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Interdisciplinary Blood Product Transfusion Policy

I. Purpose:

To develop an interdisciplinary blood product transfusion policy and to define the responsibilities required for nursing, laboratory, and medical staff related to the transfusion process. This policy also addresses the proper method of reporting and evaluation of a transfusion reaction.

The administration of blood and blood components incorporates multiple personnel and hospital services. The act of initiating a transfusion is critical in that protocols at this stage provide the last chance in the detection of errors before the infusion of the component to the patient. All personnel involved in the transfusion process should be provided training in their duties regarding what actions they can take to provide the safest transfusion event for the patient.

This policy addresses the following topics in the sections listed below:

Section A: Pretransfusion Process

Section B: Transfusion Process

Section C: Post-Transfusion Process

Section D: Emergency Transfusion Procedure

Section E: Patient Transfer to Higher Level of Care while Transfusing

Section F: Transfusion Reaction Management

Section G: Blood Product Supply and Availability

Section H: Return and Reissuance of Blood

Section I: Special or Urgent Situations

Section J: Rh Immune Globulin (RhIG)

II. Policy:

Hopi Health Care Center (HHCC) hospital laboratory will ensure that leukocyte-reduced packed red blood cell product(s) is/are transfused after the Registered Nurse verifies the order to "transfuse the patient" in the electronic record and consent of the patient has been obtained (see section D for emergency situations).

Free text orders in the electronic record are not acceptable as an order to transfuse blood.

Licensed, credentialed and competent staff will transfuse blood safely, efficiently and as per procedure. This facility does not store any other human blood products for transfusion.

There must be an order from a ordering medical provider for component to be transfused. An order for a Type and Screen does not meet the criteria and must be converted to a Type and Crossmatch by the ordering medical provider to be processed. The order must include the following:

1. Specify the testing required (i.e., Type and Screen, Type and Crossmatch, etc.).
2. Provide the patient's name and other identifiers.
3. Specify the type of component(s) needed (e.g. packed RBCs).
4. Specify the number of units or volume to be administered and crossmatched.
5. Indicate the date and time required for infusion.
6. Indicate the rate of infusion or time period for component administration (note: must be no greater than 4 hours).

Recipient consent for the transfusion must be obtained from patients who are competent to make such decisions. The recipient consent document should contain indications, risks, possible side effects, and alternatives to the transfusion of allogeneic blood components. Informed consent should be documented on Form IHS-515 AUTHORIZATION FOR ADMINISTRATION OF ANESTHESIA AND FOR PERFORMANCE OF OPERATIONS OR OTHER PROCEDURES as per HHCC policy. The Blood bank must see the original or a copy of the consent form before releasing the unit (see attachment).

III. Procedure:

A. PRETRANSFUSION PROCESS

1. The ordering medical provider will be responsible for following the procedures. The ordering medical provider is a credentialed physician (medical doctor, MD, or a Doctor of Osteopathy, DO), a Physician Assistant, or a Certified Family Nurse Practitioner, who is allowed to order a blood transfusion. The ordering medical provider makes the decision that the patient meets one or more of the following criteria:
    a. Hypovolemia caused by external hemorrhage or suspicion of internal hemorrhage.
    b. Absolute hemoglobin of less than 8 or hematocrit of less than 24 or symptomatic.
    c. Postpartum hemorrhage.
    d. Procedural blood loss of 1000 cc (mL) or greater.
    e. Evidence of Intravascular Hemolytic Process such as Disseminated Intravascular Coagulation (D.I.C.).
    f. Chronic or acute anemia compromising the clinical status of the patient.
    g. At the discretion of the ordering medical provider based on the clinical status of the patient. In this case, justification will be required at the time of the order and must be charted in EHR.
2. Pretransfusion Medications

a. If a medication has been ordered before the infusion, administer in advance of the blood product's arrival to the recipient.
    1. If the premedication is given orally, the transfusionist should wait 30 to 60 minutes before initiating the transfusion. Refer to specific medication information or consult with pharmacist.
    2. If the premedication is given intravenously, a ten minute wait before the transfusion is recommended.

3. Venous Access
    a. The transfusionist must determine whether the patient has an accessible, open and functioning central line or peripheral intravenous line in place that is acceptable for infusion of blood components prior to the start of the transfusion process. The catheter size is dependent on how quickly the blood is to be infused (administered).
        1. Acceptable intravenous catheter sizes for use in transfusing cellular blood components range from 22- to 14- gauge.
        2. A 20- to 18- gauge intravenous catheter is a good compromise that provides adequate flow rates without excessive discomfort to the patient.
        3. For patients with small veins, the catheter size or flow rates may need to be adjusted.

4. Infusion Sets
    a. Components must be administered through special IV tubing with a filter designed to remove blood clots and particles potentially harmful to the patient.
        1. Blood and blood components shall be transfused through a sterile, pyrogen free transfusion set that has a filter designed to retain particles potentially harmful to the recipient.
        2. Blood should be infused through a direct line and not piggybacked to another line.
        3. Standard blood administration tubing has a 170 to 260 micron filter.
        4. The tubing can be rinsed or primed with either 0.9% sodium chloride or the component itself. Review the manufacturer's instructions before use. The IV setup should have a mechanism that allows bypass of the blood IV administration tubing to start the 0.9% sodium chloride in the event of a reaction.
        5. It is suggested to have the "Y" port or three way stopcock close to the infusion site to allow for the administration of the 0.9% sodium chloride.
        6. Finish preparing the infusion set and the donor blood unit. Then prime the Y-type Hi Flow or IVAC blood administration set in-line filters with 0.9% normal saline using the manufacturer’s instructions. Fully wet the filters for optimal flow rates and fill drip chambers halfway to allow for observation of blood flow.

5. Compatible IV Solutions
    a. With the exception of 0.9% sodium chloride (USP), drugs or medications shall not be added to the blood or blood components unless one of the following conditions is met:
        1. They have been approved for this use by the FDA (consult with pharmacy if needed); or
        2. There is documentation available to show that the addition is safe and

does not adversely affect the blood or blood component.

b. The simultaneous use of transfusion lines or same tubing may result in serious adverse reactions such as:

1. Swelling or lysing of the red blood cells caused by use of solutions containing dextrose.
2. Simultaneous infusion of Lactated Ringer's solution (or other solutions containing high levels of calcium) may overcome the buffering capacity of the citrate anticoagulant in the blood preservative and lead to clotting of the component.

6. Pretransfusion Vital Signs

a. Take the patient's baseline (for subsequent comparison) vital signs before initiation of the transfusion. If the patient's temperature is elevated before transfusion, it may be difficult to ascertain if a true transfusion reaction is taking place during the blood administration.

b. The nurse transfusionist must record the patient's pre-transfusion temperature, pulse rate, blood pressure, respiratory rate, lung sounds, $SpO_{2\ and}\ O_2$. If there is pain at the infusion site, check the flow rate setting on the SF-518 form or the flow sheet (see SF-518 and transfusion flow sheet attachments).

7. STANDARD FORM 518

a. The Provider orders Leukocyte Reduced Red Blood Cell component(s) by submission of the SF-518 Blood Component Transfusion form that is completely filled out and enters the order into the Electronic Health Record.

1. The Nurse ensures that the E.H.R. order is for a Type and Screen and/or a crossmatch, and that the Standard Form 518 Transfusion request are complete. The laboratory will only accept the requisition if Section I (Requisition), Section III (Record of Transfusion) and the Patient Identification Section are complete, accurate and legible. If not, the form will be returned or the request called to the ordering department for corrections before any testing will be done.
2. STANDARD FORM 518 (Section I – Requisition)

I. The following sections must be completed with the required information by the Nursing transfusionist (a nurse or ordering medical provider that is initiating and monitoring the blood transfusion process).

II. Make a selection for the type of "Component Requested and Volume required". The only blood components available from the HHCC Lab Blood Bank are packed red blood cells and Rh Immune Globulin (RhIG). The provider is to state transfusion type and the number of units the patient is to receive. If several products are ordered, there must be an SF 518 Blood Component Transfusion form for each product requested (e.g., if 4 units of packed RBCs are ordered, then the lab should receive four (4) SF-518 forms for each unit requested and appropriate box checked under 'COMPONENT REQUESTED' for 'Red Blood Cells').

III. Indicate test TYPE OF REQUEST. Select "Type and Screen" or "Type and Crossmatch".

- A "Type and Screen" request does not include

crossmatch (or compatibility) testing. This type of request is intended for patients who are unlikely to require blood product components. Laboratory testing procedures include patient identification with Typenex armband, ABO & Rh typing and an antibody screen. The specimens will then be held for 72 hours in case there is a need for a crossmatch.

- A "Type and crossmatch" includes a compatibility test and is intended for patients with a definite need of blood component(s). Procedures include patient identification with Typenex armband, ABO & Rh typing, antibody screen, and compatibility testing (to be performed using the number of units from the blood bank inventory based on the request made by the medical provider).

IV. Enter the "Date Requested & Date and Hour Required" so that the laboratory testing personnel can prepare the units accordingly. The average crossmatch work-up takes approximately 45 minutes to an hour.

V. Specify (if known) the "Known Antibody Formation/Transfusion". This information must be provided in order for the laboratory to locate compatible units especially when clinically significant red cell antibodies have been detected (See Section 1 Blood Availability, item C).

- If the patient is female, please indicate if there is a history (if known) of Rhogam (RhIG) treatment and indicate the date given (females who have received prophylactic RhIG can show a positive antibody screen for 6 months afterward). Please indicate (if known) if there is a history of a Hemolytic Disease of Newborn.
- Write legibly name of the ordering medical provider and diagnosis or operative procedure in space provided under the headers for "Requesting Physician & Diagnosis or Operative Procedure". A diagnosis, previous transfusion history or number of previous pregnancies may be helpful in resolving problems should they occur.
- The section for blood specimen collection verification signatures and date and time verified MUST be documented by the person collecting the blood specimen.

3. STANDARD FORM 518 (Section Ill – Record of Transfusion, patient identification)

I. The patient identification section provides space for a label with the patient identification. The American Association of Blood Banks (AABB) and The Joint Commission (TJC) require two independent identifiers to identify the patient. This should include the first and last names of the patient and another identifier such as the patient's medical records number or date of birth. In an emergency situation, a handwritten identification is acceptable provided it is legible and complete. Alternatively,

there are unique numbers for John Doe and Jane Doe patients.

II. SEX and WARD boxes - Provide requested information for the patient's sex and the location of the patient so the laboratory may call the department if needed for more information.

4. PATIENT EDUCATION AND TRANSFUSION HISTORY

I. Obtaining the patient's clinical history before any blood product or component is given regarding the patient's past reactions to the blood component is vital. If the patient has had previous reactions, the medical team can then determine whether the patient requires medication before the transfusion or if special processing of the component is needed to mitigate the risk of an adverse reaction.

II. Patient education is a regulatory requirement. The patient should have the transfusion process explained and be given the opportunity to ask questions. The ordering medical provider or nurse starting the transfusion should discuss with the patient the risks of infectious disease and serious noninfectious complications (such as Transfusion Associated Circulatory Overload (TACO), Transfusion Related Acute Lung Injury (TRALI) and Hemolytic Transfusion Reactions). The patient should be given examples of symptoms to report that are suggestive of a reaction and the discussion should explain to the patient how long the transfusion is expected to last.

III. Some patient's may religious objections to receiving blood products. Refer these concerns to the ordering medical provider (if any) and await his/her written orders before proceeding to the next steps in the transfusion process.

5. PATIENT CONSENT FORM

I. The Provider will obtain the recipient's consent for Blood Administration prior to the transfusion. The Joint Commission (TJC), the laboratory's accreditation agency, mandates discussions with the patient and family about the need for, the risk of and alternatives to blood transfusion when blood or blood components may be needed.

II. The patient has the right to accept or reject the transfusion.

III. If the patient is unable to give consent, a legally authorized representative or surrogate may provide consent. If no one is available to give consent and the need for transfusion is considered to be a medical emergency, the component may be administered with the ordering medical provider's documented consent. If consent is not obtained, it should be documented in the medical record.

IV. The consent form IHS-515 REQUEST FOR ADMINISTRATION OF ANESTHESIA AND FOR PERFORMANCE OF OPERATIONS AND OTHER PROCEDURES must be signed by the patient or provider for the transfusion and placed in the patient's medical record and a copy will be given to the laboratory (see attachment).

V. The consent form must include the following:

- Description of the Transfusion process.

- Description of the Risks, benefits and treatment alternatives (including nontreatment).
- Opportunity to ask questions.
- The right to accept or refuse transfusion.
- The consent is signed by the provider and patient (Note: For an emergency release for blood products, an RN may be authorized by the ordering medical provider to sign for the verbal order. For this process, see below, under Emergency Transfusion Process).

6. BANDING AND BLOOD DRAW PROCEDURE FOR BLOOD BANK TESTING

i. The patient must be identified per the Patient Identification Policy. Collection and submission of a properly labeled pretransfusion blood sample from the intended recipient is critical to safe blood transfusion. The majority of hemolytic transfusion reactions arise from misidentification of recipients or pretransfusion specimen labeling errors. The Laboratory will accept only those specimens that are completely, accurately and legibly labeled.

- Positive Identification of Patient before Blood Collection
  - The person responsible for drawing the blood samples must identify the patient using at least two independent patient identifiers. Do Not Use the patient's location as an identifier, medical records placed on the bed or records placed on nearby tables or equipment. The identification band must be on the patient.
  - The phlebotomist will compare the information on the request form with the information on the patient's hospital wristband and ask the patient for his/her name and date of birth. If the patient is unable to respond, the nurse or phlebotomist must verify the identity of the patient by other acceptable means.
  - If the patient's identity is unknown, he/she must be banded with a numbered ER wristband having a unique identification number. The blood collector must compare the emergency identification band attached to the patient with the information on the request form. This emergency identification should be cross-referenced with the patient's name and identification number once their identity becomes known.
  - Do not collect a sample if there is a discrepancy.

ii. Specimen Requirements

- The required specimens for adult patients are:
    - One (1) full plain 7 mL red-top tube (no gel) and
    - One (1) full 3 – 4 mL purple top EDTA tube.
- Additional considerations:
    - If unable to get the full required amount of blood, call the laboratory testing personnel to find out the minimum blood requirement.
    - If collecting from an infusion line when the patient is receiving intravenous fluids avoid interference from residual intravenous fluid by flushing the tubing with saline, then withdrawing 5 mL of blood and tossing before obtaining the next 5 mL of blood for testing. Specimens that are hemolyzed will be rejected as they mask antibody-induced hemolysis.
    - The pretransfusion sample used for testing must be no more than 3 days old at the time of intended transfusion. This reflects the recipient's current immunologic status because recent transfusion or pregnancy may stimulate production of unexpected antibodies.

iii. Retention and Storage of Donor Samples

- The recipient's blood sample and a segment from any red blood cell containing component must be stored at refrigerated temperatures for at least 7 days after each transfusion.
- This allows for repeat or additional testing if the patient has a transfusion reaction.

iv. Typenex ID Band

- Use of the Typenex ID System is recommended for transfusions because it effectively correlates positive identification of the recipient, blood sample, transfusion request form, and cross-matched units of blood product.
    - Remove a Typenex wristband from the carton and legibly write (on the blood bank wristband) the patient's complete name, hospital number, date & time of specimen collection, and write your name legibly in the phlebotomy section (to indicate that you take responsibility for properly identifying the patient). Write the patient identifying information on the label in the presence of the patient to comply with the National Patient Safety Goals, TJC 01.01.01.
    - Peel the completed label from the band.

Affix the label lengthwise on the sample tube starting with the colored alpha numeric code near the cap by removing the paper backing from the reverse side beneath the arrows.

- Next, attach the Typenex ID band to the patient's wrist by grasping the clip with text facing you, wrap the band once around the patient's wrist. Position the wristband over the clip's center and snap firmly. Once the identification band is placed on the patient, it must not be removed from the patient for a full 72 hours. If it is accidentally removed, the patient must be re-identified with a new wristband and a new sample must be collected and sent to the laboratory blood bank so all blood bank tests can be repeated.
- Then, detach the trailing stickers from the wristband by holding the clip firmly while tearing down and away from patient with a twisting motion.
- Peel one of the alpha numeric stickers from the tail and apply it to the crossmatch request SF-518 form.
- Send the following to the laboratory blood bank department including the purple top tube, the plain red top tube with the regular hospital label attached lengthwise, the remaining alpha numeric labels, and the SF-518 requisition.

7. Pretransfusion Laboratory Serologic Testing
    i. In the laboratory, testing personnel will confirm that the information on the specimen label and the information on the pretransfusion test requisition are identical. If there is any doubt about the identity of the patient or about the specimen labels a new specimen must be obtained.
    ii. Laboratory testing personnel perform Quality Control testing daily (or day of use). The crossmatch takes a minimum of 45 minutes to complete.
    iii. The laboratory performs the following pretransfusion serologic tests on the recipient's blood sample:
        - ABO group, Rh typing, antibody detection, and compatibility testing. The laboratory follows approved policies and procedures that comply with the AABB Standards for Blood Banks and Transfusion Services (manual located in the laboratory blood bank section).
        - The laboratory test personnel look at the patient's historical records and compares the results of the current ABO and Rh test results with previous

transfusion service test results. The laboratory looks at the patient's transfusion records over the past 12 months and documents the review on the blood bank logs. Records are reviewed for the presence of clinically significant red cell antibodies, the occurrence of significant adverse reactions and special transfusion requirements used.

- The ordering medical provider is notified of any histories of incompatible reactions or any positive antibody screen results.
- If the pretransfusion specimen antibody screen is negative and the crossmatch results show compatibility with the selected donor RBC unit(s), they will be released for transfusion. However, a negative antibody screen only indicates that the recipient shows no detectable antibodies that react with the screening cells used or by the technique employed. Similarly, a compatible crossmatch result does not guarantee the normal red cell survival of donor cells in the recipient. Spurious or unexpected red blood cell reactions may have other causes.

iv. Once the pretransfusion testing is completed by laboratory personnel, the original and carbon copies of the SF-518 are attached securely to the donor unit(s). After completion of the crossmatch, laboratory testing personnel will notify the department to pick up the blood component and will assist with filling out the portions of the SF-518 Blood Component Transfusion form(s) for every blood unit ordered that address the unit release time, date and to whom it was released.

B. TRANSFUSION PROCESS – Routine Release of Blood Units from the Laboratory

1. The Transfusion shall be prescribed and administered under medical direction. Components should not leave the controlled environment of the blood bank until the transfusion site for the patient has been identified, the patient has been properly prepared and the transfusionist is ready to begin the infusion.
2. Blood must be released from the laboratory by a qualified laboratory testing personnel. On-call laboratory testing personnel must be called in for releasing of blood if all shifts are not covered.
3. One unit is to be issued at one time from the blood bank unless it is necessary for more blood units to be emergency released.
4. For routine non-emergency blood release, a copy of the consent form or SF-518 or a printed order sheet from EHR or a patient label must be presented to the Blood Bank testing personnel before the unit can be released.
5. LABORATORY CHECKS BEFORE BLOOD PRODUCT ISSUANCE:
   Both the laboratory personnel who issue the donor unit and the RN or ordering medical provider who receives the unit have shared responsibility for correctly matching the donor and recipient information before the blood is transfused. Registered nurses (RN) and medical providers are the only personnel authorized to check out blood unit(s) after proper orientation of release procedures. The process for receipt of Red Blood Cell Component is as follows:
   a. The RN must present a printed order or signed consent form to lab to pick up blood and verify the patient's name by reading from the SF-518 form. The lab testing

personnel will hand the unit to the nurse. Simultaneously, the nurse and the lab tech reading from the blood bank log will read aloud the following and verify that the information matches:

1. Patient's first and last name
2. Date of Birth (DOB)
3. Alpha numeric Blood Band ID Number tag
4. Blood Product to be issued
5. Unit number
6. Unit type and Rh
7. Patient type and Rh
8. Unit expiration date
9. Compatibility interpretation
10. Any specific requirements (i.e., CMV negative, etc.)

b. The laboratory testing personnel will check the RBC blood product unit against the Crossmatch Transfusion Record (Laboratory Log Book) and the nurse will verify that it is the correct unit for the recipient by verbalizing the information.

c. Both personnel will ensure that the recipient's blood type (ABO group and Rh) is compatible with the donor unit based on the information on the donor unit label, the Blood Component Transfusion Form and the Transfusion Service Record Log.

d. Both personnel will verify that the alpha numeric label from the Typenex ID band matches the donor unit label, blood component Transfusion Form and the Transfusion Service Record Log book.

e. The donor identification number must be identically recorded on the donor unit label, the Blood Component Transfusion Form and the Transfusion Service Record Log Book.

f. The results of the antibody screen and crossmatch must be noted on the Blood Component Transfusion form and the Transfusion Service Record Log Book. If the antibody screen is positive, the crossmatch will be tested through the antiglobulin phase and if compatible, it indicates that the blood unit is negative for the antigen in question.

g. Both the laboratory testing personnel and nurse will ensure appearance of the unit checking the unit for leaks, bubbles, clots, or change in color. If integrity of the blood component is questionable, the nurse will return the blood product to the laboratory transfusion services.

h. Record the following on the Crossmatch Transfusion Report and Transfusion Service Record Log:

1. Name of the person issuing the blood
2. Name of the clinical representative to whom blood is issued
3. Date and time of issue

i. The RBC blood component will be issued after inspection by the laboratory testing personnel. The laboratory test personnel will sign the Transfusion Records log book along with date and time and will check whether the crossmatch is compatible and mark "OK" under the visual inspection of the unit. The tech will have the nurse sign the column marked "issued to" on the Blood Bank Transfusion Service Testing Record Log.

j. The unit tag must also match with the recipient's identification information and the blood type and remains attached to the unit as identification for the transfusion. The laboratory testing personnel will also write in the 72 hour time limit for the crossmatch to be considered compatible. After that time limit, the crossmatch will have to be repeated using a new recipient blood sample set (plain red top tube and purple EDTA tube).

This donor unit No: Has been processed for:
Patient: _____
Hospital: _____
LABORATORY STUDIES
PATIENT: ABO Group _____ Type: ___
DONOR: ABO Group _____ Type: ___
INTERPRETATION OF COMPATIBLE TESTS
□ Compatible
□ Emergency Release – Uncrossmatched
Tech: _____ DATE: _____
x_____
Valid until (DATE/ TIME)

6. AT THE PATIENT'S BEDSIDE: Verification of RBC Component and Patient Recipient
   a. After blood product issuance from the laboratory the transfusionist and one other individual shall, in the presence of the recipient, positively identify the recipient and match the blood component to the recipient through the use of two independent identifiers.
   b. Immediately before transfusion (at the recipient's beside), two nursing personnel will verify:
      1. The intended recipient's two independent identifiers, the ABO group, and Rh type.
      2. The donation identification number, the donor ABO group and Rh type.
      3. The interpretation of crossmatch tests, if performed.
      4. Special transfusion requirements met, if applicable.
      5. Ensure that the unit has not expired.
   c. The transfusion should be withheld if any discrepancy or abnormality is found. This is the final step to prevent the administration of incorrect blood component to a patient.
   d. After the verification is complete, both personnel checking the blood component will sign the SF-518 Blood Component Transfusion form in the PRE-TRANSFUSION DATA section. The transfusionist (nurse hanging the blood component) signs in the 1st VERIFIER section of the SF 518 and the person verifying the unit signs in the 2nd VERIFIER section.
   e. NOTE: The identification attached to the blood product shall remain attached until the transfusion has been completed or terminated.
   f. Use the EHR to document the transfusion process and reactions, if any.
   g. A complete set of vital signs should be obtained and documented and include the record the patient's pre-transfusion temperature, pulse and blood pressure on the appropriate area of the SF-518.
   h. Also, document vital signs on the Non-Emergency Transfusion Checklist and Flow Sheet.

7. Starting the Transfusion - Blood Component Administration
    a. Only an RN or a credentialed medical provider may transfuse blood components.
    b. The nurse or provider explains to the patient the signs and symptoms (if not done so already while obtaining the patient's consent and signed form) that occur during a transfusion reaction (such as, chills, itching, feeling of warmth, difficulty breathing, or pain in the back, abdomen, chest, or IV site) as listed on the Blood Transfusion Checklist, and emphasize the need to notify the nurse (RN) immediately if he/she experiences any of these signs or symptoms.
    c. Initiation of the transfusion must occur within 30 minutes of the time recorded as the check-out/issue time recorded in section III of the SF-518 Blood Component Transfusion form or the blood component must be returned to the laboratory for storage in a monitored and refrigerated environment.
        1. If a unit has been returned beyond 30 minutes, it may not be reissued for other recipients who may need the blood product. In this case, the unit must be discarded.
        2. Blood products should never be stored or held in a patient care unit unless there is a controlled, monitored environment for components.
    d. The nurse begins the process by using the Y-tubing administration set to prime one side with 0.9% Normal Saline. Close the tubing clamp when the tubing is filled with saline. Close all three tubing clamps and maintain a protective sterile cap on the tubing connector, then perform the following:
        1. Gently agitate blood unit bag to prepare blood component for administration.
        2. Prime other Y Connection with blood component. Ensure clamp is closed to saline bag.
        3. IV infusion pump will be used for all transfusions except in emergent situations.
        4. Maintaining asepsis, attach prime tubing to patient's IV line.
    e. The infusion should start slowly at approximately 2 milliliters (mL) per minute for the first 15 minutes while the nurse remains with the patient. Severe reactions may occur with as little as 10 mL of blood product transfused.
    f. If there is no sign of a reaction after the first 15 minutes, the flow rate can be adjusted according to the volume that the patient's circulatory system can tolerate. The nurse then records the vitals on the transfusion log sheet for the 15 minute period, then hourly since the start of transfusion until completed on the transfusion flow sheet. Consideration should be given to the patient's size, blood volume, cardiac status, and hemodynamic condition (refer to AABB technical manual 2021, if needed).
    g. If there is no sign of a reaction after the first 15 minutes, the flow rate can be increased to the designated infusion rate per the written order by the ordering medical provider or consistent with institutional practice but should be adjusted to what the patient's circulatory system can tolerate. For RBCs, the suggested infusion rate for an adult is 150-300 mL/hr.
    h. Document the date and time transfusion was started on the following forms:
        1. SF-518 Blood Component Transfusion form.
        2. Blood Transfusion Checklist and Flow Sheet.
    i. Acceptable IV catheter sizes for use in transfusing blood range from -22 to -14

gauge. If using a smaller gauge, adjust the flow rate to a slower rate. A central venous access device may be used for transfusions.

1. Never administer medications through the same administration set as that used for blood components (normal saline is the only IV fluid compatible with blood components). An additional IV site should be established if necessary.
2. Consider using a filter if the patient has been chronically transfused or has had a prior febrile reaction.

8. Monitoring the Transfusion - Vital Signs
    a. The patient shall be monitored for potential adverse events during the transfusion and for an appropriate time after transfusion. All vital signs on Blood Transfusion Checklist and Flowsheet must be performed.
        1. Take an initial set of vital signs before the transfusion and record on the Blood Transfusion Flow Sheet and Crossmatch Transfusion Report.
        2. Check the IV site for redness, swelling or evidence of a rash.
        3. Vital signs shall be taken at 15 minutes for each unit of blood after the start of infusion and then hourly from the time the transfusion started for the duration of the infusion (should not exceed 4 hours) and 1 hour post completion of the transfusion.
        4. Vital signs must be taken one hour post transfusion and charted on the Blood Transfusion Checklist, Flow Sheet and the SF-518 Blood Component Transfusion form.

9. Monitoring - Flow Rate
    a. A unit of blood should never take more than 4 hours to infuse. Consider the following:
        1. Tubing should be changed every 4 hours or after infusion of two units of blood product (whichever comes first).
        2. If used, blood warming components must be done under strict conditions utilizing a blood warmer with controlled monitors and proper training. Never warm blood components in an unmonitored water bath or sink. Never warm blood components in a microwave oven.
    b. Or, if the IV rate has slowed down, the transfusionist should take one or more of the following actions:
        1. Check and ensure that the IV site is patent and has no swelling at the IV site.
        2. Raise or elevate the unit.
        3. Examine the filter for air, excessive debris or clots.
        4. Consider the addition of 0.9% saline (NaCl) as a diluent if the unit is too viscous (it is appropriate to administer the component through an infusion pump).
    c. Upon completion of the transfusion, complete the Blood Transfusion Checklist, Flow Sheet and the SF-518 Blood Component Transfusion form in its entirety and return a copy to the Laboratory.
    d. Upon completion of the transfusion, clear IV line with 0.9% normal saline and discard the blood bag into a biohazard receptacle.

10. Required Documentation
    a. The following information should be documented on the flow sheet:
        1. Vital signs:
            I. After 15 minutes from the start of the infusion
            II. 1 hour after the start of the transfusion
            III. 2 hours after the start of the transfusion
            IV. 3 hours after the start of the transfusion
            V. 4 hours after the start of the transfusion
            VI. 1 hour after the transfusion was completed
        2. Time the blood was hung and time completed. If blood is discontinued before completion, provide a reason.
        3. Lung sounds pre- and post-transfusion.
        4. Suspected Transfusion Reaction, if applicable.
        5. Patient's response, if any, to the transfusion.
        6. Place the empty blood bag in a biohazard bag.
        7. Place the top copy of the SF-518 in the patient's chart.
        8. Return the second copy of the SF-518 to the laboratory.

C. POST-TRANSFUSION PROCESS
1. The AABB Circular of Information indicates that 4 hours as the maximum duration for a transfusion. The maximum time should not be confused with recommended time. Most RBC units are infused within 4 hours duration.
    a. If the anticipated infusion time of longer than 4 hours is required, the ordering medical provider should be notified to assess the specific clinical situation.
    b. If another blood product unit needs to be transfused, HHCC guidelines and/or manufacturer's recommendations should be consulted to determine if the same blood administration tubing may be used for subsequent units.
        1. If there are no contraindications from the manufacturer, institutions will usually allow the tubing to be used beyond the 4 hour period.
        2. If multiple units are transfused, blood tubing must be rinsed with 0.9% saline between units and Y-blood tubing must be changed after every two units.
    c. After an hour from the completion of the transfusion the patient's vital signs are obtained because patients can experience delayed transfusion reactions. If the recipient’s vital signs are abnormal, notify the ordering provider. Pulmonary or febrile reactions may be evident 1 hour after the end of the transfusion.
    d. Document the patient's post-transfusion data on the SF-518 form, section 3 (Record of Transfusion) with the following information:
        1. Time and date transfusion was completed or interrupted.
        2. Amount of blood infused (1 Unit of PRBCs = approximately 250 cc).
        3. Post-transfusion temperature, pulse and blood pressure.
        4. Any adverse events possibly related to the transfusion.
        5. Other difficulties (equipment, clots, etc.).

6. Signature of person noting the above observations.

D. EMERGENCY TRANSFUSION PROCEDURE (Release of Uncrossmatched blood)

1. In an emergency situation that requires the release and transfusion of blood products before completion of compatibility testing (crossmatch), the following procedure for removing units from the lab will be adhered to by laboratory, medical and nursing staff. The signed emergency release form replaces the patient consent with the ordering medical provider's authority during the emergency situation. For emergency requests for blood product, an RN may be authorized by the ordering medical provider to sign for the verbal order. In such cases, a second RN (witness) signature is required on the emergency release form. The medical provider's signature must still be obtained within 24 hours of the verbal order.
    a. The nurse must obtain blood specimens including one (1) full plain red top tube and one (1) full EDTA purple top tube once the patient is stabilized for the laboratory to complete compatibility testing.
    b. When collecting the patient's blood samples, the nurse will follow the patient identification procedure in "Transfusion Process", step 4 above, using the Typenex banding procedure. If the patient's identity is unknown, the nurse will use the temporary identification process.
    c. The provider or nurse will complete the "Emergency Release of Blood" request form for uncrossmatched blood products with the requesting provider's signature.
    d. Take the completed Emergency Release form, blood sample tubes and Typenex labels to the laboratory transfusion services staff.
        1. O-Negative blood component(s) will be transfused in the absence of documented blood type or screen in the patient record.
        2. O-Negative blood component(s) shall be prioritized for females of childbearing age.
        3. ABO and Rh compatible blood will be issued if there has been time to test a current specimen.
    e. Implied consent is acceptable in a life threatening, acute emergency situation at the discretion of the provider.

2. RN will take the Emergency Request for Blood Form (and tear off the "pigtail" of alpha numeric labels if the blood is drawn) and submit to the laboratory technical staff.
    a. The laboratory blood bank personnel will remove the requested number of units from the blood bank refrigerator and prepare by attaching a sticker indicating that the unit compatibility testing has not completed at the time of issue, removing two segments from each unit and placing them in glass tubes labeled with the unit number sticker and an alpha numeric label from the recipient's Typenex ID band.
    b. Blood component information on the Crossmatch Transfusion Report will be issued/ inspected by appropriate laboratory testing and nursing personnel simultaneously and the release signed, dated and time by both.
    c. One copy of the emergency release form is retained in the laboratory blood bank department. The other copy is attached to the blood unit.
    d. If O Negative packed RBC units are issued, the laboratory will then provide type-specific blood for subsequent releases if time allows.
    e. For units taken from laboratory, the Emergency Release form should include the following:
        1. Donor Unit Number, ABO/Rh and Blood Product Unit Expiration Date.
        2. Date and time of issue.

3. Name of the person issuing the blood.
4. Name of the clinical representative to whom blood is issued.

f. Lab will begin compatibility testing and complete them promptly. If incompatibility is detected at any stage of testing, the patient's ordering medical provider will be notified immediately.

3. Nurses Verification of the Blood Component at the Patient's Bedside
   a. At the bedside, two licensed personnel will verify that the blood identification band and the blood component match using the following:
      1. Name/chart number/date of birth or Temporary Patient ID.
      2. Unit Number.
      3. Blood Band Number.
      4. Blood Type.
   b. After the verification is complete, both nursing personnel will sign the Emergency Request for Blood.
   c. Use the Blood Transfusion Checklist, the Transfusion Flow Sheet and the SF-518 Blood Component Transfusion form to document the transfusion vital signs and potential reaction.
4. Blood Component Administration
   a. Only a competent nurse or a credentialed medical provider may transfuse blood components.
   b. If appropriate, explain to the patient signs and symptoms of a reaction as listed on the Transfusion Flow Sheet and emphasize the need to notify the ordering medical provider immediately.
   c. Follow the same process as outlined section "Blood Component Administration".
   d. Flow rate may be increased per patient situation.
   e. When consecutive blood products are ordered, maintain IV patency with 0.9% normal saline at "keep vein open rate" (KVO) and retrieve subsequent blood components for administration. Tubing should be changed after two blood components are transfused.
   f. When the patient is stabilized, ensure that all vitals are documented and notify the laboratory so the testing personnel can redirect work to other testing.

E. PATIENT TRANSFER TO A HIGHER LEVEL OF CARE WHILE TRANSFUSING
1. If blood is transfusing when patient is being transferred/leaves the facility the following occurs:
   a. A copy of paperwork is sent with the unit and the original is kept here and it is noted on SF-518 and Blood Transfusion Checklist and Flow Sheet that unit of blood was in process of transfusing.
   b. A letter will be given to the transport company requesting that the records containing the patient's vital signs during and after the transfusion to be sent back to the laboratory. The letter will be signed by a transport personnel and a copy made to remain with the paperwork at HHCC.
   c. When patient is ready for transfer:
      1. Record time.
      2. Obtain and record the last set of vital signs.

3. Indicate on the Transfusion Checklist, Flow Sheet and the SF-518 Blood Component Transfusion forms that the patient was transferred.
4. The blood should already be infusing at the time the recipient is being transported.
5. Send a copy of the SF-518 Blood Component Transfusion form with the transporting team to complete the post transfusion vital signs.
    I. Keep the original SF-518 Blood Component Transfusion form in the chart and send a copy to the Laboratory.

d. Notify the department supervisor of the patient transport so the transfusion records can be obtained from the transport team or from the facility that the patient was transported to (if the unit is still infusing when the patient is admitted to the receiving hospital).

F. TRANSFUSION REACTION MANAGEMENT

1. All personnel involved in administering blood components must be able to recognize, evaluate quickly and report any suspected transfusion related adverse event. The nurse must be ready to provide timely clinical management of the patient and record the relevant information in the patient's medical record.
    a. Common clinical signs and symptoms may be associated with more than one type of adverse reaction. A transfusion reaction can be acute reactions or delayed reactions.
    b. Early recognition and prompt cessation of the transfusion and evaluation are keys to a successful outcome.
2. Transfusion reaction signs and symptoms:
    a. Fever, generally defined as a 1°C (or rise in 2°F over the baseline) or greater rise in temperature to ≥38°C (or >102°F) is the most common sign, or a heart rate of >120 beats per minute from baseline.
    b. Chills with or without rigors (chills, flushing, shaking with or without fever).
    c. Respiratory distress including coughing, dyspnea, tachypnea, wheezing, or hypoxemia.
    d. Hypo- or Hypertension (e.g., systolic pressure declines by greater than 30 mm Hg to less than 80 mm Hg in adults and usually starts within the first 15 minutes of transfusion).
    e. Chest pain, back pain, flank pain, or abdominal pain.
    f. Pain at the infusion site including IV site oozing with or without redness, soreness or pain.
    g. Skin manifestations including urticarial, rash (or hives), flushing, pruritis, and localized edema.
    h. Jaundice or hemoglobinuria (red/pink urine).
    i. Nausea and/or vomiting.
    j. Abnormal bleeding (bleeding or other signs of coagulopathy).
    k. Oliguria/ anuria (Dark urine or jaundice).
3. Patient Focused Steps:
    a. Stop the transfusion immediately but keep the IV line open with saline.
    b. The nurse must document that the clerical rechecks between the patient and the

component has been done. The nurse will check the labels on the component, on patient records and patient identification for any identification errors. Documentation of adverse events must be made in the medical record and include details of all adverse effects noted, the time noted and action(s) taken.

c. The nurse must notify the patient's ordering medical provider immediately. It is the responsibility of the ordering medical provider to determine if the patient's symptoms are due to a suspected transfusion reaction and what type of reaction is identified (i.e., acute hemolytic reaction, anaphylaxis, transfusion induced sepsis, and TRALI). The ordering medical provider will request to have a transfusion reaction work up as needed.

d. The provider will examine the patient and give instructions for patient care.

e. If the reaction appears to be a hemolytic transfusion reaction, disconnect the blood tubing from the IV catheter and connect a new IV tubing with normal saline to prevent infusion of any residual blood component to the recipient. If this is done, preserve any residual components (transfusion container), blood administration set, IV solutions, and all related forms and labels for further evaluation.

f. Collect post-transfusion patient samples from the recipient by carefully drawing blood into a plain red top tube (no additives/no gel barrier) and a lavender top tube (EDTA) and a post reaction urine sample. Send to the laboratory blood bank department.

g. If the provider orders the transfusion to continue, restart the transfusion at a slow rate. Ensure that the provider documents this request in the medical record and continue to monitor vital signs at 15 minutes into the transfusion and hourly thereafter (using the Blood Transfusion Flow Sheet to record vital signs and observe closely for further signs and symptoms of a reaction).

4. Component Focused Steps:

   a. Contact the laboratory blood bank for directions on investigating and documenting the potential causes of the reaction.

   b. Obtain instructions concerning the return of any remaining component, associated intravenous fluid bags and tubing. The blood bank department lab director determines whether the blood donor center should be notified of an acute transfusion reaction. The Food and Drug Administration (FDA) requires reporting to the blood donor center when the blood product component is at fault for causing the reaction (e.g., suspected problem with labeling, manufacturing or suspected bacterial contamination of the component). The FDA is notified immediately when a complication of transfusion is confirmed to be fatal (CFR 21, part 606.170b).

   c. If the observed events are limited to urticaria or circulatory overload, the blood bank need not evaluate post reaction blood or urine samples.

5. Laboratory Testing personnel Role in the Transfusion Reaction Investigation

   a. The laboratory personnel will perform the following steps immediately after receiving notification and the samples:

      1. Clerical checks of the component bag, label, paperwork, and patient sample.

      2. The patient's post-transfusion reaction serum or plasma will be inspected for evidence of hemolysis. Pretransfusion samples shall be used for comparison.

      3. A repeat ABO group and Rh type determination shall be performed using the post-transfusion sample. Pretransfusion samples shall be used for

comparison

4. A post-transfusion sample direct antiglobulin test (DAT) shall be performed. If the result is positive, the most recent pretransfusion sample shall be used for comparison.
5. If any of the initial checks and/or tests give suspicious or positive results, the diagnosis of an acute hemolytic transfusion reaction should be pursued. Laboratory testing personnel will notify the ordering medical provider immediately. The laboratory will also forward all documentation of the transfusion reaction to the Laboratory Director.

b. The laboratory director will be given the transfusion reaction worksheet and the name and number for the ordering medical provider and they will determine if further workup is necessary.

c. Additional laboratory evaluation will follow if indicated, and may include:

1. Repeat testing of the ABO and Rh type of the pre-reaction recipient samples and on the segment attached to the packed RBC unit.
2. Repeat testing of the antibody screen on the pre-reaction, post-reaction recipient samples and on the segment attached to the donor packed RBC unit. If detected, samples will be sent to the Blood System Laboratories Reference Laboratory for identification.
3. Repeat crossmatch testing with pre-reaction and post-reaction recipient samples and on the segment attached to the donor packed RBC unit.
4. Testing of the post-reaction urine sample for hemolysis.
5. If requested, the following may be needed:
    I. chemistry tests (BUN, creatinine, total bilirubin)
    II. urine sample
    III. CBC for hemoglobin
    IV. blood culture
    V. gram stain of the donor unit
6. The laboratory will consult with the Laboratory Director and/or the Blood Donor Center to determine the appropriate extent of adverse reaction workup.

d. All transfusion records are reviewed quarterly by the Quality Council and Blood Utilization Review Committee.

6. Records of Transfusion Complications

a. The laboratory retains records of a transfusion complication for a recipient receiving blood products at HHCC indefinitely to prevent future transfusion complications.

b. The laboratory notifies the blood donor center in cases of contaminated blood products.

c. When the death of a recipient results from a transfusion reaction or complication of transfusion, notification is made to the FDA as soon as possible by telephone, express mail or electronic means (facsimile or electronic mail) followed by a written report within 7 days as a “Sentinel Event Indicator”. The transfusion nurse or provider notifies the House Supervisor or the Administrator on-call. The House Supervisor will notify the Quality Management Director who will notify the following:

1. FDA email: fatalities2@cber.fda.gov

Telephone: 301-827-6220 or Fax number: 301-827-6748, Attn: CBER Fatality Program Manager

2. Address:
Office of Compliance & Biologies Quality/CBER
Attn: Fatality Program Manager (HFM-650)
1401 Rockville Pike, Suite 200N
Rockville, MD 20852-1448

7. Note regarding a Transfusion Reaction:
    a. When hives (urticaria) are the only sign of reaction, the transfusion must be suspended while the ordering medical provider is notified. A transfusion reaction workup is not required. These reactions do not necessitate that the transfusion be discontinued only that it be stopped while the provider is notified. Urticarial reaction must be noted in EHR.
    b. Circulatory overload does not require any work-up by the laboratory. Symptoms of circulatory overload include coughing, cyanosis, orthopnea, and difficulty in breathing. A rapid increase in systolic blood pressure supports the diagnosis. Symptoms usually improve when the transfusion is stopped.
    c. If repeating a cross match is indicated, all units given within the preceding 24 hour period are to be re-crossmatched with the pre- and post-transfusion specimens. All units that are available for transfusion are to be re-crossedmatched with the new specimen.
    d. Additional units of blood cannot be issued until the transfusion reaction investigation has been completed and the problem resolved.
    e. The urine specimen used for testing should be fresh or appropriately preserved.

G. BLOOD PRODUCT SUPPLY AND AVAILABILITY

1. Blood Availability: The only component available at the Hopi Health Care Center Laboratory are packed red cells. The laboratory does not stock fresh frozen plasma or platelets. Three (3) donor segments are removed at the time the patient sample is cross-matched with units to confirm donor ABO/Rh. The following blood type stocked are Leukocyte Reduced Red Blood Cell Components (the preferred minimum stock level is 12 total units but due to the shortage, we are currently stocking between 8-10 units):
    a. 4 units of O Positive packed red blood cells
    b. 4 units of A Positive packed red blood cells
    c. 4 units of O Negative packed red blood cells
2. Supplier: Vitalant, 6210 East Oak Street, Scottsdale, AZ 85257
3. Special Product Requests such as antigen negative packed RBC units will be required if the patient has a history of an antibody. It will be necessary for the laboratory to consult with Blood Supplier for availability.
4. For Rh Immune Globulin (RhIG), the main supply is maintained by the Pharmacy. In addition, the Laboratory stocks one full dose (1500 IU) in the blood bank refrigerator.

H. RETURN AND RE-ISSUANCE OF BLOOD

1. The transfusion service may receive blood products into the blood bank only for those units that meet the following acceptance criteria and documentation of these are kept in the laboratory:
    a. The primary container has not been punctured or damaged.
    b. The appropriate transport and storage temperature of the component has been

maintained or the component has been returned within 30 minutes from product issue from the laboratory blood bank.

c. At least one sealed segment remains integrally attached to the container of RBCs.

d. The visual inspection of the component is satisfactory.

2. Depending on the condition of the returned unit, the component may either be placed in quarantine for further investigation or discarded in a biohazard container.

a. If the component is accepted, it may be returned to the general blood inventory and reissued.

b. For further questions to Vitalant, call 1-800-288-2199, ext. 5719.

I. SPECIAL OR URGENT SITUATIONS

1. Transport of blood being transfused into a recipient who is transporting to another facility. If blood is requested to be sent with a patient being transported, HHCC Blood Bank will not package and send untransfused blood units on flights. The blood units(s) must already be infusing before leaving the facility.

2. The laboratory tracks all blood units sent out of this facility. The ordering medical provider should clearly indicate on the chart the disposition of each unit (i.e., transfusion in progress, patient transferred to Flagstaff Medical Center).

3. Other urgent situations include:

a. Neonatal transfusions. These are not performed at Hopi Health Care Center. Instead, attempts will be made to transfer the infant to a facility that can handle the special situation.

b. Therapeutic Phlebotomy. This procedure is not performed at Hopi Health Care Center.

c. The laboratory will consult with United Blood Services for any special or urgent situation not addressed in this policy.

J. Rh IMMUNE GLOBULIN (RhIG)

1. RhIG is considered a blood product which requires the use of laboratory blood bank transfusion medicine policies and procedures. Rh hemolytic disease of the newborn is the result of the active immunization of an Rh negative mother by Rh positive red cells entering maternal circulation during a previous delivery, abortion, amniocentesis, abdominal trauma or as a result of a red blood cell transfusion.

a. The administration of RhIG within 72 hours of a full-term delivery of an Rh positive infant by an Rh negative mother reduces the incidence of Rh isoimmunization from 2% to 12%. The incidence of isoimmmunization can be further reduced from approximately 1.5% to less than 0.1% by administering RhIG in two doses, an antenatal dose given at 28 weeks gestation and another dose given following delivery.

1. The laboratory stores one full dose (1500 IU) in the blood bank refrigerator. Additional doses can be obtained from the Pharmacy department.

2. It is the responsibility of the ordering medical provider to ensure that an adequate dose of RhIG is administered. Patients who receive RhIG shall be evaluated for additional treatment for any subsequent sensitizing events.

3. Rh Immune globulin shall be administered as soon as possible after exposure.

4. If the ordering medical provider thinks that a fetal maternal hemorrhage

(FMH) of > 30 mL of fetal blood has occurred, a Kleihauer Betke test may be sent to the reference lab for quantification so that the dosage of RhIG can be calculated.

b. Indications and Usage for Pregnancy and Other Obstetric Conditions

1. Women who are pregnant (child-bearing female) or who have been pregnant recently shall be considered for RhIG administration when all of the following apply:
    I. The women's test for D antigen is negative. A test for weak D is not required.
    II. The woman is not actively immunized to the D antigen.
    III. The Rh type of the fetus/infant is unknown or the type of the fetus/infant is positive when tested for D or weak D. Weak D testing is required when the test for D is negative.
2. The following women are not candidates for RhIG:
    I. The Rh(D) negative woman whose infant is Rh(D) negative.
    II. Any Rh(D) positive female.
    III. Any Rh(D) negative female known to be immunized to D antigen.

c. Ordering Rh Immune Globulin (RhIG) and Nursing Procedures

1. If the ordering medical provider determines that a female requires RhIG prophylaxis, the nurse will ensure that the SF 518 form will be submitted to the laboratory blood bank department. The SF 518 must be signed by the ordering medical provider and he/she must request for RhIG and a Type & Screen.
2. The nurse will obtain blood samples from the patient if they are in the emergency department or inpatient unit (otherwise, the laboratory will obtain the sample). Once blood samples are received into the laboratory, the testing personnel will perform ABO, Rh Type and Antibody Screen testing on the mother's blood according to established policy and procedures.
    I. If there is evidence that the mother is immunized against D antigen (has Anti-D identified in the antibody screen test), the ordering medical provider will be immediately notified.
3. Upon confirmation of Rh Negative type and a negative Antibody screen, the laboratory will notify the nurse that the RhIG is ready for injection.
4. When the nurse arrives to the laboratory to take the RhIG, he/she must follow the proper donor release procedure (see above under non-emergency release of blood product).
    I. The nurse will proceed to provide the injection into the recipient’s arm immediately after the product is obtained.
    II. After the procedure is completed, the nurse will place the original copy of the RhIG Injection form into the patient’s medical record. The second and third copies of the RhIG form must be returned to lab for documentation and filing.
5. If the antibody screen test is positive, the laboratory testing personnel will send the specimen to the Blood Systems Laboratories (Vitalant) or the reference laboratory (Sonora Quest) for further workup and notify the

ordering medical provider.

IV. References:

1. May, A., Reily, J. (2020). Use of blood products in the critically ill. Available from: https://www.uptodate.com/contents/use-of-blood-products-in-the-critically-ill search=blood%20products%20transfusion&source=search_result&selectedTitle=2~150&usage_type=default&display_rank=2
2. Report of Transfusion Adverse Reaction. United Blood Services for Hospitals and Physicians: Adverse Transfusion Reaction Form BS962. Retrieved from https://hospitals.vitalant.org/Transfusion-Medicine/Adverse-Transfusion-Reactions.aspx
3. American Association of Blood Banks (AABB) Technical Manual, 20th edition, effective April, 2021.
4. Standards for Blood Banks and Transfusion Services, 32nd edition, effective April 1, 2020.

Attachments

HHCC Bld Trxn Checklist and Flow Sheet 5 27 21.docx

HHCC IHS-515.pdf

SF 518 (1).pdf

Approval Signatures

Step Description	Approver	Date
Medical Officer Pathologist	Noelle Blue Arm: Medical Officer Pathologist	03/2023
Clinical Director	Jocelyn Hirschman: Infection Prevention Medical officer	03/2023
Chief Nurse Executive	Rachel Hamblin: Chief Nurse Executive	02/2023
Lab Supervisor	Kendrick Fritz: Supervisory Medical Technologist	02/2023
	Rebekah Osborn: Assistant Lab Supervisor	02/2023

Applicability

Hopi Health Center