TRAINING UPDATE

Lab Location:	SGAH and WAH	**Date Implemented:**	03.02.2015
Department:	Blood Bank	**Due Date:**	03.15.2015

DESCRIPTION OF PROCEDURE REVISION

Name of procedure:

Sample Specifications for Blood Bank Testing

Description of change(s):

Updated to reflect the new T&S requirements for NON-RBC products (plasma, platelets, cryo).

- Once per admission for inpatients
- Once per year for outpatients

Electronic Document Control System

Quest Diagnostics

Document No.: WAH.BB17[6]
Title: SAMPLE SPECIFICATIONS FOR BLOOD BANK TESTING
Owner: LESLIE.X.BARRETT LESLIE BARRETT
Status INWORKS
Effective Date: 27-Mar-2015 **Next Review Date:**

Non-Technical SOP

Title	**Sample Specifications for Blood Bank Testing**	
Prepared by	Maria Hall	Date: 8/20/2009
Owner	Stephanie Codina	Date: 8/10/2010

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

Review:		
Print Name	**Signature**	**Date**

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1. PURPOSE

The collection of a properly labeled blood sample from the correct patient for pre-transfusion testing is critical to safe blood transfusion. Samples used for compatibility testing for red cell and whole blood products must reasonably represent the patient's current immunological status and be retained for a minimum of 7 days post-transfusion to allow additional testing in the event of an adverse reaction.

2. SCOPE

All specimens for blood bank testing must be labeled in accordance with the procedure outlined below. **Any deviations are only accepted at the pathologist or manager's discretion and must be documented on a PI/variance form.**

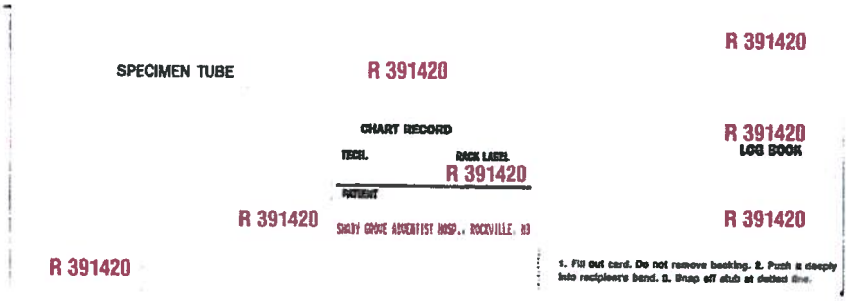
3. RESPONSIBILITY

All Blood Bank staff must understand and adhere to this procedure.

The Blood Bank Manager is responsible for implementing, enforcing, maintaining, and reviewing the procedure.

4. DEFINITIONS

Blood Bank Armband Labeling System -- consists of a red armband and label set with a unique number printed on them. Each label set includes an armband insert, a "specimen tube" label and several small numbered labels. At the time of specimen collection, the phlebotomist prepares the armband by writing the patient's name, medical record number, date/time of collection and his initials/tech code on the insert. The insert is slid into the red band and placed on the patient's arm. The specimen tube label is applied to the sample and labeled as detailed below. The remainder of the labels and the sample are sent to the laboratory.



5. PROCEDURE

A. Labeling

Step	Action
1	Proper identification is essential for all blood bank specimens. A. Labeling must be performed at the patient's bedside, immediately following specimen collection, by the person who collected the specimen. B. Specimens will be rejected if there is evidence that the labeling did not take place at the bedside (i.e. double labeling or additional labeling beneath the blood bank label). C. Specimens from other laboratories will **not** be used for compatibility testing.
2	All blood bank specimens **must** be legibly labeled with the following: A. Patient's complete name B. Patient's medical record number C. Date and time of collection D. Identification of person collecting the specimen E. Blood bank armband number (for TS and TSNEO specimens only) Specimens may be labeled with any label that contains the patient's accurate name and medical record number. The patient name may be truncated due to space limitations on the label; this practice is acceptable. The FIN (billing) number may be used in place of the medical record number during periods of computer downtime and in other situations when the medical record number is not available.
3	Incompletely labeled specimens may be fixed in the confines of the blood bank. A. Laboratory personnel may not correct or alter labels. B. Specimens missing only date and time of collection or phlebotomist's identification may be corrected by the person who collected the specimen. C. The changes must be made in the blood bank.

Step	Action
4	Specimens labeled with an incomplete or incorrect name, medical record number or blood bank armband number will be rejected. A. Cancel the test in the LIS per procedure, "LIS: Cancelling Orders." B. If a nurse/physician-collected specimen. a. Inform the nursing area to re-order the blood bank test. b. Instruct the nurse to remove the previous blood bank armband and return it to blood bank (if applicable). C. If a phlebotomist collected the specimen, generate a new LIS order for the redraw. a. Order a new test in "Order Entry." b. Print a specimen label. c. Walk the specimen label to phlebotomy and ask them to recollect the specimen. d. Instruct the phlebotomist to cut off the old blood bank armband, if applicable. D. Complete a PI/Variance report and attach a copy of the specimen label for documentation. Acceptable deviations (but poor practice) are the following: ▪ Nickname on specimen (i.e. Joe for Joseph). ▪ Minor misspelling of name (1 character only). Document misspelling in the Communication Log. Lookup misspelled name in the LIS using Patient/Display/Orders to confirm that there is not another patient with that name. If the misspelled name belongs to, or matches, another patient's data, the patient must be redrawn.
5	Cord blood samples must be designated as "cord blood" and be labeled with the infant's: A. Complete name B. Medical record number C. Date and time of collection D. Collector's identification. Blood Bank armband numbers are not required for cord blood or neonatal type and DAT specimens.
6	On occasion a patient may be assigned an "alias" to protect his or her privacy and confidentiality. A. When a patient has been assigned an alias on admission and is to have a T&S specimen collected, the information on the sample (name and medical record number) must match the patient information in the LIS. B. If the sample was labeled with the patient's legal name and the patient was then given an alias, the sample must be redrawn. C. The blood bank will not issue blood products if the sample, the LIS, and the identification on the blood request slip do not match. The Blood Bank will call the nursing unit to obtain the patient's legal name if needed for the history check.

Step	Action
7	Autologous donor units are labeled with the following identifiers by the blood supplier. A. Patient's full name B. Patient's birthdate C. Last 4 digits of patient's SSN (optional) Identifiers must match the same patient identifiers in the LIS exactly. Discrepancies must be investigated and resolved before transfusion takes place.
8	If additional specimen is collected to complete an antibody identification or to refer to the ARC Reference Lab for testing, the additional specimens should be labeled with: A. Patient's full name B. Patient's medical record number C. Time and date of collection D. Collector's initials **The patient's blood bank armband should NOT be removed. A new armband should NOT be added.** Note: When possible, save some plasma in the original T&S tube for crossmatching. The antibody identification or workup should be completed on the extra or redrawn tubes and the tech should return to the original tube for crossmatching until the original specimen has been depleted.
9	Prior to testing, the blood bank technologist will compare the information printed on the tube to the information listed in the LIS or on the LIS label, and the requisition if available. A. Ensure the patient's name is spelled correctly. B. Ensure the patient's medical record number is correct. Reject the specimen if discrepancies exist. Refer to step 4.
10	Specimens that will undergo automated testing require re-labeling with an LIS label. All other specimens may be labeled with an LIS aliquot label. A. Print an LIS label if needed. B. Compare the information printed on the LIS label to the specimen. a. Ensure the patient's name matches on both labels. b. Ensure the patient's medical record number matches on both labels. C. Place the label on the tube. a. Be sure you do not cover any pertinent information on the original label (name, MRN, time/date of collection, collector's initials). b. If a large label is used (as for automated testing), you may fold the label in half lengthwise to avoid covering the pertinent information below. D. Initial or write your tech code on the label to indicate that you applied the LIS label to the tube.

B. Specimen Type

Step	Action
1	Specimens collected in a tube containing EDTA are preferred for all blood bank testing. A. Specimens may be collected in a plain red top tube or thrombin clot tube. B. Specimen collected in serum separator tubes are not acceptable. C. Specimens collected in heparin may be accepted for some tests; refer to each individual procedure. D. Donor segments are used for donor ABO/Rh and compatibility testing. a. An integral segment detached from the unit at the time of testing is utilized. b. Segments are cut or punctured without obliterating the printed segment number.
2	DAT testing performed on clotted samples can yield false-positive results due to in-vitro complement fixation. All positive DAT results obtained on serum specimens should be repeated on EDTA anticoagulated blood specimens.
3	Whenever possible samples should not be hemolyzed or lipemic. A. Refer to the Laboratory Policy "Hemolysis, Icteria and Lipemia Interference". B. In urgent situations (i.e., Emergency Room), such samples may be used for testing. The condition of the sample must be documented in the LIS by adding a comment code in BOP via the keyboard.

C. Age of Sample

Step	Action
1	T&S specimens that will be used for compatibility testing routinely expire at midnight on day 3. Day zero is the day of collection. A. T&S specimens used for compatibility testing of **autologous** units may be extended up to 10 days. B. T&S specimens used for the transfusion of platelets, cryoprecipitate, and plasma products may be used for the entire hospitalization for inpatients and for up to 1 year for outpatients.
2	T&S specimens collected on neonates (<4 months in age) will be good until the infant is discharged or until the infant reaches the age of 4 months, whichever is sooner. A. A new specimen will be collected if the infant is discharged and readmitted. B. Infants greater than 4 months old are treated as adults and samples expire every 3 days.

Step	Action
3	The specimen expiration date may be extended up to 7 days when it is collected as pre-surgical testing **and** the patient has not been pregnant or transfused within the previous 3 months. A. The transfusion and pregnancy history must come from a competent, reliable source. B. Document the information in BOP using the **q** or **e** key and the appropriate comment code: a. NOTX = Not transfused in past 3 months. b. NTP = No Tx/Preg past 3 months. C. The crossmatch will not be extended if there is any uncertainty about the transfusion or pregnancy history.

D. Retention of Samples

Step	Action
1	Blood Bank specimens are retained at 1-6°C for 14 days after collection. A. A specimen rack is prepared daily and dated. B. All samples received throughout the day are retained in this rack including samples for ABO confirmation. Samples collected on previous days that are used for crossmatching are placed back in the original day's rack.
2	Neonatal crossmatch samples are retained for 7 days past the date the infant reaches 4 months of age or 7 days past the baby's discharge date, whichever is first.
3	Unit segments are retained at 1-6°C. Segments are routinely stored by month for a minimum of 60 days.
4	All specimens and segments are discarded into biohazard trash at the end of the retention period.

E. Centrifugation

Step	Action
1	Blood bank tests that use whole blood do not need to be centrifuged prior to testing. Examples of these tests include A. DAT testing B. Fetal bleed testing C. Cord blood testing

Step	Action
2	Blood bank specimens that require serum or plasma for testing are centrifuged: A. At 3000-3600 RPM for 5-10 minutes when they will be tested using the Galileo Echo or manual capture technology. B. At the above settings or at 6840-7560 RPM for 3 minutes if they will be tested using manual tube methodology.

F. Labeling of Serologic Testing Tubes

Step	Action
1	All serologic test tubes and manual capture strips will be labeled with the patient or unit identity. In addition, the reagent or cell identity will be added to the label for testing performed in a test tube. Capture strips used on the Galileo Echo do not require hand-labeling.
2	The minimum acceptable patient/unit identifiers include: A. The first 3 letters of the patient's last name **or** the patient's first and last initials. B. The last 3 digits of the unit number. C. Additional identifiers will be used if duplicate letters or numbers exist in one batch of patient specimens.
3	Acceptable reagent identifiers will be listed in each individual testing procedure.

6. RELATED DOCUMENTS

Lab policy:	Hemolysis, Icteria and Lipemia Interference
Phlebotomy SOP:	Blood Bank Specimen Collection and Labeling
BB SOP:	Cancelling Orders
Form:	Blood Bank Extra Specimen Request (AG.F160)

7. REFERENCES

1. Roback, J.D., Combs, M.R., Grossman, B.J., Hillyer, C.D. 2008. Technical Manual of the AABB, 16th ed. AABB Publishing, Bethesda, Maryland.
2. Standards for Blood Banks and Transfusion Services, 2009, 26th ed. AABB Publishing, Bethesda, Maryland.
3. Code of Federal Regulations, 21 CFR 606.151, current edition.

8. REVISION HISTORY

Version	Date	Reason for Revision	Revised By	Approved By
		Supersedes SOP WAB.001.001, SHB.001.001		
000	8.10.2010	Update owner Section 5: Update to table format, change cord blood labeling, add centrifugation information, add information regarding applying LIS labels to tubes, remove requirement to store segments of crossmatched units with the crossmatch tube, add provision to extend crossmatch to 7 days for PAT.	S Codina	Dr Cacciabeve
001	9.19.2011	Section 5: Add requirement to attach a copy of mislabeled specimen labels to the PI/Variance report. Add requirement to attempt to use the original specimen for crossmatch testing when additional specimen is drawn for the workup. Removed references to gel. Add centrifugation specifications for manual capture and Galileo Echo testing.	S Codina	Dr Cacciabeve
002	2.15.2012	Section 1: Edited sample storage requirement. Samples are stored for 14 days total or 7 days post transfusion per regulatory requirements. Section 5: Updated cord blood labeling requirements for SGAH.	SCodina	NCacciabeve
003	9.25.2012	Section 5: Removed requirement for SGAH to hand-write T&S labels.	SCodina	NCacciabeve
004	11.24.14	Section 5: Removed SSN as an acceptable alternative to the MRN. Added identifiers for autologous units. Section 6: Moved form from section 9 Footer: version # leading zero's dropped due to new EDCS in use as of 10/7/13.	SCodina	NCacciabeve
5	2.24.2015	Section 5: Updated T&S requirements for non-red cell transfusion.	SCodina	NCacciabeve

9. ADDENDA AND APPENDICES

None