

Beaumont

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Document Contact Kelly Sartor
Area Laboratory-Blood Bank
Applicability Dearborn, Farmington Hills

Additional Blood Bank Guidance When The Medical Director is not Immediately Available During a Suspected Transfusion Reaction

Document Type: Procedure

I. PURPOSE AND OBJECTIVE:

This document will provide the Blood Bank staff with additional, temporary guidance in the event that the Medical Director is not immediately available when the medical technologist or patient's caregiver has additional concerns about a patient who is experiencing a suspected transfusion reaction.

II. DEFINITIONS:

- A. **Hemolytic transfusion reaction:** the immunologic destruction of transfused RBCs, nearly always due to incompatibility of an antigen on transfused cells with an antibody in the recipient's circulation; i.e., transfusion of ABO incompatible RBCs.
- B. **TRALI:** Transfusion Related Acute Lung Injury, a transfusion reaction associated with acute increased permeability of the pulmonary microcirculation, usually occurring within 6 hours of transfusion and requiring aggressive respiratory support.

III. ADDITIONAL GUIDANCE:

A. Suspected Hemolytic Transfusion Reaction

1. If a patient appears to be experiencing a **hemolytic transfusion reaction** and the Medical Director is not immediately available, then the medical technologist may suggest or perform

the following:

- a. To order a post-transfusion complete blood count (CBC) to determine whether the patient has obtained the expected rise in hemoglobin and hematocrit.
 - i. One RBC unit is expected to raise the hemoglobin of an average-sized adult by approximately 1 g/dL and the hematocrit by approximately 3 percentage points.
- b. Re-type the RBC donor unit using a segment.
- c. Repeat the Type & Screen on the pre-transfusion sample.
- d. Order a first post-reaction urine by complete urinalysis.
- e. Order serum bilirubin and haptoglobin on pre- and post-transfusion patient samples.
- f. If a **"wrong blood in tube" collection error is suspected**, then the medical technologist should:
 - i. do a clerical check of other specimens that were drawn at the same time or from the same nursing unit.
 - ii. ascertain whether another patient may be in danger of receiving incompatible blood.
 - iii. Refer to Transfusion Medicine policy [Resolution of ABORh Discrepancies: Wrong Blood in Tube \(WBIT\) Event](#).

B. Suspected Bacterial Contamination

1. If **bacterial contamination** or transfusion of a component containing an **infectious agent** is suspected, then the medical technologist should:
 - a. Refer to Transfusion Medicine policy, [Suspected Bacterial Contamination of a Transfused Component](#).
 - b. Suggest to the patient's physician that he or she may wish to order blood cultures on the patient.

C. Suspected TRALI

1. If the patient's caregiver has questions or **concerns about TRALI**, then the medical technologist should refer them to the [Circular of Information for the Use of Human Blood and Blood Components](#) found on the laboratory department web page until Medical Director can assist.

IV. REFERENCES:

1. AABB, [Circular of Information for the use of Human Blood and Blood Components](#), current edition.
2. AABB, *Technical Manual*, current edition.

Approval Signatures

Step Description	Approver	Date
	Karrie Torgerson: Supv, Laboratory	Pending
	Kelly Sartor: Supv, Laboratory	6/22/2022
	Kelly Sartor: Supv, Laboratory	6/22/2022

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