

MD PAEDIATRICS

Syllabus

Growth and development:

- Principles of growth and development
- Normal growth and development
- Sexual maturation and its disturbances
- Childhood and adolescence
- Failure to thrive and short stature

Neonatology

- Perinatal care
- Low birth weight
- Care in the labor room and resuscitation _
- Newborn feeding
- Prematurity
- Respiratory distress
- Common transient phenomena
- Infections
- Anemia and bleeding disorders
- Jaundice
- Neurologic disorders
- Renal disorders
- Understanding of perinatal medicine
- Thermoregulation and its disorders

Behavioral & Developmental disorders

- Rumination
- Pica
- Enuresis
- Encopresis
- Sleep disorders
- Habit disorders
- Breath holding spells
- Anxiety disorders
- Mood disorders - temper tantrums
- Attention deficit hyperactivity disorders
- Autism

Social pediatrics

- National health programs related to child health _ child abuse and neglect
- Child labor
- Adoption
- Disability and rehabilitation
- Rights of the child

- National policy of child health and population
- Juvenile delinquency

Genetics

- Principles of inheritance
- Pedigree drawing
- Chromosomal disorders
- Single gene disorders
- Multifactorial/polygenic disorders
- Genetic diagnosis
- Prenatal diagnosis

Nutrition

- Maternal nutritional disorder
- Nutrition for the low birth weight
- Breast feeding
- Infant feeding including vitamin and mineral deficiencies
- Complementary feeding
- Protein energy malnutrition
- Obesity
- Adolescent nutrition
- Parenteral and enteral nutrition
- Nutritional management of neonates and children
- In systemic illness like celiac disease, hepatobiliary disorders, nephrotic syndrome

Cardiovascular

- Congenital heart diseases - cyanotic and acyanotic
- Rheumatic fever and rheumatic heart disease
- Infective endocarditis
- Arrhythmias
- Disease of myocardium and pericardium
- Systemic hypertension
- Hyperlipidemia in children

Respiratory

- Congenital and acquired disorders of nose
- Infections of upper respiratory tract
- Obstructive sleep apnea
- Congenital anomalies of lower respiratory tract
- Foreign body in larynx, trachea & bronchus
- Trauma to larynx
- Neoplasm of larynx and trachea chronic
- Bronchitis
- Bronchiolitis
- Aspiration pneumonia
- GER

- Acute pneumonia
- Recurrent and interstitial pneumonia
- Suppurative lung diseases like bronchiectasia
- Atelectasis
- Lung cysts
- Emphysema and hyper-inflation
- Bronchial asthma
- Pulmonary edema
- Pleural effusion
- Pulmonary leaks
- Mediastinal mass

Gastrointestinal and liver disease

- Disease of mouth, oral cavity and tongue
- Disorders of deglutition and esophagus
- Peptic ulcer disease
- H. pylori infection
- Foreign body
- Congenital pyloric stenosis
- Intestinal obstruction
- Malabsorption syndrome
- Acute and chronic diarrhea
- Irritable bowel syndrome
- Inflammatory bowel diseases- ulcerative colitis and Crohn's disease
- Hirschsprung's disease
- Anorectal malformations
- Hepatitis
- Hepatic failure
- Chronic liver disease
- Wilson's disease
- Budd-Chiari syndrome
- Metabolic diseases of liver
- Cirrhosis and portal hypertension

Renal disorders

- Acute and chronic glomerulonephritis
- Nephrotic syndrome
- Hemolytic uremic syndrome
- Urinary tract infection
- VUR and renal scarring
- Renal tubular disorders diseases
- Congenital and hereditary renal disorders
- Renal and bladder stones
- Posterior urethral valves, hydronephrosis, voiding dysfunction
- Undescended testis
- Wilms tumor

Neurologic disorders

- Seizure and non-seizure paroxysmal events
- Epilepsy and epileptic syndromes
- Meningitis of childhood
- Brain abscess
- Coma
- Acute encephalitis and febrile encephalopathies
- Guillain-Barre syndrome
- Neurocysticercosis
- HIV encephalopathy
- SSPE
- Cerebral palsy
- Neurometabolic disorders
- Neurodegenerative disorders
- Neuromuscular disorders
- Mental retardation
- Learning disabilities
- Muscular dystrophies
- Acute flaccid paralysis and AFP surveillance
- Ataxias
- Movement disorders of childhood
- CNS tumors
- Malformations

Hematology & Oncology

- Deficiency anemias
- Hemolytic anemias
- Aplastic anemias
- Thrombocytopenia
- Hemostasis
- Blood component therapy
- Transfusion related infections
- Bone marrow transplant/stem cell transplant
- Acute and chronic leukemia
- Myelodysplastic syndrome
- Hodgkin disease
- Non-Hodgkin's lymphoma
- Neuroblastoma
- Hypercoagulable states

Endocrinology

- Hypopituitarism/hyperpituitarism
- Diabetes insipidus
- Pubertal disorders
- Hypo- and hyperthyroidism
- Adrenal insufficiency
- Cushing's syndrome

- Adrenogenital syndromes
- Diabetes mellitus
- Hypoglycemia
- Short stature
- Gonadal dysfunction and intersexuality
- Obesity

Infections

- Bacterial
- Viral
- Fungal
- Parasitic
- Rickettsial
- Mycoplasma
- Protozoal
- Tuberculosis
- Nosocomial
- HIV
- Control of epidemics and infection prevention
- Safe disposal of infective material

Emergency & Critical care

- Emergency care of shock & cardio-respiratory arrest
- Respiratory failure
- Acute renal failure
- Status epilepticus
- Acute severe asthma
- Fluid and electrolyte disturbances and its therapy
- Acid-base disturbances
- Poisoning
- Accidents
- Scorpion and snake bites

Immunology & Rheumatology

- Arthritis (acute and chronic)
- Connective tissue disorders
- Immuno-deficiency syndromes
- Kawasaki disease

ENT

- Acute and chronic otitis media
- Conductive/sensorineural deafness
- Post-diphtheritic palatal palsy
- Acute/chronic tonsillitis/adenoids
- Allergic rhinitis/sinusitis
- Foreign body

Skin Diseases

- Exanthematous illnesses
- Vascular lesions
- Pigment disorders
- Vesicobullous disorders
- Infections: pyogenic, viral, fungal and parasitic
- Stevens-Johnson syndrome
- Eczema
- Seborrheic dermatitis
- Drug rash
- Urticaria
- Alopecia
- Ichthyosis

Eye diseases

- Refraction and accommodation
- Partial/total loss of vision cataract
- Night blindness
- Chorioretinitis
- Strabismus
- Conjunctival and corneal disorders
- Retinopathy of prematurity
- Retinoblastoma
- Optic atrophy
- Palledema

Orthopedics

- Major congenital orthopedic deformities
- Bone and joint infections
- Common bone tumors

TEACHING PROGRAM**General Principles**

- Acquisition of practical competencies being the keystone of postgraduate medical education, postgraduate training should be skills oriented.
- Learning in postgraduate program should be essentially self-directed and primarily emanating from clinical and academic work. The formal sessions are merely meant to supplement this core effort.

Formal Teaching Sessions

Case Discussion

Bedside discussion during ward rounds- cases should be presented by JRs briefly and then discussed with the faculty

There should be a detailed case presentation 3-4 per week. Cases may be allotted on the previous day itself and this should be known to all JRs, so that they can also see the case and come prepared.

Journal Club

Once in 2weeks - **Interesting/difficult cases once a month (clinical club)**

Seminar/symposia Once every 2weeks - Mortality meeting – monthly

Rotations

Postgraduate student must rotate through all clinical units of the department. This is especially important for him to get Pediatric subspeciality training.

Neonatology (NICU) – 6 -9 months

Intensive Care (PICU) - 6 months

Subspeciality postings – Nephrology, oncology, dermatology, physical medicine& cardiology -2 weeks

PGS should also attend subspecialty clinics during their respective Unit postings.

THESIS

- Submission of protocol with in 6 months of initiation of the course
- 6 months prior to examination - Final presentation and submission

All students should maintain a log book. They should be actively engaged in UG teaching. All students should present atleast 2 papers in state/national conference of IAP. All students should submit at least 1 paper in an indexed journal

Recommended Reference Books

1. Behrman RE, Kliegman RM, Jenson HB. Nelson Textbook of Pediatrics. Harcourt Asia Pvt Ltd.
2. Rudolph AM, Hoffman JIE, Rudolph CD. Rudolph's Pediatrics. Appleton and Lange.
3. Campbell AGM, McIntosh N. Forfar and Arneil's Textbook of Pediatrics. ELBS.
4. Ghai OP, Gupta P, Paul VK. Essential Pediatrics. Interprint, New Delhi.
5. Singh M. Pediatrics Clinical Methods. Sagar Publications; Siberry GK, Iannone R. The Harriet Lane Handbook. Mosby & Harcourt India.
6. Singh M, Deorari AK. Drug Doses in Children. Sagar Publications.
7. Illingworth RS. The development of the infant and young child. Normal and abnormal. Churchill ,Livingstone, 9th edition, 1987.

8. Feigin RD, Cherry ID. Textbook of Pediatric Infectious Diseases. W. B. Saunders, 5th edition, 2000.
9. Singh M. Medical emergencies in children. Sagar Publications, 3rd edition, 2000.
10. Rogers MC, Nichols DG. Textbook of Pediatric intensive care. Williams & Wilkins, 3rd Edition.
11. Singh M. Care of the Newborn, Sagar Publication, 2000.
12. Avery GB, Fletcher MA, MacDonald MG. Neonatology- Pathophysiology and Management of the newborn. Lippincott William and Wilkins.
13. Cloherty JP, Stark AR. Manual of Neonatal Care. Lippincott- Raven Publishers, 4th edition, 1998.
14. Nutrition- KE Elizabeth, Paras publishers.
