

PROCEDURE FOR: Blood Components: Transfusion Reaction

- POLICY:**
1. Patients must be monitored carefully during blood component administration because acute transfusion reactions can occur during or within 24 hours after a transfusion. Most life-threatening reactions occur early in the course (within 6 hours). Patients may experience such reactions as: allergic, febrile, septic, hemolytic, TRALI (transfusion related acute lung injury), or circulatory overload.
 2. If a patient has a known or suspected acute transfusion reaction, the transfusion will be stopped immediately, and the Licensed Independent Practitioner (LIP) and Blood Bank will be notified at once. The attending physician must be notified as soon as possible.
 3. All blood component units and tubing will be retained whenever a known or suspected acute transfusion reaction has occurred and will be returned to the Blood Bank for evaluation.
 4. The immediate investigation of a transfusion reaction must include examination of blood unit labels and all pre-reaction records for possible errors in patient and/or blood identification at the bedside and in the laboratory.

EQUIPMENT: Transfusion Reaction Evaluation Form HCH-497

Refer to the Laboratory Specimen Manual and the Transfusion Reaction Evaluation Form for types of blood collecting tubes and blood volume needed.

PROCEDURE:

<u>ACTION</u>	<u>POINTS OF EMPHASIS</u>
1. If a transfusion reaction is suspected, immediately stop the transfusion. Suspect a transfusion reaction whenever a patient develops sudden chills and/or temperature increase of 1°C/2°F.	<ol style="list-style-type: none">1. a. Suspect hemolytic reaction if the patient develops lumbar back pain, chest constriction, fullness in head, tachycardia, hypotension, or port wine colored urine.2. b. Suspect febrile reaction if patient develops headache or nausea and vomiting.c. Suspect bacterial contamination of a blood component unit if patient develops nausea and vomiting or persistent shock-like state.d. Suspect circulatory overload if patients develops dyspnea, cough, frothy sputum, or has an increase in blood pressure \geq 50mm Hg.e. Suspect an allergic reaction if patients develops hives, urticaria, laryngeal edema, asthmatic wheezing or cyanosis.

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2. Notify the LIP and Blood Bank at once.
 3. Remove the component administration set as close to the IV catheter as possible. Cap the component administration set and leave it connected to the blood component.
 4. Maintain a KVO infusion of normal saline or IV fluids as ordered through the IV site.
 5. Take vital signs and document them on the Transfusion Record flowsheet and the Transfusion Reaction Evaluation Form (HCH-497).
 6. Obtain blood specimens from a fresh venipuncture site, (preferably from a different limb than that through which the blood component was infused) and not from an indwelling line. Send to the Blood Bank.
 7. Obtain first voided urine sample and send to Clinical Chemistry. Save all urine, measured and record urinary output; catheterize the patient as ordered if the patient is unable to void.
 8. Collaborate with Blood Bank regarding need for additional specimens for type & screen / type & cross-match; obtain any other specimens as ordered.
 9. Continue monitoring vital signs as ordered and assess patient as condition warrants.
 10. Administer medication(s) as ordered.
- f. Suspect TRALI (transfusion related acute lung injury) if patient develops non-cardiogenic, pulmonary edema presenting as respiratory distress, hypoxemia, hypo or hypertension, fever and bilateral pulmonary edema.
3. Send the blood component and tubing, completed paperwork and specimens to the Blood Bank as soon as possible.
6. See Laboratory Specimen Manual and Transfusion Reaction Evaluation Form.
 - a. The plasma of the sample is observed for the presence of hemoglobin.
 - b. The ABO type of the patient is confirmed.
 - c. A Direct Coombs test is performed to determine the presence of antibodies coating the patient's red blood cells.
 7. First voided urine sample test for hemoglobinuria.

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APPROVAL:

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