

## **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 <sup>st</sup>						
2 <sup>nd</sup>						
3 <sup>rd</sup>						
4 <sup>th</sup>						
5 <sup>th</sup>						
6 <sup>th</sup>						
7th						
8th						
9th						
10th						
11th						
12th						
13th						
14th						
15th						
16th						
17th						
18th						
19th						
20th						

This form should only be signed by the consultant or trainer at the end of the post, provided that the trainee has finished the period of the training satisfactorily.

Educational and Academic Activities			
Mandatory Certif	icate (s):		
•	ouncil First Part Bo	ard Examination Ce	ertificate:
Date of Issuing th	e Certificate:		
Certificate Number:			
Other Courses:			
Course	Date	Location	Course Director

Course	Date	Location	Course Director

Other activities, including CME hours:
Other Activities (cont):

#### 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	<ol> <li>1-Interpretation of blood bank results including hepatitis HBsAg, HCV Ab, HIV Ab, RPR.</li> <li>2- Performing and reading indirect immunoflourescence slides (ANA, AMA, ASMA, Anti- dsDNA, LKM1, ANCA)</li> <li>3-Analysis of SPE and immunofixation results and correlation with clinical picture.</li> <li>4- Review the abnormal results daily, check for discrepant results.</li> </ol>

#### **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
Two weeks	with ESR
Two weeks	3- Performing general coagulation tests
	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	1- To learn how to setup, evaluate and interpret clinical
	immunology procedures
	2- Performing and reading indirect immunoflourescence slides
	(ANA, AMA, ASMA, Anti- dsDNA, LKM1, ANCA)
	3-Analysis of SPE and immunofixation results and correlation with
	clinical picture.
	4-Performing ELISA tests and interpretation of results
	5- Review the abnormal results daily, check for discrepant results.
	6- Analysis of SPE and immunofixation results and correlation with
	clinical picture.

#### **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	<ul><li>1- General overview of all lab tests in the immunology laboratory.</li><li>2- To learn how to setup, evaluate and interpret clinical immunology procedures</li></ul>
	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)
	4- interpretation of routine test and latex agglutination tests
	5- Observe serology tests with attention to methodology principles, QC, safety, troubleshooting problems.
	6 Performing and reading indirect immunoflourescence slides (ANA, AMA, ASMA, Anti- dsDNA, LKM1, ANCA)
	7- Performing ELISA tests and interpretation of results
	8- Review the abnormal results daily, check for discrepant results.
	9- Analysis of SPE and immunofixation results and correlation with clinical picture.
	10- Observe HLA typing and interpretation

#### 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			
	centrifugation& Specimen	Specimen collection	
year of	separation		
residency			
First year (number)			
Second year (number)			
Third year (number)			
Fourth year (number)			
Notes			

## **Kidney function panel**

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


## **Hepatic Function Panel**

Test year of residency	Albumin	total Bilirubin	direct Bilirubin	total Protein	ALP	AST	ALT
First year (number)							
Second year							
(number)							
Third year							
(number)							
Fourth							
year(number)							


## Cardiac markers panel

Test year of	Total CK	СК-МВ	Troponin I	LDH
residency				
First year (number)				
Second year				
(number)				
Third year				
(number)				
Fourth				
year(number)				
Notes				

Notes
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## Lipid profile panel

Test	Triglycerides	Cholesterol	HDL	LDL
year of				
residency				
First year (number)				
Second year				
(number)				
Third year				
(number)				
Fourth				
year(number)				

Notes
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## **Chemical analysis of**

Test year of residency	Glucose	Calcium	Phosphorous	GGT	Uric acid	HbA1C	
First year							
(number)							
Second year							
(number)							
Third year							
(number)							
Fourth							
year(number)							

Notes

## Hormonal assay panel

Test year of residency	Т3	Т4	TSH	РТН	Testosterone	Progesterone	Estrogen
First year							
(number)							
Second year							
(number)							
Third year							
(number)							
Fourth							
year(number)							
year(manibel)							

Notes

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

Notes

Test year of residency	Aldosterone	Calcitonin	Catecholamines	Glucagon	IGF-1	
First year (number)						
Second year (number)						
Third year (number)						
Fourth year(number)						

Notes	 	 	 	 

## Tumor markers panel

Test year of residency	CEA	Free PSA	Total PSA	α- Fetoprotein	CA125	CA19.9	CA15.3
First year							
(number)							
Second year							
(number)							
Third year							
(number)							
Fourth							
year(number)							

Notes	

Test year of	CA 242	CA 72-4	
residency			
First year			
(number)			
Second year			
(number)			
Third year			
(number)			
Fourth			
year(number)			

Notes

## Special test panel

Test year of residency	Zinc	Magnesium	Ammonia	G6PD	Copper	SEROTONIN	Histamine
First year							
(number)							
Second year							
(number)							
Third year							
(number)							
Fourth							
year(number)							

Notes

Test year of residency	METANEPHRINE S	METHYLMALONIC ACID	Norepinephrine	Osmolality	Phosphate
First year					
(number)					
Second year					
(number)					
Third year					
(number)					
Fourth					
year(number)					

Notes

Test year of residency	Stone Analysis	Uroporphyrins	Valproic Acid	VMA Urine 24 Hrs	Acetone	Acid Phosphatase	Amino Acids
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)						

Test year of residency	ALCOHOL	COCAINE	LEAD	Lithium	Nicotine	Vancomycin
First year						
(number)						
Second year						
(number)						
Third year						
(number)						
Fourth						
year(number)						

Notes	

## **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)						

Test year of residency	Vitamin E	Vitamin K1	Folate	Ferritin	Iron	
First year						
(number)						
Second year						
(number)						
Third year						
(number)						
Fourth						
year(number)						

Notes

Other tests

<u>.</u>	

#### IMMUNOLOGY DEPARTMENT ROTATION

#### Routine tests

Year of residency			C	RP	ASOT		Brucella(Rose Bengal)	
residency			(NUMBER)		(NUMBER)		(NUMBER)	
	Perform	Interpret	Perform	Interpret	Perform	Interpret	Perform	Interpret
1 <sup>st</sup> year								
2d year								
3d year								
4 <sup>th</sup> year								

Year of residency					Monos	pot test	-	regnancy
	Perform	Interpret	Perform	Interpret	Perform	Interpret	Perform	Interpret
1 <sup>st</sup> year								
2d year								
3d year								
4 <sup>th</sup> year								

NOTES:	

#### BLOOD BANK TESTS

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

Year of residency	CM	V-Ab	VDRL	RL(RPR)		
residency	Perform	Interpret	Perform	Interpret		
1 <sup>st</sup> year						
2d year						
3d year						
4 <sup>th</sup> year						

NOTES: :	

#### IMMUNOGLOBULIN CLASSES AND COMPLEMENT

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

Year of residency	I	gE	C	3	C4		CH 100 complement	
	Perform	Interpret	Perform	Interpret	Perform	Interpret	Perform	Interpret
1 <sup>st</sup> year								
2d year								
3d year								
4 <sup>th</sup> year								

Year of residency		H 50 dement		terase bitor	C1q inhibitor level		_			
	Perform	Interpret	Perform	Interpret	Perform	Interpret	Perform	Interpret		
1 <sup>st</sup> year										
2d year										
3d year										
4 <sup>th</sup> year										

NOTES:	
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#### ALLERGY RELATED TESTS

Year of residency	Tota	al IgE	RAST RAST RESPIRATORY FOOI				AST RIC PANEL	
	Perform	Interpret	Perform	Interpret	Perform	Interpret	Perform	Interpret
1 <sup>st</sup> year								
2d year								
3d year								
4 <sup>th</sup> year								

NOTES:	
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#### **VIRAL HEPATITIS PROFILE TESTS**

Year of residency	нс	V-Ab		AV , IgG	НВ	sAg	Hb	sAb
	Perform	Interpret	Perform	Interpret	Perform	Interpret	Perform	Interpret
1 <sup>st</sup> year								
2d year								
3d year								
4 <sup>th</sup> year								

Year of residency			Hbc	HbcTotal		HbeAg		eAb
residency	Perform	Interpret	Perform	Interpret	Perform	Interpret	Perform	Interpret
1 <sup>st</sup> year								
2d year								
3d year								
4 <sup>th</sup> year								

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


# CONECTIVE TISSUE DISEASE TESTS AND VASCULITIS SCREEN

Year of	ANA		dsDNA		ENA		ANCA	
residency	Perform	Interpret	Perform	Interpret	Perform	Interpret	Perform	Interpret
1 <sup>st</sup> year								
2d year								
3d year								
4 <sup>th</sup> year								

NOTES:

#### LIVER AUTOIMMUNITY RELATED TESTS

Year of	ASMA		AMA		LKM1		SLA	
residency	Perform	Interpret	Perform	Interpret	Perform	Interpret	Perform	Interpret
1 <sup>st</sup> year								
2d year								
3d year								
4 <sup>th</sup> year								

Year of residency Serum protein electrophoresis electrophoresis electrophoresis electrophoresis									
Year of residency    Serum protein electrophoresis   CSF electrophoresis   Electrophoresis									
Year of residency    Perform   Interpret   P									
Year of residency    Perform   Interpret   P									
Year of residency    Perform   Interpret   P									
Year of residency    Perform   Interpret   P									
Year of residency    Perform   Interpret   P									
Year of residency    Serum protein electrophoresis   CSF electrophoresis   Electrophoresis									
Year of residency    Perform   Interpret   P									
Year of residency   Serum protein electrophoresis   CSF electrophoresis   Electrophoresis   Perform   Interpret   Perform   Interpre									
Year of residency   Serum protein electrophoresis   CSF electrophoresis   Electrophoresis   Perform   Interpret   Perform   Interpre									
residency electrophoresis electrophoresis electrophoresis    Perform   Interpret   Perform   Interpret   Perform   Interpret	<u>ELI</u>	ECTRO	<u>PHORES</u>	<u> 18</u>					
Perform Interpret Perform Inte	Year of	Serum	protein	C	SF	UR	INE	Immuno	fixation
NOTES:	residency	electro	phoresis	electrop	phoresis	electro	phoresis		
2d year  3d year  4 <sup>th</sup> year  NOTES:		Perform	Interpret	Perform	Interpret	Perform	Interpret	Perform	Interpret
NOTES:	l <sup>st</sup> year								
NOTES:									
NOTES:	2d vear								
NOTES:					<del></del>		+		
	3d year								
	3d year								
	3d year								
	3d year  4 <sup>th</sup> year	TES:							
	3d year  4 <sup>th</sup> year  NO								
	3d year  4 <sup>th</sup> year  NO								
	3d year  4 <sup>th</sup> year  NO'								
	3d year  4 <sup>th</sup> year  NO'								

## HUMAN LEUKOCYTE ANTIGEN TYPING AND CYTOTOXIC ANTIBODIES.

Year of residency	HLA-TYPING A-B-C		HLA-TYPING B5- B27		CYTOTOXIC  ANTIBODIES		PANEL REACTIVE ANTIBODIES	
	Perform	Interpret	Perform	Interpret	Perform	Interpret	Perform	Interpret
1 <sup>st</sup> year								
2d year								
3d year								
4 <sup>th</sup> year								

NOTES:	

#### **Microbiology department rotation**

## Stain techniques:

Year of residency	Wet mount preparation		,		Methylene blue stain		Ziehl–Neelsen stain	
	Perform	Interpret	Perform	Interpret	Perform	Interpret	Perform	Interpret
1 <sup>st</sup> year								
2d year								
3d year								
4 <sup>th</sup> year								

NOTES:
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## **Media preparation:**

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

NOTES:		
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## <u> Urine culture :</u>

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

NOTES:

## <u>Stool culture :</u>

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

#### **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 <sup>st</sup> year						
2d year						
3d year						
4 <sup>th</sup> year						

NOTES:		 
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## <u>Swab culture:</u>

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

NOTES:

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

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

## <u>Pus culture:</u>

Year of residency	Urethral discharge					Brain	abscess	
	Microscopy	cultivation	interpretatio n	reporting	Microscopy	cultivation	interpretation	reporting
1 <sup>st</sup> year								
2d year								
3d year								
4 <sup>th</sup> year								

Year of residency		Liver a	bscess			Miscelland	eous abscess	
	Microscopy	cultivation	interpretatio n	reporting	Microscopy	cultivation	interpretation	reporting
1 <sup>st</sup> year								
2d year								
3d year								
4 <sup>th</sup> year								

NOTES:		
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## **Lower respiratory specimens:**

Year of residency		Sputum s	pecimens		Brochoalveolar lavage specimens			ens
	Microscopy	cultivation	interpretatio n	reporting	Microscopy	cultivation	interpretation	reporting
1 <sup>st</sup> year								
2d year								
3d year								
4 <sup>th</sup> year								

IOTES:	

## **Mycobacterium:**

Year of	Sample		ain for	Auramine stain		Positive cu	ltures
residency	processing	scree	ening				
		prepared	positive	Prepared	positive	z-n stain	reporting
1 <sup>st</sup> year							
2d year							
3d year							
4 <sup>th</sup> year							

_NOTES:		
	<b></b>	

## **Mycology culture:**

Year of residency	-	imens essed		mount aration	reporting	
	Perform	Interpret	Perform	Interpret	identify	sensitivity
1 <sup>st</sup> year						
2d year						
3d year						
4 <sup>th</sup> year						

NOTES:	

## <u>Parasitology:</u>

Year of residency	_	imens essed		Il saline tration		dine aration	Reporting
	Stool	genital	Perform	Interpret	Perform	Interpret	
1 <sup>st</sup> year							
2d year							
3d year							
4 <sup>th</sup> year							

NOTES:		

#### **Commercial systems:**

Year of residency	ВА	CTEC	VII	ГЕК
	process	interpret	Process	Interpret
1 <sup>st</sup> year				
2d year				
3d year				
4 <sup>th</sup> year				

NOTES:			
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#### Serology tests:

Year of residency	Salmone	ella typing							
•			Shi	gella	Rote	azyme	Streptoco	ccus grouping	
	process	interpret	Process	Interpret	Process	Interpret	Process	interpret	
1 <sup>st</sup> year									
2d year									
3d year									
4 <sup>th</sup> year									

NOTES:	
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## Virology:

Year of residency		galovirus ırine		galovirus lood	Epstein-Barr Virus In blood		Herpes simplex virus 1	
	processed	Interpret	Processed	Interpret	Processed	Interpret	processed	Interpret
1 <sup>st</sup> year								
2d year								
3d year								
4 <sup>th</sup> year								

## Other tests:

Year of residency	Catalo	ase test	Coagul	ase test	Oxido	ise test
	process	interpret	Process	Perform	Perform	Interpret
1 <sup>st</sup> year						
2d year						
3d year						
4 <sup>th</sup> year						

NOT	ES:	
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<u>Sei</u>	minars and l	<u>lectures :</u>
Vacuat	Diagnasiana	Lastings
Year of residency	Discussions attendance	Lectures presentation
lesidency	attenaance	presentation
L <sup>st</sup> year		
2d year		
Bd year		
<sup>th</sup> year		
	I	
NOT	ES:	

#### Hematology department rotation

#### Routine tests

Year of residency Clinical pathology	perip	C and oheral d film		narrow e smears	Bone marrow trephine biopsy Observation		Flow cytometry	
pathology	Perform	Interpret	Perform	Interpret			Reading	Interpret
1 <sup>st</sup> year								
2d year								
3d year								
4 <sup>th</sup> year								

#### **Coagulation tests**

Year of residency	]	PT	P	ГТ	Fibronigen and FDP		<b>D-Dimer</b>	
Clinical pathology	Perform	Interpret	Perform	Interpret	Perform	Interpret	Perform	Interpret
1 <sup>st</sup> year								
2d year								
3d year								
4 <sup>th</sup> year								

Year of residency	Platelets function test		Factor assay					
	Perform	Interpret	Perform	Interpret	Perform	Interpret	Perform	Interpret
1 <sup>st</sup> year								
2d year								
3d year								
4 <sup>th</sup> year								

#### BLOOD BANK TESTS

Year of residency clinical pathology	reverse)		(forward and		Test for weak D (Du)		Cross match	
pathology	Perform	Interpret	Perform	Interpret	Perform	Interpret	Perform	Interpret
1 <sup>st</sup> year								
2d year								
3d year								
4 <sup>th</sup> year								

Year of residency clinical		Direct Indirect Cro ntiglobulin Antiglobulin		Cross match		Antibody Screening		
pathology	Perform	Interpret	Perform	Interpret	Perform	Interpret	Perform	Interpret
1 <sup>st</sup> year								
2d year								
3d year								
4 <sup>th</sup> year								

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: