

Dow University of Health Sciences



ENDO MODULE

5 weeks

Third Year MBBS

5 YEAR CURRICULAR ORGANIZATION

Spiral	year	Modules				
First Spiral	I	FND1- Foundation Cell, Genetics & Cell Death (Basics of Anatomy, Physiology, Biochemistry, Gen. Pathology, Gen. Pharmacology, Community Medicine & Behavioral Sciences, 9 Weeks		HEM1- Blood Module Immunity, Inflammation, Tissue repair, Antimicrobials & Neoplasia 9Week		
		LCM1- Locomotion Bones, Joints, Nerves & Muscles, 9weeks		RSP1- Respiratory System 6 weeks	CVS1- Cardiovascular System 4 weeks	
	II	NEU1- Nervous System 8 weeks		HNN1- Head & Neck & Special 6 weeks	END1- Endocrinology 5weeks	
		GIL 1-GIT and Liver 8 weeks		EXC1- Renal and Excretory System 5 weeks	REP1- Reproductive System 5 weeks	
Second Spiral	III	IDD 1- Infectious diseases 5 weeks	HEM2- Hematology 5 weeks		RSP2- Respiratory System 5 weeks	CVS2- Cardiovascular System 5 weeks
		GIL 2-GIT and Liver (including Nutritional Disorders) 8weeks		EXC2- Renal & Excretory System 5 weeks	END2- Endocrinology 5 weeks	
	IV	ORT2- Orthopedics, Rheumatology, Trauma 7 weeks		REP2- Reproductive System 8 Weeks	PMR-Physical Medicine & Rehabilitation DPS-Dermatology Plastic Surgery / Burns GEN-Genetics 6 weeks	
		NEU2- Neurosciences and Psychiatry 8 weeks		OPH / ENT* 4 weeks		ENT/OPH * 4 weeks
Third Spiral	V	Clinical Rotation 9:30 to 3:00 (with Ambulatory, Emergency, Intensive care) In Medicine, Pediatrics, Cardiology and Neurology units <ul style="list-style-type: none"> ▪ Lecture on problem based approach, twice a week ▪ Ward tutorial twice a week ▪ Student research presentation once a week 		Clinical Rotation 9:30 to 3:00 (Inpatient, Ambulatory, Emergency, Intensive care and Operation Theatres) In Surgery, Gynecology & Obstetrics, Orthopedics and Neurosurgery. <ul style="list-style-type: none"> ▪ Lecture on problem based approach, twice a week ▪ Ward tutorial twice a week ▪ Student research presentation once a week 		

RATIONALE

The function of the endocrine system is to coordinate and integrate cellular activity within the whole body by regulating cellular and organ function and maintaining homeostasis. Homeostasis, or the maintenance of a constant internal environment, is critical to ensuring appropriate cellular function. Common endocrinological disorders like diabetes mellitus, thyrotoxicosis, hypothyroidism, Cushing syndrome, pituitary disorders, beside the hormonal changes are associated with reproductive organ diseases. The diseases are commonly encountered in medical practice and their understanding is necessary for comprehensive management.

TERMINAL OBJECTIVES

Medical graduate after completion of 5 years training program should be able to

- Describe pathogenesis & clinical presentations of common endocrine & metabolic disorders
- Take history, perform physical examinations of endocrine system and formulate appropriate plan of investigations for attaining differential diagnosis.
- Analyze findings of history, examinations & investigations for diagnosis.
 - Practice basic principles of management of endocrine & metabolic disorders.
- Recognize preventive measures & prognosis for counseling the patients.

MODULE OBJECTIVES:

- REVISIT anatomy, secretion and regulation, mechanism of action and function of hormones of hypothalamus pituitary thyroid parathyroid, pancreas and adrenal gland.
- Identify the causes, underlying patho-physiology, histopathology, clinical presentation and outline the management of hyper and hypo pituitarism.
- Identify the causes, underlying patho -physiology, histopathology, clinical presentation and outline the management of Hypo/ Hyper secretions of thyroid gland.
- Identify the causes, underlying patho -physiology, histopathology, clinical presentation and outline the management of Hypo/ Hyper secretions of parathyroid gland.
- Identify the causes, underlying patho -physiology, histopathology, clinical presentation and outline the management of Hypo/ Hyper secretions of pancreas.
- Identify the causes, underlying patho-physiology, histopathology, clinical presentation and outline the management of hypo and hyper secretion of adrenal gland.

MODULE CONTENTS:

PHARMACOLOGY

- END2 Pha 1:** Pituitary Hormone In Clinical Practice
- END2 Pha 2:** Drugs used in hyperthyroidism and hyperparathyroidism
- END2 Pha 3:** Drugs used in hypothyroidism and hypoparathyroidism
- END2 Pha 4:** Oral hypoglycemic
- END2 Pha 5:** Glucocorticoids
- END2 Pha 6:** Insulin Therapy
- END2 Pha 7:** Pituitary Hormone & Pharmacological Applications (TUTO)

PATHOLOGY

- END 2 Pth 1:** Adenomas of Pituitary Gland
- END 2 Pth 2:** Diffuse and Multinodular Goiters and Neoplasms of the Thyroid
- END 2 Pth 3:** Disorders of parathyroid
- END2 Pth 4:** Histopathology of Thyroid Gland (TUTO)
- END 2 Pth 5:** Pancreatitis and Pancreatic tumors
- END 2 Pth 6:** Complications of Diabetes Mellitus
- END 2 Pth 7:** Pituitary Function test (TUTO)
- END 2 Pth 8:** Pheochromocytoma and Multiple Endocrine Neoplasia Syndromes
- END 2 Pth 9:** Histopathology of Adrenal gland (TUTO)

FORENSIC MEDICINE

- END 2 For 1:** Irritants of Animal origin
- END2 For 2:** Forensic Psychiatry
- END2 For 3:** Food Poisoning (TUTO)
- END2 For 4:** Spinal poisons (TUTO)
- END2 For 5:** Therapeutic Poisons (TUTO)
- END2 For 6:** Agricultural poisons

COMMUNITY MEDICINE

- END2 Com 1:** CHI SQUARE TEST
- END2 Com 2:** Regression Analysis
- END 2 Com 3:** ANOVA TEST

PAEDIATRICS

- END 2 Ped 1:** Clinical Presentation, Diagnosis & Management of short stature
- END 2 Ped 2:** Clinical feature, Diagnosis and Management of congenital & acquired hypothyroidism
- END 2 Ped 3:** Clinical Features, Diagnosis and Management of Diabetics Mellitus, DK

ANATOMY

END2 Ana 1: Anatomical features of endocrine glands

END 2 Ana 2: Pituitary anatomy and functions

MEDICINE

END 2 Med 1: Overview of pituitary syndromes and hypopituitarism

END 2 Med 2: Clinical feature, Diagnosis and Management of Hypo-thyroidism

END 2 Med 3: Clinical feature, Diagnosis & Management of Hyperthyroidism

END2 Med 4: Clinical feature, Diagnosis & Management of hypo & hyper parathyroid gland

END 2 Med 5: Management of patient with Diabetes Mellitus

END 2 Med 6: Causes, Clinical features, diagnosis & management of Cushing Syndrome

END 2 Med 7: Causes, Clinical features, diagnosis & management of Addison Disease

SURGERY

END 2 Sur 1: Indications of surgical intervention of Hyper secretions of parathyroid gland

END 2 Sur 2: Approach to a patient with thyroid nodule & Role of surgery in thyroid disorders

PHYSIOLOGY

END 2 Phy 1: Classification and regulation of hormones

SKILL LAB

END 2 SL 1: Arterial Puncture

LEARNING OBJECTIVES OF SKILL LAB

SKILL:

Arterial puncture

LEARNING OBJECTIVES:

After the session the student should be able to:

- Demonstrate the technique of performing an arterial puncture on a manikin.

SCENARIO BASED LEARNING

OBJECTIVES

END2 Sbl1

- ❑ Identify the anatomical structures involved in these physical findings.
- ❑ Describe the physiology of Growth Hormone secretion and regulation.
- ❑ Correlate the physical findings of underlying hormonal disorder with normal functions.
- ❑ Interpret the investigations of relevant gland.
- ❑ To prescribed the treatment and monitor the response of treatment.

END2 Sbl2

- ❑ Describe the secretion and regulation of insulin
- ❑ Describe the pathogenesis Diabetes Mellitus
- ❑ Identify the anatomical structure involved.
- ❑ Diagnose the type of Diabetes mellitus
- ❑ How to manage the Diabetic patients
- ❑ Identify and manage the diabetic complications
- ❑ Identify metabolic syndrome and its management.

END2 Sbl3

- ❑ Understanding pathophysiology of Addison's disease.
- ❑ Able to diagnose hormonal problems on basis of clinical features.
- ❑ Able to identify anatomical structures involved.
- ❑ Able to diagnose Addison's disease on basis of investigations and to correlate with
- ❑ clinical features.

TEACHING STRATEGIES

LARGE CLASS FORMATS

- Lectures

SMALL GROUP DISCUSSION

- Demonstrations
- Tutorial
- Practical
- Skill labs
- Case based learning sessions

ASSESSMENT PLAN

ENDO MODULE

	WEIGHTAGE
ANNUAL EXAM	80%
MODULE EXAM INTERNAL EVALUATION	
THEORY	10%
PRACTICAL	10%

CREDIT HOURS

Endocrinology 2	4.5
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CONTACT HOURS (DISCIPLINE WISE)

Discipline	Contact Hours
Anatomy	2
Physiology	1
Pathology	11.5
Pharmacology	7.5
Forensic Medicine	7
Community Medicine	3
Paediatrics	3
Skill Lab	1.5
Medicine	11.5
Surgery	2

BOOKS

PATHOLOGY

- Robbins Basic Pathology Kumar & Abbas 9th Edition
- Robbins & Cotran Pathologic Basis Of Disease Kumar & Abbas & Aster 9th Edition

COMMUNITY MEDICINE

- Public Health And Community Medicine Shah, Ilyas, Ansari 7th Edition

PHARMACOLOGY

- Lippincott's Illustrated Review Pharmacology Karen Whalen 6th Or Latest Edition
- Basic And Clinical Pharmacology Bertram G. Katzung 11th Edition

FORENSIC MEDICINE

- Principles And Practice Of Forensic Medicine Nasib R.Awan 1 St Edition

MEDICINE

- Principles & Practice Of Medicine Davidson's 22nd Or Latest Edition
- Essentials Of Kumar And Clark's Clinical Medicine Kumar & Clark 9th Or Latest Edition
- Macleod's Clinical Examination Douglas & Nicol & Robertson 13th Or Latest Edition
- Hutchison's Clinical Methods William M Drake & Michael Glynn 23rd Or Latest Edition

PAEDIATRICS

Nelsons's Essentials of Pediatrics Marcdante & Kliegman 7th Or Latest Edition

SURGERY:

- SHORT PRACTICE OF SURGERY ROBERT JOHN MCNEILL LOVE, HENRY HAMILTON BAILEY 26TH EDITION or Latest Edition →
- Current Diagnosis and Treatment Surgery GERARD M.DOHERTY 14th or Latest Edition →
- BROWSE'S INTRODUCTION TO THE SYMPTOMS & SIGNS OF SURGICAL DISEASE NORMAN L BROWSE 5th or Latest Edition

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