



Jinnah Medical & Dental College

Study Guide

Pediatrics



**MBBS
2021**

The natural healing
Force within each of us
is the greatest force
in getting well

Hippocrates

Abbreviations

EOM	End of Module
WT	Ward Test
R	Rotation
LGIS	Large group Interactive discussion
CBD	Case Based Discussion
OPD	Out Patient Department
K	Knowledge
S	Skill
A	Attitude
MCQ	Multiple Choice Question
OSCE	Objective Structured Clinical Examination
Mini CEX	Mini Clinical Evaluation Exercises
DOPS	Direct Observation of Procedural Skills

Team Members
Department of Pediatric
2021

Name	Committee	Department
Prof. Dr. Bushra Rafique	Member	Pediatric
Dr. Nadeem Noor	Member	Pediatric
Dr. Uzma Arshad	Member	Pediatric
Dr. Meher Afroz	Member	Pediatric
Dr. Mariam Haider	Member	Pediatric
Dr. Zeelaf Shahid	Member	Medical Education

Introduction

About 50% of population in Pakistan consists of children. This can be a blessing if we the health care providers take care of children even before they are conceived till adolescence.

Even if some of our young doctors do not choose to be a pediatrician, still they have to be good in the subject because of large pediatric population.

Curriculum is devised to address local and global problems in pediatrics. Students have opportunity to learn and serve a variety of patients. There is daily ward round by faculty along with once a week grand round. Students attend OPD, emergency and vaccination room. Skill lab provides opportunity to learn necessary skill pre hand on mannequins before they can perform safely on patients.

There is end of rotation assessment which is documented in their grade book. Now students will go through Mini-CEX and DOPS during their posting in Pediatrics.

Rationale

Multiple teaching modalities are employed to solidify and integrate knowledge of basic sciences with clinical problem solving and decision-making skills of students.

Vision

To set local and global standards for quality patient outcomes – creating a culture of excellence to promote a transformative experience for the 21st century clinicians, educators and researchers to benefit all humanity.

Mission Statement

We are committed to develop well rounded academics, thinkers, clinicians and researchers by strengthening a global view, broadening intellectual foundation and teaching effective communication. It is our aspiration to cultivate creative and critical thinking skills for problem solving, sensitive to cultural and ethical values and responsibilities. Our graduates will be role models and leaders for society.

General Learning Objectives

By the end of rotation in Pediatrics, a student will be able to:

- Take complete Pediatric history and perform physical examination.
- Enlist issue regarding disease in Pediatrics and differential diagnosis
- Portray a suitable management plan
- Highlight the common problems regarding common problems for Pediatrics in Pakistan
- Discuss Anemia and other nutritional disease in children
- Explain the prevalence of urinary tract infections in children



JMDC CURRICULUM FRAMEWORK: MBBS 1-5 YEARS

Year	Module 1	EOM	Module 2	EOM	Module 3	EOM	Module 4	EOM	Module 5	EOM	Module 6	EOM				
1	Foundation-1 8 weeks		Blood-1 4 weeks		Locomotor-1 8 weeks		Respiratory-1 4 weeks		CVS-1 4 weeks		GIT-1 4 weeks					
Clinical Rotations (Each Batch) WT																
2	Module 7	EOM	Module 8	EOM	Module 9	EOM	Module 10	EOM	Module 11	EOM	Module 12	EOM				
	Head & Neck-1 5 weeks		Neurosciences-1 7 weeks		Special Senses 3 weeks		Endocrine-1 5 weeks		Reproductive-1 4 weeks		Urinary-1 5 weeks					
Clinical Rotations (Each Batch) WT																
3	Module 13	EOM	Module 14	EOM	Module 15	EOM	Module 16	EOM	Module 17	EOM	Module 18	EOM				
	Foundation 2 10 weeks		Blood-2 5 weeks		Locomotor-2 4 weeks		Respiratory-2 4 weeks		CVS-2 5 weeks		GIT-2 7 weeks					
Clinical Rotations (Each Batch) WT																
<u>R1</u>	Medicine 2 weeks	WT	Psychiatry 2 weeks	WT	Surgery 2 weeks	WT	Orthopedics 2 weeks	OBS/ GYN 2 weeks	Pediatrics 2 weeks	Eye 2 weeks	Ent 3 weeks	WT				
<u>R2</u>	Medicine 2 weeks		Psychiatry 2 weeks		Surgery 2 weeks		Orthopedics 2 weeks	OBS/ GYN 2 weeks	Pediatrics 2 weeks	Eye 2 weeks	Ent 3 weeks					
4	Module 19	EOM	Module 20	EOM	Module 21	EOM	Module 22	EOM	Module 23	EOM	Module 24	EOM	Lectures			
	Orthopedics 7 weeks		Reproductive-2 7 weeks		Neuroscience-2 9 weeks		Genetics 1 week		Dermatology 2 weeks		Rehabilitation 2 weeks		ENT/ EYE			
Clinical Rotations (Each Batch)																
<u>R1</u>	Medicine 3 weeks	WT	Psychiatry 3 weeks	WT	Surgery 3 weeks	WT	Orthopedics 3 weeks	WT	OBS/ GYN 3 weeks	WT	Pediatrics 3 weeks	WT	Eye 3 weeks	WT	Ent 3 weeks	WT
<u>R2</u>	Medicine 3 weeks	WT			Surgery 3 weeks	WT			Eye 3 weeks	WT			Ent 3 weeks	WT		
LECTURES																
5	Medicine				Surgery				OBS/Gynae				Pediatrics			
Clinical Rotations																
<u>R1</u>	Medicine 4 weeks				Surgery 4 weeks				OBS/ GYN 4 weeks				Pediatrics 4 weeks			
<u>R2</u>	Medicine 5 weeks				Surgery 5 weeks				OBS/ GYN 5 weeks				Pediatrics 5 weeks			

CONTENTS

1. Introduction to Pediatrics
2. Normal Child
3. Genetic
4. Neonatology
5. Nutrition
6. Infection & Immunity
7. Gastroenterology
8. Pulmonology
9. Cardiology
10. Endocrinology
11. Nephrology
12. Hematology
13. Nervous system
14. Emergency
15. Psychiatry

Competencies assessed in this module

Knowledge

Skill

Attitude

Teaching / Learning Methods

The teaching learning sessions of the Pediatrics will be of diverse types:

- a. Large group interactive sessions (LGIS)
- b. Small group teaching (Tutorials)
- c. CBD
- d. Case Based Learning Sessions
- e. Practical session (Vaccination)
- f. Clinical Rotations
- g. Bedside Teaching
- h. Clinical rotations at STH and MCJH,
- i. Skill lab (BLS)
- j. Seminars: on different topics, in which students will make oral presentations on different aspects of the allocated topic.
- k. Self-directed learning sessions: This is the time during which students are expected to revise what they have learnt in the class, clear their concepts by consulting different textbooks, reference material and prepare their assignments and projects.

Students Assessment

There is continuous assessment of students throughout the year in the form of **Mini CEX** (Mini Clinical Evaluation Exercise) and **DOPS** (Direct Observation of Procedural Skill).

4 to 6 sessions for each of the student take place.

In addition, there will be an end of ward examination after completion of clinical rotation in Pediatrics ward which will comprise the following components: -

i. Written Assessment

The theory paper will have components of one – best type multiple – choice questions (MCQs).

ii. OSCE examination:

This will comprise Objective Structured Practical Examination (OSCE). The OSCE will have both observed and non-observed stations. The end of rotation written exam will be ofhours duration. This will comprise the following components:

The OSCE will be conducted in batches. The students will be having different patterns of OSCE in the subject of Pediatrics.

Summary of marks of each module exam

Theory (BCQs) = 100 marks

OSCE (10 stations) = 100 marks

Total =200 marks

Internal Assessment:

- Continuous monitoring of attendance and practical assessment in short groups.
- It may be in the form of MCQs and OSCE.
- Internal assessment carries 20% weightage

Course Evaluation:

Course evaluation will be obtained through a feedback form which will be posted on the JMC website

Mandatory Policy:**Eligibility for sitting in Professional Examinations is as follows:**

- 75% overall Class Attendance
- 75% Attendance all Clinical Wards with passing marks in all Clinical Ward Tests.
- Minimum 40% aggregate marks on all Internal Examinations (Module Tests, Midterm, Pre-Professional Examinations)
- MBBS 4th& Final Year: CPC Presentation at least once in a year
- Skills Labs: Must be completed with passing marks

Failure to Meet the Eligibility Requirements:

- A Student failing to meet the above listed eligibility for sitting in the professional examination will NOT be allowed to sit in 1st attempt of the Professional Examination. The college has the right to withhold all students who however, not met the eligibility requirements from sitting in the 1st attempt.
- Such students who have been withheld from sitting in the 1st attempt of the Professional exam because of failure to meet the eligibility requirements will be allowed only to sit in the retake of that examination. It is expected that deficiency in requirements of Professional communication assignments, Behavioral Sciences & Research Module assessments, journal Club presentations, CPC,

Skills Labs must be made up and fulfilled before a student will allowed to sit in the retake exam.

Details of ATTENDANCE POLICY

The CR is responsible to bring attendance sheets from Student Affairs Office to each class. At the end of class, the attendance sheet must be signed and returned by the faculty member to the Student Affairs Office. No attendance sheets from students will be accepted.

These attendances will be compiled together as follows:

LECTURE ATTENDANCE = # Lectures Attended / Total # of Lectures

PRACTICAL ATTENDANCE = # Practicals Attended / Total # of Practicals

TUTORIAL ATTENDANCE = # Tutorials Attended / Total # of Tutorials

NOTE: All tutorials will be conducted by a Senior Faculty Member (AP or above), assisted by a Junior Faculty Member (Lecturer)

FINAL CLASS ATTENDANCE =

%Lecture Attendance + %Tutorial Attendance + %Practical Attendance

3

Recommended Reading Material

REFERENCE BOOKS:

- Illustrated textbook of Pediatrics (Tom Lissauer)
- Textbook of Pediatrics (PPA)
- The Harriet Lane Handbook of Pediatrics
- Drug doses by Frank Shann (2021)

PEDIATRICS

Organization

Time requirements:

Lectures

5th year = 36 hours

Clinical Rotations

3rd year = 144 hours

4th year = 216 hours

5th year = 432 hours

Total = 828 hours

Lectures

S #	Learning Objectives By the end of session, student will be able to:	Content Area	Learning Activity Duration	Assessment
1	<ul style="list-style-type: none"> Discuss the global and local Challenges faced in Pediatrics Explain the statistics regarding Pediatrics (K)(S)(A) 	Introduction to Pediatrics	LGIS 1hour	BCQ OSCE
2	<ul style="list-style-type: none"> Describe the Growth and puberty Portray the Developmental milestones of a normal child (K)(S)(A) 	Normal Child	LGIS 1hour + Bed side teaching 1hour	BCQ OSCE Mini-CEX
3	<ul style="list-style-type: none"> Depict the Genetic inheritance / Pedigree Discuss the down syndrome, Turner, Klinefelter diseases (K)(S)(A) 	Genetic	LGIS 1hour + CBD 1 hour	BCQ OSCE
4	<ul style="list-style-type: none"> Discuss the Normal new born Explain the Prematurity Describe Neonatal jaundice Explain Birth asphyxia / Cerebral Palsy Specify the Birth injuries (K)(S)(A) 	Neonatology	LGIS 1hour + Bed side teaching 1hour + CBD 1 hour	BCQ OSCE
5	<ul style="list-style-type: none"> Discuss the Normal diet Differentiate Malnutrition and Deficiency states (K)(S)(A) 	Nutrition	LGIS 1hour + Bed side teaching 1hour + CBD 1 hour	BCQ OSCE Mini-CEX
6	<ul style="list-style-type: none"> Portray the Vaccinology / EPI program Specify the Vaccine preventable diseases 	Infection & Immunity	LGIS 1hour + Bed side	BCQ OSCE Mini-CEX

	<ul style="list-style-type: none"> Discuss TB, Enteric, Covid, HIV (K)(S)(A) 		teaching 1 hour + CBD 1 hour	
7	<ul style="list-style-type: none"> Explain the Integrated management of Childhood illness (IMNCI) Differentiate Diarrhea and Dysentery Explain Malabsorption Describe Hepatitis Portray liver Function tests (LFT) (K)(S)(A) 	Gastroenterology	LGIS 1 hour + Bed side teaching 1 hour + CBD 1 hour	BCQ OSCE Mini-CEX
8	<ul style="list-style-type: none"> Describe the Radiological findings of Lung diseases Describe Pneumonia Explain Bronchiolitis and Croup Discuss Bronchial Asthma Describe Bronchiectasis Explain Basic Life Support (BLS) (K)(S)(A) 	Pulmonology	LGIS 1 hour + Bed side teaching 1 hour + CBD 1 hour + Clinical Skills 1 hour	BCQ OSCE Mini-CEX DOPS
9	<ul style="list-style-type: none"> Explain Echocardiography (ECG) Describe Coronary Heart Disease (CHD) – a cyanotic and Coronary Heart Disease (CHD)– cyanotic Explain Congestive Cardiac Failure Discuss Rheumatic heart disease Explain the Infective endocarditis Describe Kawasaki disease Narrate Conduction disorders Describe Basic Life Support (BLS) (K)(S)(A) 	Cardiology	LGIS 1 hour + Bed side teaching 1 hour + CBD 1 hour + Clinical Skills 1 hour	BCQ OSCE Mini-CEX DOPS
10	<ul style="list-style-type: none"> Explain Hypothyroidism and Hyperthyroidism Discuss Diabetes Mellitus and Diabetic Ketoacidosis (DKA) 	Endocrinology	LGIS 1 hour + Bed side	BCQ OSCE Mini-CEX

	<ul style="list-style-type: none"> Discuss Short stature Explain Cushing disease and Cushing syndrome (K)(S)(A) 		teaching 1 hour + CBD 1 hour + Clinical Skills 1 hour	DOPS
11	<ul style="list-style-type: none"> Explain Urinary Tract Infection (UTI) Discuss the Nephrotic syndrome and Acute Glomerulonephritis (AGN) Portray Renal failure / Renal functions (K)(S)(A) 	Nephrology	LGIS 1 hour + Bed side teaching 1 hour + CBD 1 hour	BCQ OSCE Mini-CEX
12	<ul style="list-style-type: none"> Explain Iron Deficiency Anemia (IDA) Describe Thalassemia Discuss Bleeding disorders / ITP Clotting disorder / Hemophilia Specify Malignancies (K)(S)(A) 	Hematology	LGIS 1 hour + Bed side teaching 1 hour + CBD 1 hour	BCQ OSCE Mini-CEX
13	<ul style="list-style-type: none"> Differentiate and discuss Upper Motor Neuron Disease and Lower Motor Neuron Disease Explain Meningitis and encephalitis Discuss Seizures (K)(S)(A) 	Nervous System	LGIS 1 hour + Bed side teaching 1 hour + CBD 1 hour + Clinical Skills 1 hour	BCQ OSCE Mini-CEX DOPS
14	<ul style="list-style-type: none"> Discuss Poisoning Analyze Allergy and anaphylaxis (K)(S)(A) 	Emergency	LGIS 1 hour + Bed side teaching 1 hour + CBD 1 hour +	BCQ OSCE Mini-CEX DOPS

			Clinical Skills 1 hour	
15	<ul style="list-style-type: none"> • Explain Autism • Discuss Anxiety and Depression (K)(S)(A)	Psychiatry	LGIS 1 hour + Bed side teaching 1 hour + CBD 1 hour	BCQ OSCE

Practical

S #	Learning Objectives By the end of session, student will be able to :	Content Area	Learning Activity Duration	Assessment
1	<ul style="list-style-type: none"> Perform the General and Physical Examination (K)(S)(A) 	General Physical Examination	Small group Bed side	DOPS OSCE
2	<ul style="list-style-type: none"> Do Abdominal Examination (K)(S)(A) 	Abdomen	Small group Bed side	DOPS OSCE
3	<ul style="list-style-type: none"> Present Cardiovascular Examination (K)(S)(A) 	Genetic	Small group Bed side	DOPS OSCE
4	<ul style="list-style-type: none"> Carry out Respiratory Examination (K)(S)(A) 	Neonatology	Small group Bed side	DOPS OSCE
5	<ul style="list-style-type: none"> Demonstrate Cranial Nerve Examination (K)(S)(A) 	CNS	Small group Bed side	DOPS OSCE
6	<ul style="list-style-type: none"> Perform Motor & Sensory system Examination (K)(S)(A) 		Small group Bed side	DOPS OSCE
7	<ul style="list-style-type: none"> Do Cerebellar Examination Demonstrate Signs of Meningeal irritation (K)(S)(A) 		Small group Bed side	DOPS OSCE

Skills Lab

S. No.	Learning Objectives By the end of session, student will be able to:	Content Area	Learning Activity Duration	Assessment
1	<ul style="list-style-type: none"> Perform Basic Life Support (S)(A) 	Basic Life Support	Small group	DOPS OSCE

Case based learning (CBL)

- CPC is held weekly

S #	Learning Tool	Theme	Case Scenario	Subjects integrated in PBL
1	<ul style="list-style-type: none"> • CBL1 • Explain the Genetics, Clinical features, Complications and Family counselling of Down syndrome (K) 	Foundation	Down Syndrome	Clinical specialties related to theme
2	<ul style="list-style-type: none"> • CBL2 • Narrate the Pathophysiology, Grading and Home Management of Bronchial Asthma (K) 	Respiratory	Bronchial Asthma	Clinical specialties related to theme
3	<ul style="list-style-type: none"> • CBL3 • Discuss Pathophysiology, Management and 1, 2 & 3 prevention of Rheumatic Heart Disease (K) 	Cardiovascular	Rheumatic Heart Disease	Clinical specialties related to theme
4	<ul style="list-style-type: none"> • CBL4 • Explain the Pathophysiology of Thalassemia Major, • Portray the Burden of blood diseases in Pakistan and Management options • Specify Eradication program in Pakistan regarding Thalassemia Major (K) 	Blood	Thalassemia Major	Clinical specialties related to theme
5	<ul style="list-style-type: none"> • CBL5 • Analyze the Clinical features and management of Congenital Hip Dislocation (K) 	Locomotor	Congenital Hip Dislocation	Clinical specialties related to theme

Learning Resources: The students will be guided to look for the relevant study material from the books, internet guided by each discipline in the study guide in their relevant section in addition to other reference books from the college library

TIMETABLE

Jinnah Medical & Dental College MBBS 5 - Batch 24 Pediatrics 2021 – WEEK 1

Lecture Venue: LH10

(Mon, Wed, Fri-Groups ABC on campus; DEF lectures via ZOOM; Tues, Thurs-Groups DEF on campus; ABC via ZOOM)

MO N				10:45-11:35 Surgery	11:40-12:30	1:00-2:15 Medicine
TUE S	8:30-10:00			10:45-11:35	11:40-12:30	1:00-2:15
WE D	8:30-10:00			10:45-11:35	11:40-12:30	1:00-2:15
THU R	8:30-9:20	9:25-10:15				1:00-2:15
FRI Mar	8:30-9:20	9:25-10:15		10:45-11:35	11:40-12:30	

**END of Pediatrics
Clinical Rotation**

TEST THEORY (MCQs)

TEST CLINICAL (OSCE)