

CURRICULUM
OF
M.D PAEDIATRICS
PUMHSW, NAWABSHAH-SBA
2016

**APPROVED BY BOARD OF STUDIES OF PUMHSW FOR PEDIATRICS &
FACULTY OF MEDICINE & ALLIED, PUMHSW, NAWABSHAH.**

By

PROF. DR ALI AKBAR SIYAL

CHAIRMAN

DEPARTMENT OF PEDIATRICS

**PEOPLES UNIVERSITY OF MEDICAL & HEALTH SCIENCES FOR WOMEN,
NAWABSHAH – SBA**

Contents

	Page
1. OBJECTIVES	1
2. ELIGIBILITY /REQUIREMENTS FOR ADMISSION IN MD PEDIATRICS	2
3. ENROLMENT	2
4. REGISTRATION	2
5. CURRICULUM	3
6. TRAINING PROGRAMS	6
7. LOG BOOK	6
8. RESEARCH (THESIS)	7
9. MANDATORY WORKSHOPS	8
10. MONTHLY TRAINING PROGRAM	8
11. LECTURES BY OTHER SPECIALITIES	8
12. MODES TO ACHIEVE OBJECTIVES	9
13. GUIDELINES FOR TRAINEES	10
14. GUIDELINE FOR SUPERVISORS	10
15. COMPETENCY LEVEL ASSESSMENT	11
16. ELIGIBILITY/ REQUIREMENT FOR APPEARING IN MD EXAMINATION	14
17. EXAMINATION SCHEDULE	14
18. FORMAT OF EXAMINATION	15
19. MARKS	18

OBJECTIVES

At the end of the training for MD in Pediatrics a candidate shall be able to:

1. To assess the children with Paediatrics problems by:

- (A) Obtaining pertinent history.
- (B) Performing physical examination correctly & thoroughly
- (C) Formulating a working diagnosis.
- (D) Deciding whether the patient requires
 - (i) Ambulatory care or hospitalization.
 - (ii) Referral to other health professionals/ specialty

2. To manage patients requiring treatment

- (A) Order appropriate investigations and interprets the results.
- (B) Decide and implement suitable treatment.
- (C) Maintain follow up of patients at required intervals.
- (D) Maintain records of patients.

3. Undertake research and publish findings.

4. Acquire new information, assess its utility and make appropriate applications.

5. Recognize the role of team work and function as an effective member/leader of the team.

6. Advice the community on matters related to promoting health and preventing diseases.

7. Train Medical and Para medical staff members of the team.

ELIGIBILITY /REQUIREMENTS

FOR ADMISSION IN THE TRAINING PORGRAMME

- 1) MBBS or equivalent qualification registered with PMDC
- 2) One year House Job and two years MO/ REGISTRAR

OR

Six Months house job and two & half years as MO/REGISTRAR in Pediatrics

OR

03 years worked as a MO/ REGISTRAR in institution recognized by PMDC\

- 3) Passed entry test taken by PUMHSW.

ENROLMENT

On selection for the course of MD, the PG students are required to get themselves enrolled to the PUMHSW.

REGISTRATION

On commencement of training all trainees are required to register themselves compulsorily with the Postgraduate department PUMHSW.

CURRICULUM

A curriculum should be documented; objective, evolving and sustainable. It is intended to give a holistic view of the requirements of the discipline in general.

It should be global and extensive, not yet the total, list of the learning outcomes recommended by the PUMHSW, Nawabshah-SBA.

The MD training program focuses on following key factors of viable training.

Are:

1. Knowledge (cognition)
2. Skills
3. Attitude

1. KNOWLEDGE COGNITION:

The candidate will be able to:

- A. Relate how body functions gets altered in diseased states.
- B. Request and justify investigation and plan management for medical disorders.
- C. Assess new medical knowledge and apply it to that particular setting.
- D. Apply quality assurance procedures in their daily works.

2. SKILLS:

(A) Written communication skills:

The candidate will be able to:

- i. Correctly write updated medical record, which are clear, concise and accurate.
- ii. Write clear management plan, discharge summaries and referral letters.
- iii. Demonstrate competence in academic writing.

(B) Verbal communication skill:

The candidate will be able to:

- i. Establish professional relationships with patients and their relatives or caregivers in order to obtain a history, conduct a physical examination and provide appropriate management.
- ii. Demonstrate usage of appropriate language in seminars, bedside sessions, outpatient's department and other work situations.
- iii. Demonstrate the ability to communicate clearly, considerately and sensitively with patients, relatives, other health professionals and the public.
- iv. Demonstrate competence in presentation skills.

(C) Examination Skills:

The candidate will be able to:

- i. Perform an accurate physical and mental state examination in complex medical problems often involving multiple systems.
- ii. Interpret physical signs after physical examination so as to formulate further management strategy.

(D) Patient management skills:

The candidate will be able to:

- i. Interpret and integrate the history and examination findings and arrive at an appropriate provisional diagnosis and final diagnosis.
- ii. Demonstrate competence in problem identification, analysis and management of the problem at hand by the use of appropriate resources, interpretation of laboratory results.
- iii. Prioritize different problems within a time frame.

(E) Research Skills

The candidate will be able to:

- i. Use evidence based medicine and evidence based guidelines
- ii. Conduct research individually by using appropriate research methodology and statistical methods.
- iii. Correctly guide others in conducting research by advising about study designs, research methodology and statistical methods that are applicable.
- iv. Interpret and use results of various research articles.

(3) ATTITUDES:

(A) Towards Patients

The candidate will be able to:

- i. Establish a positive relationship with all patients in order to ease illness and suffering.
- ii. Facilitate the transfer of information important to the management and prevention of disease.
- iii. Demonstrate awareness of bio-psycho-social factors in the assessment and management of a patient.
- iv. Demonstrate sensitivity in performing internal examination. It is important to explain to the patient why an- intimate examination is necessary and what the examination will involve.
- v. The patient's permission must be obtained and, where possible, the patient should be invited to bring a relative or friend.

- vi. The patient should have privacy to dress and undress.
- vii. The discussion should be kept relevant and avoid unnecessary personal comments.
- viii. Questions and feedback should be encouraged.
- ix. Consistently show consideration of the interests of the patient and the community as paramount with these interests never subservient to one's own personal or professional interest.

(B) Towards Self development:

The candidate will be able to:

- i. Demonstrate, consistently respect for every human being irrespective of ethnic background, culture, socioeconomic status and religion.
- ii. Deal with patients in a non-discriminatory and prejudice-free manner.
- iii. Deal with patients with honesty and compassion.
- iv. Demonstrate flexibility and willingness to adjust appropriately to changing circumstances.
- v. Foster the habit and principle of self-education and reflection in order to constantly update and refresh knowledge and skills and as a commitment to continuing medical education.
- vi. Recognize stress in self and others.
- vii. Deal with stress and support medical colleagues and allied health workers.
- viii. Handle complaints including self-criticism by colleagues or patients.
- ix. Understand the importance of obtaining and valuing a second opinion.

(C) Towards Society:

The candidate will be able to:

- i. Understand the social and governmental aspects of health care provision.
- ii. Offer professional services while keeping the cost effectiveness of individual forms of care.
- iii. Apply an understanding of hospital and community-based resources available for patients and care givers in rural areas.
- iv. Understand the use of 'telemedicine' in practicing health.

TRAINING PROGRAM

DURATION: Training program of MD in Pediatrics is of **four year** Duration

COMPONENTS:

- | | |
|--|--------------|
| 1. General Pediatrics | 27 months |
| 2. Neonatology | 6 months |
| (Including normal newborn nursery and labor room rotations.) | |
| 3. Rotations | 15 months |
| ✓ A. Neonatal intensive care unit | three months |
| · B. I.C.U | three months |
| ✓ C. Emergency/casualty | three months |
| D. Pediatric Surgery | three months |
| E. Preventive, social and community work | three months |
| i. Breast feeding promotion and lactation | |
| ii. Immunization | |
| iii. Diarrhea disease management | |
| iv. ARI management | |
| v. Growth monitoring and evaluation | |
| vi. Nutritional assessment and management | |
| vii. Disability management and exposure to special educational institution | |

LOGBOOK:

Logbooks will be provided to the candidates by the PUMHSW after their selection for Training.

RESEARCH (THESIS)

One of the training requirements is thesis writing on a topic relevant to the pediatric.

- 1) The topic must be selected and synopsis should be submitted and approved by the Board Of Advanced studies and research, PUMHSW within the first year of training.
- 2) The thesis must be submitted to the controller of examinations, PUMHSW (at any time from six months before the examination in which the candidate intends to appear.
- 3) Four sets of thesis in unbound form (spiral binding) should be submitted along with a bank draft of Rs.1000/= or receipt of cash payment of this amount from the accounts department of the PUMHSW as thesis fees.
- 4) If the thesis is found to be satisfactory, the controller of Examinations, PUMHSW, will issue a Certificate to this effect.
- 5) This certificate will form a part of documents to be submitted with the application form for MD examination.
- 6) It must be emphasized that thesis is a part of training and not that of examination.

MANDATORY WORKSHOPS

The candidates must attend the following workshops:

1. Computer and Internet Orientation
2. Research Methodology & Dissertation Writing
3. Communication Skills.
4. IMNCI training program.
5. Essential Newborn Care Course (ENCC)

MONTHLY TRAINING PROGRAM

- | | |
|----------------------|---------------|
| 1. Lecture | 1 hour x 4 |
| 2. Case Discussion | 1 hour x 4 |
| 3. X-Ray C T | 1 hour x 4 |
| 4. CPC | 1 hour x 4 |
| 5. Mortality meeting | 1 hour /Month |
| 6. Ward rounds | 2 hours x 14 |

LECTURES ARRANGED BY INVITED SPEAKERS FROM OTHERS SPECIALTIES.

- 1) Radiology
- 2) Child psychiatry
- 3) Dermatology
- 4) Cardiology
- 5) Hematology
- 6) Pathology
- 7) Bio-ethics
- 8) Neurology

MODES TO ACHIEVE OBJECTIVES

The objectives of the training may be achieved through different modes, some of which are listed below.

1. Ward duties
2. Nursery I.C.U
3. Emergency duties
4. O.P.D duties
5. Morbidity / mortality review meetings
6. Case presentation
7. Presentation / lectures of scheduled topic
8. Clinico-pathological conferences
9. Journal club
10. Attending Seminars, conferences and lectures
11. Research projects

GUIDELINES FOR TRAINEES

- 1) The logbook is intended for documenting all the activities performed by the trainee during the training period.
- 2) Entries must commence from the start of the training program.
- 3) Trainees are advised to make the required entries on the day of the event.
- 4) Completed and duly certified logbook is one of the requirements for appearing in MD examination Part II.
- 5) The logbook is a day to day record of the clinical and academic work done by the trainee.
- 6) The purpose is to assess the overall training of the candidate and to determine deficiencies if any so that may be corrected.

GUIDELINES FOR SUPERVISORS

- 1) All teachers with major postgraduate qualification in pediatrics and having teaching experience of at least 08 years can be appointed as supervisor.
- 2) The supervisor should ascertain that the entries in the log book are complete in all aspects.
- 3) The supervisor should then certify the accomplishment of desired competency by signing in the appropriate column soon after the activity is conducted.
- 4) They should then certify the accomplishment of desired competency by signing in the appropriate column soon after the activity is conducted.
- 5) The head of the unit shall authenticate the entries by signing the certificate. It is suggested that the heads of the unit check the log books at least once a month, so that they can spot any deficiencies or otherwise in the training.

COMPETENCY LEVEL ASSESSMENT

The clinical skills, which a trainee must have, are varied and complex. The Level of competence to be achieved each year is specified according to the key, as Follows:

KEY TO COMPETENCY LEVELS OF CLINICAL SKILLS:

Observer status	=1
Assistant status	=2
Performed under supervision	=3
Performed independently	=4

COMPETENCY LEVELS

1. Patient Management	1 Year	2 Year	3 Year	4 Year
History taking	2	3	4	4
Physical examination	2	3	4	4
Planning & interpreting investigation.	2	3	4	4
Deciding & implementing treatment.	1	2	3	4
Maintaining follow-up records.	2	3	4	4
Teaching/Training/Supervision of research.	-	-	-	4
2. Neonatology:				
Pre-maturity/low birth weight.	2	3	4	4
IUGR.	2	3	4	4
Jaundice	2	3	4	4
Sepsis	2	3	4	4
Birth trauma	2	3	4	4
Birth asphyxia	2	3	4	4
Congenital malformation	1	2	3	4
Cyanosis	-	-	4	4
Respiratory distress	2	3	4	4
Seizures (including tetanus)	2/3	4	4	4
Bleeding disorders		3	4	4

3. Management of emergencies:

Shock	1/2	3	4	4
Hyperpyrexia	3	4	4	4
Convulsion	2	3	4	4
Poisoning	1	2	3	4
Dehydration	3	4	4	4
Coma	2	3	4	4
Cardiopulmonary arrest & resuscitation	2	3	4	4
Status epilepticus/seizures	2	3	4	4
Status asthmaticus	2	3	4	4
Renal failure	2	3	3	4
Hepatic failure	2	3	3	4
Cardiac failure	2	3	3	4
Croup/epiglottitis	2	3	4	4
Respiratory failure	2	3	3	4
Hypertensive failure	2	3	4	4
Diabetic ketoacidosis	2	3	4	4

4. Common pediatric diseases:

Malnutrition & vitamin deficiency disorders	2	1/4	4	4
Malaria	2	1/4	4	4
Cerebral Malaria	2	1/3	4	4
A.R.I.	2	1/3	4	4
Diarrhoeal disease	2	1/3	4	4
Bronchial asthma	2	3	4	4
Rheumatic fever	2	3	4	4
Meningitis / encephalitis	2	3	4	4
Enteric fever	2	1/4	4	4
Measles & other exanthemata	2	1/4	4	4
Worm infestation	2	1/4	4	4
Hepatitis & cirrhosis	2	3	4	4
Malabsorption syndromes	2	3	4	4
Congenital heart disease	2	3	4	4
Anemias	2	3	4	4
Leukaemias	2	3	4	4
Hodgkin's disease	2	3	4	4
UTI	2	3	4	4

AGN & nephrotic syndrome	2	3/4	4	4
ARF & CRF	2	3	4	4
Cretinism	2	3	4	4
Congenital adrenal hyperplasia	2	3	4	4
Diabetes mellitus	2	3	4	4
Seizure disorders	2	3	4	4
Osteomyelitis & septic arthritis	2	3	4	4
Common skin problems	2	3	4	4
Congenital malformations	2	3	4	4
Metabolic and storage disorders	2	3	4	4
Genetic disorders	2	3	4	4

5. Preventive procedures:

Nutrition, evaluation and management	2	3	4	4
Assessment, monitoring and promotion of growth & development	2	3	4	4
Vaccination	3	4	4	4
Special education programs for handicapped and deprived children	1/2	2/3	4	4
School health service	2	3	4	4
Genetic counseling	1/2	3	4	4

6. Procedures:

Venous cannulation	2/3	3/4	4	4
Venesection	2	3	4	4
Umbilical artery cannulation	2	3	4	4
Peripheral artery cannulation	2/3	3	4	4
Lumbar puncture	1/2	2/3	3	4
Sub-dural tap	1	2	3	4
Pleural tap	1/2	2/3	4	4
Pericardial tap	1	2	3	4
Peritoneal tap	1/2	3	4	4
Suprapubic aspirate	2	3	4	4
Bone marrow aspirate	3 1	4 2	4 3	4
Cardio pulmonary resuscitation CPR	1	2/3	4	4
Exchange transfusion	1	2	3	4
Liver Biopsy				
Peritoneal Dialysis				
Chest drain insertion	1	2	3	4
Emergency drainage of surgical Emphysema	2	3/4	4	4

ELEGIBILITY / REQUIREMENTS

For Appearing In MD Pediatric Examination

1. Has cleared paper of basic Medical Sciences from PUMHSW within 1st two years of admission.
2. Four years specified training in paediatric according to the schedule given above.
3. Certificate from the supervisor testifying training in the required areas for specified periods.
4. Completed and duly attested logbook.
5. Certificate of approval of thesis.
6. Certificate of attendance of mandatory workshops.
7. After passing theory part II candidate shall be eligible to appear in clinical examination of MD pediatrics up to 3 times without having to sit again in the theory paper Part-II.

EXAMINATION SCHEDULE

1. The MD theory examination will be held twice a year (March & October).
2. Examinations will be conducted at PUMHSW, NAWABSHAH.
3. English shall be the medium of examination for the theory/practical, Clinical and toacs examinations.
4. The university can change the dates and format of the examination.
5. Each successful candidate in the MD examination shall be entitled to the award of master degree by PUMHSW.
6. Applications along with the prescribed examination fees and required documents must be submitted by the last date notified for this purpose before each examination.
7. Details of examination fee shall be notified before each examination.
8. A competent authority appointed by the PUMHSW has the power to debar any candidate from any examination if it is satisfied that such a candidate is not a fit person to take the university examination, because of using unfair means in the examination, misconduct or other disciplinary reason.

FORMAT OF EXAMINATIONS

The MD Paediatric Examination comprises:

1) PART-I: BASIC MEDICAL SCIENCES

A. PAPER-I (60 BCQ's)

TIME: 3 Hours

90 Marks

- i. Applied Anatomy,
- ii. Applied Physiology,
- iii. Applied Biochemistry

B. PAPER II (40 BCQ's)

TIME: 2 Hours

60 Marks

- i. Pathology including Bacteriology and Parasitology
- ii. Pharmacology (Therapeutics & Toxicology)

NOTE:

- i. The format of examination is BCQ (one best type)
- ii. The basic medical science paper-I & II must be cleared before appearing the theory part-II
- iii. the weighted percentage of different basic sciences in theory examination should be as follows:

- a) Applied Anatomy 10 %
- b) Applied Physiology 25%
- c) Applied Biochemistry 25%
- d) Pathology including Bacteriology and Parasitology 20%
- e) Pharmacology (Therapeutics & Toxicology) 20%.

2. PART II examination comprises of two parts:

A. THEORY EXAMINATION

This is a written examination consisting of three papers.

Paper-I 100 BCQs (one best type)

Time : 3 hours

Paper-II 10 short essay questions (SEQs)

Time : 3 hours

B. CLINICAL EXAMINATION

The clinical section comprises three components:

- I. Long case
- II. Short case
- III. TOACS (Task Oriented Assessment of clinical Skills)

I. FORMAT OF LONG CASE EXAMINATION.

- a. Each candidate will be allotted one long case and allowed 40 minutes for history taking and Clinical examination.
- b. Candidates should take a careful history, from the patient or relatives and after a thorough Physical examination.
- c. During this Period, A pair of examiner will observe the candidate on the following areas.
 - Introduces one self.
 - Takes informed consent
 - Listens patiently and is polite with the patient.
 - Is able to extract relevant information.
 - Uses correct clinical methods systematically (including appropriate exposure and re-draping).
 - Presents skillfully
 - Gives correct findings
 - Gives logical interpretations of findings and discusses differential diagnosis.
 - Enumerates and justifies relevant investigations.
 - Outlines and justifies treatment plan, including rehabilitation.
 - Discusses prevention and prognosis.
 - Has knowledge of recent advances relevant to the case.

II. FORMAT OF SHORT CASE EXAMINATION.

- a. Candidates will be examined in at least four short casers for a total of 40 minutes Jointly by a pair of examiner.
- b. Candidates will be given a specific task to perform on patients, one case at a time.
- c. During this part of the examination, the candidate will be assessed in:
 - Takes informed consent.
 - Uses current clinical methods including appropriate exposure and re-draping.
 - Examines systematically
 - Discussion.
 - Gives correct findings.
 - Gives logical interpretations of findings.
 - Justifies diagnosis/ differential diagnosis.

Note: As the time for this section is short, the answers given by the candidates should be precise, and relevant to the patient under discussion.

MARKS

1. PART-I

A. Theory (Basic Medical Sciences)

Paper-I	75 Marks	{	Total 150 Marks	Passing Marks 50%
Paper-II	75 Marks			

2. PART-II

A. Theory (Pediatrics)

Paper-I	75 Marks	{	Total 150 Marks	Passing Marks 50%
Paper-II	75 Marks			

B. Clinical Examination (to be taken by pair of examiner)

i. Long Case	100 Marks	Passing Marks 50%
ii. Short Case	100 Marks	Passing Marks 50%
iii. TOACS	100 Marks	Passing Marks 50%

Passing criteria: Aggregate passing marks are 60% (180/300) in clinical examination.

(after passing theory candidate will be eligible to appear in clinical examination for three times without Reappearing in Theory).

In clinical examination there shall be three components of 100 marks each (total marks 300)

1. OSCE

2. Short case

3. Long Cases

1. In OSCE there shall be 10 stations out of which six shall be interactive and 4 static each interactive station shall carry 15 marks and each static station 10 marks hence total 100 marks for OSCE.
2. There will be four short case each comprising of 20 marks.
3. One long case of 100 marks.