

(Questions for the Long Case, OSCE, Short Cases shall be on the basis of 60% 'must know', 30% 'good to know' and 10% 'nice to know')

Viva voce: 4 stations, 5 marks each (Total 20 marks)

PAEDIATRICS&NEONATOLOGY

DETAILS OF THE COURSE

Duration of course	: 10 weeks in 3 semesters	VI ,VIII &IX
Total number of hours theory	:100	

Lectures :34 (including pediatric surgery)

Clinical
 8-9 AM Tutorials
 9 AM 1 PM Case discussions &
 Innovative sessions

Exposure of students to newborns and emergency management is inadequate during ten weeks of under graduate postings. During evening hours they should be posted in causality, ICU and new born nursery.

General guidelines

Apart from bedside discussion there should be 66 hours of Innovative sessions during clinical sessions in the forenoon session. This comprises of project work, seminars, structured discussion, and integrated teaching.

Simple day to day problems should be given more importance.

Sessions which will improve communication skills and attitude should be given more importance.

Pediatric casualty posting is compulsory during the final year posting. They should be posted in Intensive care unit and new born nurseries during evening hours with due care to prevent infections in nurseries .

There should be enough pediatric surgery case exposure during clinical sessions

The training in pediatrics should prepare the student to deliver preventive, promotive, curative and rehabilitative services for care of children both in the community and rehabilitative services

and at hospital as part of a team in an integrated form with other subjects.
For integrated teaching the topics should be planned in advance by discussion with different specialties.

GOALS

Students should have knowledge and skill to diagnose common problems in newborn and child, identify life threatening situations and to decide when to refer to higher centers.

OBJECTIVES

1. Knowledge

At the end of the course, the student should be able to:

- a) Describe the normal growth and development during fetal life, neonatal period, childhood and adolescence and outline deviations thereof.
- b) Know age related requirements of calories, nutrients, fluids, in health and disease.
- c) Know the common pediatric disorders and emergencies in terms of epidemiology, etiology pathogenesis, clinical manifestations, diagnosis, rational therapy and rehabilitation.
- d) Know preventive strategies for common infectious diseases, malnutrition, genetic and metabolic disorders, poisonings, accidents and child abuse.
- e) Know national programs relating to child health including immunization.
- f) Basic knowledge about special situations like newborn and adolescents

2. Skills

At the end of the course, the student shall be able to:

- a) Take a detailed pediatric history; conduct an appropriate physical examination of children including neonates. Make clinical diagnosis, do common bedside investigative procedures, interpret common lab results and plan and institute therapy.
- b) Take anthropometric measurements, Casualty posting may be utilized to train or procedures like resuscitation of newborn infants at birth, prepare Oral Rehydration Solution performs tuberculin test, administer vaccines available under current national immunization program, IV canulation, start an intravenous saline and provide naso-gastric feeding. Learning from residents should be encouraged. Evening hours apart they may get familiar with common drugs and equipment from casualty and intensive care units
- c) Observing or video demonstration of diagnostic procedures such as lumbar puncture, liver and kidney biopsy, bone marrow aspirations, pleural tap and ascitis tap is desirable
- d) Distinguish between normal newborn babies and those requiring special care and institute early care to all new born babies. Provide correct guidance and counseling in breast

feeding.

- e) Provide ambulatory care to all sick children, identify indications for specialized inpatient care and ensure timely referral of those who require hospitalization
- f) Know how to write a proper prescription & referral letter. How to interpret investigations to be stressed. They may be assigned specific tasks which will improve skills in the management, communication and attitude towards patients.
- g) To develop basic communication skills to communicate with pediatric patients and parents.
- h) Sensitive to the ethical issues while dealing with children and adolescents.
- i) To take consent for procedures
- j) Learn to address Common ethical issues in pediatrics ward and OPD.
- k) Application of child rights in the background of medical practice

Methods

Seminars
Videos and simulation
Bedside clinics
Hands on procedures
Integrated sessions
Participation in procedures.

DETAILS OF LECTURES

INFECTIOUS DISEASES

Poliomyelitis, measles, diphtheria, tetanus, Childhood tuberculosis, typhoid fever, HIV infection, Dengue and chikungunya, viral haemorrhagic fevers and malaria. Pertussis, Mumps, Rubella, Influenza, H1N1, seasonal epidemics.

GIT AND LIVER

Diarrhoeal diseases, hepatitis and hepatic failure, Cirrhosis liver and portal hypertension. helminthic infestations.

CARDIO VASCULAR SYSTEM

Congenital heart diseases, Rheumatic fever and RHD, CCF, Hypertension, Infective endocarditis

RESPIRATORY SYSTEM

Childhood asthma, Acute Bronchiolitis, Pneumonias in children, Suppurative Lung disease, smoking and environmental pollution, Croup syndromes

C.N.S

Cerebral palsy, Mental retardation, Meningitis and Encephalitis, Seizure disorders & Febrile Seizures.

Haemo poetic system

Anemia in children, bleeding disorders

Nephrology

Disorders of kidney acute nephritis, Nephrotic syndrome, Renal failure, Urinary tract infection

Endocrine disorders

Diabetes mellitus, Thyroid disorders, short stature

Connective Tissue disorders

JRA & vasculitis (SLE and HSP, Kawasaki disease)

Malignancies in children

Leukemia, Lymphomas, Neuroblastoma, Solid tumors, CNS tumors

National programs

Others

Rational use of antibiotics

Common poisonings

Pediatric Palliative Care

New Born

Respiratory distress in new born

Neonatal seizures
Congenital malformations
Antenatal diagnosis and treatment
Sepsis in new born.

Behavioral problems in children**Common poisoning and accidents in children****Nutrition**

BFHI, IYCF, Nutritional assessment, SAM, Specific Vitamin deficiency disorders

Other National programs**Genetics**

Common chromosomal disorders like Down's syndrome, Turner syndrome.

Avoid repetitions of topics already covered in morning sessions. Newer teaching methods may be utilized which will improve the student participation and interest

TUTORIALS

Stress should be given on the clinical approach of common problems

1. Introduction to pediatrics, History taking and general Examination
2. Examination of all the major systems
3. Growth and development, demonstrate how to do. Common disorders of growth and development may be demonstrated. Charting and Interpretation of growth charts
4. Nutrition, including the assessment. Common disorders of nutrition may be demonstrated
Avoid detailed theory of nutritional disorders in morning session
5. Immunization –National immunization schedule & Newer vaccines
(The above topics may be covered during the initial clinical posting)

New born:

Resuscitation newborn
Assessment of gestation

Low birth weight babies

Convulsions in newborn

Jaundice in newborn

(Videos may be used here)

(Approach to common problems)

a) Dyspnea ,wheezing and strider

b)Edema

c) Jaundice

d)Pallor

e)Bleeding

f)Loose stools

g)Vomiting

h) Convulsions

i)Coma

i) j)Shock

k) Weakness, limping, Excessive

cry l)Child with rash

m) Prolonged fever (demonstrate how to take, record temperature, how to interpret temperature chart

ADOLESCENCE

Adequate coverage of common problems for adolescents to be included

Pediatric surgery classes. They should report to the parent department after pediatric surgery clinical sessions

Chronic conditions in Pediatrics

**Instruments and procedures,
X-rays**

Vaccines, Growth charts, drugs, IV fluids should be shown .Common equipments should be shown during initial postings. In final year they should get chance to use and practice them. Eg nebulizers

They should be involved in simple procedures like nasogastric tube insertion, rectal drug administration etc

Students should be involved in the social activities of department eg ORS day, Immunization week; Breast feeding week .They should be given specific tasks in the conduction of the programs. If possible they may be given specific task to address a community problem .eg low vaccine coverage, how to solve?

Case Record

Separate clinical record book should be kept and at least 5 pediatric cases one newborn and one pediatric surgery cases to be written. Better to have a uniform format for case record .

Log Book

In addition to record book, a separate log book should be maintained by students to record daily activities, supervised by concerned Unit chief or Assistants.

Both case record and Log book should be compulsory.

Formative assessment.

End posting examination should be conducted at the end of clinical postings.

Three theory examinations should be conducted.

University model clinical examinations should be conducted apart from the end posting examinations and is compulsory.

Text Books Recommended

Prescribed Books

1. Essentials of Pediatrics by O.P.Ghai
2. Clinical Examination in Pediatrics by Meharban Singh
3. Hutchison's Clinical Methods
4. Clinical evaluation of new-born, infants and children by Dr. Sushama Bai
5. Care of Newborn by Meharban Singh
6. Nutrition & Child development by Dr. K. E. Elizabeth

Reference Books

Nelson Text Book of Pediatrics

IAP Text Book of Pediatrics

Social and Preventive Medicine by Park

EVALUATION

Theory examination

- **Total marks : 100**

- **Theory**

University : **40**

Viva : **10**

Int. Asst : **10**

Total : 60

- **Practicals**

University exam : **30**

Int. Asst. : **10**

Total : 40

Theory question papers (see model question paper)

1. Structured essay should be based on a clinical scenario. The question should be structured in such a way there should not be any ambiguity.
2. This section short notes mainly on management (From Major systems and Pediatric surgery)
3. This section short notes (2 marks each, 5 questions Mainly on growth, development, nutrition, social pediatrics ,National programs
4. This section short notes (2 marks, 4 questions) Neonatology, breast feeding, immunization.

Clinical examination

Two cases : 20 minutes each

First case : 12.5 Marks

(System case. Common problems should be given importance)

Assessment to view child along with family, care giver concerns as a whole in discussing management

Second case -**12.5 Marks**

(Assessment of nutrition, Growth, Development and Immunization.

Children without illness may also be kept for assessment).

OSCE**5 Marks**

There should be three stations. Clinical scenario analysis or skill assessment stations are desirable. Out of three stations one newborn scenario is compulsory. Better avoid newborn babies as cases.

Marks

2 mark for newborn scenario

Time

1.5 marks each for other 2 stations making total 5
3 minutes for each station.

New born session may be made performance station e.g. demonstration of use of AMBU bag on a manikin or performance of initial stage of resuscitation.

SURGERY AND I T S ALLIED SPECIALITIES

(SURGERY including Paediatric Surgery)

A. GOAL

The broad goal of teaching the undergraduate medical students in Surgery is to produce graduates capable of delivering efficient first contact surgical care.

B. OBJECTIVES**1. Knowledge**

At the end of the course, the student shall be able to:

- Describe aetiology, Pathophysiology, principles of diagnosis and management of common surgical problems including emergencies, in adult and children
- Define indications and methods for fluid and replacement therapy including blood transfusion
- Define asepsis, disinfection and sterilization and recommended judicious use of