

Blood Components Reference Manual Table of Contents

Puget Sound Blood Center Regional Edition

Section A Ordering Blood Components

Part V: Out-of-Hospital Transfusion.....V.1

- Obtaining Blood and Components..... V.1
 - Blood Center Service for Outpatient Agencies V.1
 - Considerations for Outpatient Agency/Hospital Contracts..... V.2
- Out-of-Hospital Transfusion – Setting up a Service Agreement V.3
- Out-of-Hospital – Patient Identification for Compatibility Sample Draw
and Transfusion Administration..... V.5
- Compatibility Sample Draw Guidelines..... V.5
 - Obtaining Identification Bands or Cards for Out-of-Hospital
Transfusions..... V.8
- Sample Transport V.8
- Out-of- Hospital – Transfusion Administration V.9
- Out-of-Hospital – Transportation of Blood Components from the
Puget Sound Blood Center to Out-of-Hospital Location V.11
- Out-of-Hospital – Component Storage and Return..... V.12
- Biohazard Waste V.12

Part V: Out-of-Hospital Transfusion

Obtaining Blood and Components

Home care agencies, outpatient surgical centers and physicians' offices have two sources to obtain blood and components for transfusion to non hospitalized patients. The first option is for the outpatient agency to get compatible blood and components directly from the Blood Center. The Blood Center maintains a compatibility testing (crossmatch) laboratory on First Hill in Seattle and there are satellites in Bellevue, Renton and the University District of Seattle. Outpatient agencies also have the option of contracting with a local hospital to obtain blood and components directly from them. This is sometimes necessary when distance between the patient and the Blood Center's laboratories makes it difficult to transport and infuse the blood or component prior to the component expiring. In this circumstance the hospital does the compatibility testing and issues the units from it's inventory.

Blood Center Service for Outpatient Agencies

When outpatient agencies wish to have the Blood Center supply blood and components they must first set up a service agreement with the Puget Sound Blood Center. (See the following page for information on how to establish a service agreement.) Once a service agreement has been initiated, a King County version of this Blood Components Reference Manual will be issued that details the exact procedure for ordering each available blood component. Briefly, for most orders of Red Blood Cells, a patient sample is required which must be transported to one of the Blood Center laboratories in advance of transfusion. It is the agency's responsibility to transport the sample to the Blood Center. The sample must be accompanied by a Blood Center "Request for Blood and Blood Components" form which has been completed by the agency's staff. The Blood Center laboratories rely on the agency staff for accurate information regarding patient identification, patient location, characteristics of components being ordered and desired date/time of transfusion. Orders for other components, such as platelets or plasma, are generally relayed by fax or phone.

The agency staff have the option of picking up the component directly from the Puget Sound Blood Center laboratory or they may have the component delivered to the desired location by taxi or courier service. The transportation costs are the responsibility of the agency.

Out-of-Hospital – Obtaining Blood and Components - continued

Considerations for Outpatient Agency/Hospital Contracts

Hospitals undertaking transfusion service contracts with outpatient agencies should be aware that Federal Regulations require that agencies to whom they transfer blood and components have adequate mechanisms in place to assure proper storage and tracking. Units that are out of monitored storage for more than 30 minutes must not be returned to refrigeration and issued again later. Such components cannot be returned to the Blood Center for credit.

The American Association of Blood Banks (AABB) also recommends that those institutions issuing blood to outpatient agencies insist that those agencies have clearly written procedures covering all facets of blood administration, and that those procedures are available to the transfusionist at the time of transfusion.

Out-of-Hospital Transfusion – Setting up a Service Agreement

The following steps are required for a home care agency, outpatient surgical center or a physician’s office to set up an independent service agreement with the Blood Center Transfusion Service. Additional information can be obtained by contacting the Clinical Associate at (206) 292-1840.

1. Written letter of request:
 - Send a letter of request for service containing the following information to:

Dr. Richard Counts President Puget Sound Blood Center 921 Terry Avenue Seattle, WA 98104	cc: Mary Grabowski Clinical Associate Puget Sound Blood Center 921 Terry Avenue Seattle, WA 98104
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 - Plans regarding the administration of blood and components, types of components, types of patients
 - Geographical service area
 - Information concerning the organization including:
 - identification of Agency Principals
 - professional qualifications of the Agency Staff
 - current financial statements (annual report is appropriate)
 - Details of liability insurance coverage
 - Designation of the responsible physician(s)
 - Designation of individual to be responsible for communicating with the Blood Center regarding transfusion matters, and
 - Copies of the agency’s procedures pertaining to ordering and administration of blood components (for specific information on procedure requirements, review the remainder of this section and contact the Clinical Associate at (206) 292-1840)
 - ensuring a written physician order is obtained for all transfusions
 - ordering blood and components through the Blood Center
 - drawing and labeling samples for pre-transfusion testing
 - handling, storing and transporting blood and blood components

Out-of-Hospital Transfusion – Setting up a Service Agreement - continued

- identifying the product and the patient at the time of transfusion
- administration of blood and blood components
- dealing with transfusion reactions at the bedside
- accessing physician back-up if necessary
- disposal of biohazard waste
- system to ensure that all staff involved in drawing samples or administering transfusions are trained in the above procedures

Note

Each agency is responsible for developing and maintaining their own procedures.

Once approved by the President of the Blood Center, your request will be forwarded to the Director of Finance and Accounting and the Clinical Associate.

2. Procedure review and service agreement

The Clinical Associate will review your procedures to ensure they meet standards for safe transfusion of blood components. You will receive from the Department of Finance and Accounting two copies of the Blood Center's formal service agreement for signature. Please have the proper authority sign both copies and return one copy to the Blood Center.

Service cannot begin until your procedures have been approved and the signed agreement has been received.

3. Blood Center Orientation

The Clinical Associate will contact you to arrange an orientation session for your agency after your procedures have been reviewed. Orientations are scheduled at the Central Blood Center on First Hill (921 Terry Avenue) in Seattle and last about 1-1/2 hours. The orientation is designed to educate you to the Blood Center and provide you with references and resources for dealing with transfusion administration related issues. It involves meeting with the Clinical Associate, the Business Office Supervisor and the Laboratory Supervisor.

The orientation should be attended by the person in the agency designated as the contact for blood transfusion issues. Other staff are welcome and may find the orientation useful, interesting and educational. The orientation must be completed before service can begin.

Out-of-Hospital – Patient Identification for Compatibility Sample Draw and Transfusion Administration

Patients receiving transfusion out of the hospital setting will not likely be wearing a hospital identification band at the time they require the compatibility sample draw for transfusion. The person drawing the sample (or a designee) should be responsible for providing the patient with an identification tool (band or card) prior to drawing the sample and stressing to the patient that he or she should bring the identification card or identification band with them for the transfusion. It is important to remember that although the collection of the sample may be performed by one nurse with only one patient present, the compatibility testing will be performed in a laboratory where many other samples are located. Using the same tool to identify the patient for the sample draw and transfusion helps ensure the correct blood is given to the correct patient. See Section A, Part III for additional information.

An identification band should be used in preference to an identification card when feasible.

Compatibility samples do not need to be submitted for Platelet/Plasma/Cryoprecipitate transfusion as long as the Blood Center has the patient's ABO/Rh type on file. However, patients receiving any blood component should wear an ID band/carry an ID card. This allows for consistent transfusion identification procedures and assures that the correct unit goes to the right patient. Patients should be wearing an ID band/carrying an ID card prior to arrival on the unit.

Compatibility Sample Draw Guidelines

Materials Required:

- identification band or card
- two 7 mL EDTA (purple top) sample tubes (one 7 mL tube will be accepted, but two tubes are preferred to avoid re-draw if the patient has antibody that must be identified which requires additional blood). [For pediatrics: minimum of 1 mL (two 0.5 mL EDTA microtainers) for patients < 1 year old, and minimum of 3 mL (EDTA purple top) for patients 1-5 years old. When a child's blood volume is adequate to tolerate collection of a 7 mL sample, it is best to collect the full 7 mL to avoid re-draw if additional blood is required.]
- The Puget Sound Blood Center Request for Blood and Blood Components form
- sample tube label(s)
- alcohol preps or other cleansing preps as established by the facility's procedure
- tourniquet (as applicable for peripheral draw)
- needle and syringe or Vacutainer system per established facility's procedure
- gauze pad and Band-Aid (as applicable for a peripheral procedure draw)
- gloves

Out-of-Hospital – Compatibility Sample Draw Guidelines - continued

1. Gather the above materials.
2. Complete the Request for Blood and Blood Components form using the physician's order and the instructions for ordering each applicable component located in the King County Blood Components Reference Manual available online at www.psbcc.org (see Section A, Ordering Blood Components).
3. Follow your facility's procedure to positively identify the patient to ensure correct patient identification. When possible, methods of positive patient identification should include a form of photographic identification such as a driver's license. The patient (or patient's family member/friend, if patient is unable) should be asked to state patient's name and if possible, at least one other unique patient identifier such as birth date or address. If any discrepancies are noted, the sample draw should not occur until the patient's identity is clarified.
4. Following your facility's procedure, complete a patient identification band or card with the minimum following information:
 - patient's name: last, first, and as applicable, middle initial or middle name (do not use nicknames) as registered at your facility
 - patient's social security number or hospital number (medical record number); use unique patient identification number that is used by your facility
 - patient's date of birth
5. Following your facility's procedure, if an identification band is used, affix it to the patient's wrist; if a card is used, give the card to the patient and ask the patient to keep the card available for reference.
6. Compare Request for Blood and Blood Components Form to the patient's identification band or card. All corresponding patient identity information [name and patient hospital number (medical record number or SSN) at minimum] must match exactly.
7. Explain to the patient that the transfusionist will need to use this same identification band or card for identification at the time they receive the transfusion to ensure they get the correct blood. Remind the patient that he/she MUST bring the band or card with him/her at the time of transfusion.
8. If handwritten tube labels are used, using the patient identification band or card, complete the patient information listed below (at minimum, must include * required information) on the sample tube labels. If pre-printed patient identification labels are used, ensure they contain the information below and hand write on the labels any missing information (at minimum, must include * required information):
 - facility where transfusion will occur (name of Agency transfusing if patient being transfused at home); should be provided on either the tube labels or the Request for Blood and Blood Components form, both is preferred

Out-of-Hospital – Compatibility Sample Draw Guidelines - continued

- **date of sample draw (mm/dd/yy) required***; time (optional) of draw is recommended
- **patient’s full name required:** last name, first name, and as applicable middle initial or middle name (exactly as shown on the patient’s identification card/band) *
- **patient’s social security number or hospital number (medical record number) required** (exactly as shown on the patient’s identification card/ band) *
- identification (signature, initials, or employee identification number) of person drawing sample (must be provided on either the tube label or on the Request for Blood and Blood Components form, both is preferred)

* **If draw date, patient name, or patient hospital number (Medical Record Number or SSN) are missing on the tube label, the sample will not be accepted.**

HOSPITAL Pacific Kidney Center	DATE DRAWN 06/01/05 1100 am	
PATIENT LAST NAME Smith	FIRST Myrtle	MIDDLE A.
HOSPITAL NO. 1234567	DRAWN BY Maria Ryan, RN	
TO BLOOD BANK		

9. Compare the tube label to the patient’s identification card/band before drawing the sample. All corresponding patient identification information [name and patient hospital number (medical record number or social security number) at minimum] must match exactly.
10. Draw the sample tube according to facility’s established procedures using sterile technique.
11. Attach the completed label(s) to the sample tube(s) immediately after collection. This must be done before leaving the patient’s side.
12. All corresponding patient identification information [name and patient hospital number (medical record number or social security number) at minimum] on the sample tube labels must exactly match the corresponding patient information on the Request for Blood and Blood Components form.

Out-of- Hospital – Compatibility Sample Draw Guidelines - continued

13. The person drawing the samples and verifying patient identification should sign, initial, or provide employee identification number on the "PERSON DRAWING BLOOD" line on the Request for Blood and Blood Components form and write the date (mm/dd/yy) and time (time option, but preferred) the sample was drawn. If your facility's procedure requires a double check to verify patient identification, the second individual performing the check should also sign, initial, or provide employee identification number on the "2nd PERSON REVIEWING PATIENT ID" line on the form.
14. Send the properly completed Request for Blood and Blood Components form along with the properly labeled compatibility sample tubes in a clearly marked biohazard leak-proof container to the Compatibility Testing Laboratory (CTL) serving the agency.

Obtaining Identification Bands or Cards for Out-of-Hospital Transfusions

An initial supply of out-of-hospital identification bands and/or cards will be provided to agencies during the orientation process when setting up a service agreement with the Blood Center. Additional Blood Center identification bands or cards can be ordered through the Blood Center Clinical Associate or generic identification bands can be purchased through any laboratory supply company. For information about obtaining identification cards or bands for out-of-hospital transfusion identification, contact the Clinical Associate at (206) 292-1840.

Sample Transport

The home or outpatient agency is responsible for the transportation of the patient compatibility sample (when applicable) to the Blood Center Laboratory.

On occasion, agencies or hospitals may request to use the Blood Center's internal courier to have a patient sample transported from an outlying Donor Center to a Blood Center Laboratory. The Blood Center is in no way liable or obliged to guarantee or provide this service but makes it available as a customer service. The agency has the following responsibilities in this situation:

- **Notification** – the agency shall notify the Supervisor (or designee) at the Donor Center location where they intend to drop off the sample on the day of the sample transport.
- **Time Considerations** – the agency is responsible to ensure the sample arrives at the Blood Center in time to make the final courier run of the day to a Blood Center Laboratory. This service cannot be used for same day transfusion because of the limited courier pick-up times. It may be used for next day transfusion or other laboratory testing.
- **Sample Packaging and Labeling** – samples must be brought in to the Donor Center properly labeled (sample tube label and Laboratory Request or Request for Blood and Blood Components form completed), contained in an appropriate biohazard container and visibly marked for which Laboratory (if for Compatibility Testing Lab, specify location: Central [First Hill Seattle], Renton, Bellevue or University District Lab [UDL]).

Out-of- Hospital – Transfusion Administration

Hospital (In Patient) Transfusion administration guidelines are provided for each component in Section B, Administration Guidelines. Follow these guidelines for out-patient/home transfusion administration with the following modifications:

1. Obtain the blood component from the Puget Sound Blood Center via cab transport. See following page for additional information on transportation of blood components.
2. Containers for transporting blood components will be provided by the Blood Center.
 - Red Blood Cells (RBC) and Fresh Frozen Plasma (FFP) will be packed on wet ice and transported to the home or outpatient agency in Styrofoam containers that have been quality checked to ensure maintenance of proper temperature for a limited period of time. Unless the outpatient agency has approved monitored refrigerators specifically designed for blood component storage (see Component Storage and Return on the following pages), RBC units and FFP units must be kept in this Blood Center container until the time of transfusion. The container should not be placed inside a refrigerator. RBC units and FFP units packed in this method will remain within the required temperature range for up to 6 hours. Transfusion of RBC and FFP units should be started no later than 6 hours from the time the unit leaves the Blood Center. The transfusionist should inspect the container to be sure there is residual ice left in it at the time the components are removed. If no residual ice remains, the unit should not be transfused and the Blood Center CTL Lead should be notified.
 - Platelets and Cryoprecipitate will be packed in a blue padded bag and should be maintained at room temperature in this container until the transfusion. The container should not be placed in a refrigerator. Platelets and Cryoprecipitate should be transfused before the time of expiration indicated on the Transfusion Report. Platelets have a four hour expiration from the start of preparation for issue at the Blood Center. Cryoprecipitate has a six hour expiration (single unit) or a four hour expiration (pooled unit) from the start of preparation for issue at the Blood Center.

Out-of- Hospital – Transfusion Administration - continued

3. Most outpatient agencies should have two qualified individuals available to complete the patient and unit identification verification check, therefore, the hospital (in-patient) guidelines for a two-person check in Section B should be followed. In the home setting, if only one qualified individual (the nurse) is available to perform the patient and unit identification verification check, the nurse may perform the check without another individual.

The patient/unit identification verification check can be completed by using either the patient ID band OR card. Facilities will need to develop procedures for instances when a patient does not present their ID band or card at the time of transfusion.

If any discrepancies in the patient/unit identification verification process exist, do not transfuse the unit and call the Blood Center Main Laboratory immediately **(206) 292-6525**.

4. As applicable to transfusions at any location (in-patient or out-patient), if a component is not transfused, it should be returned to the Puget Sound Blood Center as soon as possible.

Out-of-Hospital – Transportation of Blood Components from the Puget Sound Blood Center to Out-of-Hospital Location

The home or outpatient agency is responsible for the transportation of the blood component(s) to the patient's home or transfusion facility. The time needed on the Request for Blood and Blood Components form or indicated by a phone order should indicate the date and time the blood will be picked up or issued from the Blood Center. Staff from the agency may pick up the component anytime after the time indicated. If the agency will be using taxi transportation to get the blood to the facility, a phone call should be placed to the Blood Center when the transfusion is imminent. The facility should indicate to send the blood by taxi and the taxi company desired. The Blood Center will phone the taxi to pick up the blood component. The agency will then be responsible for the taxi charges when the component arrives at the facility. The issue of blood and components is handled in this manner to decrease wastage.

Containers for transporting blood and components will be provided by the Blood Center. If an agency has two patients scheduled for transfusion of the same type of component at the same time, one container may be used to transport the blood components for both patients.

Red Blood Cells (RBC) and Fresh Frozen Plasma (FFP) will be packed on wet ice and transported to the home or outpatient agency in Styrofoam containers that have been quality checked to ensure maintenance of proper temperature for a limited period of time. Unless the outpatient agency has approved refrigerators specifically designed for blood component storage (see Component Storage and Return on the following page), RBC units and FFP units must be kept in this Blood Center container until the time of transfusion. The container should not be placed inside a refrigerator. RBC units and FFP units packed in this method will remain within the required temperature range for up to 6 hours. Transfusion of RBC and FFP units should be started no later than 6 hours from the time the unit leaves the Blood Center.

The transfusionist should inspect the container to be sure there is residual ice left in it at the time the components are removed. If no residual ice remains, the unit should not be transfused and the Blood Center CTL Lead should be notified.

The Blood Center recommends the agency limit the number of red cell units requested per visit to no more than two due to issues concerning volume overload. However, the Blood Center will not restrict the number the units issued at any one time and relies upon agency staff to determine the safety of attempting to transfuse more than two units in one visit.

Platelets and Cryoprecipitate will be packed in a blue padded bag and should be maintained at room temperature in this container until the transfusion. The container should not be placed in a refrigerator. Platelets and Cryoprecipitate should be transfused before the time of expiration indicated on the Transfusion Report. Platelets have a four hour expiration from the start of preparation for issue at the Blood Center. Cryoprecipitate has a four hour expiration (single unit) or a six hour expiration (pooled unit) from the start of preparation for issue at the Blood Center.

The Styrofoam containers, chemical coolants and padded bags are to be returned to any Blood Center at the facility's earliest convenience. Wet ice should be disposed of by the agency staff after the transfusion is complete. If a component is not transfused, it should be returned to the Blood Center.

Out-of-Hospital – Component Storage and Return

Home and outpatient agencies must meet standards for monitored storage environments as outlined in Section E. If an agency is unable to provide the storage conditions as described, they must plan transfusions so they will occur as soon as possible following issue from the Puget Sound Blood Center (see Transportation on the prior page).

Home and outpatient agencies without monitored blood storage refrigerators will not be able to return unused blood components to the Blood Center for credit. The box on the unit record of the Transfusion Report attached to returned units must be marked "NO" after the statement "The component has been stored in a monitored device at the temperature range indicated on the component label." The person verifying this information should also sign the "Verified By" line in the box on the unit record. All units that are not transfused must be returned to the Blood Center so the patient record can accurately reflect what component(s) the patient has received.

Biohazard Waste

The home care agency or outpatient facility is responsible for the disposal of all biohazard waste materials generated from the issue and administration of blood components. This waste should be disposed of according to the Washington Administrative Code, Chapter 296-62-080 (Biological Agents), Part J; Code of Federal Regulations, Title 29, Part 1910.1030, Bloodborne pathogens; and the WISHA Occupational Health and Safety Guidelines.

**For additional information,
contact the Blood Center Clinical Associate
(206) 292-1840**