

Department of Pediatrics

Syllabus for MBBS Pediatrics: Consolidated across all phases

Syllabus for PART II

A. Normal Growth and Development

- PE1.1 Define the terminologies Growth and development and discuss the factors affecting normal growth and development
- PE1.2 Discuss and describe the patterns of growth in infants, children and adolescents
- PE1.3 Discuss and describe the methods of assessment of growth including use of WHO and Indian national standards. Enumerate the parameters used for assessment of physical growth in infants, children and adolescents
- PE1.4 Perform Anthropometric measurements, document in growth charts and interpret
- PE1.5 Define development and discuss the normal developmental mile stones with respect to motor, behaviour, social, adaptive and language
- PE1.6 Discuss the methods of assessment of development
- PE1.7 Perform Developmental assessment and interpret

B. Common problems related to Growth

- PE2.1 Discuss the etio-pathogenesis, clinical features and management of a child who fails to thrive
- PE2.2 Assessment of a child with failing to thrive including eliciting an appropriate history and examination
- PE2.3 Counselling a parent with failing to thrive child
- PE2.4 Discuss the etio-pathogenesis, clinical features and management of a child with short stature
- PE2.5 Assessment of a child with short stature: Elicit history, perform examination, document and present
- PE2.6 Enumerate the referral criteria for growth related problems

C. Common problems related to Development -1 (Developmental delay, Cerebral palsy)

- PE3.1 Define, enumerate and discuss the causes of developmental delay and disability including intellectual disability in children
- PE3.2 Discuss the approach to a child with developmental delay
- PE3.3 Assessment of a child with developmental delay - Elicit document and present history
- PE3.4 Counsel a parent of a child with developmental delay
- PE3.5 Discuss the role of the child developmental unit in management of developmental delay
- PE3.6 Discuss the referral criteria for children with developmental delay
- PE3.7 Visit a Child Developmental Unit and observe its functioning
- PE3.8 Discuss the etio-pathogenesis, clinical presentation and multi- disciplinary approach in the management of Cerebral palsy

D. Common problems related to Development-2 (Scholastic backwardness, Learning Disabilities, Autism, ADHD)

- PE4.1 Discuss the causes and approach to a child with scholastic backwardness

- PE4.2 Discuss the etiology, clinical features, diagnosis and management of a child with Learning Disabilities
- PE4.3 Discuss the etiology, clinical features, diagnosis and management of a child with Attention Deficit Hyperactivity Disorder (ADHD)
- PE4.4 Discuss the etiology, clinical features, diagnosis and management of a child with Autism
- PE4.5 Discuss the role of Child Guidance clinic in children with Developmental problems
- PE4.6 Visit to the Child Guidance Clinic

E. Common problems related to behaviour

- PE5.1 Describe the clinical features, diagnosis and management of thumb sucking
- PE5.2 Describe the clinical features, diagnosis and management of Feeding problems
- PE5.3 Describe the clinical features, diagnosis and management of nail biting
- PE5.4 Describe the clinical features, diagnosis and management of Breath Holding spells
- PE5.5 Describe the clinical features, diagnosis and management of temper tantrums
- PE5.6 Describe the clinical features, diagnosis and management of Pica
- PE5.7 Describe the clinical features, diagnosis and management of Fussy infant
- PE5.8 Discuss the etiology, clinical features and management of Enuresis
- PE5.9 Discuss the etiology, clinical features and management of Encopresis
- PE5.10 Discuss the role of child guidance clinic in children with behavioural problems and the referral criteria
- PE5.11 Visit to Child Guidance Clinic and observe functioning

F. Adolescent Health & common problems related to Adolescent Health

- PE6.1 Define Adolescence and stages of adolescence
- PE6.2 Describe the physical, physiological and psychological changes during adolescence (Puberty)
- PE6.3 Discuss the general health problems during adolescence
- PE6.4 Describe adolescent sexuality and common problems related to it
- PE6.5 Explain the Adolescent Nutrition and common nutritional problems
- PE6.6 Discuss the common Adolescent eating disorders (Anorexia Nervosa, Bulimia)
- PE6.7 Describe the common mental health problems during adolescence
- PE6.8 Respecting patient privacy and maintaining confidentiality while dealing with adolescence
- PE6.9 Perform routine Adolescent Health check-up including eliciting history, performing examination including SMR (Sexual Maturity Rating), growth assessments (using Growth charts) and systemic exam including thyroid and Breast exam and the HEADSS screening
- PE6.10 Discuss the objectives and functions of AFHS (Adolescent Friendly Health Services) and the referral criteria
- PE6.11 Visit to the Adolescent Clinic
- PE6.12 Enumerate the importance of obesity and other NCD in adolescents
- PE6.13 Enumerate the prevalence and the importance of recognition of sexual drug abuse in adolescents and children

G. To promote and support optimal Breast feeding for Infants

- PE7.1 Awareness on the cultural beliefs and practices of breast feeding
- PE7.2 Explain the physiology of lactation
- PE7.3 Describe the composition and types of breast milk and discuss the differences between cow's milk and Human milk
- PE7.4 Discuss the advantages of breast milk
- PE7.5 Observe the correct technique of breast feeding and distinguish right from wrong techniques
- PE7.6 Enumerate the baby friendly hospital initiatives
- PE7.7 Perform breast examination and identify common problems during lactation such as retracted nipples, cracked nipples, breast engorgement, breast abscess
- PE7.8 Educate mothers on ante natal breast care and prepare mothers for lactation
- PE7.9 Educate and counsel mothers for best practices in Breast feeding
- PE7.10 Respects patient privacy
- PE7.11 Participate in Breast Feeding Week Celebration

H. Complimentary Feeding

- PE8.1 Define the term Complementary Feeding
- PE8.2 Discuss the principles, the initiation, attributes, frequency, techniques and hygiene related to Complementary Feeding including IYCF
- PE8.3 Enumerate the common complimentary foods
- PE8.4 Elicit history on the Complementary Feeding habits
- PE8.5 Counsel and educate mothers on the best practices in Complimentary Feeding

I. Normal nutrition, assessment and monitoring

- PE9.1 Describe the age related nutritional needs of infants, children and adolescents including micronutrients and vitamins
- PE9.2 Describe the tools and methods for assessment and classification of nutritional status of infants, children and adolescents
- PE9.3 Explains the Calorific value of common Indian foods
- PE9.4 Elicit document and present an appropriate nutritional history and perform a dietary recall
- PE9.5 Calculate the age related calorie requirement in Health and Disease and identify gap
- PE9.6 Assess and classify the nutrition status of infants, children and adolescents and recognize deviations
- PE9.7 Plan an appropriate diet in health and disease

J. Provide nutritional support, assessment and monitoring for common nutritional problems

- PE10.1 Define and describe the etio-pathogenesis, classify including WHO classification, clinical features, complication and management of Severe Acute Malnourishment (SAM) and Moderate Acute Malnutrition (MAM)
- PE10.2 Outline the clinical approach to a child with SAM and MAM

PE10.3 Assessment of a patient with SAM and MAM, diagnosis, classification and planning management including hospital and community based intervention, rehabilitation and prevention

PE10.4 Identify children with under nutrition as per IMNCI criteria and plan referral

PE10.5 Counsel parents of children with SAM and MAM

PE10.6 Enumerate the role of locally prepared therapeutic diets and ready to use therapeutic diets

K. Obesity in children

PE11.1 Describe the common etiology, clinical features and management of obesity in children

PE11.2 Discuss the risk approach for obesity and discuss the prevention strategies

PE11.3 Assessment of a child with obesity with regard to eliciting history including physical activity, charting and dietary recall

PE11.4 Examination including calculation of BMI, measurement of waist hip ratio, identifying external markers like acanthosis, striae, pseudo gynaecomastia etc

PE11.5 Calculate BMI, document in BMI chart and interpret

PE11.6 Discuss criteria for referral

L. Micronutrients in Health and disease-1 (Vitamins ADEK, B Complex and C)

PE12.1 Discuss the RDA, dietary sources of Vitamin A and their role in Health and disease

PE12.2 Describe the causes, clinical features, diagnosis and management of Deficiency / excess of Vitamin A

PE12.3 Identify the clinical features of dietary deficiency / excess of Vitamin A

PE12.4 Diagnose patients with Vitamin A deficiency, classify and plan management

PE12.5 Discuss the Vitamin A prophylaxis program and their recommendations

PE12.6 Discuss the RDA, dietary sources of Vitamin D and their role in health and disease

PE12.7 Describe the causes, clinical features, diagnosis and management of Deficiency / excess of Vitamin D (Rickets and Hypervitaminosis D)

PE12.8 Identify the clinical features of dietary deficiency of Vitamin D

PE12.9 Assess patients with Vitamin D deficiency, diagnose, classify and plan management

PE12.10 Discuss the role of screening for Vitamin D deficiency

PE12.11 Discuss the RDA, dietary sources of Vitamin E and their role in health and disease

PE12.12 Describe the causes, clinical features, diagnosis and management of deficiency of Vitamin E

PE12.13 Discuss the RDA, dietary sources of Vitamin K and their role in health and disease

PE12.14 Describe the causes, clinical features, diagnosis management and prevention of deficiency of Vitamin K

PE12.15 Discuss the RDA, dietary sources of Vitamin B and their role in health and disease

PE12.16 Describe the causes, clinical features, diagnosis and management of deficiency of B Complex Vitamins

PE12.17 Identify the clinical features of Vitamin B complex deficiency

PE12.18 Diagnose patients with Vitamin B complex deficiency and plan management

PE12.19 Discuss the RDA, dietary sources of Vitamin C and their role in Health and disease

PE12.20 Describe the causes, clinical features, diagnosis and management of deficiency of Vitamin C (scurvy)

PE12.21 Identify the clinical features of Vitamin C deficiency

M. Micronutrients in Health and disease -2: Iron, Iodine, Calcium, Magnesium

- PE13.1 Discuss the RDA, dietary sources of Iron and their role in health and disease
- PE13.2 Describe the causes, diagnosis and management of Fe deficiency
- PE13.3 Identify the clinical features of dietary deficiency of Iron and make a diagnosis
- PE13.4 Interpret hemogram and Iron Panel
- PE13.5 Propose a management plan for Fe deficiency anaemia
- PE13.6 Discuss the National anaemia control program and its recommendations
- PE13.7 Discuss the RDA, dietary sources of Iodine and their role in Health and disease
- PE13.8 Describe the causes, diagnosis and management of deficiency of Iodine
- PE13.9 Identify the clinical features of Iodine deficiency disorders
- PE13.10 Discuss the National Goiter Control program and their recommendations
- PE13.11 Discuss the RDA, dietary sources of Calcium and their role in health and disease
- PE13.12 Describe the causes, clinical features, diagnosis and management of Ca Deficiency
- PE13.13 Discuss the RDA, dietary sources of Magnesium and their role in health and disease
- PE13.14 Describe the causes, clinical features, diagnosis and management of Magnesium Deficiency

N. Toxic elements and free radicals and oxygen toxicity

- PE14.1 Discuss the risk factors, clinical features, diagnosis and management of Lead Poisoning
- PE14.2 Discuss the risk factors, clinical features, diagnosis and management of Kerosene ingestion
- PE14.3 Discuss the risk factors, clinical features, diagnosis and management of Organo-phosphorous poisoning
- PE14.4 Discuss the risk factors, clinical features, diagnosis and management of paracetamol poisoning
- PE14.5 Discuss the risk factors, clinical features, diagnosis and management of Oxygen toxicity

O. Fluid and electrolyte balance

- PE15.1 Discuss the fluid and electrolyte requirement in health and disease
- PE15.2 Discuss the clinical features and complications of fluid and electrolyte imbalance and outline the management
- PE15.3 Calculate the fluid and electrolyte requirement in health
- PE15.4 Interpret electrolyte report
- PE15.5 Calculate fluid and electrolyte imbalance
- PE15.6 Demonstrate the steps of inserting an IV cannula in a model
- PE15.7 Demonstrate the steps of inserting an interosseous line in a mannequin

P. Integrated Management of Neonatal and Childhood Illnesses (IMNCI) Guideline

- PE16.1 Explain the components of Integrated Management of Neonatal and Childhood Illnesses (IMNCI) guidelines and method of Risk stratification
- PE16.2 Assess children <2 months using IMNCI Guidelines
- PE16.3 Assess children >2 to 5 years using IMNCI guidelines and Stratify Risk

Q. The National Health Programs, NHM

PE17.1 State the vision and outline the goals, strategies and plan of action of NHM and other important national programs pertaining to maternal and child health including RMNCH A+, RBSK, RKSK, JSSK mission Indradhanush and ICDS

PE17.2 Analyse the outcomes and appraise the monitoring and evaluation of NHM

R. The National Health Programs: RCH

PE18.1 List and explain the components, plan, outcome of Reproductive Child Health (RCH) program and appraise its monitoring and evaluation

PE18.2 Explain preventive interventions for child survival and safe motherhood

PE18.3 Conduct Antenatal examination of women independently and apply at-risk approach in antenatal care

PE18.4 Provide intra-natal care and conduct a normal delivery in a simulated environment

PE18.5 Provide intra-natal care and observe the conduct of a normal delivery

PE18.6 Perform Postnatal assessments of newborn and mother, provide advice on breast feeding, weaning and on family planning

PE18.7 Educate and counsel caregivers of children

PE18.8 Observe the implementation of the program by visiting the Rural Health Centre

S. National Programs, RCH - Universal Immunizations program

PE19.1 Explain the components of the Universal Immunization Program and the National Immunization Program

PE19.2 Explain the epidemiology of Vaccine preventable diseases

PE19.3 Vaccine description with regard to classification of vaccines, strain used, dose, route, schedule, risks, benefits and side effects, indications and contraindications

PE19.4 Define cold chain and discuss the methods of safe storage and handling of vaccines

PE19.5 Discuss immunization in special situations – HIV positive children, immunodeficiency, pre-term, organ transplants, those who received blood and blood products, splenectomised children, adolescents, travellers

PE19.6 Assess patient for fitness for immunization and prescribe an age appropriate immunization schedule

PE19.7 Educate and counsel a patient for immunization

PE19.8 Demonstrate willingness to participate in the National and sub national immunisation days

PE19.9 Describe the components of safe vaccine practice – Patient education/ counselling; adverse events following immunization, safe injection practices, documentation and Medico-legal implications

PE19.10 Observe the handling and storing of vaccines

PE19.11 Document Immunization in an immunization record

PE19.12 Observe the administration of UIP vaccines

PE19.13 Demonstrate the correct administration of different vaccines in a mannequin

PE19.14 Practice Infection control measures and appropriate handling of the sharps

PE19.15 Explain the term implied consent in Immunization services

PE19.16 Enumerate available newer vaccines and their indications including pentavalent pneumococcal, rotavirus, JE, typhoid IPV & HPV

T. Care of the Normal New born, and High risk New born

PE20.1 Define the common neonatal nomenclatures including the classification and describe the characteristics of a Normal Term Neonate and High Risk Neonates

PE20.2 Explain the care of a normal neonate

PE20.3 Perform Neonatal resuscitation in a manikin

PE20.4 Assessment of a normal neonate

PE20.5 Counsel / educate mothers on the care of neonates

PE20.6 Explain the follow up care for neonates including Breast Feeding, Temperature maintenance, immunization, importance of growth monitoring and red flags

PE20.7 Discuss the etiology, clinical features and management of Birth asphyxia

PE20.8 Discuss the etiology, clinical features and management of respiratory distress in New born including meconium aspiration and transient tachypnoea of newborn

PE20.9 Discuss the etiology, clinical features and management of Birth injuries

PE20.10 Discuss the etiology, clinical features and management of Haemorrhagic disease of New born

PE20.11 Discuss the clinical characteristics, complications and management of Low birth weight (preterm and Small for gestation)

PE20.12 Discuss the temperature regulation in neonates, clinical features and management of Neonatal Hypothermia

PE20.13 Discuss the temperature regulation in neonates, clinical features and management of Neonatal Hypoglycaemia

PE20.14 Discuss the etiology, clinical features and management of Neonatal hypocalcaemia

PE20.15 Discuss the etiology, clinical features and management of Neonatal seizures

PE20.16 Discuss the etiology, clinical features and management of Neonatal Sepsis

PE20.17 Discuss the etiology, clinical features and management of Perinatal infections

PE20.18 Identify and stratify risk in a sick neonate using IMNCI guidelines

PE20.19 Discuss the etiology, clinical features and management of Neonatal hyperbilirubinemia

PE20.20 Identify clinical presentations of common surgical conditions in the new born including TEF, esophageal atresia, anal atresia, cleft lip and palate, congenital diaphragmatic hernia and causes of acute abdomen

Syllabus for PART III

U. Genito-Urinary system

PE21.1 Enumerate the etio-pathogenesis, clinical features, complications and management of Urinary Tract infection in children

PE21.2 Enumerate the etio-pathogenesis, clinical features, complications and management of acute post-streptococcal Glomerular Nephritis in children

PE21.3 Discuss the approach and referral criteria to a child with Proteinuria

PE21.4 Discuss the approach and referral criteria to a child with Haematuria

PE21.5 Enumerate the etio-pathogenesis, clinical features, complications and management of Acute Renal Failure in children

PE21.6 Enumerate the etio-pathogenesis, clinical features, complications and management of Chronic Renal Failure in Children

PE21.7 Enumerate the etio-pathogenesis, clinical features, complications and management of Wilms Tumor

PE21.8 Elicit, document and present a history pertaining to diseases of the Genitourinary tract

- PE21.9 Identify external markers for Kidney disease, like Failing to thrive, hypertension, pallor, Icthyosis, anasarca
- PE21.10 Analyse symptom and interpret the physical findings and arrive at an appropriate provisional / differential diagnosis
- PE21.11 Perform and interpret the common analytes in a Urine examination
- PE21.12 Interpret report of Plain X Ray of KUB
- PE21.13 Enumerate the indications for and Interpret the written report of Ultra sonogram of KUB
- PE21.14 Recognize common surgical conditions of the abdomen and genitourinary system and enumerate the indications for referral including acute and subacute intestinal obstruction, appendicitis, pancreatitis, perforation intussusception, Phimosis, undescended testis, Chordee, hypospadiasis, Torsion testis, hernia Hydrocele, Vulval Synechiae
- PE21.15 Discuss and enumerate the referral criteria for children with genitourinary disorder
- PE21.16 Counsel / educate a patient for referral appropriately
- PE21.17 Describe the etiopathogenesis, grading, clinical features and management of hypertension in children

V. Approach to and recognition of a child with possible Rheumatologic problem

- PE22.1 Enumerate the common Rheumatological problems in children. Discuss the clinical approach to recognition and referral of a child with Rheumatological problem
- PE22.2 Counsel a patient with Chronic illness
- PE22.3 Describe the diagnosis and management of common vasculitic disorders including Henoch Schonlein Purpura, Kawasaki Disease, SLE, JIA

W. Cardiovascular system- Heart Diseases

- PE23.1 Discuss the Hemodynamic changes, clinical presentation, complications and management of Acyanotic Heart Diseases –VSD, ASD and PDA
- PE23.2 Discuss the Hemodynamic changes, clinical presentation, complications and management of Cyanotic Heart Diseases – Fallot’s Physiology
- PE23.3 Discuss the etio-pathogenesis, clinical presentation and management of cardiac failure in infant and children
- PE23.4 Discuss the etio-pathogenesis, clinical presentation and management of Acute Rheumatic Fever in children
- PE23.5 Discuss the clinical features, complications, diagnosis, management and prevention of Acute Rheumatic Fever
- PE23.6 Discuss the etio-pathogenesis, clinical features and management of Infective endocarditis in children
- PE23.7 Elicit appropriate history for a cardiac disease, analyse the symptoms e.g. breathlessness, chest pain, tachycardia, feeding difficulty, failing to thrive, reduced urinary output, swelling, syncope, cyanotic spells, Suck rest cycle, frontal swelling in infants. Document and present
- PE23.8 Identify external markers of a cardiac disease e.g. Cyanosis, Clubbing, dependent edema, dental caries, arthritis, erythema rash, chorea, subcutaneous nodules, Osler’s node, Janeway lesions and document
- PE23.9 Record pulse, blood pressure, temperature and respiratory rate and interpret as per the age
- PE23.10 Perform independently examination of the cardiovascular system – look for precordial bulge, pulsations in the precordium, JVP and its significance in children and

infants, relevance of percussion in Pediatric examination, Auscultation and other system examination and document

PE23.11 Develop a treatment plan and prescribe appropriate drugs including fluids in cardiac diseases, anti -failure drugs, and inotropic agents

PE23.12 Interpret a chest X ray and recognize Cardiomegaly

PE23.13 Choose and Interpret blood reports in Cardiac illness

PE23.14 Interpret Pediatric ECG

PE23.15 Use the ECHO reports in management of cases

PE23.16 Discuss the indications and limitations of Cardiac catheterization

PE23.17 Enumerate some common cardiac surgeries like BT shunt, Potts and Waterston's and corrective surgeries

PE23.18 Demonstrate empathy while dealing with children with cardiac diseases in every patient encounter

X. Diarrhoeal diseases and Dehydration

PE24.1 Discuss the etio-pathogenesis, classification, clinical presentation and management of diarrheal diseases in children

PE24.2 Discuss the classification and clinical presentation of various types of diarrheal dehydration

PE24.3 Discuss the physiological basis of ORT, types of ORS and the composition of various types of ORS

PE24.4 Discuss the types of fluid used in Paediatric diarrheal diseases and their composition

PE24.5 Discuss the role of antibiotics, antispasmodics, anti-secretory drugs, probiotics, anti-emetics in acute diarrheal diseases

PE24.6 Discuss the causes, clinical presentation and management of persistent diarrhoea in children

PE24.7 Discuss the causes, clinical presentation and management of chronic diarrhoea in children

PE24.8 Discuss the causes, clinical presentation and management of dysentery in children

PE24.9 Elicit, document and present history pertaining to diarrheal diseases

PE24.10 Assess for signs of dehydration, document and present

PE24.11 Apply the IMNCI guidelines in risk stratification of children with diarrheal dehydration and refer

PE24.12 Perform and interpret stool examination including Hanging Drop

PE24.13 Interpret RFT and electrolyte report

PE24.14 Plan fluid management as per the WHO criteria

PE24.15 Perform NG tube insertion in a manikin

PE24.16 Perform IV cannulation in a model

PE24.17 Perform Interosseous insertion model

Y. Malabsorption

PE25.1 Discuss the etio-pathogenesis, clinical presentation and management of Malabsorption in Children and its causes including celiac disease

Z. Acute and chronic liver disorders

PE26.1 Discuss the etio-pathogenesis, clinical features and management of acute hepatitis in children

- PE26.2 Discuss the etio-pathogenesis, clinical features and management of Fulminant Hepatic Failure in children
- PE26.3 Discuss the etio-pathogenesis, clinical features and management of chronic liver diseases in children
- PE26.4 Discuss the etio-pathogenesis, clinical features and management of Portal Hypertension in children
- PE26.5 Elicit document and present the history related to diseases of Gastrointestinal system
- PE26.6 Identify external markers for GI and Liver disorders e.g. Jaundice, Pallor, Gynaecomastia, Spider angioma, Palmar erythema, Ichthyosis, Caput medusa, Clubbing, failing to thrive, Vitamin A and D deficiency
- PE26.7 Perform examination of the abdomen, demonstrate organomegaly, ascites etc.
- PE26.8 Analyse symptoms and interpret physical signs to make a provisional/ differential diagnosis
- PE26.9 Interpret Liver Function Tests, viral markers, ultra-sonogram report
- PE26.10 Demonstrate the technique of liver biopsy in a Perform Liver Biopsy in a simulated environment
- PE26.11 Enumerate the indications for Upper GI endoscopy
- PE26.12 Discuss the prevention of Hep B infection – Universal precautions and Immunisation
- PE26.13 Counsel and educate patients and their family appropriately on liver diseases

AA. Pediatric Emergencies – Common Pediatric Emergencies

- PE27.1 List the common causes of morbidity and mortality in the under five children
- PE27.2 Describe the etio-pathogenesis, clinical approach and management of cardiorespiratory arrest in children
- PE27.3 Describe the etio-pathogenesis of respiratory distress in children
- PE27.4 Describe the clinical approach and management of respiratory distress in children
- PE27.5 Describe the etio-pathogenesis, clinical approach and management of Shock in children
- PE27.6 Describe the etio-pathogenesis, clinical approach and management of Status epilepticus
- PE27.7 Describe the etio-pathogenesis, clinical approach and management of an unconscious child
- PE27.8 Discuss the common types, clinical presentations and management of poisoning in children
- PE27.9 Discuss oxygen therapy, in Pediatric emergencies and modes of administration
- PE27.10 Observe the various methods of administering Oxygen
- PE27.11 Explain the need and process of triage of sick children brought to health facility
- PE27.12 Enumerate emergency signs and priority signs
- PE27.13 List the sequential approach of assessment of emergency and priority signs
- PE27.14 Assess emergency signs and prioritize
- PE27.15 Assess airway and breathing: recognise signs of severe respiratory distress. Check for cyanosis, severe chest indrawing, grunting
- PE27.16 Assess airway and breathing. Demonstrate the method of positioning of an infant & child to open airway in a simulated environment
- PE27.17 Assess airway and breathing: administer oxygen using correct technique and appropriate flow rate

PE27.18 Assess airway and breathing: perform assisted ventilation by Bag and mask in a simulated environment
PE27.19 Check for signs of shock i.e. pulse, Blood pressure, CRT
PE27.20 Secure an IV access in a simulated environment
PF27.21 Choose the type of fluid and calculate the fluid requirement in shock
PE27.22 Assess level of consciousness & provide emergency treatment to a child with convulsions/ coma
- Position an unconscious child
- Position a child with suspected trauma
- Administer IV/per rectal Diazepam for a convulsing child in a simulated environment
PE27.23 Assess for signs of severe dehydration
PE27.24 Monitoring and maintaining temperature: define hypothermia. Describe the clinical features, complications and management of Hypothermia
PE27.25 Describe the advantages and correct method of keeping an infant warm by skin to skin contact
PE27.26 Describe the environmental measures to maintain temperature
PE27.27 Assess for hypothermia and maintain temperature
PE27.28 Provide BLS for children in manikin
PE.27.29 Discuss the common causes, clinical presentation, medico-legal implications of abuse
PE27.30 Demonstrate confidentiality with regard to abuse
PE27.31 Assess child for signs of abuse
PE27.32 Counsel parents of dangerously ill / terminally ill child to break a bad news
PE27.33 Obtain Informed Consent
PE27.34 Willing to be a part of the ER team
PE27.35 Attends to emergency calls promptly

BB. Respiratory system

PE28.1 Discuss the etio-pathogenesis, clinical features and management of Naso pharyngitis
PE28.2 Discuss the etio-pathogenesis of Pharyngo Tonsillitis
PE28.3 Discuss the clinical features and management of Pharyngo Tonsillitis
PE28.4 Discuss the etio-pathogenesis, clinical features and management of Acute Otitis Media (AOM)
PE28.5 Discuss the etio-pathogenesis, clinical features and management of Epiglottitis
PE28.6 Discuss the etio-pathogenesis, clinical features and management of Acute laryngo-trachea-bronchitis
PE28.7 Discuss the etiology, clinical features and management of Stridor in children
PE28.8 Discuss the types, clinical presentation, and management of foreign body aspiration in infants and children
PE28.9 Elicit, document and present age appropriate history of a child with upper respiratory problem including Stridor
PE28.10 Perform otoscopic examination of the ear
PE28.11 Perform throat examination using tongue depressor
PE28.12 Perform examination of the nose
PE28.13 Analyse the clinical symptoms and interpret physical findings and make a provisional / differential diagnosis in a child with ENT symptoms
PE28.14 Develop a treatment plan and document appropriately in a child with upper respiratory symptoms
PE28.15 Stratify risk in children with stridor using IMNCI guidelines
PE28.16 Interpret blood tests relevant to upper respiratory problems

PE28.17 Interpret X-ray of the paranasal sinuses and mastoid; and /or use written report in case of management; Interpret CXR in foreign body aspiration and lower respiratory tract infection, understand the significance of thymic shadow in pediatric chest X-rays

PE28.18 Describe the etio-pathogenesis, diagnosis, clinical features, management and prevention of lower respiratory infections including bronchiolitis, wheeze associated LRTI Pneumonia and empyema

PE28.19 Describe the etio-pathogenesis, diagnosis, clinical features, management and prevention of asthma in children

PE28.20 Counsel the child with asthma on the correct use of inhalers in a simulated environment

CC. Anemia and other Hemato-oncologic disorders in children

PE29.1 Discuss the etio-pathogenesis, clinical features, classification and approach to a child with anaemia

PE29.2 Discuss the etio-pathogenesis, clinical features and management of Iron Deficiency anaemia

PE29.3 Discuss the etiopathogenesis, clinical features and management of VIT B12, Folate deficiency anaemia

PE29.4 Discuss the etio-pathogenesis, clinical features and management of Haemolytic anaemia, Thalassemia Major, Sickle cell anaemia, Hereditary spherocytosis, Auto-immune haemolytic anaemia and haemolytic uremic syndrome

PE29.5 Discuss the National Anaemia Control Program

PE29.6 Discuss the cause of thrombocytopenia in children: describe the clinical features and management of Idiopathic Thrombocytopenic Purpura (ITP)

PE29.7 Discuss the etiology, classification, pathogenesis and clinical features of Hemophilia in children

PE29.8 Discuss the etiology, clinical presentation and management of Acute Lymphoblastic Leukemia in children

PE29.9 Discuss the etiology, clinical presentation and management of lymphoma in children

PE29.10 Elicit, document and present the history related to Hematology

PE29.11 Identify external markers for haematological disorders e.g. Jaundice, Pallor, Petechiae purpura, Ecchymosis, Lymphadenopathy, bone tenderness, loss of weight, Mucosal and large joint bleed

PE29.12 Perform examination of the abdomen, demonstrate organomegaly

PE29.13 Analyse symptoms and interpret physical signs to make a provisional/ differential diagnosis

PE29.14 Interpret CBC, LFT

PE29.15 Perform and interpret peripheral smear

PE29.16 Discuss the indications for Hemoglobin electrophoresis and interpret report

PE29.17 Demonstrate performance of bone marrow aspiration in manikin

PE29.18 Enumerate the referral criteria for Hematological conditions

PE29.19 Counsel and educate patients about prevention and treatment of anemia

PE29.20 Enumerate the indications for splenectomy and precautions

DD. Central Nervous system

PE30.1 Discuss the etio-pathogenesis, clinical features, complications, management and prevention of meningitis in children

PE30.2 Distinguish bacterial, viral and tuberculous meningitis

PE30.3 Discuss the etio-pathogenesis, classification, clinical features, complication and management of Hydrocephalus in children

PE30.4 Discuss the etio-pathogenesis, classification, clinical features, and management of Microcephaly in children

PE30.5 Enumerate the Neural tube defects. Discuss the causes, clinical features, types, and management of Neural Tube defect

PE30.6 Discuss the etio-pathogenesis, clinical features, and management of Infantile hemiplegia

PE30.7 Discuss the etio-pathogenesis, clinical features, complications and management of Febrile seizures in children

PE30.8 Define epilepsy. Discuss the pathogenesis, clinical types, presentation and management of Epilepsy in children

PE30.9 Define status Epilepticus. Discuss the clinical presentation and management

PE30.10 Discuss the etio-pathogenesis, clinical features and management of Mental retardation in children

PE30.11 Discuss the etio-pathogenesis, clinical features and management of children with cerebral palsy

PE30.12 Enumerate the causes of floppiness in an infant and discuss the clinical features, differential diagnosis and management

PE30.13 Discuss the etio-pathogenesis, clinical features, management and prevention of Poliomyelitis in children

PE30.14 Discuss the etio-pathogenesis, clinical features and management of Duchene muscular dystrophy

PE30.15 Discuss the etio-pathogenesis, clinical features and management of Ataxia in children

PE30.16 Discuss the approach to and management of a child with headache

PE30.17 Elicit document and present an age appropriate history pertaining to the CNS

PE30.18 Demonstrate the correct method for physical examination of CNS including identification of external markers. Document and present clinical findings

PE30.19 Analyse symptoms and interpret physical findings and propose a provisional / differential diagnosis

PE30.20 Interpret and explain the findings in a CSF analysis

PE30.21 Enumerate the indication and discuss the limitations of EEG, CT, MRI

PE30.22 Interpret the reports of EEG, CT, MRI

PE30.23 Perform in a mannequin lumbar puncture. Discuss the indications, contraindication of the procedure

EE. Allergic Rhinitis, Atopic Dermatitis, Bronchial Asthma, Urticaria Angioedema

PE31.1 Describe the etio-pathogenesis, management and prevention of Allergic Rhinitis in Children

PE31.2 Recognize the clinical signs of Allergic Rhinitis

PE31.3 Describe the etio-pathogenesis, clinical features and management of Atopic dermatitis in Children

PE31.4 Identify Atopic dermatitis and manage

PE31.5 Discuss the etio-pathogenesis, clinical types, presentations, management and prevention of childhood Asthma

PE31.6 Recognise symptoms and signs of Asthma

PE31.7 Develop a treatment plan for Asthma appropriate to clinical presentation & severity

PE31.8 Enumerate criteria for referral

PE31.9 Interpret CBC and CX Ray in Asthma

- PE31.10 Enumerate the indications for PFT
- PE31.11 Observe administration of Nebulisation
- PE31.12 Discuss the etio-pathogenesis, clinical features and complications and management of Urticaria Angioedema

FF. Chromosomal Abnormalities

- PE32.1 Discuss the genetic basis, risk factors, complications, prenatal diagnosis, management and genetic counselling in Down's Syndrome
- PE32.2 Identify the clinical features of Down's Syndrome
- PE32.3 Interpret normal Karyotype and recognize Trisomy 21
- PE32.4 Discuss the referral criteria and Multidisciplinary approach to management
- PE32.5 Counsel parents regarding 1. Present child
2. Risk in the next pregnancy
- PE32.6 Discuss the genetic basis, risk factors, clinical features, complications, prenatal diagnosis, management and genetic counselling in Turner's Syndrome
- PE32.7 Identify the clinical features of Turner Syndrome
- PE32.8 Interpret normal Karyotype and recognize the Turner Karyotype
- PE32.9 Discuss the referral criteria and multidisciplinary approach to management of Turner Syndrome
- PE32.10 Counsel parents regarding 1. Present child 2. Risk in the next pregnancy
- PE32.11 Discuss the genetic basis, risk factors, complications, prenatal diagnosis, management and genetic counselling in Klinefelter Syndrome
- PE32.12 Identify the clinical features of Klinefelter Syndrome
- PE32.13 Interpret normal Karyotype and recognize the Klinefelter Karyotype

GG. Endocrinology

- PE33.1 Describe the etio-pathogenesis clinical features, management of Hypothyroidism in children
- PE33.2 Recognize the clinical signs of Hypothyroidism and refer
- PE33.3 Interpret and explain neonatal thyroid screening report
- PE33.4 Discuss the etio-pathogenesis, clinical types, presentations, complication and management of Diabetes mellitus in children
- PE33.5 Interpret Blood sugar reports and explain the diagnostic criteria for Type 1 Diabetes
- PE33.6 Perform and interpret Urine Dip Stick for Sugar
- PE33.7 Perform genital examination and recognize Ambiguous Genitalia and refer appropriately
- PE33.8 Define precocious and delayed Puberty
- PE33.9 Perform Sexual Maturity Rating (SMR) and interpret
- PE33.10 Recognize precocious and delayed Puberty and refer
- PE33.11 Identify deviations in growth and plan appropriate referral

HH. Vaccine preventable Diseases – Tuberculosis

- PE34.1 Discuss the epidemiology, clinical features, clinical types, complications of Tuberculosis in Children and Adolescents
- PE34.2 Discuss the various diagnostic tools for childhood tuberculosis
- PE34.3 Discuss the various regimens for management of Tuberculosis as per National Guidelines
- PE34.4 Discuss the preventive strategies adopted and the objectives and outcome of the National Tuberculosis Control Program

- PE34.5 Able to elicit, document and present history of contact with tuberculosis in every patient encounter
- PE34.6 Identify a BCG scar
- PE34.7 Interpret a Mantoux test
- PE34.8 Interpret a Chest Radiograph
- PE34.9 Interpret blood tests in the context of laboratory evidence for tuberculosis
- PE34.10 Discuss the various samples for demonstrating the organism e.g. Gastric Aspirate, Sputum, CSF, FNAC
- PE34.11 Perform AFB staining
- PE34.12 Enumerate the indications and discuss the limitations of methods of culturing M.Tuberculi
- PE34.13 Enumerate the newer diagnostic tools for Tuberculosis including BACTEC CBNAAT and their indications
- PE34.14 Enumerate the common causes of fever and discuss the etiopathogenesis, clinical features, complications and management of fever in children
- PE34.15 Enumerate the common causes of fever and discuss the etiopathogenesis, clinical features, complications and management of child with exanthematous illnesses like Measles, Mumps, Rubella & Chicken pox
- PE34.16 Enumerate the common causes of fever and discuss the etiopathogenesis, clinical features, complications and management of child with Diphtheria, Pertussis, Tetanus.
- PE34.17 Enumerate the common causes of fever and discuss the etiopathogenesis, clinical features, complications and management of child with Typhoid
- PE34.18 Enumerate the common causes of fever and discuss the etiopathogenesis, clinical features, complications and management of child with Dengue, Chikungunya and other vector born diseases
- PE34.19 Enumerate the common causes of fever and discuss the etiopathogenesis, clinical features, complications and management of children with Common Parasitic infections, malaria, leishmaniasis, filariasis, helminthic infestations, amebiasis, giardiasis
- PE34.20 Enumerate the common causes of fever and discuss the etiopathogenesis, clinical features, complications and management of child with Rickettsial diseases

II. The role of the physician in the community

PE35.1 Identify, discuss and defend medico legal, socio-cultural and ethical issues as they pertain to health care in children (including parental rights and right to refuse treatment)

AETCOM TOPIC

MODULE 4.7: Ethics and Patient Autonomy

MODULE 4.8: Dealing with Death

Aligned and integrated topics related to Pediatrics

Clinical postings and Skills acquisition as per time table and NMC guidelines

Recommended Textbooks and reference Books

Latest Editions of

1. Ghai Essential Pediatrics. by Paul V K ,Bagga A
2. Nelson Textbook of Pediatrics, by KliegmanRM, & Geme JS.
3. Cloherty& Stark's manual of Neonatal Care, South Asian Edition by Eichenwald EC et al.
4. AETCOM: Attitude, Ethics and Communication (AETCOM) Competencies for the Indian Medical Graduate 2018

THIRD PROFESSIONAL MBBS PHASE II UNIVERSITY EXAMINATION

SUBJECT: PEDIATRICS

**There will be ONE theory paper of 100 marks
Practical will be 100 marks**

FORMAT OF THEORY PAPER A

Total Time: 3 hours

Max. marks: 100

Part 1: Maximum Marks 20 Time 20 minutes

I MCQs 1 - 20 in number (1 x 20 = 20 marks)

Part 2: Maximum Marks 40 marks

II Structured long answer question. 1 question (15 marks)

III Short Answer Questions etc. (at least 2 on integration topics) 4 questions (4x5=20 marks)

IV AETCOM

AETCOM Question Module 4.7 and 4.8 1 question (5 marks)

Part 3: Maximum marks 40 marks

V Structured long answer question. 1 question (15 marks)

VI Short Answer Questions (Applied aspects) 5 questions (5x 5=25 marks)

