



Royal Medical Services

Professional Training Division

**Logbook for clinical pathology/Chemistry
Residents**

Explanatory Notes

This is an important document. The logbook is an integral part of basic training and it will provide a record of your experience and your academic and educational activities. It will be part of your assessment as you move through basic training and it will be required for the final year of residency and Board examination.

This logbook is intended to be a record of all procedures you perform or participate in as part of your training.

Training Posts Held

On this page you are required to list, in chronological order, the posts which you have held during residency program at the completion of each post, the trainer or consultant to whom you have been attached must sign to indicate that you have satisfactorily completed the post. When you apply to sit the final assessment, the trainer or consultant with whom you are attached will verify that the log book is complete and authenticated.

You must record the fact that you have sat for and succeeded the basic board examination. A copy of the Jordan Medical Council Primary board certificate should be included with your logbook. On this sheet, records of attendance at other training courses, meetings, and lectures should be recorded. It is not intended that you record educational activities within the unit to which you are attached. Publications and other personal contributions should be included as well as any involvement in research projects.

The logbook is divided into numbered segments, corresponding to the training posts held. Details of your record of practical procedures should be completed for each of these posts. There is a consolidation page to summarize the record of procedures performed.

Personal details:

Full Name in Arabic:

Full name in English:

National number:

Start date of your residency program:

Your signature: _____

Head of the Department: _____

Signature & Stamp: _____ Date: _____

Training Posts Held

Post Number	Division	Residency Year	Start Date	Finish Date	Consultant	Consultant signature
1 st						
2 nd						
3 rd						
4 th						
5 th						
6 th						
7 th						
8 th						
9 th						
10 th						
11 th						
12 th						
13 th						
14 th						
15 th						
16 th						
17 th						
18 th						
19 th						
20 th						

Clinical chemistry residents

First year

Duration of training: 3 months

1- Reception and specimen separation

- Identify all types of tests and the nature of the sample required for each test
- Identify all kinds of tubes and components and what tests can work for each type
- Identify all kinds of specimen separation and distribution of samples on different Sections
- Identify errors associated with the samples (errors pre-analysis) and ways to Dispose of the samples violation.

2- Division of Special tests

- Identify all the chemical methods of analysis and its applications and advantages of each method
- Identifying the special tests and methods of work
- Identify the available devices and the principle of its work
- Follow-up errors that may occur in the patient samples or their results
- The study of diseases that require these tests.
- Supervising the test results.

3- Automated tests Division

- Identify the available devices and ways of working and calibrated
- Identify the different working methods of the tests
- Identify errors that may occur for different samples and methods of solution.
- Recognize the results of various medical tests and their suitability for the diagnosis of patients.

4- Division of hormonal tests

- Identify the available devices and ways of working and calibrated
- Identify ways the work of the various tests and errors that may get the Samples and methods of solution.
- Identify the tumor markers and drugs and appropriateness of the results

With diagnosis.

5- Division of genetic tests

- Identify the available devices and ways of working and calibrated.
- Identify errors that may get the samples and methods of solution.

Second year

Duration: 6 month

1- Automated tests division

- Study of the working methods of automated analysis equipment, review and work on these devices.
- Study of the working methods of the laboratory tests.
- Study results of the tests and work to confirm it.

2- Special tests division

- study devices used in manual analysis and principles of work and work on it.
- Study the required tests and their suitability for the diagnosis of patients.
- Study tests for organ transplant patients and their applications (cyclosporine, prograf, rapamune, methotrexate)

3- Division of hormonal tests

- Study of the working methods of automated analysis equipment and reviewed and work on these devices.
- Interpretation results of hormonal tests and confirmation.

4- Division of genetic chemistry tests

- Identify how to work on these devices.
- Identify the different ways to prepare the tests.

Third year

Duration: 9 month

1- Automated tests division

Read the results of the tests and work to confirm and follow-up

2- Special tests division

Read the results of the tests and work to confirm and follow-up

3- Division of hormonal tests

Read the results of the tests and work to confirm and follow-up

4- Division of genetic chemistry tests

Read the results of the tests and work to confirm and follow-up

Fourth year

Duration: 12 month

1-Automated tests division

- Participate in tests performing and follow-up tests results
- Works as a consultant for technicians for result interpretation
- Participate in the follow-up of patients and quality control and confirmation of the Results
- Participate in determining the needs of division for new and different tests

2- Special tests division

- Participate in tests performing and follow-up tests results
- Works as a consultant for technicians for result interpretation
- Participate in the follow-up of patients and quality control and confirmation of the Results
- Participate in determining the needs of division for new and different tests

3- Division of hormonal tests

- Participate in tests performing and follow-up tests results
- Works as a consultant for technicians for result interpretation
- Participate in the follow-up of patients and quality control and confirmation of the Results
- Participate in determining the needs of division for new and different tests

4- Division of genetic chemistry tests

- Participate in tests performing and follow-up tests results
- Works as a consultant for technicians for result interpretation
- Participate in the follow-up of patients and quality control and confirmation of the Results

- Participate in determining the needs of division for new and different tests

Clinical chemistry resident program in others clinical pathology departments: immunology, hematology, microbiology and blood bank.

First year

Duration of training: 3 months in each division

Immunology department

Date	
One month	1- General overview of all lab tests in the immunology laboratory. 2-Performing routine tests and latex agglutination tests(RF, CRP, ASOT, Brucella screening and titer , monospot test for EBV, pregnancy test and Bence- Jones proteins) 3- interpretation of routine test and latex agglutination tests
One month	1- To learn how to setup, evaluate and interpret clinical immunology procedures 2- Observe serology tests with attention to methodology principles, QC, safety, troubleshooting problems. 3-Performing ELISA tests and interpretation of results
One month	1-Interpretation of blood bank results including hepatitis HBsAg, HCV Ab, HIV Ab, RPR. 2- Performing and reading indirect immunofluorescence slides (ANA, AMA, ASMA, Anti- dsDNA, LKM1, ANCA) 3-Analysis of SPE and immunofixation results and correlation with clinical picture. 4- Review the abnormal results daily, check for discrepant results.

Microbiology

Basic Bacteriology Culture Media ,Sterilization and Disinfection-(The Autoclave)
Handling of specimens, Microscopy, Bacterial Morphology (Gram,ZN and Albert

staining), Cultivation of Bacteria (The growth Curve), Bacterial Identification Methods, Antibiotic Sensitivity Testing.

Identification of microorganisms:

- 1-Select appropriate media and methods for identification
- 2-Intrepret results
- 3- Distinguish between normal flora and pathogens
- 4- Perform susceptibility tests and interpret results

Hematology

Date	
At start of period	1- General overview of all lab tests in the hematology laboratory.
Two months	2-Performing routine tests like automated CBC and differential with ESR
Two weeks	3- Performing general coagulation tests
Two weeks	4- Performing general blood bank tests like blood grouping and coomb’s test

Second year

Duration of training: 2 months in each division

Immunology department

Date	
One month	1- General overview of all lab tests in the immunology laboratory. 2-Performing routine tests and latex agglutination tests(RF, CRP, ASOT, Brucella screening and titer , monospot test for EBV, pregnancy test and Bence- Jones proteins) 3- interpretation of routine test and latex agglutination tests 4- Observe serology tests with attention to methodology principles, QC, safety, troubleshooting problems.

One month	<p>1- To learn how to setup, evaluate and interpret clinical immunology procedures</p> <p>2- Performing and reading indirect immunofluorescence slides (ANA, AMA, ASMA, Anti- dsDNA, LKM1, ANCA)</p> <p>3-Analysis of SPE and immunofixation results and correlation with clinical picture.</p> <p>4-Performing ELISA tests and interpretation of results</p> <p>5- Review the abnormal results daily, check for discrepant results.</p> <p>6- Analysis of SPE and immunofixation results and correlation with clinical picture.</p>
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Microbiology

Basic Bacteriology Culture Media ,Sterilization and Disinfection-(The Autoclave) Handling of specimens, Microscopy, Bacterial Morphology (Gram,ZN and Albert staining), Cultivation of Bacteria (The growth Curve),Bacterial Identification Methods, Antibiotic Sensitivity Testing.

Identification of microorganisms:

- 1-Select appropriate media and methods for identification
- 2-Intrepret results
- 3- Distinguish between normal flora and pathogens
- 4- Perform susceptibility tests and interpret results

Hematology

Date	
Two weeks	1- Performing routine tests like automated CBC and differential with ESR
Two weeks	2- Reading and interpretation of peripheral blood smears for cases of anemia and reactive disorders of both granulocytes and platelets

Two weeks	3- Performing and interpretation of general coagulation tests.
Two weeks	4-Performing and interpretation of general blood bank tests like blood grouping and coomb's test

Third year

Duration of training: 1 month in each division

IMMUNOLOGY DEPARTMENT

Date	
One month	<p>1- General overview of all lab tests in the immunology laboratory.</p> <p>2- To learn how to setup, evaluate and interpret clinical immunology procedures</p> <p>3-Performing routine tests and latex agglutination tests(RF, CRP, ASOT, Brucella screening and titer , monospot test for EBV, pregnancy test and Bence- Jones proteins)</p> <p>4- interpretation of routine test and latex agglutination tests</p> <p>5- Observe serology tests with attention to methodology principles, QC, safety, troubleshooting problems.</p> <p>6- - Performing and reading indirect immunoflourescence slides (ANA, AMA, ASMA, Anti- dsDNA, LKM1, ANCA)</p> <p>7- Performing ELISA tests and interpretation of results</p> <p>8- Review the abnormal results daily, check for discrepant results.</p> <p>9- Analysis of SPE and immunofixation results and correlation with clinical picture.</p> <p>10- Observe HLA typing and interpretation</p>

Microbiology department

ROTATION	DURATION
Reading and processing of culture and antibiotic susceptibility	
Blood and CSF culture	1 week
Urine ,genitourinary and gastrointestinal specimens	1 week
Wound ,respiratory specimens, mycology	1 week
Isolation and identification of mycobacteria	1 week

Hematology

Date	
One week	1- Performing routine tests like automated CBC and differential with ESR with reading and interpretation of peripheral blood smears for cases of anemia and reactive disorders of both granulocytes and platelets and common leukemias
One week	2- Observe special tests done in the department including hemoglobin electrophoresis and flow cytometry with attention to methodology principles , QC, safety, trouble shooting problems
One week	3- Performing and interpretation of general coagulation tests.
One week	4- Performing and interpretation of general blood bank tests like blood grouping and coomb's tests.

Clinical chemistry

Practical skills year of residency	centrifugation & Specimen separation	Specimen collection
First year (number)		
Second year (number)		
Third year (number)		
Fourth year (number)		

Notes -----

Kidney function panel

Test	Na	K	Creatinine	Urea
year of residency				
First year (number)				
Second year (number)				
Third year (number)				
Fourth year(number)				

Notes -----

Test year of residency	Insulin	Cortisol	GH	ACTH	LH	FSH	Prolactin	B-HCG
First year (number)								
Second year (number)								
Third year (number)								
Fourth year(number)								

Notes -----

Drugs and toxic materials

Test year of residency	Acetaminophen	Amikacin	ANTICONVALESANTS	BARBITURATES	BENZODIAZEPINE
First year (number)					
Second year (number)					
Third year (number)					
Fourth year(number)					

Test year of residency	Cyclosporine	Digoxin	Gentamicin	Heparin	Methotrexate	OPIATES
First year (number)						
Second year (number)						
Third year (number)						
Fourth year(number)						

Notes -----

Test year of residency	Phenobarbital	Phenytoin	Prograf	Salicylate	Theophylline	Tobramycin
First year (number)						
Second year (number)						
Third year (number)						
Fourth year(number)						

Vitamins

Test year of residency	Vitamin B 1	Vitamin B 6	Vitamin B12	Vitamin B2	Vitamin D, 1,25 Dihydroxy	Vitamin D3
First year (number)						
Second year (number)						
Third year (number)						
Fourth year(number)						

IMMUNOLOGY DEPARTMENT ROTATION

Routine tests

Year of residency	RF (NUMBER)		CRP (NUMBER)		ASOT (NUMBER)		Brucella(Rose Bengal) (NUMBER)	
	Perform	Interpret	Perform	Interpret	Perform	Interpret	Perform	Interpret
1 st year								
2d year								
3d year								
4 th year								

Year of residency	Brucella (Wright)- (N)		Bence-Jones protein- (N)		Monospot test		Early pregnancy test	
	Perform	Interpret	Perform	Interpret	Perform	Interpret	Perform	Interpret
1 st year								
2d year								
3d year								
4 th year								

NOTES:-----

BLOOD BANK TESTS

Year of residency	HBsAg		HBcAb		HCV-Ab		HIV-Ab	
	Perform	Interpret	Perform	Interpret	Perform	Interpret	Perform	Interpret
1 st year								
2d year								
3d year								
4 th year								

Year of residency	CMV-Ab		VDRL(RPR)	
	Perform	Interpret	Perform	Interpret
1 st year				
2d year				
3d year				
4 th year				

NOTES: :-----

IMMUNOGLOBULIN CLASSES AND COMPLEMENT

Year of residency	IgA		IgM		IgG		IgD	
	Perform	Interpret	Perform	Interpret	Perform	Interpret	Perform	Interpret
1 st year								
2d year								
3d year								
4 th year								

Year of residency	IgE		C 3		C4		CH 100 complement	
	Perform	Interpret	Perform	Interpret	Perform	Interpret	Perform	Interpret
1 st year								
2d year								
3d year								
4 th year								

Year of residency	CH 50 complement		C1 esterase inhibitor		C1q inhibitor level			
	Perform	Interpret	Perform	Interpret	Perform	Interpret	Perform	Interpret
1 st year								
2d year								
3d year								
4 th year								

NOTES: -----

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Year of residency	HbcIgM		HbcTotal		HbeAg		HbeAb	
	Perform	Interpret	Perform	Interpret	Perform	Interpret	Perform	Interpret
1 st year								
2d year								
3d year								
4 th year								

Year of residency	Hepatitis E IgM		HDV Ag		HDV Ab			
	Perform	Interpret	Perform	Interpret	Perform	Interpret	Perform	Interpret
1 st year								
2d year								
3d year								
4 th year								

NOTES: -----

Microbiology department rotation

Stain techniques :

Year of residency	Wet mount preparation		(Gram stain)		Methylene blue stain		Ziehl–Neelsen stain	
	Perform	Interpret	Perform	Interpret	Perform	Interpret	Perform	Interpret
1 st year								
2d year								
3d year								
4 th year								

NOTES: -----

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Media preparation:

Year of residency	Blood medium prepared	Chocolate medium prepared	MacConkey media prepared	Sabouraud medium prepared
1 st year				
2d year				
3d year				
4 th year				

NOTES: -----

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Urine culture :

Year of residency	specimen processing performed	negative growth cultures seen	Positive Growth cultures seen	Identification and sensitivity performed	
				identification	sensitivity
1 st year					
2d year					
3d year					
4 th year					

NOTES: -----

Stool culture :

Year of residency	specimen processing performed	negative growth cultures seen	Positive Growth cultures seen	Identification and sensitivity performed	
				identification	sensitivity
1 st year					
2d year					
3d year					
4 th year					

NOTES: -----

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Cerebrospinal fluid culture:

Year of residency	specimen processing performed	negative growth cultures seen	Positive Growth cultures seen	Identification and sensitivity performed	
				identification	sensitivity
1 st year					
2d year					
3d year					
4 th year					

NOTES: -----

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Blood culture:

Year of residency	specimen processing performed	Wet mount preparation seen	Negative cultures seen	Positive Growth cultures seen	Identification and sensitivity performed	
					identification	sensitivity
1 st year						
2d year						
3d year						
4 th year						

NOTES: -----

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Swab culture:

Year of residency	Throat swab		Nasal swab		Ear swab		Wound swab	
	processed	Interpret	Processed	Interpret	Processed	Interpret	processed	Interpret
1 st year								
2d year								
3d year								
4 th year								

NOTES: -----

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Year of residency	Axillary's swab		High vaginal swab		Eye swab		Miscellaneous swabs	
	processed	Interpret	Processed	Interpret	Processed	Interpret	processed	Interpret
1 st year								
2d year								
3d year								
4 th year								

NOTES: -----

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Effusions culture:

Year of residency	Ascitic fluid		Pericardial fluid		Peritoneal fluid		Pleural fluid	
	processed	Interpret	Processed	Interpret	Processed	Interpret	processed	Interpret
1 st year								
2d year								
3d year								
4 th year								

Year of residency	Synovial fluid		Pericardial fluid		Peritoneal fluid		Pleural fluid	
	processed	Interpret	Processed	Interpret	Processed	Interpret	processed	Interpret
1 st year								
2d year								
3d year								
4 th year								

NOTES: -----

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Pus culture:

Year of residency	Urethral discharge				Brain abscess			
	Microscopy	cultivation	interpretation	reporting	Microscopy	cultivation	interpretation	reporting
1 st year								
2d year								
3d year								
4 th year								

Year of residency	Liver abscess				Miscellaneous abscess			
	Microscopy	cultivation	interpretation	reporting	Microscopy	cultivation	interpretation	reporting
1 st year								
2d year								
3d year								
4 th year								

NOTES: -----

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Lower respiratory specimens:

Year of residency	Sputum specimens				Brochoalveolar lavage specimens			
	Microscopy	cultivation	interpretation	reporting	Microscopy	cultivation	interpretation	reporting
1 st year								
2d year								
3d year								
4 th year								

NOTES: -----

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Mycobacterium :

Year of residency	Sample processing	z-n stain for screening		Auramine stain		Positive cultures	
		prepared	positive	Prepared	positive	z-n stain	reporting
1 st year							
2d year							
3d year							
4 th year							

NOTES: -----

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Mycology culture:

Year of residency	Specimens processed		Wet mount preparation		reporting	
	Perform	Interpret	Perform	Interpret	identify	sensitivity
1 st year						
2 ^d year						
3 ^d year						
4 th year						

NOTES: -----

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Parasitology:

Year of residency	Specimens processed		Normal saline preparation		Iodine preparation		Reporting
	Stool	genital	Perform	Interpret	Perform	Interpret	
1 st year							
2d year							
3d year							
4 th year							

NOTES: -----

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Commercial systems:

Year of residency	BACTEC		VITEK	
	process	interpret	Process	Interpret
1 st year				
2d year				
3d year				
4 th year				

NOTES: -----

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Serology tests:

Year of residency	<i>Salmonella typing</i>		<i>Shigella</i>		<i>Rotazyme</i>		<i>Streptococcus grouping</i>	
	process	interpret	Process	Interpret	Process	Interpret	Process	interpret
1 st year								
2d year								
3d year								
4 th year								

NOTES: -----

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Virology :

Year of residency	<i>Cytomegalovirus</i> <i>In urine</i>		<i>Cytomegalovirus</i> <i>In blood</i>		<i>Epstein-Barr Virus</i> In blood		<i>Herpes simplex virus</i> 1	
	processed	Interpret	Processed	Interpret	Processed	Interpret	processed	Interpret
1 st year								
2d year								
3d year								
4 th year								

Other tests :

Year of residency	<i>Catalase test</i>		<i>Coagulase test</i>		<i>Oxidase test</i>	
	process	interpret	Process	Perform	Perform	Interpret
1 st year						
2d year						
3d year						
4 th year						

NOTES: -----

Seminars and lectures :

Year of residency	<i>Discussions attendance</i>	<i>Lectures presentation</i>
1 st year		
2d year		
3d year		
4 th year		

NOTES: -----

Supervisor name and signature

First year: Immunology department: -----

Microbiology department: -----

Hematology department: -----

Clinical chemistry department: -----

Second year: Immunology department: -----

Microbiology department: -----

Hematology department: -----

Clinical chemistry department: -----

Third year: Immunology department: -----

Microbiology department: -----

Hematology department: -----

Clinical chemistry department: -----

Fourth year: clinical chemistry department: -----

Program director name and signature

First year: -----

Second year: -----

Third year: -----

Fourth year: -----

Chief of department name and signature

First year: -----

Second year: -----

Third year: -----

Fourth year: -----