

PEDIATRIC MEDICINE

COMPREHENSIVE STUDY GUIDE

Final Year MBBS

Ward 19 Curriculum

Based on PMC Operational Curriculum

Topics • Competencies • Domains • Themes • Integration • Methodology • Assessment

1. Overview & Health Indicators

Pediatrics is the branch of medicine concerned with the physical, mental, and social health of children from birth to young adulthood. The Final Year MBBS pediatric rotation covers Pakistan-specific epidemiology alongside global child health standards.

Key Pakistan Child Health Indicators

- Under-5 mortality rate: ~55–60/1,000 live births (focus on reducing preventable deaths)
- Infant mortality rate: ~55/1,000 live births
- Neonatal mortality: ~40/1,000 (highest contributor to under-5 mortality)
- Stunting: ~38% children under 5 (chronic malnutrition)
- Wasting: ~7% children under 5 (acute malnutrition)
- EPI coverage: ~65–75% (major gap requiring emphasis)
- Diarrheal diseases and ARI: top two causes of under-5 mortality

Mission

To develop competent, compassionate, and ethical medical graduates capable of providing comprehensive preventive, promotive, curative, and rehabilitative healthcare to neonates, infants, children, and adolescents, while addressing the healthcare needs of children, families, and communities.

Objectives

By the end of the Pediatrics rotation, the student should be able to:

1. Understand normal growth, development, nutrition, and immunization of children from birth through adolescence.
2. Recognize, diagnose, and manage common pediatric and neonatal illnesses.
3. Perform comprehensive pediatric history taking and physical examination.
4. Assess developmental milestones and identify developmental delays.
5. Diagnose and manage common nutritional deficiencies and growth disorders.
6. Interpret common laboratory and diagnostic investigations in pediatric patients.
7. Provide emergency care for critically ill neonates and children, including basic neonatal and pediatric resuscitation.
8. Counsel parents regarding nutrition, immunization, disease prevention, and child health promotion.
9. Demonstrate effective communication skills when interacting with children and their caregivers.
10. Apply principles of professionalism, ethics, patient safety, and evidence-based medicine in pediatric practice.

Learning Outcomes

Upon successful completion of the Pediatrics course, the student will be able to:

Knowledge

- Explain the principles of child growth, development, nutrition, and immunization.
- Describe the etiology, pathophysiology, clinical features, diagnosis, and management of common pediatric diseases.
- Identify common neonatal conditions and pediatric emergencies.

Skills

- Obtain a focused and comprehensive pediatric history.
- Perform age-appropriate physical examinations of neonates, infants, children, and adolescents.
- Plot and interpret growth charts.
- Assess developmental milestones.
- Interpret pediatric laboratory investigations and imaging findings.

- Formulate differential diagnoses and management plans for common pediatric conditions.
- Perform essential pediatric clinical procedures under supervision.

Attitudes and Professionalism

- Demonstrate empathy and respect toward children and their families.
- Communicate effectively with patients, caregivers, and healthcare teams.
- Practice ethical and professional behavior in pediatric settings.
- Advocate for child health, disease prevention, and community-based healthcare initiatives.

Expected Competencies

At the end of the rotation, the student should be able to independently:

- Evaluate common pediatric outpatient and inpatient cases.
- Recognize pediatric emergencies and initiate appropriate management.
- Counsel parents regarding breastfeeding, nutrition, immunization, and preventive healthcare.
- Work effectively as a member of a multidisciplinary pediatric healthcare team.

This format aligns well with **Final Year MBBS curricula used by PM&DC, CPSP-affiliated teaching hospitals, and many South Asian medical universities.**

2. Curriculum Modules & Topics

The curriculum is divided into 19 modules. Each module is taught via four instructional strategies: formal lectures, ward teaching/bedside, self-directed learning, and clinical skills sessions.

2.1 Introduction to Pediatrics & Growth and Development

Lectures	Ward Teaching	Self-Learning	Skills
Overview of Pediatrics & Health Indicators Clinical Methods in Paediatrics	EPI Program IMNCI Program Assessment of Growth Developmental Assessment	Tanner Staging	History Taking Vital Signs Anthropometry Head-to-Toe Examination Developmental Milestones Growth Charts

2.2 Neonatology

Lectures	Ward Teaching	Self-Learning	Skills
Introduction & Care of Newborn Newborn Physiology TORCH Infections	Neonatal Resuscitation Prematurity & Neonatal Jaundice RDS / TTN / MAS Birth Asphyxia Neonatal Sepsis JNN Hemolytic Disease of Newborn Apnea / HDN / IDM Neonatal Seizures Hypoglycemia / Hypocalcemia Anemia in Neonates	Counselling on Breast Feeding Twin Pregnancy Necrotizing Enterocolitis IVH Definitions: LGA, SGA, Post-term, Preterm	Neonatal Anthropometric Measurements Assessment of Primitive Reflexes Neonatal Head-to-Toe Examination Resuscitation of Newborn Administration of Oxygen Therapy

2.3 Infectious Disease

Lectures	Ward Teaching	Self-Learning	Skills
Chicken Pox Tetanus	Measles / Mumps / Rubella EPI Program Malaria Diphtheria Enteric Fever Dengue Fever Polio / AFP Pertussis	Rabies Parasitic Infections AIDS Common Skin Infections	IV Line / Blood Sample Nebulizer Therapy Observation: Lumbar Puncture Observation: Thoracentesis

2.4 Hematology & Oncology

Lectures	Ward Teaching	Self-Learning	Skills
Thalassemia Hemophilia ITP Leukemia Aplastic Anemia	Bleeding Disorders Lymphoma Iron Deficiency Anemia	Blood Transfusion Platelet Transfusion Neuroblastoma Wilms Tumor DIC Sickle Cell Anemia	Lymph Node Examination Observation: Bone Marrow Aspiration

2.5 Nutrition

Lectures	Ward Teaching	Self-Learning	Skills
—	Malnutrition Breast Feeding Infant Feeding Weaning	Vitamin A Deficiency Iodine Deficiency Obesity	Assessment of Micronutrient Deficiency Assessment of MUAC + Skin-fold Thickness

2.6 Cardiovascular System

Lectures	Ward Teaching	Self-Learning	Skills
Cyanotic Heart Diseases Acyanotic Heart Diseases Rheumatic Heart Disease	Hypertension Heart Failure Paediatric ECG Interpretation	Cardiomyopathies Myocarditis Arrhythmias Infective Endocarditis	Clinical Methods of CVS Observation: Pericardiocentesis

2.7 Respiratory System

Lectures	Ward Teaching	Self-Learning	Skills
Pneumonia Croup Tuberculosis Asthma Epiglottitis	Pleural Effusion Pneumothorax Management of COVID-19 Chest X-ray Interpretation Bronchiolitis / Cystic Fibrosis	Laryngitis Tonsillitis Allergic Rhinitis Pharyngitis Otitis Media Bronchiolitis	Examination of Respiratory System Observation: Chest Intubation Observation: Pleural Tap

2.8 Neurology

Lectures	Ward Teaching	Self-Learning	Skills
Hydrocephalus Floppy Infant DMD & Myasthenia Gravis Epilepsy	Meningitis Cerebral Malaria Febrile Fits Encephalitis Cerebral Palsy Metabolic Fits AFP Brain Abscess GBS	Paediatric Stroke Headache	Examination of CNS Observation: Lumbar Puncture Observation: Fundoscopy

2.9 Endocrinology

Lectures	Ward Teaching	Self-Learning	Skills
Paediatric Diabetes Mellitus	CAH / Ambiguous Genitalia Growth Hormone Deficiency Hyperthyroidism Addison Disease Hypothyroidism Milwaukee Protocol for DM Short Stature / Diet Chart	Precocious Puberty Delayed Puberty Cushing Syndrome Diabetes Insipidus	Assessment of Bone Age Upper-Lower Segment Ratio Mid-Parental Height Examination of Thyroid

2.10 Nephrology

Lectures	Ward Teaching	Self-Learning	Skills
Congenital Urinary Tract Abnormalities UTI	RTA Barter Syndrome ARF / AKI Hypertension Nephrotic Syndrome CKD Nephritic Syndrome	Renal Stone Renal Colic	Observation: Renal Biopsy Observation: Peritoneal Dialysis Observation: Haemodialysis

2.11 Poisoning

Lectures	Ward Teaching	Self-Learning	Skills
Iron Poisoning Organophosphorus Kerosene Oil Poisoning Paracetamol Poisoning	Approach to Suspected Poisoning General Management of Poisoning Lead Poisoning	Caustic Ingestion Snake Bite	Sending Samples for Toxicology Screening

2.12 Musculoskeletal System

Lectures	Ward Teaching	Self-Learning	Skills
Rickets	JIA SLE HSP Club Foot DDH	Reactive Arthritis Osteomyelitis Septic Arthritis	Examination of Musculoskeletal System Physical Examination for Rickets

2.13 Genetics

Lectures	Ward Teaching	Self-Learning	Skills
Introduction to Genetics Modes of Inheritance Down Syndrome Turner Syndrome	Patterns of Inheritance Genetic Counselling	—	Examination of a Syndromic Baby

2.14 Paediatric Psychiatry

Lectures	Ward Teaching	Self-Learning	Skills
Overview & Differential Diagnosis PICA /	Behaviour Disorders	Rights of Child Child	DSM Charts

Lectures	Ward Teaching	Self-Learning	Skills
Nocturnal Enuresis / Encopresis ADHD Autism Spectrum Disorders	Dyslexia	Abuse Child Neglect	

2.15 Dermatology

Lectures	Ward Teaching	Self-Learning	Skills
Eczema Stevens– Johnson Syndrome Scabies / Skin Infections	Management of Burns	Nail Disorders Hair Disorders Skin Tumours	Observation: Skin Biopsy

2.16 Inborn Errors of Metabolism / Immunological Disorders

Lectures	Ward Teaching	Self-Learning	Skills
Approach to IEM Approach to Storage Disorders Approach to Immunodeficiency	Urea Cycle Defects Organic Acidaemias	—	Blood Gas Sampling

2.17 Paediatric Surgery

Lectures	Ward Teaching	Self-Learning	Skills
Hernia Intussusception Club Foot Tracheo-Oesophageal Fistula Neural Tube Defects	Congenital Dislocation of Hip Vesico-ureteral Reflux Cleft Lip & Palate Hirschsprung Disease	—	Examination of Lump Per-Rectal Examination Examination of Back

2.18 Gastrointestinal Tract

Topics covered in ward teaching include: Approach to Vomiting & Pain Abdomen, Diarrhoea (acute/chronic), Dysentery, Worm Infestations, Giardiasis, Amoebiasis, Rectal Polyp, Malabsorption, Hepatitis, Cirrhosis, Acute Liver Failure.

3. Competencies

By the end of the final-year Paediatrics rotation, graduates must demonstrate the following competencies aligned to the PMC Graduate Competency Framework:

Competency	Domain	Learning Objective	Level
Obtain a relevant clinical history from a parent or child of any age	Patient Care / Communication	Demonstrate systematic paediatric history-taking using age-appropriate language	Must Know (MK)
Perform clinical examination of a child of any age, including newborn	Patient Care / Clinical Skills	Conduct a complete, systematic physical examination from neonate to adolescent	MK
Interpret clinical and laboratory data to arrive at a diagnosis	Medical Knowledge / Clinical Reasoning	Integrate history, exam, CBC, LFT, RFT, imaging and other tests into a differential diagnosis	MK
Advise appropriate nutritional measures for healthy and sick children	Health Promotion / Counselling	Counsel on breast feeding, weaning, formula use, and therapeutic diets (e.g. F-75/F-100)	MK
Counsel parents on health promotion and disease prevention	Professionalism / Communication	Deliver structured counselling on EPI, WASH, IMCI danger signs	MK
Recognise and manage common health problems	Patient Care / Clinical Reasoning	Diagnose and initiate management of conditions listed in the curriculum	MK
Recognise danger signs and refer appropriately	Patient Safety / Systems	Apply WHO/IMCI danger signs; demonstrate appropriate referral pathways	MK
Perform essential clinical procedures	Clinical Skills / Procedural	Independently perform listed procedures; observe advanced procedural skills	MK / Observe
Resuscitate a newborn (NRP protocol)	Emergency Medicine / Procedural	Demonstrate correct steps of neonatal resuscitation on	MK

Competency	Domain	Learning Objective	Level
		mannequin	
Perform basic CPR in children	Emergency Medicine / Procedural	Apply paediatric BLS algorithm correctly	MK
Measure anthropometry and plot on growth charts	Preventive Medicine / Clinical Skills	Accurately measure weight, height, OFC, MUAC; plot and interpret growth charts	MK
Start IV line and draw blood sample in children	Clinical Skills / Procedural	Select appropriate site; perform venipuncture with standard precautions	MK
Administer oxygen and nebuliser therapy	Clinical Skills / Procedural	Calculate and deliver correct O ₂ flow; set up nebuliser with bronchodilator	MK

4. Learning Domains

The curriculum addresses all three classical learning domains as defined by Bloom's Taxonomy, operationalised across the six-tier hierarchy:

Domain	Scope in Paediatric Curriculum	Examples
COGNITIVE (Knowledge)	Anatomy, Physiology, Pathology, Pharmacology, Microbiology; disease mechanisms; pharmacotherapy; interpretation of investigations	Describe pathophysiology of meningitis; interpret CSF findings; list IMCI danger signs; pharmacology of bronchodilators
PSYCHOMOTOR (Skills)	Clinical examination skills; procedural skills; use of equipment; physical assessment techniques	Perform newborn resuscitation; auscultate heart sounds; plot OFC on growth chart; administer IV fluid
AFFECTIVE (Attitudes & Professionalism)	Empathy; communication; cultural sensitivity; ethical practice; child safeguarding; teamwork	Counsel a distressed mother; respect child rights; recognise child abuse; collaborate with nursing staff

5. Curriculum Themes

Seven overarching themes cut across all modules and ensure that clinical teaching remains contextualised to Pakistan's child health priorities:

Theme	Key Learning Points
1. Child Survival & Pakistan Epidemiology	Under-5 mortality; diarrhoeal diseases; ARI; malnutrition statistics; EPI target diseases; IMCI integration
2. Growth, Nutrition & Development	Anthropometric assessment; growth charts; normal developmental milestones; malnutrition (SAM/MAM); breast feeding; micronutrient deficiencies
3. Preventive Paediatrics	EPI / newer vaccines; WASH; IMCI; social determinants; school health; injury prevention
4. Evidence-Based Clinical Management	Standard treatment guidelines; WHO protocols; rational antibiotic use; fluid management
5. Emergency Paediatrics	Shock recognition; neonatal resuscitation; paediatric BLS; IMCI danger signs; acute poisoning management
6. Applied Basic Sciences	Pathophysiology linking basic science to bedside; pharmacology for common drugs; genetic basis of paediatric conditions
7. Child Rights, Ethics & Safeguarding	Convention on the Rights of the Child; child abuse / neglect; consent in minors; mental health stigma

6. Integration of Basic & Applied Sciences

The curriculum explicitly integrates preclinical basic science disciplines with clinical paediatrics to achieve vertical integration. Key integrations per system are illustrated below:

Topic	Basic Science	Clinical Correlation	Applied Aspect
Neonatal Jaundice	Biochemistry: bilirubin metabolism (unconjugated vs conjugated); UDP-glucuronosyltransferase maturation	Haemolytic disease of newborn; ABO/Rh incompatibility; phototherapy mechanism	Exchange transfusion threshold; Coombs test interpretation; prevention of kernicterus
Congenital Heart Disease	Anatomy: foetal circulation; embryology of cardiac septa	VSD, ASD, PDA, TOF: left-to-right vs right-to-left shunts; Eisenmenger physiology	Echo interpretation; oxygen saturation patterns; surgical/Cathlab timing
Meningitis	Microbiology: CSF culture; gram stain; organisms by age	BBB breakdown; cytokine storm; raised ICP mechanism	Empirical antibiotic selection; dexamethasone; LP timing; complications
Thalassaemia	Biochemistry/Genetics: haemoglobin chains; HbA ₂ ; HbF	Microcytic hypochromic anaemia; extramedullary haematopoiesis; Fe overload	Chelation therapy; transfusion threshold; HSCT candidacy; genetic counselling
Nephrotic Syndrome	Physiology: oncotic vs hydrostatic pressure; albumin synthesis	Podocyte damage → massive proteinuria → hypoalbuminaemia → oedema	Steroid regimen; RAAS activation; risk of thrombosis/infections
Rickets	Biochemistry: Vitamin D hydroxylation; Ca/P homeostasis; PTH	Growth plate widening; widened epiphyses; raised ALP	Calcium + Vit D supplementation doses; sun exposure; dietary counselling
Tuberculosis	Microbiology: MTB cell wall; AFB staining; Ghon focus	Primary complex; haematogenous spread; miliary TB; TB meningitis	RNTCP regimen; DOTS; BCG efficacy; contact tracing; MDR-TB concept
Febrile Convulsions	Physiology: neuronal excitability; Na ⁺ /K ⁺ channels; fever threshold	Rapidly rising temperature → lowered seizure threshold	Diazepam acute management; parental counselling; prophylaxis indications
Diabetic Ketoacidosis	Biochemistry: ketone body synthesis; pH buffer; osmolarity	Insulin deficiency → lipolysis → ketonaemia → acidosis → vomiting	Milwaukee Protocol fluid / insulin rate; K ⁺ monitoring; cerebral

Topic	Basic Science	Clinical Correlation	Applied Aspect
		→ dehydration	oedema risk
Inborn Errors of Metabolism	Biochemistry: enzyme defects; substrate accumulation; toxic metabolites	Neonatal encephalopathy; hypoglycaemia; metabolic acidosis; characteristic odours	Newborn screening; dietary restriction; cofactor supplementation; enzyme replacement

7. Instructional Methodology

The curriculum employs a multi-modal instructional strategy ensuring that all three learning domains are addressed through structured, supervised, and self-directed activities:

Method	Description & Application	Time Allocation
Didactic Lecture	Faculty-led, structured 1-hour sessions covering core theory and clinical reasoning frameworks. Covers all 18+ modules (see lecture schedule: 70 total lecture hours).	1 hour per lecture ~70 hours total
Ward Teaching / Bedside Teaching	Supervised patient contact in Unit I (CVS, CNS, Respiratory, Endocrinology, Nephrology, Poisoning, IEM) and Unit II (GPE, GIT, Neonatology, Infections, G&D, Haematology, Genetics, MSS, Psychiatry, Nutrition). Includes Case Presentation and Clinical Methods stations.	1 hr 15 min per clinical method session 1 hr 15 min case presentation Daily inpatient ward rounds
Topic Presentation (Student-led)	Students prepare and deliver structured presentations on assigned topics to their peer group and supervisor. Promotes deep learning and communication skills.	1 hour per session
Evening / Emergency Duty	Supervised on-call shifts providing real-time exposure to acute and emergency paediatric presentations. Builds clinical decision-making under pressure.	2 hours per duty session
Self-Directed Learning (SDL)	Students are assigned topics for independent study (e.g. Rabies, SLE, Cushing Syndrome, Breast Feeding, Child Rights). Fosters independent learning habits.	Student-controlled; assessed via presentations/viva
Skills Laboratory / Simulation	Hands-on practice of procedural skills using mannequins, task trainers, and simulation: neonatal resuscitation, IV access, anthropometry, growth chart plotting, CPR, nebuliser use.	Scheduled skills lab sessions per module
Observation of Advanced Procedures	Students observe (not perform) higher-risk procedures: LP, bone marrow aspiration, thoracentesis, renal biopsy, pericardiocentesis, dialysis, skin biopsy.	Opportunistic in ward setting
Case-Based Learning	Structured problem-solving around	Integrated into ward teaching slots

Method	Description & Application	Time Allocation
(CBL)	real or simulated cases integrating history, examination, investigations, and management plans.	
Outpatient / Clinic Exposure	Exposure to ambulatory paediatrics, growth monitoring clinic, immunisation sessions, OPD management of common conditions.	Included in ward rotation schedule

Ward Rotation Structure

- Pediatric Unit I: CVS · CNS · Respiratory System · Endocrinology · Nephrology · Poisoning · IEM / Immunological Disorders
- Pediatric Unit II: GPE · GIT · Neonatology · Infections · Growth & Development · Haematology/Oncology · Genetics · MSS · Psychiatry · Nutrition
- Each ward day is structured into: Clinical Methods (1h 15min) → Case Presentation (1h 15min) → Topic Presentation (1h) → Evening/Emergency Duty (2h)
- Student groups are labelled A, B, C for rotation purposes

8. Assessment Tools

Assessment in the Final Year MBBS Paediatrics module is multi-dimensional, evaluating cognitive knowledge, clinical skills, and professional attitudes through a combination of formative and summative tools:

Tool	Domain Tested	Timing	Weightage
Objective Structured Clinical Examination (OSCE)	Clinical Skills Psychomotor Communication	End of rotation (summative) Mid-rotation (formative)	Major summative component
Long Case (Clinical Examination + Presentation)	History-taking Examination Clinical Reasoning Differential Diagnosis	Summative ward exam	Major summative component
Short Cases / Spot Diagnoses	Focused clinical signs Pattern recognition	Summative ward exam	Summative component
Written Paper – MCQs (Single Best Answer)	Cognitive (Recall, Application, Analysis)	Professional Exam (PMC/University)	Written exam component
Written Paper – Short Essay Questions (SEQs)	Cognitive (higher-order) Integrated reasoning	Professional Exam	Written exam component
Viva Voce (Oral Examination)	Depth of knowledge Clinical reasoning Professionalism	Summative/Professional Exam	Oral component
Direct Observation of Procedural Skills (DOPS)	Psychomotor: specific procedures (IV line, anthropometry, resuscitation, O ₂ therapy)	Formative (ongoing in ward)	Formative / Competency sign-off
Mini-Clinical Evaluation Exercise (Mini-CEX)	History-taking Physical exam Clinical judgment Communication	Formative (at least 2–3 per rotation)	Formative feedback tool
Case-Based Discussion (CBD)	Clinical reasoning Evidence-based management Ethical considerations	Formative (ward-based)	Formative feedback tool
360-Degree Assessment (Multi-Source Feedback)	Professionalism Teamwork Communication Attitudes	Formative (end of rotation)	Professional development portfolio
Student-Led Topic Presentation	Communication Depth of SDL topic Teaching ability	During ward teaching	Formative assessment

Tool	Domain Tested	Timing	Weightage
Logbook / Portfolio	Procedural competencies completed Cases seen Reflections	Ongoing throughout rotation	Completion requirement

Procedural Skills Competency Requirements

- **PERFORM INDEPENDENTLY:** History taking · Vital signs · Anthropometry & growth chart · IV line & blood sample · Oxygen therapy · Nebuliser therapy · Neonatal resuscitation (NRP) · Paediatric BLS
- **OBSERVE (Supervised):** Lumbar puncture · Bone marrow aspiration · Suprapubic puncture · Subdural tap · Thoracentesis · Pericardiocentesis · Liver biopsy · Renal biopsy · Catheterisation · Peritoneal/haemodialysis · Skin biopsy · Fundoscopy
- Students must complete their logbook with documented evidence of both performed and observed procedures to be eligible for the summative examination.

9. Recommended Resources

Textbooks

- Textbook of Paediatrics – Pervaiz Akbar (Pakistan-specific resource; aligned with local epidemiology)
- Nelson Essentials of Paediatrics – Latest Edition (global standard; ideal for mechanisms and management)
- Illustrated Textbook of Paediatrics – Lissauer & Clayden (concise clinical approach with excellent illustrations)
- Forfar & Arneil's Textbook of Paediatrics (comprehensive reference for complex topics)

Guidelines & Protocols

- WHO / UNICEF IMCI Charts & Protocols (essential for IMNCI / danger signs)
- Pakistan EPI Guidelines – National EPI Programme
- WHO Pocket Book of Hospital Care for Children (bedside management protocols)
- National Programme for Family Planning & Primary Health Care: Lady Health Worker Guide

Online Resources

- HEC Digital Library – online journals accessible for all enrolled students
- UpToDate / BMJ Best Practice – evidence-based clinical decision support
- WHO e-Library of Evidence for Nutrition Actions (eLENA)
- AAP (American Academy of Pediatrics) – Pediatrics in Review

10. Quick Reference: Lecture Schedule Summary

Total lecture time: ~70 hours across 18 modules (not including ward teaching, duty, and self-directed time):

Sr.No	Topic	Facilitator
1.	Neonatology	Dr. Afaq Chishti
2.	Nephrology	Dr. Faisal Mehar
3.	Gastroenterology	Dr.Saima Zahid
4.	Poisoning	Dr.Afsheen
5.	Psychiatry	Dr. Abrar
6.	CVS	Dr. Javaria Rasheed
7.	Hematology Oncology	Dr. Sulaiman Sheikh
8.	Neurology	Dr. Rabia Bashir
9.	Respiratory	Dr. Amna Wajdan

— End of Study Guide —