a transfusion of blood or its components. Responsibility for recognizing a reaction rests with the transfusionist, who may be a nurse, CCP, or a physician. At a minimum, an increase in temperature of more than 1°C or 50 mm Hg change in systolic blood pressure may be signs of a transfusion reaction.

W. A Transfusion Error includes all deviations from this policy.

X. Prior to resumption of intravenous fluids, the tubing must be changed in its entirety.

Y. If blood is to be warmed, a FDA approved warming device must be used, and the warming shall not cause hemolysis of the cells.
Z. A Registered Nurse or a CCP can administer un-crossmatched blood ("emergency released blood") with the physician’s order.

NOTE: Any additional information regarding specifics on blood component administration (i.e. cryoprecipitate, platelets, etc.) can be found in the MCLNO Laboratory Manual. Refer additional questions to the Blood Bank at Charity Hospital, extension 568-3505 or University Hospital, extension 588-3951.

AA. Upon approval of the Blood Bank Medical Director, non-typed specific components may be prepared for patients (Rh positive RBCs for Rh negative patients).

V. PROCEDURE INSTRUCTIONS

A. EQUIPMENT LIST

- Computer Generated Blood Bank Lab Requisition
- Informed Consent Material Risks Hematoc & Lymphatic System (MCLN 1405K)
- Multiple Blood & Blood Component Transfusion Report (HCSD MR 00001)
- Disclosure/Consent) Medical & Surgical Procedures (MCLN 1405)
- Typenex Blood Recipient Identification Band
- Tape
- 18-20 Gauge catheter for adults or gauge appropriate for pediatric patients (22-24g)
- Microaggregate Blood filter (optional)
- Y-tubing transfusion set with filter (mandatory)
- Truniquet or BP cuff
- - Alcohol prep or iodophor prep
- - Sterile 4x4 sponges
- - IV pole
- - Normal saline
- - Filter/syringe set (neonates)

B. INSTRUCTIONS: STEPS

Type and Crossmatch
1. Gather equipment and identify patient. Have patient state name.

2. Order the specified product in A2K and complete the requisition form. Ensure “collected by” section of requisition is completed. See attached procedure.

3. Prepare Typenex Blood Recipient Identification Band according to procedure. Use ballpoint pen only. Refer to Typenex labeling on pages 10-12 of this document.

4. Verify accuracy of requisition, armband, and Typenex band. Rollerball/felt tip pens become illegible when wet. and are unable to mark hard enough to obtain legible carbon duplication.

KEY POINTS
6. Take care to avoid contaminating the outside of the container. All specimens are handled according to Infection Control guidelines. Refer to Universal Precautions Policy and Procedure in the Infection Control Manual.

7. Send specimen with A2K printout to Blood Bank via courier.

Component Administration

1. Verify patient identification band with typenex armband and signed consent form. Assure patient and/or S/O teaching has been completed and documented.

2. Verify presence and patency of IV to be used for transfusion. A large bore catheter is preferable. #18-20 gauge should be used for adult patients and 22-24 gauge for pediatric and selected geriatric patients.

3. Start normal saline on Y-tubing and connect at catheter hub.


Documentation of the patient’s name and medical record number must be available.

5. Obtain baseline vital signs and patient status prior to transfusion and document. (Assessment must be done by MD, RN, or CCP). Document on Multiple Blood and Blood Component Transfusion Report Form (MCLN 0809). In Operating Rooms and Delivery Suites, documentation is recorded in the Anesthesia Record.

6. Upon arrival of component, transfusionist shall check the Blood Component Transfusion Report form (bag tag) against the component, number, blood type and expiration date. If information does not correlate or if the component appears abnormal, call the Blood Bank before returning component to Blood Bank with explanation.

   The transfusionist shall inspect the component for normal color and appearance.

7. Together with an MD, RN, CCP, or LPN, the transfusionist checks that:
   a. Both patient name and hospital number on bag tag, armband, and typenex armband match exactly.
b. Typenex number on bag tag and Typenex armband match exactly.

c. Blood type is compatible with patient type.

Any questions should be directed to the Appropriate Blood Bank: CH 568-3505 or UH 588-3951

d. Component expiration date and time is valid.

e. Patient information on bag tag and Multiple Blood Transfusion Report Form (MCLNO 0809) match exactly.

8. a. The transfusionist attaches normal saline to Y-tubing and suspends from IV pole 3-4 feet above level of patient's heart and adjust clamp on normal saline to open flow to flood the tubing. 

Close clamp below drip chamber and squeeze drip chamber keeping blood component side of Y-tubing clamped, until fluid level is obtained above top of filter. Expel air by tapping chamber. **The exception:** Leuko-reducing filters must not be wet with saline.

b. The transfusionist attaches the appropriate filter to blood component (when needed) and then attaches same to the other Y-tubing connection. Always follow manufacturer's directions.

c. Microaggregate filters and leukocyte reduction filters are contraindicated when infusing granulocyte preparations.

d. Leukocyte reduction filters are required for patients in need of leuko-reduced products. See page 4 of this policy.

9. Close clamp on saline side of Y-tubing and open clamp on component side of tubing to establish transfusion flow.

10. a. Adults – Adjust flow rate to 40-60 ml/hr. for the first 15 minutes from the time blood (not saline) begins to infuse through the hub of the access device catheter (unless otherwise ordered by physician). This must be done by RN, CCP, or M.D.

A reaction can occur with as little as 10-15 ml of blood component.
b. Pediatrics – Adjust flow rate to 25% of hourly flow rate for first 15 minutes, unless otherwise ordered by physician.

Example: if hourly rate = 20 ml/hr, then run at 5ml/hr for first 15 minutes.

11. RN, CCP, MD must observe patient during the first 15 minutes for any adverse reactions and document presence or absence of symptoms.

See bottom of bag tag as well as Transfusion Reaction section, page 8-10 of this procedure for signs and symptoms.

12. Take and record vital signs. If no sign of adverse reaction is assessed, adjust flow rate as ordered.

Monitoring of hourly vital signs and patient status may then be delegated to the LPN.

NOTE: If there is a change in vital signs or patient develops signs and symptoms of reaction, follow procedure for transfusion reaction.

13. Observe patient for complications and below on IV patency for duration of transfusion.

Refer to Blood Component Reaction signs and symptoms on page 10.

14. Flush tubing with normal saline after completion of transfusion.

15. Repeat steps 9-14 in the event that additional component is to be infused.

16. Flush tubing between each component. Change IV tubing to hub of catheter prior to resuming IV infusion therapy.


C. **TRANSFUSION REACTION**

In the event a transfusion reaction is suspected, the physician, nurse or CCP must:

1. Stop the blood immediately.

2. Hang new tubing with normal saline at 5ml/hr. (TKO)

3. Monitor and record urine output, temperature, pulse and respiration with rhythm (regular or irregular) at a minimum of every 15 minutes for one hour unless the patient's condition warrants additional intervention.

4. Notify registered nurse and physician immediately.

   Notify Blood Bank immediately (ext. 568-3505 at Charity & 588-3951 at University).

5. Complete Multiple Blood and Blood Component Report Form (MCLN 0809) indicating when the reaction occurred, and what symptoms occurred.

6. Complete Transfusion Complication Form (MCLN 0811B) and send to the Blood Bank as soon as possible with the following:

   - Remainder of blood component with Y-tubing and any solutions hung with the blood.
   - 7 ml of patient’s blood (pediatrics 1 ml whole blood) in red top tube labeled with patient’s name, hospital number, date, and time.

**NOTE:** When additional components are needed for transfusion, submit and label red top tube according to Typenex Procedure.

Send the patient's first voided specimen labeled with patient's name, hospital number, date and time obtained.

Refer to Blood Component Reaction signs and symptoms on page 10.

**Do not remove the IV catheter as it is needed for infusion of normal saline (Step C, 2).**

Blood is used for blood reaction studies and to retype and match patient.

It is unnecessary to hold transfusion reaction workup while waiting for urine specimen.
7. Document in Nurses notes:
   a. The signs and symptoms of reaction noted.
   b. Who was notified.
   c. Action taken.
   d. Patient's condition before and after corrective measures taken.
   e. Complete transfusion section of Multiple Blood and Blood Component Report Form (MCLNO 0809).


**BLOOD COMPONENT REACTION SIGNS AND SYMPTOMS**

Blood reactions may be potentially life threatening and require immediate action on the part of the nurse. Because of the extreme gravity of the reactions, rapid institution of comprehensive support therapy is essential.

**Potential reactions**

- **Hemolysis**
  - Elevated temperature of 1°C or 2°F
  - Decreased BP or 50mmHg or a systolic of less than or equal to 90mmHg.
  - Hemoglobinuria
  - Hematuria
  - Chills
  - Pain
- **Circulatory Overload**
  - Shortness of breath
  - Lung congestion: rales, rhonchi
  - Frothy sputum
- **Pyrogenic Reaction**
  - Sudden chilling
  - Elevated temperature of 1 degree Celsius or 2 degrees Fahrenheit
  - Headache
  - Elevated systolic blood pressure of 50mmHg or more
- **Allergic Reaction**
  - Urticaria
  - Laryngeal edema
  - Asthmatic wheezing
  - Vital signs exceeding parameters above
- **Blood borne infections**
  - Hepatitis
  - CMV, AIDS, etc. (long term, usually not seen for 6-8 weeks).

VI. **TYPENEX LABELING**

A. **GENERAL PROCEDURE**

1. Generate appropriate electronic forms from the A2K system for components needed.
   **NOTE:** Steps 2-7 MUST be done at the patient's bedside.
2. Ask the patient to state name. Compare with A2K requisition and patient’s identification band.

3. Using patient’s hospital armband, hand label Typenex band with patient’s full name and hospital number and also write date, time, and the name of the person who will collect sample on long yellow label near clip. (See #1 on picture).

4. Remove yellow label with patient information and place on red top tube.

5. Remove row of Typenex numbers and place on red top tube (See #2 on picture).

6. Band the patient with the Typenex armband and after clip is locked, tear off the empty labeled red top tube.

7. Perform venipuncture and fill Typenex labeled red top tube with 7ml of blood (adults) and at least 1ml blood for pediatric patients.

8. The Typenex armband is to remain on the patient for a minimum of four days. Whenever a patient is crossmatched and a new Typenex specimen is needed, remove the old Typenex armband from the patient’s arm prior to placing the new one on.

---

**UNIVERSAL STANDARD/PROCEDURE**

**SECTION: Blood Component Administration**

**Page 11 of 13**

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B. **APPROVED DEVIATIONS OF TYPENEX LABELING**

1. **Nursery Samples**
   a. Label Typenex armband as it appears on the neonate’s hospital armband.
   b. Only one Typenex labeled venous sample is required for neonatal transfusions per hospital stay until four months of age, provided there are no serologic problems encountered and the Typenex armband remains with the patient’s chart. Typenex numbers are kept on the chart and documented with each A2K request for blood/components.
   a. Place a properly labeled Typenex armband on the patient.
   b. Remove one Typenex sticker from the Typenex armband and place it on the Emergency Request for Uncrossmatched Blood form (MCLN 0805). Write the patient's full name and hospital number on the form. Obtain physician's signature.
   1. Call the Blood Bank and declare the emergency. Give the technologist the patient's full name, hospital number, and the Typenex number
   or
   2. Fax the Emergency Request Form to the Blood Bank.
   c. Using the Typenex system, draw a properly labeled blood sample when time allows.

3. Removal of Typenex During Surgery
   a. If it becomes necessary to remove the Typenex armband during surgery for access, the armband may be placed on the patient’s chart during the surgical procedure. The Typenex alphanumeric code must still be checked whenever blood or blood components are hung on the patient.
   b. Once surgery is completed, and WHILE THE PATIENT IS STILL IN THE SURGICAL SUITE, the Typenex armband will be reattached to the patient by the Anesthesiologist/CRNA/CCP to allow use of the armband for the transfusion of additional blood components in other areas of the hospital. Failure to reattach the Typenex armband will require that a new Typenex labeled specimen be drawn and red blood cell units recrossmatched.

VII. DOCUMENTATION
The nurse is responsible for documenting the transfusions on the Multiple Blood and Blood Component Transfusion Report Form (MCLN 0809). Refer to Guidelines for completion of this form.

VIII. REFERENCES
1. MCLNO Department of Pathology Laboratory Manual
2. JCAHO Manual, 1996, 3.3, 158-159
5. Circular of Information for the Use of Human Blood and Blood Components, April, 1997 update
IX. DISTRIBUTION

Division of Patient Care Standards of Clinical Nursing Practice Manual, all areas.
Blood Bank.

STANDARD BASIS

X.

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**LABORATORY COMMENTS:**

- Type & Hold
- Emergency
- Routine
- Transfusion
- Pre op

**COLLECTED BY:** [Name]
**DATE:** [Date]
**REQUESTED BY:** [M.D. Service]
**DIAGNOSIS:** [Diagnosis]
**PREVIOUS TRANSFUSION:**
- Yes
- No
**PREVIOUS TRANSFUSION REACTION:**
- Yes
- No

**PATIENT’S CHART**

**REQUEST FOR CROSSMATCH**

**Crossmatched By:** [Name]
**DATE:** [Date]
**T & S By:** [Name]
**DATE:** [Date]

**PATIENT’S CHART**

**REQUEST FOR CROSSMATCH**

**CROSSMATCHED BY:** [Name]
**DATE:** [Date]
EMERGENCY REQUEST FOR UNCROSSMATCHED BLOOD

Units of UNCCROSSMATCHED blood are requested immediately by

(Printed Name of Physician) for

(Name of Patient) (Hospital Number).

Reason: ________________________________

UPON COMPLIANCE WITH THIS REQUEST, THE BLOOD BANK AND ITS STAFF ARE RELEASED AND HELD HARMLESS FROM ANY LIABILITY ARISING BY REASON OF THE TRANSFUSION OF UNCCROSSMATCHED BLOOD. THIS IS AN EMERGENCY REQUEST.

DATE AND TIME: __________________________ (Physician’s Signature)

BLOOD BANK USE ONLY:

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CROSSMATCHED BY: __________________________ DATE: __________________________

UNIT NUMBER | GRP | Rh
|------------|-----|-----
|            |     |     |
|            |     |     |
|            |     |     |
|            |     |     |
|            |     |     |

UNITS VISIBLY INSPECTED FOR HEMOLYSIS AND BACTERIAL CONTAMINATION

by __________________________ Courier __________________________
at _________ hr. On __________________________ 19 __________________________

Received by: __________________________ Date/Time: __________________________
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<td>BLOOD BANK ISSUE FORM</td>
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<td>at _____ a.m. On __________________ 19 __________________</td>
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<tr>
<td>Signature of M.D./Nurse ____________________ Service __________</td>
</tr>
<tr>
<td>Signature of Messenger ___________________________</td>
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BLOOD COMPONENT TRANSFUSION REPORT FORM

COMPLETE PRETRANSFUSION VITAL SIGNS PRIOR TO ADMINISTERING COMPONENT.

VERIFICATION: We certify name and hospital number are identical on patient armband and Blood Component Transfusion Report Form. Donor number and blood type on unit label match Blood Component Transfusion Report Form. Unique Blood Bank Identification system (armband/infusion) checked, and all required information matches as per hospital policy.

X ________________________________ RN/MD/LPN

X ________________________________ RN/MD

TX STARTED: DATE / TIME ________________ BY: ________________________________

TX ENDED: DATE / TIME ________________ BY: ________________________________

TX REACTION: [ ] NO [ ] YES

REPORT ALL SUSPECTED ADVERSE TRANSFUSION REACTIONS
(SEE GUIDELINE BELOW)
Chart original and return lab copies to the Blood Bank.

UNIT ISSUED
DATE/TIME: ________________________________

VISUAL INSPECTION: ________________________________

TECH: ________________________________ COURIER: ________________________________

UNIT RETURNED DATE/TIME: ________________________________

DO NOT STORE BLOOD
Complete infusion of blood product within 4 hours or return unentered product to the Blood Bank within 30 minutes.

TRANSFUSION REACTION SYMPTOMS
DURING TRANSFUSION, MONITOR THE PATIENT FOR ANY OF THE FOLLOWING SYMPTOMS:

- Fever (1C rise without any other explanation)
- Chills
- Chest/Back Pain
- Hypotension
- Hypertension
- Oozing cut or wound
- Pulmonary Edema
- Immediate Post-Transfusion Jaundice
- Abnormal Bleeding
- Uneasy Feeling
- Hemoglobinuria
- Cyanosis
- Facial Flushing/Edema
- Heat/ Pain at Infusion Site
- Neusa/Vomiting
- Itching
- Hives/Rash
- Wheezing
- Headache
- Myalgia
- Dyspnea
- Coughing
- Shortness of breath
- Frothy sputum
- Syncope
- t-Pulse
- t-Urine output
- Delirium
- Petechiae

AT THE FIRST SIGN OF A SUSPECTED ADVERSE TRANSFUSION REACTION:
1. Stop the Transfusion Immediately. Keep IV Line open with slow saline drip.
2. Check unit label and paperwork against armband and confirm that the patient received the correct unit. Record information on Transfusion Reaction form.
3. Notify attending Physician so that treatment, if necessary, can begin immediately.
4. Notify the Blood Bank Technologist STAT.
5. Send the following to Blood Bank STAT:
   a. Blood unit with tubing and IV solution attached.
   b. Completed Transfusion Reaction form.
   c. One 7ml red top tube drawn to avoid hemolysis and labeled properly for crossmatch; an EDTA sample may also be required.
   d. First voided urine, labeled with patient name & hospital # and marked "Post Transfusion", attached to appropriate lab req.
MEDICAL CENTER OF LOUISIANA AT NEW ORLEANS
Campus U BLOOD BANK LAB REQUISITION

RUSH 12/02/99 2245 240005 SICU

MED REC# [Redacted]
BILLING# [Redacted]
DOB: [Redacted]
SS #: [Redacted]
ORD DR: [Redacted]
BEEP: [Redacted]
DX: WEAKNESS

SCHOOL CDDE: [Redacted]
SEX: [Redacted]
ADM DT: [Redacted]
MR #: [Redacted]

DOB: [Redacted]
COL TIME: _______

MED
DT: _______ BY: _______________

SICU

SPECIMEN SOURCE:

COLL.BY: _______ Time: _______

CHC #

TYPE & CROSSMATCH

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MCL PATHOLOGY 2025 Gravier St. New Orleans, LA 70112
NOTICE TO OUTPATIENTS WHO HAVE RECEIVED BLOOD OR COMPONENTS:

Most transfusion reactions occur within the first 30 minutes after the blood is hung. In rare cases patients may develop mild to severe reactions after leaving the hospital. The patient is usually the first to know that something is wrong, so it is very important that YOU know the signs and symptoms of a reaction.

A. The mildest reaction is fever and a feeling of mild illness. This is the most common type of blood reaction, and nothing else occurs.

B. Other reactions may occur that can be more serious. If you should feel any of the following symptoms or show any of the following signs, after leaving the hospital, please contact the hospital Blood Bank immediately.

1. Chills and fever
2. Chest pain or pain in lower back.
3. Dizziness or light headedness.
4. Nausea (sick to your stomach) and/or vomiting.
5. Facial flushing or face feels warm.
7. Brown or red colored urine.
8. Painting or weakness.
10. Very quick heart beat or palpitations.
12. Jaundice (yellow skin or yellow eyes).

It is very important that you contact the hospital RIGHT AWAY if you have any of the above. Only a doctor or nurse can tell you for sure if you might be having a reaction and need to be seen for additional treatment.

CONTACT PHONE NUMBERS: Blood Bank: Charity Campus 903-0365
University Campus 903-3951

Patient Signature___________________________________________ Date__________

RN or M.D. Signature_________________________________________ Date__________
## Multiple Blood and Blood Component Transfusion Sheet

**Medical Center of Louisiana at New Orleans**

### Multiple Blood and Blood Component Transfusion Sheet

**Note:**
1. Use only ambient preparations.
2. Inspect upon arrival for tubes, bottle, date, temperature, color, clots, puncture.
3. A sterile (1:10000) blood line is mandatory for all blood components. Microaggregate filters may be used with red cells. Always check for microaggregate filters.
4. Infuse blood component within 30 mins of arrival to room. Do not store in refrigerator. Return to blood bank prior to 30 mins. If unable to hang.
5. Observe for transfusion reaction: Chills, headache, chills & back pain, flushed face, nausea, vomiting, fever, itching, rash. Big decrease in hematocrit, greater than 50 systolic & or 30 diastolic; increased pulse rate & change in temp of more than 1 degree Celsius; 2 degrees Fahrenheit, facial edema, dyspnea, cyanosis, coughing, restlessness; pain in incision.

### VITAL SIGNS (VIS)

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<th>UNIT CHECKED WITH</th>
<th>RN, MD, LPN</th>
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**VIS**

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**CHANGES**

- Time: 
- Temp: 
- P:

**COMMENTS:**

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**Document Vital Signs Prior to Transfusion:**

1. **Exhibit VII**
2. **Policy 5022**
3. **Page 1 of 2**

---

Original: Patient's Medical Record - Copy: Blood Bank Where Completed
# Medical Center of Louisiana at New Orleans

## MULTIPLE BLOOD AND BLOOD COMPONENT TRANSFUSION SHEET

**NOTE:**
1. Check universal precautions.
2. Inspect upon arrival for bubbles, debris, foreign bodies, temperature, color, clots, puncture.
3. Hang unit with blood set and flush with normal saline.
4. Additional filters (crossmatch and LPN) are not mandatory. 
5. Filter by transfusion component within 30 minutes of issuance to unit. Do not store in unit refrigerator. Component must be administered within 4 hours.
6. Observe for transfusion reactions: chills, headache, chest & back pain, laryngospasm, micturition, vomiting, nausea, itching, rash, decreased BP, increased pulse rate & temperature, facial edema, dyspnea, cyanosis, coughing, crouping from around and immediate post transfusion period.
7. If transfusion reaction observed document on transfusion reaction form & in nurses’ progress notes.

### VITAL SIGNS (VIS)

- **Document Vital Signs Prior to Transfusion**
- **15 minutes after infusion is started, & q-hour during transfusion & upon completion**

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**Volume Infused in CC's**

- **Normal Saline**
- **Component**

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*Medical Center of Louisiana at New Orleans*
Louisiana State University Health Sciences Center  
Medical Center of Louisiana at New Orleans  

RELEASE OF LIABILITY AND WAIVER  
FOR THE ADMINISTRATION OF BLOOD PRODUCTS  
NOT ORIGINATING FROM THE  
MEDICAL CENTER OF LOUISIANA BLOOD BANK  

The Medical Center of Louisiana (MCL) cannot assume responsibility for the condition of blood and blood products brought into the facility by or on behalf of a patient. MCL policies and procedures require that only blood and blood products issued by the MCL Blood Bank shall be administered to MCL patients. Blood and blood products accompanying patients who are admitted into MCL or treated as outpatients must be sent to the MCL Blood Bank for evaluation. However, in certain cases, MCL cannot fully evaluate the outside product. MCL cannot determine whether a blood product has been properly stored or handled before its arrival at MCL and cannot, therefore, insure the quality, purity, safety, potency or sterility of such blood products. As an example, blood products not properly stored or handled before reaching MCL could prove to be ineffective or less effective in treating certain conditions such as bleeding in the case of hemophilia, or could be the source of infection.

In the event that I may need rare blood products, such as clotting factors, or blood products not readily available, it may be necessary to use a blood product brought into MCL by me or in my behalf until such time as the MCL Blood Bank is able to obtain the blood product.

I acknowledge that I have been informed of possible risks of using blood products not issued by the MCL Blood Bank. I further acknowledge that I have been informed about alternative treatment(s), if any, that would avoid use of blood products not issued by the MCL Blood Bank:

Possible risks: ____________________________________________

Alternate treatment: ________________________________________

I understand that MCL is not responsible for any changes in the quality, purity, safety, potency or sterility of a blood product not issued by the MCL Blood Bank resulting from its improper storage or handling before being placed in the care, custody and control of the MCL Blood Bank. After carefully considering and weighing the possible risks of using blood products not issued by the MCL Blood Bank, in spite of reasonable precautions taken in my behalf, I agree to assume the risk and responsibility for any injury or damage caused by the administration of such product(s). And, as a further consideration and inducement for carrying out the proposed treatment, I hereby release MCL and its agents, employees and contractors from all liability for complications that might occur, in spite of reasonable precautions taken in my behalf, as a result of my decision to use or allow the use of blood or blood products brought into MCL by me or in my behalf for my use, but only insofar as the quality, purity, safety, potency or sterility of these products may have been altered or affected prior to their arrival at the MCL Blood Bank.

_________________________  ____________________________
Signature of patient or patient’s authorized representative  
Date/Time  

_________________________  ____________________________
Witness’s signature  
Date/Time  

_________________________  ____________________________
Physician’s signature  
Date/Time  

MCLN 0811 C (R 8/02)
### EXHIBIT IX
Policy 5022
Page 1 of 1

#### CONFIDENTIAL MEDICATION PATIENT REPORT:
MEDICAL CENTER OF LONDON AT NEW YORK

<table>
<thead>
<tr>
<th>Treatment Given</th>
<th>Amount Administered</th>
<th>Dosage Form</th>
<th>Frequency</th>
<th>Read by:</th>
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<tbody>
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#### ADDITIONAL INFORMATION:

- Date: 
- Time: 
- Location: 

#### MEDICATION HISTORY:

<table>
<thead>
<tr>
<th>Type of Error</th>
<th>Cause</th>
<th>Result</th>
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#### RX INFORMATION:

<table>
<thead>
<tr>
<th>RX #</th>
<th>Patient Name</th>
<th>Prescription Details</th>
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#### PATIENT HISTORY:

<table>
<thead>
<tr>
<th>Age</th>
<th>Gender</th>
<th>Weight</th>
<th>Height</th>
<th>Blood Type</th>
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#### RELEVANT MEDICATIONS:

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<th>Medication</th>
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<th>Frequency</th>
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#### SPECIAL INSTRUCTIONS:

- Special Instructions:
- Date:
- Time:

---

**Note:** This document appears to be a medication variance report form, detailing the administration of medication to a patient, along with relevant patient history and medication history. The form is divided into sections for different types of information, including treatment given, additional information, medication history, RX information, patient history, and relevant medications.
RECORD OF TRANSFUSION COMPLICATION

This Form to be Completed by Nurse or M.D.

When a Transfusion Reaction is Suspected:
1. Stop blood transfusion immediately.
2. Summon Physician to attend patient.
3. Complete this side of form and submit to the Blood Bank with the following specimens:
a. Properly labeled blood specimen – one 7 ml red top tube.
b. Properly labeled urine sample – first void after suspected reaction.
c. Untransfused portion of blood component unit(s) with recipient set and this form (MCN 08118)

PATIENT HISTORY
1. Current diagnosis
2. Previous transfusion: □ Yes □ No □ Don’t Know
3. Any pregnancies: □ Yes □ No □ Don’t Know
4. Has patient received I.V. therapy or I.V. medications this admission – please list:

__________________________________________________________________________

__________________________________________________________________________

CLINICAL SYMPTOMS (Please Check if Indicated)
□ chills □ hives □ dyspnea
□ headache □ itching □ cyanosis
□ chest pain □ rash □ coughing
□ back pain □ decreased B/P □ oozing from wound
□ frothy sputum □ increased pulse rate □ immediate post-transfusion jaundice
□ nausea □ rapid temp. increase □ other
□ vomiting □ facial edema

PRE AND POST TRANSFUSION VITAL SIGNS

<table>
<thead>
<tr>
<th>TIME</th>
<th>TEMP</th>
<th>B/P</th>
<th>PULSE</th>
<th>RESP</th>
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RETRANSFUSION

POST TRANSFUSION

TRANSFUSION DETAILS

<table>
<thead>
<tr>
<th>DATE</th>
<th>TIME</th>
<th>UNIT #</th>
<th>AMOUNT</th>
<th>COMPONENT</th>
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specimen (Blood) Collected By: ____________________________

D. ____________________________