



# INTERNATIONAL SPECIALIST IN BLOOD BANKING

## EDUCATOR EXPERIENCE DOCUMENTATION FORM (Routes 4 & 5)

### PART I (TO BE COMPLETED BY APPLICANT)

Applicant's Name	Address
Email Address	

### PART II (MUST BE COMPLETED AND SIGNED BY IMMEDIATE SUPERVISOR OR EMPLOYER IN ORDER TO BE ACCEPTABLE)

#### SUBJECT: VERIFICATION OF EDUCATOR 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: EMPLOYMENT

Date **teaching** employment **started**: Month \_\_\_\_\_ Day \_\_\_\_\_ Year \_\_\_\_\_

Date **teaching** employment **ended**: Month \_\_\_\_\_ Day \_\_\_\_\_ Year \_\_\_\_\_

Are you employed full time \_\_\_\_\_ or part time \_\_\_\_\_ as an educator? If part time, how many hours per week? \_\_\_\_\_

How many **Blood Banking** courses do you teach per **school year**? \_\_\_\_\_

**2. DIRECTIONS:** Please review the experience of this applicant in teaching blood banking. Please place an **X** by each procedure which has been taught satisfactorily under your supervision using **The Guidelines for Evaluating Experience of a Candidate for International Specialist in Blood Banking**. (NOTE: Teaching experience is required in **ALL** of the procedures listed below.)

#### 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 IMMEDIATE SUPERVISOR OR EMPLOYER VERIFY THAT THIS APPLICANT HAS TAUGHT SATISFACTORILY IN THE BLOOD BANKING AREAS CHECKED ON THIS FORM.**

(Please Print) Immediate Supervisor or Employer Name	Title
Immediate Supervisor or Employer Signature	Date
Immediate Supervisor or Employer Email Address	Institution Telephone Number
Institution	
Institution Address	

**BE SURE TO INCLUDE A LETTER OF AUTHENTICITY FROM YOUR IMMEDIATE SUPERVISOR OR EMPLOYER WITH THIS EDUCATOR EXPERIENCE DOCUMENTATION FORM. THE LETTER OF AUTHENTICITY MUST BE PRINTED ON ORIGINAL LETTERHEAD. IT MUST STATE THAT THE EDUCATOR EXPERIENCE DOCUMENTATION FORM WAS COMPLETED, SIGNED AND DATED BY YOUR IMMEDIATE SUPERVISOR OR EMPLOYER. EDUCATOR EXPERIENCE DOCUMENTATION FORMS RECEIVED WITHOUT LETTERS OF AUTHENTICITY ARE UNACCEPTABLE.**

See [www.ascp.org/boc/intl-documentation](http://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 PRODUCT, SEROLOGIC AND MOLECULAR TESTING, PHYSIOLOGY AND PATHOPHYSIOLOGY, LABORATORY OPERATIONS, 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

#### 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

#### CALCULATES

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

#### 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/accuracy 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

#### 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

#### 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

#### ESTABLISHES

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

- 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 in teaching **ALL** of the tests and procedures indicated below. 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	<ul style="list-style-type: none"> <li>• Discrepancies due to subgroups, unexpected alloantibodies, cold-reactive autoantibodies, lack of expected antigens/antibodies</li> <li>• Samples with mixed-field agglutination</li> <li>• Confirmation of weak subgroups by adsorption/elution techniques</li> <li>• Rouleaux</li> <li>• Separation of mixed ABO cell populations</li> </ul>
Rh typing	<ul style="list-style-type: none"> <li>• Rh phenotyping/probable genotype determination</li> <li>• Variant Rh phenotypes/genotypes</li> <li>• Testing of blood samples with positive Rh controls caused by rouleaux, positive DAT</li> <li>• Blood samples with mixed-cell populations</li> <li>• Rh-positive samples with alloanti-D</li> </ul>
Antibody detection and identification	<ul style="list-style-type: none"> <li>• Blood samples with:               <ul style="list-style-type: none"> <li>○ a single alloantibody; autoantibodies</li> <li>○ mixtures of alloantibodies</li> <li>○ antibodies to low-prevalence and high-prevalence antigens</li> <li>○ autoantibodies plus alloantibodies</li> <li>○ antibodies to constituents of reagents/drugs</li> <li>○ monoclonal antibody therapy</li> </ul> </li> <li>• Samples reactive by enhancement techniques only (e.g., PEG)</li> <li>• Red cell treatments (e.g., enzymes)</li> <li>• Titrations</li> <li>• Hemagglutination inhibition</li> <li>• Adsorption/elution procedures</li> </ul>
Crossmatching	<ul style="list-style-type: none"> <li>• Selection of appropriate blood products and ABO/Rh types for a variety of patients</li> </ul>

	<ul style="list-style-type: none"> <li>• Incompatible crossmatches: <ul style="list-style-type: none"> <li>○ recipient samples with unexpected alloantibodies, rouleaux, cold-reactive autoantibodies</li> <li>○ recipient samples with unidentified alloantibodies</li> <li>○ recipient samples with warm-reactive autoantibodies and underlying alloantibodies</li> <li>○ donor with positive DAT</li> </ul> </li> </ul>
Direct antiglobulin test	<ul style="list-style-type: none"> <li>• Samples coated with IgG, Complement components and/or both</li> <li>• Elution techniques</li> <li>• Recognition of mixed-field reactions</li> </ul>
Tests for other blood group antigens	<ul style="list-style-type: none"> <li>• Red cell phenotyping</li> <li>• Phenotyping of red cells with positive DAT</li> </ul>
<p><b>MOLECULAR TESTING*</b></p> <p><i>*Proficiency may be demonstrated through performance, observation, or simulation</i></p>	
<b>AREA OF EXPERIENCE</b>	<b>SUGGESTED EXTENT OF EXPERIENCE</b>
Molecular Testing	<ul style="list-style-type: none"> <li>• Red cell genotyping</li> <li>• Platelet genotyping</li> <li>• <i>RHD, RHCE</i> analysis</li> <li>• HLA typing</li> </ul>
<p><b>ROUTINE PROBLEM SOLVING</b></p>	
<b>AREA OF EXPERIENCE</b>	<b>SUGGESTED EXTENT OF EXPERIENCE</b>
Transfusion adverse reactions	<ul style="list-style-type: none"> <li>• Investigation of reactions due to ABO incompatibility, unexpected alloantibodies, and non-immunologic causes</li> <li>• Recognition of cases with clinical evidence of transfusion reactions in absence of supportive serologic data</li> <li>• Transfusion management</li> </ul>
Immune hemolytic anemias	<ul style="list-style-type: none"> <li>• Blood samples that present with ABO and Rh typing discrepancies</li> <li>• Utilization and interpretation of polyspecific and monospecific antiglobulin sera testing</li> <li>• Blood samples that contain autoantibodies plus alloantibodies in plasma and/or eluate</li> <li>• Blood samples with drug-dependent antibodies</li> <li>• Cold autoadsorption and prewarming procedures</li> <li>• Warm autoadsorption procedures</li> <li>• Differential adsorptions with selected RBC</li> <li>• Selection of blood for transfusion</li> <li>• Correlation of laboratory data to determine immune mediated hemolysis</li> </ul>
Hemolytic disease of the fetus and newborn (HDFN)	<ul style="list-style-type: none"> <li>• Serologic testing of prenatal and neonatal blood samples</li> <li>• Elution techniques</li> <li>• Serologic evaluation of ABO and Rh HDFN</li> <li>• HDFN caused by other blood group system antibodies</li> <li>• Selection and preparation of blood products for intrauterine, neonatal, and exchange transfusions</li> <li>• Use of thiol/sulfhydryl reagents</li> <li>• Comparative titration studies</li> <li>• Amniocentesis and evaluation of fetal blood</li> </ul>

	<ul style="list-style-type: none"> <li>• Methods for predicting severity of HDFN</li> </ul>
Rh immune globulin studies	<ul style="list-style-type: none"> <li>• Determination of eligibility for RhIG cases involving: <ul style="list-style-type: none"> <li>○ serologic weak D-positive mother</li> <li>○ maternal plasma containing anti-D</li> <li>○ maternal plasma containing other alloantibodies</li> <li>○ Rh-negative infants</li> </ul> </li> <li>• Samples with mixed-field weak-D reactions</li> <li>• Detection of fetomaternal hemorrhage by multiple techniques</li> <li>• Kleihauer-Betke stain and/or other quantitative method</li> <li>• Microdose RhIG</li> <li>• Cases of excessive fetal bleed</li> <li>• RhIG usage with potential fetomaternal hemorrhage</li> </ul>
Indications for transfusion	<ul style="list-style-type: none"> <li>• Criteria for transfusion of blood components (e.g., red cells, platelets, plasma) to various patient populations including neonates, infants, and adults</li> <li>• Component modification and special indications for various medical conditions</li> <li>• Application of patient blood management and blood utilization review</li> </ul>
<b>QUALITY CONTROL/ASSURANCE</b>	
<b>AREA OF EXPERIENCE</b>	<b>SUGGESTED EXTENT OF EXPERIENCE</b>
Quality control	<ul style="list-style-type: none"> <li>• Equipment troubleshooting and maintenance, including: incubators, water baths, refrigerators, freezers, centrifuges, automated cell washers, alarm systems, platelet rotators</li> <li>• Performance of routine and required procedures on reagents</li> <li>• 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*</li> </ul> <p><b><i>*Proficiency for the task indicated by the asterisk may be demonstrated through performance, observation, or simulation</i></b></p>
Quality assurance	<ul style="list-style-type: none"> <li>• Application of AABB Standards and Code of Federal Regulations as appropriate to all areas in quality management</li> <li>• Competency assessment program(s)</li> <li>• Proficiency testing</li> </ul>
<b>LABORATORY OPERATIONS*</b>	
<b><i>*Proficiency may be demonstrated through performance, observation, or simulation</i></b>	
<b>AREA OF EXPERIENCE</b>	<b>SUGGESTED EXTENT OF EXPERIENCE</b>
Laboratory operations	<ul style="list-style-type: none"> <li>• Procedure/policy selection and evaluation</li> <li>• Reagent and supply inventory</li> <li>• Instructional responsibilities</li> <li>• Safety</li> <li>• Operational budgets</li> <li>• Human resource management</li> </ul>
<b>DONOR COLLECTION, PROCESSING, AND TESTING*</b>	
<b><i>*Proficiency may be demonstrated through performance, observation, or simulation</i></b>	
<b>AREA OF EXPERIENCE</b>	<b>SUGGESTED EXTENT OF EXPERIENCE</b>
Donor selection, preparation, and collection	<ul style="list-style-type: none"> <li>• Donor interview and deferral as appropriate</li> <li>• Phlebotomies</li> </ul>

	<ul style="list-style-type: none"> <li>• Donor adverse events</li> </ul>
Processing and donor testing	<ul style="list-style-type: none"> <li>• Tests for transmittable diseases</li> <li>• Samples with ABO/Rh confirmation not in agreement with unit label</li> <li>• Quarantine of blood and blood products</li> <li>• Market withdrawals, recalls, and look-back investigation</li> </ul>
Component preparation for storage and administration	<ul style="list-style-type: none"> <li>• Preparation of components for administration and storage</li> <li>• Storage and transportation of blood and blood components</li> <li>• Donor unit labeling</li> </ul>