AMRITA UNIVERSITY

MD (Ped) CURRICULUM
Pediatrics including Neonatology

Goal, Objectives, & Skills as per MCI Regulations

*A. Goal.*

The goal of post graduate medical education shall be to produce competent specialists and/or Medical teachers:

i. who shall recognize the health needs of the community, and perform the professional obligations ethically and in keeping with the objectives of the national health policy

ii. who shall have mastered most of the competencies pertaining to pediatrics, that are required to be practiced at the secondary and tertiary levels of health care providing system.

iii. who shall be aware of the contemporary advance and developments in pediatrics concerned.

iv. who shall have acquired spirit of scientific enquiry and is oriented to the principles of research methodology, and

v. shall have acquired the basic skills in teaching of medical and para medical students.

*B. Objectives :*

At the end of post graduate training in pediatrics the student shall be able to:

i. Recognize the importance of the concerned speciality in the context of the health needs of the community and the national priorities in the health sector,

ii. practice the speciality ethically and in step with the principles of primary health care.

iii. Demonstrate sufficient understanding of the basic sciences relevant to pediatrics

iv. Identify social, economic, environmental, biological and emotional determinants of health in a given case and take them in to account
while planning therapeutic, rehabilitative, and preventive measures/ strategies.

v. Diagnose and manage majority of conditions in pediatrics on the basis of clinical assessment, appropriately selected and conducted investigations.

vi. Plan and advise measures for the prevention and rehabilitation of children suffering from diseases and disability related.

vii. Demonstrate skills in documentation of individual case details as well as morbidity and mortality rate relevant.

viii. Show empathy and human approach towards children and their families and exhibit interpersonal behaviour in accordance with norms and expectations.

ix. Play the assigned role in the implementation of national health programme effectively and responsibly.

x. Organise and supervise effectively the chosen and/or assigned health care services.

xi. Develop skills as a self-directed learner, recognize continuing education needs, select and use appropriate learning resources.

xii. Demonstrate competence in basic concepts of research methodology, and be able to critically analyse relevant published research literature.

xiii. Develop skills in using educational methods and techniques as applicable to the teaching of medical/nursing, general physicians and paramedical health workers.

xiv. Function as an effective leader of a health team engaged in health care, research or training.

*C. Skills:

Elicit an appropriate clinical history
Demonstrate appropriate clinical physical examination skills on children.
Plan, decide upon and interpret appropriate cost effective investigations.
Perform essential procedures both diagnostic and therapeutic.
Manage, resuscitate and stabilise children in pediatric or Neonatal emergencies.
*D. Communication and attitudes:

Communicate appropriately with guardians and children, assisting in their health care decision making.
Practice child health care at the highest ethical level, protecting the child at all costs.
Respect parent’s (and their guardian’s) rights and professional relationships (Doctor-Doctor, Doctor-Nurse, Doctor-Patient, Doctor-Society).

Training Period and method of training: Period of training is three years (36 months / 6 academic terms), for MD including the period of examination. In addition to the general pediatrics including neonatology, students have to undergo posting in pediatric neurology, pediatric cardiology, pediatric surgery, dermatology, child psychiatry and pediatric hemato oncology departments for specified periods to get required knowledge.

They have to maintain a Log Book from the very beginning to record the day to day activities. It has to be got signed from the concerned faculty.
Each MD candidate has to do a research work under a Guide who shall be a qualified P.G teacher as per the MCI regulations. The thesis should be submitted to the University at least 6 months prior to the beginning of theory examinations.

Training programme shall consists of clinical discussions, bedside clinics, symposia, journal clubs, mortality conferences, and thesis presentation.

Formal teaching sessions:
In addition to bedside teaching rounds, at least 2hrs of formal teaching per day are must.
Case presentation 4 days a week
Journal club: once a month
Seminars: once a month
Grand Rounds: Twice a month
Subject Review: Twice a month
Death review meeting: once a month
Clinical pathological conference: once a month
Guest lectures: once a week
Telemedicine programme: Twice a month
Others: CME/PALS/NALS

They have to participate in undergraduate teaching of medical/paramedical students. They have to attend medical camps, workshops CME programmes and National conferences to update the knowledge.
Eligibility to appear the University Examination:

Eighty percent attendance compulsory for appearing the University examination.

There will be 4 theory papers of 3 hour duration, covering Developmental pediatrics; growth and development including psychological development, psychological and behavioural disorders, laws relating to children, perinatal pediatrics, preventive pediatrics including child health services and under five clinics, nutrition and nutritional disorders, pathophysiology of body fluids and drug therapy. Intensive care in pediatrics, and management of emergencies.

Immunity, allergy and infectious diseases, parasitic infections, genetic disorders and chromosomal disorders and prenatal factors in disease, inborn error of metabolism. Disorders of digestive system, respiratory system, cardiovascular system, disorders of blood, urinary system, endocrine system, genital organs, nervous system, muscle, bone and joints, skin and eyes and malignant disorders.

Allied subjects

Anatomy: Applied embryology, Development of major organ systems
Physiology: Applied physiology with regard to major organ systems
Biochemistry: Biochemical basis of diseases in children - Nutritional and metabolic
Pathology: Pathophysiology of diseases in children
Microbiology: Clinical microbiology, applied to investigations for diseases in children, serology, staining, cultures
Pharmacology: Clinical pharmacology, therapeutics of childhood diseases, Rational drug therapy
Community medicine: Health care delivery systems - structure and function, health statistics, National programmes
Pediatric surgery: Recognition and referral of surgical conditions in pediatrics
Radiology: Clinical indications and interpretations of X-ray, Ultrasound, CT, MRI
Legal and Ethical Medicine: Rights and protection of children, Consumer protection Act, Basic principals of Ethics.

There will be two University examinations in a year with an interval of not less than 4 months and not more than 6 months between the two examinations.

Four theory papers of 100 marks each:

Paper I: Basic sciences as applied to pediatrics and Growth & Development
Paper II: General Pediatrics including neonatology, preventive and social pediatrics.
Paper III: Pediatric specialities
Paper IV: Recent advances in pediatrics
Clinical and Viva voce:
The total marks for practical/clinical examination shall be 200.

Clinical examination consists of one long case (45 minutes) for 100 marks and 2 shot cases (30 minutes each) of 100 marks together. Total of 200 marks.

**Viva voce** shall aim at assessing the candidates knowledge and competence about the subject, investigative procedures, therapeutic techniques, and other aspects of the speciality. Total marks for viva voce 100

Total marks for theory 400, Total marks for clinical & viva voce 300

Candidates shall secure not less than 50% marks in each head of passing which shall include (I) Theory (2) Practical including clinical and viva voce examination.

<table>
<thead>
<tr>
<th>Maximum marks for</th>
<th>Theory (Max.)</th>
<th>Practical (Max.)</th>
<th>Viva (Max.)</th>
<th>Grand Total</th>
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<td>MD degree course</td>
<td>400</td>
<td>200</td>
<td>100</td>
<td>700</td>
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Recommended Reading

2. Forfar & Arneils - Text book of pediatrics
3. Illinworth - Normal child
4. David G Nathan - Hematology of Infancy & Childhood
5. Pediatric neurology - Swaiman.
6. Nadas - Pediatric cardiology
7. Meharban Singh’s Care of the New borns

JOURNALS:

1. PCNA
2. Archives of Diseases of Childhood
3. Indian Pediatrics
4. Indian J of Pediatrics
5. Pediatrics
7. Acta Pediatrica Scandinavia

References Series

1. Year book of Pediatrics
2. Suraj Gupta’s Recent Advances in Pediatrics

MD Pediatrics
Model Question Paper

Paper II-General Pediatrics including neonatology, preventive and social pediatrics

Time: 3 Hrs.
Maximum Marks: 100

1. A 5 year old male child is referred to you for Fever of Unknown Origin (FUO). How will you evaluate the child to arrive at a correct diagnosis? (20 marks)

2. Write briefly on:
   a. Rh incompatibility
   b. Opium poisoning
   c. Vesico ureteric reflux
   d. Kwashiorkor (10 x 4 = 40)

3. Write short notes on:
   a. Sideroblastic anemia
   b. Chylous ascites
   c. 'Soft signs' in neurology
   d. Partial anomalous pulmonary venous drainage (10 x 4 = 40)

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