

# Dow University of Health Sciences



## **GIT & LIVER MODULE**

**8 weeks**

**Third Year MBBS**

## 5 YEAR CURRICULAR ORGANIZATION

Spiral	year	Modules				
First Spiral	I	<b>FND1- Foundation</b> Cell, Genetics & Cell Death (Basics of Anatomy, Physiology, Biochemistry, Gen. Pathology, Gen. Pharmacology, Community Medicine & Behavioral Sciences,  <b>9 Weeks</b>		<b>HEM1- Blood Module</b> Immunity, Inflammation, Tissue repair, Antimicrobials & Neoplasia <b>9Week</b>		
		<b>LCM1- Locomotion</b> Bones, Joints, Nerves & Muscles, 9weeks		<b>RSP1- Respiratory System</b> 6 weeks	<b>CVS1- Cardiovascular System</b> 4 weeks	
		<b>NEU1- Nervous System</b> 8 weeks		<b>HNN1- Head &amp; Neck &amp; Special</b> 6 weeks	<b>END1- Endocrinology</b> 5weeks	
		<b>GIL 1-GIT and Liver</b> 8 weeks		<b>EXC1- Renal and Excretory System</b> 5 weeks	<b>REP1- Reproductive System</b> 5 weeks	
Second Spiral	II	<b>IDD 1- Infectious diseases</b> 5 weeks	<b>HEM2- Hematology</b> 5 weeks		<b>RSP2- Respiratory System</b> 5 weeks	<b>CVS2- Cardiovascular System</b> 5 weeks
		<b>GIL 2-GIT and Liver (including Nutritional Disorders)</b> 8weeks		<b>EXC2- Renal &amp; Excretory System</b> 5 weeks	<b>END2- Endocrinology</b> 5 weeks	
		<b>ORT2- Orthopedics, Rheumatology, Trauma</b> 7 weeks		<b>REP2- Reproductive System</b> 8 Weeks	<b>PMR-Physical Medicine &amp; Rehabilitation</b> <b>DPS-Dermatology Plastic Surgery / Burns</b> <b>GEN-Genetics</b> 6 weeks	
		<b>NEU2- Neurosciences and Psychiatry</b> 8 weeks		<b>OPH / ENT*</b> 4 weeks		<b>ENT/OPH *</b> 4 weeks
Third Spiral	III	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"> <li>▪ Lecture on problem based approach, twice a week</li> <li>▪ Ward tutorial twice a week</li> <li>▪ Student research presentation once a week</li> </ul>		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"> <li>▪ Lecture on problem based approach, twice a week</li> <li>▪ Ward tutorial twice a week</li> <li>▪ Student research presentation once a week</li> </ul>		

## **RATIONALE:**

Gastrointestinal tract and liver are essential for digestion absorption and assimilation of food and production of energy generating metabolites. Liver is central to all metabolic activities of human body. A large number of disorders afflict both GIT and liver which affect their function. Understanding the pathogenesis, recognizing their presentation, ordering and interpreting investigations and management requires a sound understanding of these systems. With the base formed in the GIT module in the first, basic sciences spiral, the student in the current module shall be able acquire the understanding of diseases of GIT and liver and their management.

## **TERMINAL OBJECTIVE:**

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

- Describe pathogenesis & clinical presentations of common gastrointestinal disorders
- Evaluate nutritional disorders in pediatric & adult patients.
- Perform physical examinations of gastrointestinal system.
- Take history & formulate appropriate plan of investigations for attaining differential diagnosis
- Analyze findings of history, examinations & investigations for diagnosis.
- Practice basic principles of management of nutritional & gastrointestinal disorders.
- Discuss preventive measures & prognosis for counseling the patients.

## **MODULE OBJECTIVES:**

Objectives of module are listed in following grid along with contents, modes of information transfer, duration of teaching of each content and the mode of assessment

- Revisit structure and function of GIT and Liver.
- Elicit relevant history of liver and GI pathology and perform Clinical examination of abdomen giving emphasis on liver & gut.
- Describe Acid peptic disorders pathology and pharmacological, endoscopic and laparoscopic management including its complications.
- Identify the causes, underlying pathophysiology & describe the clinical presentation and management of acute and chronic diarrheas, mal-absorptions, including other lower GI motility disorders (IBS) and IBD
- Identify the causes & describe the underlying patho-physiology, histopathology, clinical presentation and management of Acute and chronic abdomen pain
- Identify the causes, & DISCUSS THE underlying patho - physiology, clinical presentation and principles of management of weight loss and abdominal mass (GIT and liver malignancies)

- Identify the causes & describe the underlying patho -physiology, clinical presentation and management of GI bleed
- Identify the causes & describe the underlying patho -physiology, clinical presentation and management of ascites
- Identify the causes & describe the underlying patho-physiology, clinical presentation and management of jaundice
- Identify the causes & describe the underlying patho-physiology, clinical presentation and management of constipation
- Identify the causes & describe the underlying patho-physiology, clinical presentation and management of vomiting.
- Recognize the importance of various diagnostic measures for the diagnosis and management of GIT and liver disorders
- Identify different mechanical injuries. Apply medico legal knowledge of injuries in practice.
- Identify different patterns of head, chest and abdominal injuries.
- Recognize pattern of injuries in Road traffic accidents and firearm injuries.
- Recognize pattern of injuries in burn cases.

#### **MODULE CONTENTS:**

#### **PHARMACOLOGY**

- **GIL 2 Pha 1** mucosal protective & Rx of H.Pylori
- **GIL 2 Pha 2** Emetics and Anti-emetics
- **GIL 2 Pha 3** General management of diarrhea & IBS
- **GIL 2 Pha 4** Drugs Used In Amebiasis
- **GIL 2 Pha 5** Drugs used in constipation
- **GIL 2 Pha 6** Management of Hepatitis
- **GIL 2 Pha 7** proton pump inhibitors H2 receptor antagonist
- **GIL 2 Pha 8** Effect of drug on the intestine of rabbit: preparation of Ach solution (tutorial)
- **GIL 2 Pha 9** Treatment in peptic ulcer(tutorial)
- **GIL 2 Pha 10** pharmacological treatment of HEPATITIS B AND C(tutorial)

#### **PATHOLOGY**

- **GIL 2 Pth 1** Pathogenesis of gastritis and peptic ulcer
- **GIL 2 Pth 2** MALABSORPTION SYNDROME (Celiac disease)
- **GIL 2 Pth 3** Inflammatory bowel diseases
- **GIL 2 Pth 4** Infective agents of dysentery & diarrhea
- **GIL 2 Pth 5** Tumors of stomach
- **GIL 2 Pth 6** enterocolitis& ischemic colitis
- **GIL 2 Pth 7** Tumors of small & large intestine –lecture-I

- **GIL 2 Pth 8** Tumors of small & large intestine –lecture-II
- **GIL 2 Pth 9** General Features Of Hepatic Disease ( Patterns Of Hepatic Injury, Hepatic Failure, Jaundice &Cholestasis)
- **GIL 2 Pth 10** Infectious Disorders Of Liver
- **GIL 2 Pth 11** Alcoholic& Non-Alcoholic (Nash)
- **GIL 2 Pth 12** Cirrhosis & portal hypertension & Circulatory disorders of liver
- **GIL 2 Pth 13** Pathology of gallbladder
- **GIL 2 Pth 14** Tumors of liver
- **GIL 2 Pth 15** Non-neoplastic disorders of exocrine function of pancreas
- **GIL 2 Pth 16** Histopathology of gastric diseases disorders(tutorial)
- **GIL 2 Pth 17** Stool D/R & Culture(practical)
- **GIL 2 Pth 18** Practical laboratory Diagnosis of Hepatitis(tutorial)
- **GIL 2 Pth 19** Histopathology of Metabolic Liver Disease (tutorial)
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## FORENSIC MEDICINE

- **GIL 2 For 1** Traumatology I
- **GIL 2 For 2** Traumatology II
- **GIL 2 For 3** Traumatology III
- **GIL 2 For 4** Regional injuries I
- **GIL 2 For 5** Regional injuries II
- **GIL 2 For 6** Regional injuries III
- **GIL 2 For 7** Regional injuries IV
- **GIL 2 For 8** Firearm injuries
- **GIL 2 For 9** Thermal injuries
- **GIL 2 For 10** Torture and custodial death
- **GIL 2 For 11** Hepatic poison Alcohol
- **GIL 2 For 12** Environmental Trauma Forensic Electrocutation & Starvation
- **GIL 2 For 13** Toxicology- Irrespirable gases
- **GIL 2 For 14** Non Metallic Irritants (tutorial)
- **GIL 2 For 15** Metallic irritants Arsenic (tutorial)
- **GIL 2 For 16** Metallic irritants Copper/ Lead (tutorial)
- **GIL 2 For 17** Metallic irritants mercury (Tutorial)

## COMMUNITY MEDICINE

- **GIL 2 Com 1** Demography I
- **GIL 2 Com 2** Demography II
- **GIL 2 Com 3** Demography III

## MEDICINE

- **GIL Med 1** GERD, esophagitis, barretts, hiatus hernia
- **GIL 2 Med 2** Diagnosis and management of Upper GI bleeding
- **GIL 2 Med 3** Causes and clinical presentation and management of MALABSORPTION SYNDROME/ Celiac disease
- **GIL 2 Med 4** Acute Gastroenteritis.
- **GIL 2 Med 5** Irritable bowel syndrome
- **GIL 2 Med 6** Clinical Presentation And Outline the Management Of Hepatitis B & C
- **GIL 2 Med 7** Management Of Acute Hepatitis & Fulminant Hepatic Failure
- **GIL 2 Med 8** Ascites and concept of SAAG, Hepatic Encephalopathy & hepato-renal syndrome
- **GIL 2 Med 9** Liver abscess & tumors

## PAEDIATRICS

- **GIL 2 Ped 1** Causes of vomiting, regurgitation/dysphagia/in children GERD
- **GIL 2 Ped 2** Storage and metabolic disorders/ acute hepatic failure/hepatitis
- **GIL 2 Ped 3** Biliary Atresia/ Cholestatic Jaundice
- **GIL 2 Ped 4** Causes and clinical presentation and management of chronic diarrheas, mal-absorptions, IBD and lower GI motility disorders

## PHYSIOLOGY

- **GIL 2 Phy 1** Overview secretory, digestive and absorptive function of GIT
- **GIL 2 Phy 2** Overview of motility nervous control and blood circulation of GIT

## ANATOMY

- **GIL 2 Ana 1** Overview structure and function of GIT
- **GIL 2 Ana 2** Overview of Blood supply and venous drainage of hepato-biliary System & macroscopic & microscopic structure of Liver

## SURGERY

- **GIL 2 Sur 1** Clinical presentation and Surgical management of IBD
- **GIL 2 Sur 2** ACUTE ABDOMEN
- **GIL 2 Sur 3** Acute appendicitis, intestinal obstruction and diverticulitis
- **GIL 2 Sur 4** Diagnosis and management of pyloric stenosis /Ca stomach
- **GIL 2 Sur 5** Congenital and acquired causes & management of constipation
- **GIL 2 Sur 6** Surgical Causes presentation and management of dysphagia & Ca esophagus
- **GIL 2 Sur 7** Signs and symptoms of patients with carcinoma Esophagus and motility disorders like Achalasia.
- **GIL 2 Sur 8** Signs and symptoms of patients with Gall bladder cancer
- **GIL 2 Sur 9** Surgical management of Ca Colon, colostomy and ileostomy
- **GIL 2 Sur 10** Signs and symptoms of patients with perianal abscess, fistula in ano and hemorrhoids

- **GIL 2 Sur 11** TB abdomen
- **GIL 2 Sur 12** Signs and symptoms of patients with acute and chronic Pancreatitis
- **GIL 2 Sur 13** Management of obstructive jaundice& pancreatic Tumors
- **GIL 2 Sur 14** Abdominal Trauma
- **GIL 2 Sur 15** Signs and symptoms of patients with carcinoma colon
- **GIL 2 Sur 16** Hernias

## **BIOCHEMISTRY**

- **GIL 2 Bio 1** Overview of Dietary Fats & lipids, in relation to rancidity & per oxidation
- **GIL 2 Bio 2** Overview of dietary proteins & nitrogen balance
- **GIL 2 Bio 3** Overview of Dietary carbohydrates & Glycemic index
- **GIL 2 Bio 4** Nutritional energy balance
- **GIL 2 Bio 5** Overview of bio-molecular function of Liver
- **GIL 2 Bio 6** Medical nutrition therapy
- **GIL 2 Bio 7** Nutrition care plan development & nutrition toxicology

## **RADIOLOGY**

- **GIL 2 Rad 1** Recognition of normal & abnormal GIT Structure
- **GIL 2 Rad 2** Recognition of normal & abnormal hepatobiliary structures

## **SKILL LAB**

- **GIL 2 SL 1** : Abdominal Examination

## **TEACHING STRATIGIES**

### **LARGE CLASS FORMATS**

- Lectures

### **SMALL GROUP DISCUSSION**

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

## **LEARNING OBJECTIVES OF CBL'S**

### **GIL2 Cbl 1**

- ☒ Define of peptic ulcer disease.
- ☒ Enlists types of peptic ulcer disease
- ☒ Describe relevant diagnostic workup of peptic ulcer disease.
- ☒ Management of peptic ulcer disease

### **GIL2 Cbl 2**

- ☒ Define of diarrhea
- ☒ Enlists causes of diarrhea
- ☒ Describe relevant investigations of diarrhea
- ☒ Discuss management of diarrhea

### **GIL2 Cbl 3**

- ☒ Recognize a patient of Hepatitis B positive
- ☒ Discuss its complications
- ☒ Discuss the relevant investigations and its management

### **GIL2 Cbl 4**

- ☒ Define of dysphagia
- ☒ Enlist the causes of dysphagia
- ☒ Enumerate differential diagnosis of dysphagia
- ☒ Discuss relevant diagnostic workup and management of dysphagia

## **LEARNING OBJECTIVES OF SKILL LAB SESSION**

### **LEARNING OBJECTIVE**

At the end of the session students should be able to:

- Enumerate the steps of examination of Abdomen
- To demonstrate correct technique of Auscultation of Gut sounds.



## **ASSESSMENT PLAN**

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

### **CREDIT HOURS**

#### **THIRD YEAR GIT 2 MODULE**

**GIT 2**

**9**

Discipline	Contact Hours
Pathology	21
Surgery	16
Pharmacology	11.5
Forensic Medicine	19
Community Medicine	3
Medicine	9
Paediatrics	4
Biochemistry	7
Skill Lab	1.5
Radiology	2
Physiology	2
Anatomy	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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