

MBBS CURRICULUM (PEDIATRICS)			
	Must Know	Should Know	May Know
Vital statistics			
Definition and overview of Pediatrics 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 ICDS, RCH, Vitamin A prophylaxis, UIP, Pulse polio, AFP, ARI, Diarrhea control programme etc., IMNCI	√		
Other National Programmes			√
Growth and development			
Normal growth from conception to maturity.	√		
Anthropometry – measurement and interpretation of weight, length/height, head circumference, mid-arm circumference. Use of weighing machines, 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 such as lymphoid, brain and sex organs.			√
Normal pattern of teeth eruption.		√	
Principles of normal development	√		
Important milestones in infancy and early childhood in the areas of Gross Motor, Fine Motor, Language and Personal–Social development. 3-4 milestones in each of the developmental fields, age of normal appearance and the upper age of normal psychological and behavioral problems.	√		
Measurement and interpretation of sitting height, US: LS ratio and arm span		√	

Age-independent anthropometric measurement-principles and application.		√	
Nutrition			
Normal requirements of protein, carbohydrates, fats, minerals and vitamins for newborn, children and pregnant and lactating mother. Common food sources	√		
Breast feeding, physiology and lactation, composition of breast milk, Colostrum, Initiation and technique of feeding. Exclusive breast milk. Hazards and demerits of prelacteal feed, top milk and bottle-feeding. Feeding of LBW babies.	√		
Infant feeding/weaning foods, method of weaning.	√		
Assessment of nutritional status of a child based on history and physical examination.	√		
Protein energy malnutrition-Definition, classification according to IAP/Wellcome Trust, acute versus chronic malnutrition. Clinical features of Marasmus & kwashiorkor. Causes and management of PEM including that of complications planning a diet for PEM.	√		
Vitamins-Recognition of vitamin deficiencies (A, D, K, C, B Complex). Etiopathogenesis, clinical feature, biochemical and radiological findings, differential diagnosis and management of nutritional rickets & scurvy. Hypervitaminosis A and D.		√	
Characteristics of transitional and mature milk (foremilk & hind milk). Prevention and management of lactation failure and feeding problems.		√	
Definition, causes and management of obesity.			√
Immunization			
National Immunization Programme.	√		
Principles of Immunization. Vaccine preservation and cold-chain.	√		

Types, contents, efficacy storage, dose, site, route, contra- indications and adverse reactions of vaccines – BCG, DPT, OPV, Measles, MMR and Typhoid: Rationale and methodology of Pulse Polio Immunization.	√		
Investigation and reporting of vaccine preventable diseases. AFP (Acute Flaccid Paralysis) surveillance	√		
Special vaccines like Hepatitis B, H influenza B, Pneumococcal, Hepatitis A, Chicken pox, Meningococcal, and Rabies.			√
Infectious diseases			
Epidemiology, basic pathology, natural history, symptoms, signs, complications, investigations, differential diagnosis, management and prevention of common bacterial, viral and parasitic infections in the region, with special reference to vaccine-preventable disease: Diarrhea, LRTI, Tuberculosis, Poliomyelitis, Meningitis, Diphtheria, Whooping cough, Tetanus including neonatal tetanus, Measles, Mumps, Rubella, Typhoid, Viral Hepatitis, Cholera, Chickenpox, Giardiasis, Amoebiasis, Intestinal helminthiasis, Malaria, Dengue fever, AIDS.	√		
Kala-Azar, Leprosy, Chlamydia infection			√
Hematology			
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 hepato-splenomegaly.	√		
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.			√
Types, clinical features and management of acute hemolytic anemia.		√	
Non-thrombocytopenic purpura (Henoch-Schonlein purpura)			√
Respiratory system			
Clinical approach to a child with cyanosis, respiratory distress, wheezing. Significance of recession, retraction.	√		
Etiopathogenesis, clinical features, complications, investigations, differential 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 versus tuberculous disease, difference between primary and post-primary tuberculosis. Etiopathogenesis, diagnostic criteria in children versus 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.		√	
Multidrug resistant tuberculosis, Bronchiectasis, pulmonary cysts			√
Gastro Intestinal Tract			
Clinical approach to a child with jaundice, vomiting, abdominal pain, upper and lower GI bleeding, hepato-splenomegaly.	√		

Acute diarrheal disease-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.	√		
Persistent and chronic diarrhea		√	
Clinical features and management of acute viral hepatitis and acute liver failure, causes & diagnosis of Chronic Liver Disease.	√		
Neonatal cholestasis, portal hypertension		√	
Common causes of constipation.			√
Abdominal tuberculosis.			√
Causes, clinical features and management of Portal hypertension, Reye's syndrome, Celiac disease.			√
Drug induced hepatitis			√
Central Nervous System			
Evaluation of milestones and developmental age	√		
Localization of neurological deficit	√		
Clinical approach to a child with coma, mental retardation	√		
Common causes and approach to convulsion	√		
Clinical diagnosis, investigations and treatment of acute pyogenic meningitis, encephalitis & Tubercular Meningitis, Cerebral Malaria	√		
Seizure Disorder-Causes and types of convulsions at different ages. Diagnosis categorization & management of Epilepsy (Broad outline). Febrile convulsions-definition, types Management of seizures and status epilepticus.	√		
Causes, diagnosis and management of cerebral palsy		√	
Acute flaccid paralysis – Differentiation between Polio and Guillain – Barre syndrome.	√		
Microcephaly, Hydrocephalus, chorea			√
Counseling parents for inherited neurological diseases		√	

Infantile tremor syndrome, infantile hemiplegia			√
Autism	√		
Cardiovascular system			
Clinical features, diagnosis, investigation, treatment and prevention of acute rheumatic fever. Common forms of rheumatic heart disease in childhood. Differentiation between rheumatic and rheumatoid arthritis.	√		
Recognition of congenital acyanotic and cyanotic heart disease. Hemodynamics, clinical features and management of VSD, PDA, ASD and Fallot's tetralogy (Cyanotic spells).	√		
Recognition of congestive cardiac failure in children.	√		
Hypertension in children-recognition and referral.		√	
Diagnosis and management of bacterial endocarditis, pericardial effusion, myocarditis.			√
Genito-Urinary system			
Basic etiopathogenesis, clinical features, diagnosis, complications and management of acute poststreptococcal glomerulo-nephritis and nephrotic syndrome.	√		
Etiology, clinical feature, diagnosis and management of urinary tract infection – acute and recurrent.	√		
Etiology, diagnosis and principles of management of acute failure.		√	
Causes and diagnosis of obstructive uropathy in children		√	
Diagnosis and principles of management of chronic renal failure.		√	
Causes and diagnosis of hematuria.		√	
Renal and bladder stones			√
Hemolytic-uremic syndrome		√	
Endocrinology			
Etiology clinical features & diagnosis of diabetes and hypothyroidism, hyperthyroidism and goiter in children.	√		
Delayed and precocious puberty			√
Neonatology			

Definition – live birth, neonatal period, classification according to weight and 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, tracheoesophageal fistula, diaphragmatic hernias, neural tube defects.		√	
Neonatal Jaundice: causes, 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)	√		
Recognition and management of specific neonatal problems- hypoglycemia, hypocalcemia, anemia, seizures, necrotizing enterocolitis, hemorrhage	√		
Common intra-uterine infections			√
Transportation of a sick neonate.	√		
Pediatrics Emergencies			
Status epilepticus	√		
Status asthmaticus/Acute Severe Asthma	√		

Shock and anaphylaxis.	√		
Burns			√
Hypertensive emergencies.			√
Gastrointestinal bleed.		√	
Comatose child	√		
Congestive cardiac failure		√	
Acute renal failure		√	
Fluid-Electrolyte			
Principles of fluid and electrolyte therapy in children	√		
Pathophysiology of acid-base imbalance and principle of management		√	
Genetics			
Principles of inheritance and diagnosis of genetic disorders		√	
Down Syndrome		√	
Behavioral Problems			
Breath holding spells, nocturnal enuresis, temper tantrums, pica			
Pediatrics Surgical Problems			
Diagnosis and timing of surgery of Cleft lip/palate, hypospadias, undescended testis, tracheoesophageal fistula, hydrocephalus, CTEV, Umbilical and inguinal hernia, malformations, hypertrophic pyloric stenosis.		√	
Therapeutics			
Pediatric doses, drug combinations, drug interactions, age specific choice of antibiotics.	√		