TRANSFUSION REACTION LABORATORY INVESTIGATION

Complete this section when a call of a possible transfusion reaction is received:

<table>
<thead>
<tr>
<th>Date Reported:</th>
<th>Reporting Facility:</th>
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</thead>
<tbody>
<tr>
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</table>

<table>
<thead>
<tr>
<th>Tech:</th>
<th>Caller’s name:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient’s Name:</td>
<td>SSN/MR #:</td>
</tr>
</tbody>
</table>

- NA - Pretransfusion work performed by another facility.

Ask the caller:

1. Has the transfusion been discontinued? *(Mark appropriate box)*
   - Yes
   - No, instruct the caller to discontinue.
   - Date/Tech Verified by

2. Does the patient have an open saline IV line? *(Mark appropriate box)*
   - Yes
   - No, instruct caller to keep saline IV line open.
   - Date/ Tech Verified by

3. Has the patient’s physician been notified of reaction? *(Mark appropriate box)*
   - Yes
   - No, instruct them to inform the physician immediately.
   - Date/ Tech Verified by

4. Reactions experienced by the patient (document below):

**SIGNS AND SYMPTOMS OF REACTION:** *(✓ those that apply)*

- Urticaria (hives)
- Hemoglobinuria
- Nausea
- Hypotension
- Flushing
- Chills/Rigors
- Fever
- Vomiting
- Headache
- Anxiety
- Cough
- Back Pain
- Tachycardia
- Other ____________________

Instruct the caller to provide the following:

1. Pre-transfusion samples (If not performed by QualTex Laboratories).
2. Post transfusion samples (at least 1 red top and 1 EDTA (lavender) top).
3. Urine sample (1st voided urine sample after transfusion reaction has occurred).
4. Blood bags with all tubing and IV solutions without the needle.
5. Completed form RL03.0042.1, Adverse Transfusion Reaction Form (back of yellow copy – Adverse Transfusion Reaction Documentation).
6. If pre-transfusion testing is not performed by QualTex instruct caller to fill out form RL03.0002.1, Immunohematology Reference Laboratory Consultation Request and attach documentation of reactions and vital signs.

Is Pre-transfusion testing performed by QualTex Laboratories?
- Yes – Retrieve pretransfusion paperwork and attach
- No, continue with work-up.

Comments:
Complete sections below upon receipt of samples for testing:

| Patient Name: |
| SSN /MR #: | DOB: |
| Facility: | Specimen #: |
| Tech: | Date: |

**I. CLERICAL CHECK:** Document date/time product received, product type and blood unit number(s).

Received Date______________ Received Time ____________

Component with which reaction occurred:  
- [ ] RBC  
- [ ] Platelets  
- [ ] Plasma  
- [ ] Other:_______________

Blood Unit Number(s): #1__________________  #2__________________

Check items received:

- [ ] Red Top Sample  
- [ ] EDTA (lavender) Top Sample  
- [ ] Urine Sample  
- [ ] Component Blood Bags  
- [ ] Tubing & IV Solution  
- [ ] Other:

Does patient information & component bag label correlate with pre-transfusion testing records?  
- [ ] Yes  
- [ ] No

Are all samples properly labeled?  
- [ ] Yes  
- [ ] No

1 If any discrepancy is noted, inform the supervisor/designee and reporting facility.

**II. VISUAL CHECK:** For each section, document pertinent information and mark box that applies.

Is there evidence of Hemolysis?

- [ ] Pre-transfusion sample:  
  - [ ] Yes  
  - [ ] No  
- [ ] Post-transfusion sample:  
  - [ ] Yes  
  - [ ] No

  a.) If hemolysis is observed in the post-transfusion sample, immediately request a second set of samples to rule out hemolysis due to mechanical causes.

  b.) If hemolysis is still noted on the recollected sample, proceed to **III. DAT** and **IV. Serological Work-Up**.

- [ ] Urine sample:  
  - [ ] Yes  
  - [ ] No  
  - [ ] N/A- explain____________________________________

  2 If urine has visual hemolysis, submit urine sample for urinalysis. See **V. Additional Testing**

- [ ] Component Bag(s):
  - [ ] Bag #1__________________:  
    - [ ] Yes  
    - [ ] No; Approximate volume (mL) remaining___________
  - [ ] Bag #2:__________________  
    - [ ] Yes  
    - [ ] No; Approximate volume (mL) remaining___________

  4 If component bag(s) have any evidence of hemolysis or discoloration (brownish or purplish) send bag for blood culture. See **V. Additional Testing**.

- [ ] Type of IV solution used:____________________________________
III. DIRECT ANTIGLOBULIN TEST (DAT) *

<table>
<thead>
<tr>
<th>Patient</th>
<th>Anti-IgG,-C3b /CC</th>
<th>Anti-IgG/CC</th>
<th>Anti-C3b-C3d/CC</th>
<th>Neg. Cont.</th>
<th>Interpretation (Pos or Neg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-sample</td>
<td>IS</td>
<td>/</td>
<td>IS</td>
<td>/</td>
<td>/</td>
</tr>
<tr>
<td>Post-sample</td>
<td>IS</td>
<td>/</td>
<td>IS</td>
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*Document date/time reaction occurred and time pre and post samples were collected.

1. If DAT is negative check time post sample was collected.
   - If collected more than 1 hour (61 minutes) post transfusion, proceed to IV. Serological work-up Part A and Part B
   - If collected hour or less of transfusion, proceed to IV. Serological work-up Part A.

2. Notify the Supervisor or designee and Medical Director immediately if the Direct Antiglobulin Test (DAT) is positive. This includes the pre-transfusion samples tested by IRL.

IV. SEROLOGICAL WORK-UP

Perform Part A for all suspected transfusion reactions.

<table>
<thead>
<tr>
<th>PART A</th>
<th>Anti-A</th>
<th>Anti-B</th>
<th>Anti-A,B</th>
<th>Anti-D</th>
<th>Rh Ctrl</th>
<th>37°C</th>
<th>AHG/CC</th>
<th>Group &amp; Rh(D)</th>
<th>A1 Cell</th>
<th>B Cell</th>
<th>Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Trans.</td>
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<tr>
<td>Post-Trans.</td>
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<tr>
<td>Donor Unit #</td>
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Perform Part B if results from Part A are discrepant or if a hemolytic reaction is suspected (refer to Appendix B Categories of Transfusion Reaction for signs and symptoms of Hemolytic reaction).

NA PART B (attach worksheets)

<table>
<thead>
<tr>
<th>Antibody Screen</th>
<th>Pre:</th>
<th>Post:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antibody Identification</td>
<td>Pre:</td>
<td>Post:</td>
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<tr>
<td>Eluate</td>
<td>Pre:</td>
<td>Post:</td>
</tr>
</tbody>
</table>

- LISS
- PEG
- Albumin

<table>
<thead>
<tr>
<th>Donor Unit # Crossmatch</th>
<th>IS</th>
<th>37</th>
<th>AHG/CC</th>
<th>Gel</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre:</td>
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V. ADDITIONAL TESTING: Document date/sent by for blood culture, urinalysis & test requested. If not applicable, check N/A box.

1. Submit component bag(s) to the Microbiology (MI) Lab for blood culture if:
   - Hemolysis and discoloration is noted in the bag(s).
   - Patient has a temperature increase of > 1°C OR > 2°F
     - Fill out form CO03.0816.8, Microbiology General Request Form for blood culture and send the white copy to the Microbiology Lab.
     - Attach yellow copy of form CO03.0816.8 to this work-up.

   □ N/A  Blood Culture sent by: ___________________ Date: ________________

2. Submit urine sample for urinalysis testing if:
   - Hemolytic transfusion reaction is suspected.
   - Hemolysis is noted in the urine sample.
     - Fill out University Hospital (UH) General Lab 2 Request form. Refer to Appendix D.

   □ N/A  Urinalysis sent by: ___________________ Date: ________________

3. Additional testing requested (if applicable) Additional testing will be performed as requested by the STBTC Executive Vice President of Medical Affairs or Medical Director
   - Fill out University Hospital (UH) General Lab 2 Request form. Refer to Appendix D.

   □ N/A  Test(s) requested: ___________________ Date sent: ________________

Comments: ______________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Review:
1. ____________________________________________ Date: ________________
   Department  ☐ Director  ☐ Asst. Director  ☐ Supervisor  ☐ Designee

2. ____________________________________________ Date: ________________
   ☐ Medical Director  ☐ N/A