INTERNATIONAL SPECIALIST IN BLOOD BANKING

EXPERIENCE DOCUMENTATION FORM (Routes 2 & 3)

PART I (TO BE COMPLETED BY APPLICANT)

Applicant's Name _____ ASCP Customer ID# _____

Email Address _____ Address _____

PART II (MUST BE COMPLETED AND SIGNED BY LABORATORY MANAGEMENT* OR EMPLOYER IN ORDER TO BE ACCEPTABLE)

SUBJECT: VERIFICATION OF EXPERIENCE FOR EXAMINATION ELIGIBILITY

This individual, identified above, has applied for the Board of Certification International Specialist in Blood Banking examination. In order to establish this applicant's eligibility for certification, the following information is necessary:

1. PLEASE COMPLETE: EXPERIENCE (INCLUDING ON-THE-JOB TRAINING)

Date experience **started** in Blood Banking: Month _____ Day _____ Year _____

Date experience **ended** in Blood Banking: Month _____ Day _____ Year _____

How many hours per week in Blood Banking? _____ (average, if necessary)

2. DIRECTIONS: Please review the experience of this applicant. Please place an **X** by each procedure which has been performed satisfactorily under your supervision using **The Guidelines for Evaluating Experience of a Candidate for International Specialist in Blood Banking**. (NOTE: An international specialist in blood banking must be proficient in **ALL** of the following procedures.)

SEROLOGIC TESTING

_____ ABO grouping and Rh typing

_____ Antibody detection and identification

_____ Crossmatching

_____ Direct antiglobulin tests

_____ Tests for other blood group antigens

MOLECULAR TESTING*

QUALITY CONTROL/ASSURANCE

_____ Reagents, equipment

_____ Component quality control

_____ Regulatory compliance

LABORATORY OPERATIONS*

ROUTINE PROBLEM SOLVING

_____ Transfusion adverse reactions

_____ Immune hemolytic anemias

_____ Hemolytic disease of the fetus and newborn (HDFN)

_____ Rh immune globulin studies

_____ Indications for transfusion

DONOR COLLECTION, PROCESSING, AND TESTING*

_____ Donor selection, preparation, and collection

_____ Processing and donor testing

_____ Component preparation for storage and administration

Proficiency for the tasks indicated by the asterisks may be demonstrated through performance, observation, or simulation.

3. BY SIGNING THIS FORM, I AS LABORATORY MANAGEMENT* OR EMPLOYER VERIFY THAT THIS APPLICANT IS PROFICIENT IN EACH OF THE BLOOD BANKING AREAS CHECKED ON THIS FORM.

(Please Print) Laboratory Management* or Employer Name _____ Title _____

Laboratory Management* or Employer Signature _____ Date _____

Laboratory Management* or Employer Email Address _____ Institution Telephone Number _____

Institution _____

Institution Address _____

BE SURE TO INCLUDE A LETTER OF AUTHENTICITY FROM YOUR LABORATORY MANAGEMENT* OR EMPLOYER WITH THIS EXPERIENCE DOCUMENTATION FORM. THE LETTER OF AUTHENTICITY MUST BE PRINTED ON ORIGINAL LETTERHEAD. IT MUST STATE THAT THE EXPERIENCE DOCUMENTATION FORM WAS COMPLETED, SIGNED AND DATED BY YOUR LABORATORY MANAGEMENT* OR EMPLOYER. EXPERIENCE DOCUMENTATION FORMS RECEIVED WITHOUT LETTERS OF AUTHENTICITY ARE UNACCEPTABLE. ***Management is defined as someone in a management role who can verify technical experience.***

See www.ascp.org/boc/intl-documentation for submission instructions.

COMPETENCY STATEMENTS

INTERNATIONAL SPECIALIST IN BLOOD BANKING

IN REGARD TO LABORATORY OPERATIONS AND THE PERFORMANCE OF LABORATORY TESTS INVOLVING BLOOD GROUP IMMUNOLOGY, BLOOD GROUP SYSTEMS, BLOOD PRODUCTS, SEROLOGIC AND MOLECULAR TESTING, PHYSIOLOGY AND PATHOPHYSIOLOGY, LABORATORY OPERAIONS AND TRANSFUSION PRACTICE AT CAREER ENTRY, THE SPECIALIST IN BLOOD BANKING:

APPLIES

- principles of basic and special laboratory procedures using knowledge of standard operating procedures in order to perform tests
- knowledge of possible sources of error to laboratory testing
- knowledge of fundamental biological characteristics as they pertain to laboratory testing, in order to interpret laboratory findings
- principles of theory and practice related to laboratory operations
- standard operating procedures as it relates to establishing laboratory protocols
- principles of theory and practice related to:
  - management
  - safety
  - education
  - research and development

SELECTS

- appropriate methods for laboratory testing
- procedural course of action appropriate for the type of sample and test requested
- appropriate controls/standards for tests performed
- methods/reagents/blood components/donors according to established procedures
- routine and special laboratory test procedures to verify test results according to established protocol
- instruments to perform tests appropriate to test methodology according to established procedures
- instruments for new laboratory procedures

PREPARES

- reagents and blood components according to established procedures
- instruments to perform tests
- controls/standards for laboratory procedures
- educational materials for use in teaching programs
- operational budgets

CORRELATES LABORATORY DATA

- and clinical data to assess test results and accuracy
- and quality control data to assess test results/methods/procedures
- with other laboratory data to assess test results
- with physiologic processes to assess/validate test results and procedures
- with other laboratory data to assess test methods

CALCULATES

- results from test data obtained from laboratory procedures
- cost per test

ESTABLISHES

- policies and procedures to facilitate laboratory accreditation
- new laboratory test procedures

EVALUATES

- laboratory and clinical data to:
  - determine appropriate additional testing
  - recognize common procedural/technical problems
  - verify test results
  - check for possible sources of error
  - determine possible inconsistent results
  - recognize health and disease states
  - assess validity/accuraty of procedures for a given test
  - determine appropriate instrument adjustments
  - make a final identification
  - refine laboratory test procedures
  - determine alternate methods for a given test
  - establish reference range criteria for existing or new tests
- quality assurance data to verify laboratory results
- laboratory personnel performance
- laboratory productivity
- laboratory operational policies and procedures
- various methods to establish new testing procedures
- new technology and scientific advancements for potential information
- performance of clinical laboratory students
- test results obtained by alternate methodologies

GUIDELINES FOR EVALUATING EXPERIENCE OF A CANDIDATE

INTERNATIONAL SPECIALIST IN BLOOD BANKING

To qualify for certification as an international specialist in blood banking, the applicant should be proficient to perform the tests and procedures indicated. The international specialist in blood banking should have the equivalent knowledge and skill to those of a graduate of an accredited/approved international specialist in blood banking program.

FOR EACH AREA OF EXPERIENCE LISTED BELOW, THE CANDIDATE SHOULD BE ABLE TO:

1. obtain necessary patient/donor history
2. recognize clerical errors in records and in the labeling of patient specimens and blood products
3. select appropriate samples, reagents, procedures, controls, and donor units
4. perform tests accurately and within a reasonable period of time
5. correctly observe, record, and interpret results produced by various methods
6. recognize and resolve encountered problems and discrepancies including, but not limited to, those described below
7. correlate other related data pertinent to problem resolution

SEROLOGIC TESTING	
AREA OF EXPERIENCE	**SUGGESTED EXTENT OF EXPERIENCE**
ABO grouping	• Discrepancies due to subgroups, unexpected alloantibodies, cold-reactive autoantibodies, lack of expected antigens/antibodies • Samples with mixed-field agglutination • Confirmation of weak subgroups by adsorption/elution techniques • Rouleaux • Separation of mixed ABO cell populations
Rh typing	• Rh phenotyping/probable genotype determination • Variant Rh phenotypes/genotypes • Testing of blood samples with positive Rh controls caused by rouleaux, positive DAT • Blood samples with mixed-cell populations • Rh-positive samples with alloanti-D

Antibody detection and identification	• Blood samples with:
	  ○ a single alloantibody; autoantibodies
	  ○ mixtures of alloantibodies
	  ○ antibodies to low-prevalence and high-prevalence antigens
	  ○ autoantibodies plus alloantibodies
	  ○ antibodies to constituents of reagents/drugs
	  ○ monoclonal antibody therapy
	• Samples reactive by enhancement techniques only (e.g., PEG)
	• Red cell treatments (e.g., enzymes)
	• Titrations
	• Hemagglutination inhibition
	• Adsorption/elution procedures

Crossmatching	• Selection of appropriate blood products and ABO/Rh types for a variety of patients

	• Incompatible crossmatches:
	  ○ recipient samples with unexpected alloantibodies, rouleaux, cold-reactive autoantibodies
	  ○ recipient samples with unidentified alloantibodies
	  ○ recipient samples with warm-reactive autoantibodies and underlying alloantibodies
	  ○ donor with positive DAT

Direct antiglobulin tests	• Samples coated with IgG, complement components, and/or both • Elution techniques • Recognition of mixed-field reactions
Tests for other blood group antigens	• Red cell phenotyping • Phenotyping of red cells with positive DAT
MOLECULAR TESTING* ***Proficiency may be demonstrated through performance, observation, or simulation***	
AREA OF EXPERIENCE	**SUGGESTED EXTENT OF EXPERIENCE**
Molecular Testing	• Red cell genotyping • Platelet genotyping • *RHD, RHCE* analysis • HLA typing
ROUTINE PROBLEM SOLVING	
AREA OF EXPERIENCE	**SUGGESTED EXTENT OF EXPERIENCE**
Transfusion adverse reactions	• Investigation of reactions due to ABO incompatibility, unexpected alloantibodies, and non-immunologic causes • Recognition of cases with clinical evidence of transfusion reactions in absence of supportive serologic data • Transfusion management
Immune hemolytic anemias	• Blood samples that present with ABO and Rh typing discrepancies • Utilization and interpretation of polyspecific and monospecific antiglobulin sera testing • Blood samples that contain autoantibodies plus alloantibodies in plasma and/or eluate • Blood samples with drug-dependent antibodies • Cold autoadsorption and prewarming procedures • Warm autoadsorption procedures • Differential adsorptions with selected RBC • Selection of blood for transfusion • Correlation of laboratory data to determine immune mediated hemolysis
Hemolytic disease of the fetus and newborn (HDFN)	• Serologic testing of prenatal and neonatal blood samples • Elution techniques • Serologic evaluation of ABO and Rh HDFN • HDFN caused by other blood group system antibodies • Selection and preparation of blood products for intrauterine, neonatal, and exchange transfusions • Use of thiol/sulfhydryl reagents • Comparative titration studies • Amniocentesis and evaluation of fetal blood

	• Methods for predicting severity of HDFN

Rh immune globulin studies	• Determination of eligibility for RhIG cases involving:
	  ○ serologic weak D-positive mother
	  ○ maternal plasma containing anti-D
	  ○ maternal plasma containing other alloantibodies
	  ○ Rh-negative infants
	• Samples with mixed-field weak-D reactions
	• Detection of fetomaternal hemorrhage by multiple techniques
	• Kleihauer-Betke stain and/or other quantitative method
	• Microdose RhIG
	• Cases of excessive fetal bleed
	• RhIG usage with potential fetomaternal hemorrhage

Indications for transfusion	• Criteria for transfusion of blood components (e.g., red cells, platelets, plasma) to various patient populations including neonates, infants, and adults • Component modification and special indications for various medical conditions • Application of patient blood management and blood utilization review
QUALITY CONTROL/ASSURANCE	
AREA OF EXPERIENCE	**SUGGESTED EXTENT OF EXPERIENCE**
Quality control	• Equipment troubleshooting and maintenance, including: incubators, water baths, refrigerators, freezers, centrifuges, automated cell washers, alarm systems, platelet rotators • Performance of routine and required procedures on reagents • Blood and component products to include preparation and labeling of Whole Blood, Red Blood Cells, Plasma Components, Platelets, Cryoprecipitated AHF, Leukocyte-Reduced Cellular Components, Irradiated Cellular Components, Red Blood Cells Frozen/Deglycerolized, apheresis products* ***Proficiency for the task indicated by the asterisk may be demonstrated through performance, observation, or simulation***
Quality assurance	• Application of AABB Standards and Code of Federal Regulations as appropriate to all areas of quality management • Competency assessment program(s) • Proficiency testing
LABORATORY OPERATIONS* ***Proficiency may be demonstrated through performance, observation, or simulation***	
AREA OF EXPERIENCE	**SUGGESTED EXTENT OF EXPERIENCE**
Laboratory operations	• Procedure/policy selection and evaluation • Reagent and supply inventory • Instructional responsibilities • Safety • Operational budgets • Human resource management
DONOR COLLECTION, PROCESSING, AND TESTING* ***Proficiency may be demonstrated through performance, observation, or simulation***	
AREA OF EXPERIENCE	**SUGGESTED EXTENT OF EXPERIENCE**
Donor selection, preparation, and collection	• Donor interview and deferral as appropriate • Phlebotomies

	• Donor adverse events
Processing and donor testing	• Tests for transmittable diseases • Samples with ABO/Rh confirmation not in agreement with unit label • Quarantine of blood and blood products • Market withdrawals, recalls, and look-back investigation
Component preparation for storage and administration	• Preparation of components for administration and storage • Storage and transportation of blood and blood components • Donor unit labeling