Online Clinical Competency Checklist - MLS 430 Immunohematology

LABORATORY CLINICAL EXPERIENCE OBJECTIVES

At the completion of the MLS 430 course, the student will have successfully completed the following:

1. Understand and apply correct collection, processing and analyzing of patient samples. *(pre-analytical, analytical)*

2. Understand and apply the rejection criteria of blood samples for the transfusion service. *(pre-analytical)*

3. Understand and apply all laboratory safety procedures as applied to the Blood Bank laboratory. *(pre-analytical)*

4. Understand and apply the criteria (SOP) for turn-around-times, STAT procedures and critical values in the transfusion service. *(post-analytical)*

5. Understand the principals and evaluate the practice of quality assessment in the transfusion service. *(pre-analytical, analytical, post-analytical)*

6. Correlate the strength of agglutination reactions with a numerical value according to an AABB recommended scale. *(analytical)*

7. Define the use of antihuman globulin in:

    a. direct antiglobulin test

    b. indirect antiglobulin test

8. Understand, apply and analyze the ability to prepare 2 –5 % cell suspensions and to calibrate serofuge. *(pre-analytical, analytical)*

9. Demonstrate proper technique of washing of red cells and indicate potential errors in procedural steps. *(analytical)*

10. Analyze, evaluate and determine correct ABO group and Rh type of patient samples. *(analytical)*

    a. Using the tube technique

    b. Using gel technique

11. Evaluate and resolve six hypothetical ABO grouping discrepancies. *(preanalytical, analytical and post-analytical)*

12. Evaluate and determine weak D typing. *(analytical, post-analytical)*

13. Describe reagent cells used in antibody screen and panels; list procedural steps for each technique, interpret results, and associate results with clinical symptomatology. *(analytical, post-analytical)*

14. List crossmatch procedural steps, correctly perform and interpret crossmatch. *(analytical)*

15. List three causes leading to an incompatible crossmatch and analyze and evaluate possible resolution. *(analytical)*

16. List three conditions leading to a positive DAT and explain the significance of a positive DAT in a HDFN work-up. *(analytical)*

17. Follow written (SOP) and verbal instructions. *(pre-analytical, analytical, postanalytical)*

18. Prioritize tasks and work concurrently on as least two different tasks.

19. Advocate respect for self and others while working independently and in groups.

Students should work with their respective mentors to complete the listed objectives. Accuracy, precision, timely reporting of results and demeanor must comply with the laboratory's acceptable standards. While working in the laboratory, the student must meet laboratory standards for work habit skills in patient confidentiality, communication skills, laboratory safety, universal precautions, waste disposal, equipment, and work area maintenance. It is requested that the student's laboratory competency evaluation be completed by the clinical mentor in the presence of the student, to allow verbal feedback to the student regarding the student's progress and performance. It is understood that not all laboratories will offer the same clinical experience, but mentors should try to accomplish all items in the checklist if the services are available at that location.

Student name: _____

Note: As part of the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS) accreditation regulations, no student may engage in service work during their clinical experience. All laboratory test results generated by students during their clinical hours must be directly supervised by clinical laboratory staff. While the student is performing their clinical hours, they must be performing duties as a student, and not an employee.

Course Instructor: _____

Clinical Preceptor(s):_____

Clinical Site(s): _____

Student name: _____

SCORING KEY

1: Discussed: Process was discussed, principle explained, student acknowledges an understanding of the process or principle.

2: Demonstrated: Process has been performed and demonstrated by the practicum instructor. Student has observed demonstration and has been allowed to ask questions as needed. The student acknowledges an understanding of the process or principle by verbally explaining the process or principle back to the practicum instructor.

3: Maximum Supervision: The student has performed the process under the direct, maximum supervision of the practicum instructor, and with the level of competency required by the laboratory for that task or process.

4: Minimum Supervision: The student can perform the process satisfactorily with only minimum or non-direct supervision by the practicum instructor, and the performance meets the level of competency required by the laboratory for that task or process.

N/A: Not Available: The nature of the laboratory does not allow the student access to the equipment/test method.

Note: The competencies will be graded for a total of 171 pts. Points will be deducted for competency categories that are not met. If an item is not available at the lab, please N/A that area so the student does not lose points. If something is not available, but was discussed with the student, please write, "1 – N/A". Students must achieve a minimum of 80% on their competency checklist to pass.

Please note that the goal of the lab competencies is for your clinical preceptor to feel comfortable with your ability in the blood bank lab. If your clinical preceptor does not feel that the minimum required time is adequate, you should work out a schedule with them to spend more time in the blood bank lab.

Please have all clinical preceptors sign and date below.

Clinical Preceptor Signature _____ **Date** _____

Clinical Preceptor Signature _____ **Date** _____

Clinical Preceptor Signature _____ **Date** _____

Clinical Preceptor Signature _____ **Date** _____

Comments:

Student name: _____

General Immunohematology	**Mandatory**	**Expected Score**	**Student Score**	**Date**	**Mentor initial**
Student has completed a general orientation of the immunohematology laboratory	M	1			
Correctly processes patient specimens & proper handling to avoid or eliminate errors	M	4			
Correctly prepares 2-4% red blood cell suspensions	M	4			
Demonstrates proper technique in reading and grading agglutination reactions.	M	4			
Correctly performs ABO groupings (forward and reverse), and resolves any discrepancies appropriately: 20-25 specimens	M	4			
Correctly performs Rh typing (25 procedures, both positive and negative)	M	4			
Correctly performs weak D (Du) determinations (if applicable)		4			
Correctly performs antibody screening tests (5 procedures)	M	4			
Correctly performs direct antiglobulin tests (5 DATs)	M	4			
Correctly demonstrates knowledge of A subgrouping		3			
Correctly demonstrates knowledge of Rh phenotyping (Perform 1 Rh Phenotype)		3			
	Mandatory	**Expected Score**	**Student Score**	**Date**	**Mentor initial**
Performs necessary quality control with all test procedures	M	4			
Keeps work area clean/organized	M	4			
Chooses correct reagent for each test to be performed	M	4			
Organizes blood bank tasks in proper sequence	M	4			
Correctly performs compatibility testing (5 crossmatches)	M	4			
Demonstrates a working knowledge of the blood bank SOPs.	M	4			
Correctly issues blood and blood products	M	4			
Special Procedures					
Correctly performs antibody identification procedures, if applicable.		4			
Correctly demonstrates knowledge of antigen typing (Perform 1 Phenotype)		4			
Correctly demonstrates knowledge of elution techniques for facility (perform 1 elution)		3			
Correctly demonstrates knowledge of transfusion reaction workups for facility		3			
Obstetric and Neonatal Specimens					
Correctly performs cord blood testing (5 procedures)		4			
Correctly determines OB patient candidacy for Rh immune globulin		4			
Correctly performs fetal screens (at least 1 Rosette test)		4			
Correctly performs KB Stain (if applicable)		4			
Demonstrates knowledge of proper blood component selection for HDN transfusions		4			
Component Processing					
Correctly selects and pools random donor platelets (if applicable)		4			
Correctly selects single donor platelet pheresis units for patients (if applicable)		4			
Correctly selects and thaws fresh frozen plasma		4			
Correctly uses blood cell washer (as available)		4			
Demonstrates knowledge of facility's policies regarding leukoreduction (as available)		1			

Student name: _____

Demonstrates knowledge of facility's policies regarding irradiated units (as available)		1			
Correctly thaws and pools cryoprecipitate (if applicable)		1			
Student demonstrates honesty by:					
Maintaining strict patient confidentiality	M	4			
Accepting control values only when within acceptable limits	M	4			
Performing and documenting daily & weekly maintenance procedures, preventative maintenance, temperature checks, etc.	M	4			
Student demonstrates honesty by (Continued):	**Mandatory**	**Expected Score**	**Student Score**	**Date**	**Mentor initial**
Completing all procedures in adherence to laboratory SOPs, taking no shortcuts or unauthorized modifications of procedure	M	4			
Student demonstrates personal interactive skills and proper professional behavior by:					
Working with co-workers in a positive manner, promoting productive workflow.	M	4			
Refraining from making statements or actions that represent sexual, ethnic, racial, or homophobic harassment.	M	4			
Willingly and consistently using appropriate personal safety devices when handling caustic, infectious, or hazardous materials.	M	4			
Completing all required tasks and remaining in the work area when scheduled.	M	4			
Being punctual whenever scheduled.	M	4			
Adhering to current dress and appearance in the laboratory setting.	M	4			
Cleaning the work area when leaving the laboratory, returning supplies to appropriate storage location, & disinfecting all work areas used by the student.	M	4			
Student demonstrates professional responsibility by:					
Correctly reporting all patient test values, as well as recognizing and correctly reporting all patient critical test values.		2			
Resolving discrepancies in specimen labeling, handling, or collection before reporting results.		4			
Hours completed by student:					
Minimum time required for this lab competency is 96 hours. Preceptors are encouraged to increase the number of hours dependent on individual student need.	M	96 hours			
Based on performance is this the type of person you would consider for potential employment?			Y ☐	N ☐	