

TAMIL NADU PUBLIC SERVICE COMMISSION

SYLLABUS

CODE NO. 141

MEDICAL SPECIALITY SUBJECT

**M.D PAEDIATRIC MEDICINE / PAEDIATRICS
(P.G DEGREE STANDARD)**

1.VITAL STATISTICS AND NATIONAL PROGRAMMES

MUST KNOW

- Definition and overview of paediatrics with special reference to age-related disorders. Population structure, pattern of morbidity and mortality in children.
- Maternal, perinatal, neonatal, infant and preschool mortality rates. Definition, causes, present status and measures for attainment of goals.
- Current National programmes such as IMNCI, ICDS, RCH, Vitamin A prophylaxis, UIP, Pulse polio, ARI, Diarrhoea control programme, AFP surveillance

DESIRABLE TO KNOW

- Other national programmes

2.GROWTH AND DEVELOPMENT AND NUTRITION

MUST KNOW

- Normal growth from conception to maturity
- Anthropometry – measurement and interpretation of weight, length/height, head circumference, mid-arm circumference. Use of weighing, infantometer.
- Interpretation of growth charts : Road to Health card and percentile growth curves
- Abnormal growth patterns – failure to thrive, short stature
- Growth pattern of different organ systems
- Normal pattern of teeth eruption
- Principles of normal development
- Important milestones in infancy and early childhood .# -4 milestones in each of developmental fields, age of normal appearance and upper age of normal
- Preventable causes and assessment of developmental retardation
- Psychological and behavioural problems Normal requirements of essential nutrients for newborn, children and pregnant and lactating women. Common food sources
- Breast feeding- physiology, composition of breast milk, colostrum, initiation & technique of feeding. Exclusive breast feeding – definition and benefits. Characteristics & advantages of breast milk. Hazards and demerits of prelacteal feeds, top milk and bottle feeding. Feeding of LBW babies.

- Infant feeding/weaning foods and methods
- Assessment of nutritional status of a child based on history and physical examination
- PEM- definition, classification (IAP/WELLCOME TRUST), acute vs chronic, clinical features of each, causes and management (including complications).Planning a diet for PEM
- Vitamins- recognition of deficiencies, etiopathogenesis, clinical features, biochemical and radiological findings, differential diagnosis and management of nutritional rickets & scurvy, hypervitaminosis A & D.
- Adolescent Health Problems.

DESIRABLE TO KNOW

- Measurement and interpretation of sitting height ,US: LS ratio and arm span
- Age independent anthropometric measurements
- Sexual maturity rating, Characteristics of transitional and true milk.
Prevention and management of lactation failure and feeding problems

3.IMMUNISATION AND INFECTIOUS DISEASES

MUST KNOW

- NIP
- Principles of immunization-vaccine preservation and cold chain
- Types, contents, efficacy, storage, dose, site, route, contraindications, adverse rxn-BCG DPT, OPV, Measles, MMR, typhoid, PPI
- Investigation and reporting of vaccine preventable diseases .AFP surveillance
- Epidemiology , basic pathology, natural history, symptoms, signs, complications, investigations, differential diagnosis, management and prevention of common bacterial, viral and parasitic infection in the region with specific reference to VPD – tuberculosis, poliomyelitis, diphtheria, whooping cough, tetanus, measles, mumps, rubella, typhoid, viral hepatitis, cholera, chickenpox, giardiasis, amoebiasis, intestinal helminthiasis, malaria, dengue fever, AIDS, chickungunya, leptospirosis.

DESIRABLE TO KNOW

- Kala-azar, leprosy, Chlamydia infection.
- Hepatitis B, H .influenza b, pneumococcal, hepatitis A, chicken pox, Meningococcal, rabies

4.HEMATOLOGY

MUST KNOW

- Causes of anemia in childhood. Classification based on etiology and morphology.

- Epidemiology, recognition, diagnosis, management and prevention of nutritional anemia-iron deficiency, megaloblastic.
- Clinical approach to a child with anemia with lymphadenopathy and/or hepatosplenomegaly.
- Epidemiology, clinical features, investigations and management of thalassemia.
- Approach to a bleeding child.
- Diagnosis of acute lymphoblastic leukemia and principles of treatment
- Clinical features and management of hemophilia, ITP.
- Diagnosis and principles of management of lymphomas.

DESIRABLE TO KNOW

- Types, clinical features and management of acute hemolytic anemia.
- Non-thrombocytopenic purpura (Henoch-Schonlein purpura).

5.RESPIRATORY SYSTEM

MUST KNOW

- Clinical approach to a child with cyanosis, respiratory distress, wheezing. Significance of recession, retraction
- Etiopathogenesis, clinical features, complications, investigations, differentiation, diagnosis and management of acute upper respiratory infections, pneumonia with emphasis on bronchopneumonia, bronchiolitis, bronchitis. Acute and chronic otitis media
- Etiopathogenesis, clinical features, diagnosis, classification and management of bronchial asthma. Treatment of acute severe asthma
- Pulmonary tuberculosis –tuberculous infection vs tuberculous disease, difference between primary and post primary tuberculosis. Etiopathogenesis, diagnostic criteria in children vs adults. Diagnostic aids – technique and interpretation of mantoux test and BCG test. Radiological patterns, Chemoprophylaxis and treatment
- Diagnosis and management of foreign body aspiration. Differential diagnosis of stridor
- Pathogenesis, clinical features and management of pneumothorax, pleural effusion and empyema

DESIRABLE TO KNOW

- multidrug resistant tuberculosis, Bronchiectasis, pulmonary cysts

6.GASTROINTESTINAL SYSTEM AND FLUID ELECTROLYTE REPLACEMENT

MUST KNOW

- clinical approach to child with jaundice, vomiting, abdominal pain, bleeding, hepatosplenomegaly
- Acute diarrhoeal diseases – Etiopathogenesis, clinical differentiation of watery and invasive diarrhea, complications of diarrheal illness. Assessment of dehydration, treatment at home and in hospital. Fluid and electrolyte management. Oral rehydration, composition of ORS, newer low osmolarity ORS, Resomal for malnourished children
- Clinical features and management of acute viral hepatitis, causes and diagnosis of Chronic Liver Disease.
- Common causes of constipation.
- Abdominal tuberculosis.
- Diagnosis and timing of surgery of tracheo esophageal fistula, umbilical and inguinal hernia, hypertrophic pyloric stenosis

DESIRABLE TO KNOW

- Causes, clinical features and management of Portal hypertension, Reye's syndrome, Coeliac disease.
- Drug induced hepatitis.

7.CENTRAL NERVOUS SYSTEM

MUST KNOW

- clinical approach to a child with coma, convulsions, mental retardation
- Clinical diagnosis, investigations, and treatment of acute pyogenic meningitis, encephalitis and tubercular meningitis
- Seizure disorder - causes, types, diagnosis, categorization & management of epilepsy . Febrile convulsions- definition, types, management
- Cerebral palsy - causes, diagnosis, management
- Acute flaccid paralysis – differentiation between polio and Guillan – Barre syndrome
- Microcephaly, hydrocephaly, chorea

DESIRABLE TO KNOW

- Infantile tremor syndrome, infantile hemiplegia

8.CARDIOVASCULAR SYSTEM

MUST KNOW

- Acute rheumatic fever- clinical features, diagnosis, investigation, treatment, prevention
- Recognition of congenital cyanotic and acyanotic congenital heart disease- hemodynamics, clinical features and management of VSD, PDA, ASD and Fallot's tetralogy
- Recognition of CCF in children
- Hypertension in children- recognition and referral

DESIRABLE TO KNOW

- Diagnosis and management of infective endocarditis , pericardial effusion, myocarditis

9.GENITOURINARY SYSTEM

MUST KNOW

- Acute post streptococcal glomerulonephritis and nephritic syndrome – etiopathogenesis, clinical features, diagnosis, complications, and management
- Etiology , clinical features, diagnosis, and management of UTI – acute and recurrent
- Acute renal failure—etiology, diagnosis and management
- Causes and diagnosis of obstructive uropathy in children
- Chronic renal failure—diagnosis and management
- Hematuria—causes and diagnosis
- Diagnosis and timing of surgery of hypospadias, undescended testis

DESIRABLE TO KNOW

- Renal & bladder stones
- HUS

10.ENDOCRINOLOGY, GENETICS & BEHAVIOURAL PROBLEMS

MUST KNOW

- Etiology, clinical features & diagnosis of diabetes & hypothyroidism, hyperthyroidism and goiter in children
- Principles of inheritance and diagnosis of genetic disorders
- Down's syndrome
- Breath holding spells, nocturnal enuresis, temper tantrums, pica, conversion disorders, attention deficit disorders, autism (ASD)
- Inborn errors of metabolism

DESIRABLE TO KNOW

- Delayed and precocious puberty, congenital adrenal hyperplasia

11.NEONATOLOGY

MUST KNOW

- Definition – live birth, neonatal period, classification according to weight gestation, mortality rates.
- Delivery room management including neonatal resuscitation and temperature control.
- Etiology, clinical features, principles of management and prevention of birth asphyxia.
- Birth injuries – causes and their recognition.
- Care of the normal newborn in the first week of life. Normal variations and clinical signs in the neonate.
- Breast feeding-physiology and its clinical management.
- Identification of congenital anomalies at birth with special reference to anorectal anomalies, tracheo-esophageal fistula, diaphragmatic hernia, neural tube defects, cleft lip/palate, CTEV
- Neonatal jaundice: cause, diagnosis and principles of management.
- Neonatal infection – etiology, diagnosis, principles of management. Superficial infections, sepsis.
- Low birth weight babies – causes of prematurity and small-for-date baby, clinical features and differentiation. Principles of feeding and temperature regulation. Problems of low birth weight babies.
- Identification of sick newborn (i.e.detection of abnormal signs – cyanosis, jaundice, respiratory distress, bleeding, seizures, refusal to feed, abdominal distension, failure to pass meconium and urine)

DESIRABLE TO KNOW

- Recognition and management of specific neonatal problems-hypoglycemia, hypocalcemia, anemia, seizures, necrotizing enterocolitis, haemorrhage.
- Common intra-uterine infections.
- Transportation of sick neonate.

12.PAEDIATRIC EMERGENCIES

MUST KNOW

- status epilepticus
- status asthmaticus/acute severe asthma
- shock and anaphylaxis
- burns
- hypertensive emergencies
- gastrointestinal bleed

- comatose child
- congestive cardiac failure
- acute renal failure

LIST OF BOOKS

1. *IAP textbook of Paediatrics – Parthasarathy.A , Menon.I S N
2. *Nelson textbook of Paediatrics – Behrman, Richard E Vaughan, Vicotor C
3. *Essential Paediatrics by Ghai.OP
4. *Manual of neonatal care – Cloherty, John P Stark, Ann R
5. Text book of Paediatrics by K.E. Elizabeth.