### TRAINING UPDATE

Lab Location:

SGMC and WAH

Date Implemented:

11.20.2017 12.11.2017

Department: Processing

**Due Date:** 

### **DESCRIPTION OF PROCEDURE REVISION**

# Name of procedure:

**Blood Bank Method Comparisons** 

# **Description of change(s):**

This is a new procedure that outlines the method comparison process for blood bank. The previous procedure included all method comparisons in the lab. We separated the procedure to make it easier to understand and more usable for blood bank staff.

## **Electronic Document Control System**



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Title: Blood Bank Method Comparisons

**Owner: LESLIE BARRETT** 

Status INWORKS

Effective Date: 27-Dec-2017

**Next Review Date:** 

Non-Technical SOP

| Title       | Blood Bank Method Comparisons |                  |
|-------------|-------------------------------|------------------|
| Prepared by | Stephanie Codina              | Date: 11/22/2017 |
| Owner       | Stephanie Codina              | Date: 11/22/2017 |

| Laboratory Approval   |                       |      |
|---|-----------------------|------|
| Print Name and Title  | Signature             | Date |
| Refer to the electronic signature page for approval and approval dates. |                       |      |
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| Local Issue Date:   | Local Effective Date: |      |

| Review:    |           |                                       |
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#### 1. **PURPOSE**

This procedure describes the process for method comparisons to verify that an acceptable relationship exists between test results using the same or different methodologies within the blood bank.

#### 2. **SCOPE**

This procedure applies to any test method that is performed in the blood bank using more than one methodology. For the purposes of this procedure, antibody screen and antibody identification panels by the same method are interchangeable, because the reagent and process is the same for testing.

#### 3. RESPONSIBILITY

All blood bank staff members must understand and adhere to this procedure when performing method comparisons.

#### **DEFINITIONS** 4.

N/A

#### 5. **PROCEDURE**

| Step | Action   |
|------|--|
| 1    | Method comparisons are performed semi-annually.  |
| 2    | Each test that is performed by more than one method will be tested and compared. This includes, but is not limited to,  A. ABO/Rh by Echo and manual tube  B. Antibody screen by Echo, manual capture, and manual tube  C. Crossmatch by Echo and manual tube  D. Antigen typing by Echo and manual tube |

| Step | Action   |  |
|------|--|--|
| 3    | <ul> <li>Select a minimum of 5 specimens that are appropriate for the test method.</li> <li>A. A mixture of ABO and Rh types should be selected when testing ABO/Rh.</li> <li>B. Positive and negative specimens should be selected when performing antibody screening.</li> <li>C. Compatible and incompatible crossmatches should be selected. Select units that are positive and negative for the antigen corresponding the sample antibody.</li> <li>D. Select a mixture of patient specimens and donor units for antigen typing.</li> <li>E. It is acceptable to pull control specimens for antigen typing when you cannot find patients or units that meet the criteria (such as K-positive or e-negative).</li> </ul> |  |
| 4    | Use the same identifier for a single specimen tested by different methods. This can be accession number, medical record number, or a generic identifier (specimen 1, specimen 2, etc).   |  |
| 5    | Test the same specimen/aliquot by each method and record results.  |  |
| 6    | Qualitative results are expected to achieve 100% concordance.  |  |
| 7    | Submit testing to the supervisor for evaluation and to the medical director for approval.  |  |

### 6. RELATED DOCUMENTS

AppF Qualitative/Semi-Quantitative Comparison Study (located on Attachment pane on SmartSolve)

### 7. REFERENCES

None

### 8. REVISION HISTORY

| Version | Date | Reason for Revision | Revised By | Approved<br>By |
|---------|------|---------------------|------------|----------------|
|         |      |                     |            |                |
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|         |      |                     |            |                |

### 9. ADDENDA AND APPENDICES

Appendix A: Hints for Completing Method Comparisons in Blood Bank

# Appendix A Hints for Completing Method Comparisons in the Blood Bank

### 1. ABO/Rh

| Step | Action  |
|------|---|
| 1    | Attempt to select one patient specimen for each blood type (O+, O=, A+, A=, B+, B=, AB+, AB=).  A. The BBR8 Patient AD Data Update report can be used to help identify the blood types for all patients tested within the preceding 7 days.  B. It is possible that we will not have patient specimens for all blood types.  Ensure that we have at least 5 specimens of different blood types and a mixture of Rh types. |
| 2    | Test each specimen by manual tube and record results on a downtime form.  |
| 3    | Test each specimen using the Echo and print results.  |

2. Antibody Screen

| Step | Action  |
|------|---|
| 1    | Select 3 patient specimens that contain one or more antibodies. Select 2 patient specimens with a negative antibody screen.             |
|      | Note: LISS methodology is less sensitive than Capture methodology. Select specimens using LISS.   |
| 2    | Perform antibody screen testing on the specimens using LISS tube, manual capture, and Echo. Record results on the appropriate antigram. |

### 3. Crossmatch

| Step | Action  |
|------|---|
| 1    | Select 3 patient specimens that contain one or more known antibodies.   |
| 2    | <ul> <li>Find two units that correspond to each specimen.</li> <li>A. One unit should lack the antigen(s) corresponding the antibody(-ies) in the plasma.</li> <li>B. One unit should possess the antigen(s) corresponding the antibody(-ies) in the plasma.</li> </ul> |
| 3    | Crossmatch each unit in LISS tube and document results on a downtime form.  |
| 4    | Crossmatch each unit on the Echo and print results.   |
| 5    | Document the ABO/Rh and antibody(-ies) of the patient on the form. Document the ABO/Rh and antigen(s) of the unit on the form.  |

| Step | Action   |
|------|--|
| 1    | Select a total of 5 test samples.  |
|      | A. Two to three test samples should be patient specimens.  |
|      | B. Two to three test samples should be unit segments.  |
| 2    | Perform antigen typing for C, c, E, e, and K on each specimen in manual tube and document results on an antigen typing form.   |
| 3    | Perform antigen typing for C, c, E, e, and K on each specimen using the Echo and print results.  |
| 4    | At least 1 test sample must be positive for the antigen and 1 test sample must be negative for each antigen. Select additional specimens as needed to meet this requirement. |