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Area	Laboratory-Blood Bank
Applicability	All Beaumont Hospitals

Autologous and Directed Donations - Blood Bank

Document Type: Procedure

I. PURPOSE AND OBJECTIVE:

A. The purpose of this document is to provide blood bank staff with policies and procedures related to autologous and directed donor blood.

B. Patients may donate their own blood (autologous) or have family or friends donate for them (directed) in anticipation of transfusion during admission to a Beaumont facility. This service is typically provided by Versiti-Michigan or the American Red Cross.

II. DEFINITIONS:

A. **Allogeneic unit** : A unit that is donated for use by the general patient population.

B. **Autologous blood:** A unit of blood that has been donated by an individual to be administered back to them, if needed, at a later date.

C. **Directed donor blood:** A unit of blood typically donated by a family member or friend to be available for a specific individual.

D. **Designee:** Any Blood Bank technical director, or transfusion medicine fellow.

III. POLICIES:

A. Blood Suppliers for Collection of Autologous and Directed Donations

1. Collection facilities will vary across the nation. Versiti™ is the preferred supplier for collection of autologous or directed donations.

a. Donations must be made at least one week, preferably two to three weeks prior to the date of need.

B. Infectious Disease Testing

1. Collection facilities must perform the same donor / infectious disease testing on directed and autologous donations as is performed on allogeneic donations. This applies to all blood components that will be transfused outside of the collection facility.
2. The collection facility shall not distribute a blood component from a directed donor if an infectious disease test is reactive.
3. The collection facility may distribute a blood component from an autologous donor if an infectious disease test is reactive. Units from autologous donors with reactive infectious disease testing must be labeled with biohazard labels by the collection facility. In this case, the unit shall be placed in a biohazard bag upon receipt at this facility. In addition, a variance report should be submitted so that the Blood Bank supervisor can verify that the patient's physician was notified of the reactive infectious disease test.

C. Labeling of Autologous and Directed Donations

1. The blood supplier attaches a tag to the unit, which includes the intended recipient's name, and should also include additional information such as the date of birth, truncated social security number, physician, date of need, etc.

D. Receipt of Autologous and Directed Donations

1. Autologous and directed RBCs should be processed into inventory as soon as possible after receipt, and they should be processed before general inventory. If a delay in processing autologous or directed RBCs is expected, then the technologist should add the autologous (**AUTO**) or directed (**DIR**) special message to the intended recipient's computer record. The RBCs should be removed from the transport box and placed on the designated shelf in the refrigerator until they are processed completely.
2. The patient's / intended recipient's name should appear on the packing slip.
3. Autologous and directed products are received into inventory as described in Transfusion Medicine policy, Receiving Blood Components Received from an Outside Source into Inventory; this includes delivery into the computer system as described in the Blood Bank CDM, Batch Delivery. When processed correctly, a special message indicating that the patient has autologous or directed RBC units will automatically appear in the computer record and the units will be placed on hold for the intended recipient.
4. Directed platelets are documented on the platelet board, communication log / board, with the intended recipient's name and a notation that it is a directed platelet.

E. Irradiation of All Directed RBCs and Platelets

1. All directed RBCs and platelets must be irradiated before transfusion. However, consideration should be taken before irradiating upon receipt so that the expiration date is not shortened unnecessarily.

F. Comparison of Identifying Information

1. As autologous and directed products are received into inventory, selected / crossmatched, dispensed, returned, etc. the Blood Bank must be very careful to compare all identifying information. Any discrepancies must be investigated and corrected before proceeding. The identifying information in the locations listed below must be compared at each step.
    a. The packing slip
    b. The patients' sample
    c. The patient's computer record
    d. The donor units, including the face label and the Autologous Donation tag and the Intended Recipient Information for a Directed Donation tag
    e. Record of Transfusion form

G. Storage of Autologous and Directed Donations

1. Directed platelets are stored on the platelet rotator at 20°C - 24°C.
2. Autologous RBCs must be stored separately from RBCs in the general inventory. When autologous RBCs are received into inventory they are stored in the refrigerator at 1°C to 6°C on the designated shelf.
3. When directed RBCs are received into inventory, they are stored in the refrigerator at 1°C to 6°C on the designated shelf. Once crossmatched, they are stored on the crossmatch shelf. If not yet transfused when the sample of the intended recipient expires, the units are returned to the designated shelf. Refer also to policy III.I, *Placement of Directed Donations into the General Inventory when not Needed by the Intended Recipient.*

H. Patients with Autologous or Directed Donations who Appear on the Surgery Schedule

1. The Blood Bank notifies the pre-operative areas of any patient on the next day's surgery schedule with available autologous or directed donations.

I. Placement of Directed Donations into the General Inventory when not Needed by the Intended Recipient

1. Directed donors and their blood undergo the same screening as allogeneic blood and may be crossed over to the general blood supply following discharge of the intended recipient.
2. As directed RBCs and platelets approach their expiration date, a notation is made on the communication log / board. After review of the case and/or and after communication with the intended recipient's physician, a decision will be made whether to place the directed donation(s) into general inventory.
3. Note donor requirements and pre-donation screening tests differ for autologous donors and routine volunteer donors. For this reason, autologous blood may be given to the intended

recipient only.
Note: **Autologous blood is never crossed over to the general blood supply.**

J. Selecting / Crossmatching Autologous and Directed Products

1. For all patients, every time any crossmatch is performed or any product is selected, the technologist must review the caution window and determine whether the patient has autologous, directed, or held units.
2. All liquid autologous and directed RBCs must be crossmatched regardless of the physician's orders or the Maximum Surgical Blood Order Schedule (MSBOS). The crossmatch may be performed serologically or electronically as specified in Transfusion Medicine policy, RBC Crossmatching Guidelines.
3. Patients with autologous or directed RBCs who have unexpected antibodies are crossmatched according to Transfusion Medicine policy, Providing RBCs for Patients with Unexpected Antibodies.
    a. All donor units must be negative for antigen(s) corresponding to any clinically significant antibody(ies) in the patient's current sample or historical record. Refer to Transfusion Medicine policy, *Antigen Typing*.

K. Appropriate Dispense Sequence / Transport

1. Autologous components must be dispensed before allogeneic or directed components, and directed components should be dispensed before allogeneic components, regardless of the order of the expiration dates of the components.
    a. Among autologous components, autologous components with the shortest expiration dates should be dispensed first.
    b. Among directed components, directed components with the shortest expiration dates should be dispensed first.
2. If any combination of multiple autologous, directed, or allogeneic units are dispensed at the same time for a patient (i.e., in a cooler) then the technologist shall attach notes to the components to indicate the order in which the components should be transfused, as described above.
3. If a patient has been transfused with an aliquot of an allogeneic component and a directed donation is subsequently received by the Blood Bank, then the continued transfusion with the remaining aliquot is preferred to the transfusion with the directed donation. The patient's physician or the Blood Bank Medical Director (MD) or designee must authorize the transfusion of the directed donation instead of the remaining aliquot in this case, and the occurrence shall be documented on a variance report.
4. Autologous components that were not leukocyte reduced by the blood suppler may be dispensed.
5. Royal Oak Only: Autologous and directed blood components may NOT be transported through the pneumatic tube system; they must be dispensed to a courier / runner or (if indicated) to a

cooler.

L. Royal Oak Only: Frozen Autologous Units

1. It is not the current practice of this facility to freeze autologous or directed RBCs. However, in the past this facility did routinely freeze autologous units. These frozen autologous RBCs may still remain in inventory, so occasionally a sample will be received on a patient with a frozen autologous RBC. In this situation, the Blood Bank should communicate with the intended recipient's physician to determine whether to deglycerolize frozen autologous units and the intended date / time of transfusion, if applicable.
2. When instructed, the Blood Bank shall deglycerolize frozen autologous units as near to the intended time of transfusion time as possible, and never more than 24 hours before the intended time of transfusion.

M. Emergency Issue of Autologous or Directed Components

1. Compatibility testing must be complete before autologous and directed products are dispensed from the Blood Bank. If an autologous or directed product is needed before this testing is complete, then the Transfusion Medicine policy, Emergency Issue, applies.

IV. PROCEDURE:

A. When receiving inquiries regarding autologous or directed donation callers should be referred to the treating physician. The treating physician should contact the blood suppliers directly, either by phone or website.
    1. Versiti™ 616-233-8642 or Versiti Autologous/Directed Donation Request
    2. American Red Cross 1-877-507-4889 or American Red Cross

B. After the blood is collected, it may take as long as 7 business days for the unit to reach the hospital.

C. Once received, autologous and directed donor blood are processed as per the Transfusion Medicine policy, Receiving Blood Components from Outside Source and the policies referred to above.

V. NOTES:

A. Autologous and directed donations require special paperwork and tags. For this reason all autologous and directed donors must have a scheduled appointment with the blood supplier prior to donating.

VI. REFERENCES:

1. AABB, *Standards for Blood Banks and Transfusion Services*, current edition.
2. AABB, *Technical Manual*, current edition.

Attachments

VER-SPS-FM-0006 Directed Donation Order Form

VER-SPS-FM-0007 Autologous Donation Prescription Form

Approval Signatures

Step Description	Approver	Date
	Kristina Davis: Staff Physician	2/21/2024
	Ann Marie Blenc: System Med Dir, Hematopath	2/16/2024
	Vaishali Pansare: Chief, Pathology	2/6/2024
	Ryan Johnson: OUWB Clinical Faculty	1/30/2024
	Muhammad Arshad: Chief, Pathology	1/30/2024
	John Pui: Chief, Pathology	1/26/2024
	Jeremy Powers: Chief, Pathology	1/26/2024
Policy and Forms Steering Committe (if needed)	Kelly Sartor: Mgr, Division Laboratory	1/26/2024
	Katherine Persinger: Mgr, Laboratory	1/26/2024
	Ashley Beesley: Mgr, Laboratory	1/26/2024
	Hilary Morey: Medical Technologist Lead	1/26/2024
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Applicability

Dearborn, Farmington Hills, Grosse Pointe, Royal Oak, Taylor, Trenton, Troy, Wayne