

## **Royal Medical Services**

## **Professional Training Division**

# Logbook for clinical pathology/immunology 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):		
Jordan Medical Co	ouncil First Part Bo	ard Examination Ce	ertificate:
Date of Issuing the Certificate:			
Certificate Number:			
Other Courses:			
Course	Date	Location	Course Director

Course	Date	Location	Course Director

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

## **Clinical Immunology residents**

## First year

Duration of training: 3 months

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.

## Second year

Duration: 6 month

Date	
Two months	<ul> <li>1-Performing and interpretation of routine test and latex agglutination tests( RF, CRP, ASOT, Brucella screening and titer, monospot test for EBV, pregnancy test and Bence- Jones proteins)</li> <li>2- Performing blood bank tests including HBsAg, HCV Ab, HIV Ab, and RPR.</li> <li>3- Interpretation of blood bank results including HBsAg, HCV Ab, HIV Ab, and RPR.</li> <li>4-Review the abnormal results daily, check for discrepant results.</li> </ul>
Two months	1-Performing all ELISA tests and interpretation of results 2- Performing and reading indirect immunoflourescence slides (ANA, AMA, ASMA, Anti- dsDNA, LKM1, ANCA) 3- Review the abnormal results daily, check for discrepant results.
Two months	1-Performing all ELISA tests and interpretation of results  2-Performing and reading indirect immunoflourescence slides (ANA, AMA, ASMA, Anti- dsDNA, LKM1, ANCA, Anti-striated muscle, Anti-GAD, Anti-islet cell, Anti-platelet, Viral Biochip)  3- Analysis of SPE and immunofixation results and correlation with clinical picture.  4- Review the abnormal results daily, check for discrepant results.

## Third year

Duration: 9 months

Date	
Three months	1-Performing and interpretation of all routine and latex agglutination tests.  2-Perform all ELISA tests and interpretation of results  3-Perform and reading all indirect immunoflourescence slides  4Performing and interpretation of immunodiffusion and hemagglutination results
	5-Review the abnormal results daily, chech for discrepant results.
Three months	1- Perform special immunology tests      2-Perform and reading ELISA tests, indirect immunoflourescence and analysis of SPE and immunofixation
	3- Performing and Reading direct immunoflourescence slides of skin and kidney biopsies and correlation with clinical diagnosis.
	<ul><li>4- Observe ,Perform and reading serological HLA typing and interpretation</li><li>5- Review the abnormal results daily, chech for discrepant results.</li></ul>
Three months	1- Reading immunoflourescence slides ( direct and indirect) and interpretation
	2- interpretation of ELISA results and special immunology tests
	3- Observe ,Perform and reading serological HLA typing and interpretation
	4- Perform and reading of Cytotoxic antibody
	5- Observe PCR tests for FMF, CF, HLA-DR, HLA- ABC, HepatitisB and Hepatitis C
	6- Review the abnormal results daily, chech for discrepant results.

## Fourth year

Duration: 12 month

Date	
1 month	1-Performing and interpretation of routine test and latex agglutination tests( RF, CRP, ASOT, Brucella screening and titer, monospot test for EBV, pregnancy test and Bence- Jones proteins)
	2-Reading indirect immunoflourescence slides (ANA, AMA, ASMA, Anti- dsDNA, LKM1)
	3-Performing serological HLA typing and interpretation.
	4- Review the abnormal results daily, check for discrepant results.
2 month	1-Performing all ELISA tests and interpretation of results
	2-Performing serological HLA typing and interpretation, Cytotoxic antibodies, HLA B5 and HLA B27
	3-Reading indirect immunoflourescence slides (ANA, AMA, ASMA, Anti- dsDNA, LKM1, ANCA, Anti-striated muscle, Anti-GAD, Anti-islet cell, Anti-platelet, Viral Biochip)
	4-Review the abnormal results daily, check for discrepant results.
2 month	1-Interpretation of blood bank results including hepatitis HBsAg, HCV Ab, HIV Ab, RPR.
	2-Reading direct immunoflourescence slides of skin and kidney biopsies and correlation with clinical diagnosis.
	3-Interpretation of PCR tests of FMF, CF, and HLA-DR and ABC
	4- Review the abnormal results daily, check for discrepant results.
2 month	1-Analysis of SPE results and immunofixation and correlation with clinical picture.
2 monui	2-Performing and reading indirect immunoflourescence slides (ANA, AMA, ASMA, Anti- dsDNA, LKM1, ANCA, Anti-striated muscle, Anti-GAD, Anti-islet cell, Anti-platelet, Viral Biochip)
	3-Prefoming and interpretation of immunodiffusion and hemagglutination results
	4-Interpretation of PCR tests for HepatitisB and Hepatitis C
	5-Review the abnormal results daily, check for discrepant results.

2	1 Description and the state of
2 month	1-Performing serological HLA typing and interpretation for kidney and
	bone marrow transplant patients
	2-Performing and interpretation of cytotoxic antibodies tests.
	3-Performing HLA- B5 and HLA-B27 to assess diagnosis in certain
	autoimmune diseases.
	4-Review the abnormal results daily, check for discrepant results.
1 1	1 L C C C C C C C C C C C C C C C C C C
1 month	1-Interpretation of PCR tests of FMF, CF, HLA-DR, HepatitisB and
	Hepatitis C
	2. Demographics all ELICA tests and intermediation of results
	2- Performing all ELISA tests and interpretation of results
	3- Perform and interpretation of special immunology test
	3- Perform and interpretation of special minimiology test
	4-Review the abnormal results daily, check for discrepant results.
	The flew the deficition results during, effects for discrepant results.
2 month	1-Reading indirect immunoflourescence slides (ANA, AMA, ASMA,
	Anti- dsDNA, LKM1, Anti-striated muscle, Anti-GAD, Anti-islet cell,
	Anti-platelet, Viral Biochip)
	Tanti-platelet, vital blocinp)
	2-Reading direct immunoflourescence slides of skin and kidney biopsies
	and correlation with clinical diagnosis.
	and correlation with entirear diagnosis.
	3-Interpretation of immunodiffusion and hemagglutination results.
	1
	4-Analysis of SPE and immunofixation results and correlation with
	clinical picture.
	r r
	5-Review the abnormal results daily, check for discrepant results.

## <u>Immunology resident program in others clinical pathology departments: clinical chemistry, hematology, microbiology and blood bank.</u>

#### First year

#### **Duration of training: 3 months in each division**

#### 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	WIUI ESK
Two weeks	3- Performing general coagulation tests
	4- Performing general blood bank tests like blood grouping and coomb's test

#### Clinical chemistry

- 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.

#### **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

#### **Second year**

#### Duration of training: 2 months in each division

#### **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

#### Clinical chemistry

- 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.

#### **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

#### Third year

#### Duration of training: 1 month in each division

#### **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

- 1- Reading and interpretation of results: automated general test, special tests, hormonal tests, genetic chemistry test.
- 2- Confirmation of the results

### **Microbiology**

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

## **Immunology department**

## Routine tests

Year of			CRP (NUMBER)		ASOT (NUMBER)		Brucella(Rose Bengal) (NUMBER)	
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	Brucella (Wright)- (N)			-Jones in- (N)	Monos	pot test	Early pr	
	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	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(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 residency	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	IgE		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	CH 50 complement				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:		

## ALLERGY RELATED TESTS

Year of residency	Total IgE		Total IgE RAST RESPIRATORY		RAST FOOD		RAST PEDIATRIC PANEL	
	Perform	Interpret	Perform	Interpret	Perform	Interpret	Perform	Interpret
1 <sup>st</sup> year								
2d year								
3d year								
4 <sup>th</sup> year								

NOTES:	 

## VIRAL, BACTERIAL, FUNGAL AND PARASITES RELATED INVESTIGATIONS

Year of residency	Adenovirus Ab IgG, IgM		, 0		Epstein Barr virus VCA IgG, IgM		Epstein Barr virus EBNA IgG, IgM	
	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	HSV IgG, IgM			Measles Ab		Rubella Ab		Varicella zoster virus	
			IgG, IgM		IgG, IgM		IgG, IgM		
	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	Parvovirus Ab  IgG, IgM		Mumps Ab IgG, IgM		Helicobacter pylori- IgG, IgA		Legionella Ab	
	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	Leishmania Ab			laria Ab IgM	trachom	mydia natis IgA, gG		mydia a IgA, IgG
	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	Ecchinococcus Ab			ever IgM	_	olasma IgM	_	a pallidium HA)
	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	Mosaic biochip CNS		Mosaic	Mosaic biochip		Mosaic biochip		Mosaic biochip	
			respiratory		G.I		lymphoadenitis		
	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	Bartonella Hensellae IgG		Schistos	somiasis				
	Perform	Interpret	Perform	Interpret	Perform	Interpret	Perform	Interpret
1 <sup>st</sup> year								
2d year								
3d year								
4 <sup>th</sup> year								


## **VIRAL HEPATITIS PROFILE TESTS**

Year of residency	HCV-Ab		HAV IgM, IgG		HBsAg		HbsAb	
	Perform	Interpret	Perform	Interpret	Perform	Interpret	Perform	Interpret
1 <sup>st</sup> year								
2d year								
3d year								
4 <sup>th</sup> year								

Year of	HbcIgM		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	Hepatit	is E IgM	HDV	V <b>Ag</b>	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

Year of	ANA		dsDNA		ENA		Anti-histone antibody	
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	Anti Centromere Antibody		ACLA IgA, M, G		APLA		Anti-CCP	
	Perform	Interpret	Perform	Interpret	Perform	Interpret	Perform	Interpret
1 <sup>st</sup> year								
2d year								
3d year								
4 <sup>th</sup> year								

Year of	M	CV						
residency	Perform	Interpret	Perform	Interpret	Perform	Interpret	Perform	Interpret
1 <sup>st</sup> year								
2d year								
3d year								
4 <sup>th</sup> year								

NOTES:

## **VASCULITIS SCREEN TESTS**

Year of	ANA		Cryoglobulins		C3		C4	
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	ANCA-C		ANCA-P		PR3		MPO	
residency	Perform	Interpret	Perform	Interpret	Perform	Interpret	Perform	Interpret
1 <sup>st</sup> year								
2d year								
3d year								
4 <sup>th</sup> year								

NOTES:	
	-
	_

## **AUTOIMMUNE ENDOCRINE DISEASES TESTS**

Year of residency	ATA		AMA		Anti adrenal Ab		Anti islets cell antibody	
	Perform	Interpret	Perform	Interpret	Perform	Interpret	Perform	Interpret
1 <sup>st</sup> year								
2d year								
3d year								
4 <sup>th</sup> year								

Year of	Anti in	sulin Ab	Anti	GAD				
residency	Perform	Interpret	Perform	Interpret	Perform	Interpret	Perform	Interpre
st year								
2d year								
Bd year								
I <sup>th</sup> year								
	'ER AU	TOIMMU		ELATE	D TESTS			
Year of	_	TOIMMU		PELATE	_	S S SM1	Sl	LA
Year of	_				_		Sl	
Year of residency	AS	SMA	AN	MA	LF	- KM1		LA
	AS	SMA	AN	MA	LF	- KM1		

1 <sup>st</sup> year					
2d year					
3d year					
4 <sup>th</sup> year					
NO 	TES:	 	 	 	

------

## <u>AUTO-ANTIBODIES ASOCIATED WITH NEUROLOGICAL</u> <u>CONDITIONS</u>

Year of residency	Acetylcholine Anti ganglio receptor Ab GM1 Ab		_	Antibodies to Myelin associated glycoproteins (MAG)		Purkinje cell antibodies (Yo, Hu and Ri)		
	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	Anti-skeletal muscle Ab							
	Perform	Interpret	Perform	Interpret	Perform	Interpret	Perform	Interpret
1 <sup>st</sup> year								
2d year								
3d year								
4 <sup>th</sup> year								

NOTES:	

## AUTO-ANTIBODIES ASSOCIATED WITH G I T DISEASES

Year of residency	ASCA P		P-A	NCA	transglu	sue taminase , IgG	-	ietal cell body
	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	Anti-intrinsic factor Ab		Anti-gliadin Ab  IgA, IgG		Helicobacter IgA, IgG			
	Perform	Interpret	Perform	Interpret	Perform	Interpret	Perform	Interpret
1 <sup>st</sup> year								
2d year								
3d year								
4 <sup>th</sup> year								

NOTES:

## OTHER SPECIAL TESTS

Year of residency	Anti platelet Ab		α 1 antitrypsin		ACE		Anti-leptin 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	Anti-sperm Ab  IgA, M,G  Anti—tetanus Ab		-	2 GPI , IgG	Goblet cell Ab			
	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	Anti- GBM		Neonatal screening TSH		Neonatal screening G6PD			
	Perform	Interpret	Perform	Interpret	Perform	Interpret	Perform	Interpret
1 <sup>st</sup> year								
2d year								
3d year								
4 <sup>th</sup> year								

NOTES:	
TOTES.	


## **ELECTROPHORESIS**

Year of residency	Serum protein electrophoresis		CSF electrophoresis		URINE electrophoresis		Immunofixation	
	Perform	Interpret	Perform	Interpret	Perform	Interpret	Perform	Interpret
1 <sup>st</sup> year								
2d year								
3d year								
4 <sup>th</sup> year								

NOTES:

## HUMAN LEUKOCYTE ANTIGEN TYPING AND CYTOTOXIC ANTIBODIES.

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

NOTES:

## MOLECULAR TESTS

Year of	HLA	-ABC	HLA	-DR	CYSTIC		FMF	
residency	(P	CR)	(PCR)		FIBROSIS		(PCR)	
					(PCR)			
	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	HBV (PCR)		HCV (PCR)					
	Perform	Interpret	Perform	Interpret	Perform	Interpret	Perform	Interpret
1 <sup>st</sup> year								
2d year								
3d year								
4 <sup>th</sup> year								

NOTES:	

## BIOPSY (IMMUNOFLUORESCENCE)

Year of residency	KIDNEY BIOPSY		SKIN BIOPSY					
	Perform	Interpret	Perform	Interpret	Perfo rm	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		(Gram stain)		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:	 	

## **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				

# <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:	 	

## 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					

NOTES:

# <u>Blood culture:</u>

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:		 
	1	

# <u>Swab culture:</u>

Year of	Throa	t swab	Nasal	swab	Ears	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		, , , , , , , , , , , , , , , , , , , ,		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:	 

# **Effusions culture:**

Year of residency	Ascitic 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								

Year of residency	Synovi	ial fluid	Pericard	dial 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								

NOTES:		
	<b>-•</b>	

# <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 abscess			Miscellaneous 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:		
	<b>'•</b>	

# **Lower respiratory specimens:**

Year of residency	Sputum specimens			Brochoalveolar lavage specimens				
	Microscopy	cultivation	interpretatio n	reporting	Microscopy	cultivation	interpretation	reporting
1 <sup>st</sup> year								
2d year								
3d year								
4 <sup>th</sup> year								
NO.	TEC.							

NOTES:	
<sub>-</sub>	

## **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:		

# **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:	 	
110120.		

## <u>Parasitology:</u>

Year of residency	Specimens processed			l saline ration		dine eration	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	BACTEC		VII	ГЕК
	process	interpret	Process	Interpret
1 <sup>st</sup> year				
2d year				
3d year				
4 <sup>th</sup> year				

NOTES:	 	

## Serology tests:

Year of residency	Salmone	ella typing						
residency			Shi	gella	Rota	Rotazyme Streptococcus grou		us grouping
	process	interpret	Process	Interpret	Process	Interpret	Process	interpret
1 <sup>st</sup> year								
2d year								
3d year								
4 <sup>th</sup> year								

NOTES:		 
	•	

# Virology:

Year of residency	Cytomegalovirus In urine			galovirus lood		Barr Virus lood	Herpes sim 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	Catalase test		Coagulase test		Oxidase test		
	process	interpret	Process	Perform	Perform	Interpret	
1 <sup>st</sup> year							
2d year							
3d year							
4 <sup>th</sup> year							

ПОИ	TES:				
				·	
<u>Sei</u>	minars and I	<u>ectures :</u>			
Year of	Discussions	Lectures			
residency	attendance	presentation			
			_		
1 <sup>st</sup> year			$\dashv$		
2d voor			_		
2d year					
3d year					
4 <sup>th</sup> year					
NOI	ΓES:				


### Hematology department rotation

### Routine tests

Year of residency Clinical pathology	peripheral blood film			narrow e smears	trephin	narrow e biopsy rvation	Flow cy	tometry
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		PTT		Fibronigen and FDP		D-Dimer	
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	rassay				
	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	ABO Grouping (forward and reverse)		RH D	Testing	Test for (D	weak D	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		rect lobulin	Indirect Antiglobulin		Cross match		Antibody Screening	
clinical pathology	Perform	Interpret	Perform	Interpret	Perform	Interpret	Perform	Interpret
1 <sup>st</sup> year								
2d year								
3d year								
4 <sup>th</sup> year								

### **Clinical chemistry** Rotation

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)				

Notes
,

### **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)							

Notes

### Cardiac markers panel

Test				
	Total CK	CK-MB	Troponin I	LDH
	Total CII		Tropomin 1	
year of				
residency				
First year (number)				
Second year				
(number)				
Third year				
(number)				
Fourth				
year(number)				
Notes				

### Lipid profile panel

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

Notes		
	·	

### **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)							

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
<sub>-</sub>

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

Notes
<u>-</u>

### 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	METANEPHRINES	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	Acetaminophen	Amikacin	ANTICONVALESANTS	BARBITURATES	BENZODIAZEPINE
residency					
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						
First year (number)						
(						
Second year						
(number)						
Third year						
(number)						
Fourth						
year(number)						

Notes

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

Notes


#### **Vitamins**

Vitamin B 1	Vitamin B 6	Vitamin B12	Vitamin B2	Vitamin D, 1,25 Dihydroxy	Vitamin D3
		_		_	
	Vitamin B 1		VILAIIIIII DI VILAIIIIII	VICALIIII D I VICALIIIII	B 6 B2 Vitaliii B, 1,25

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

Notes

<del></del> .
Other tests


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: Immunology 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: