osite www.jaypeebrothers.com, for detailed information on PGMEE books, visit our website www.jaypeebrothers.co



Pre-exam Preparation *for* MEDICINE



HN Sarker

Contents

Chapter 1	**Cardiovascular System**	1–38
Chapter 2	**Respiratory System**	39–74
Chapter 3	**Gastrointestinal System**	75–98
Chapter 4	**Hepatology**	99–126
Chapter 5	**Hematology**	127–151
Chapter 6	**Renal System**	152–175
Chapter 7	**Diabetes Mellitus**	176–188
Chapter 8	**Endocrine System**	189–205
Chapter 9	**Musculoskeletal Disease**	206–227
Chapter 10	**Nervous System**	228–253
Chapter 11	**Skin**	254–260
Chapter 12	**Infectious Diseases**	261–277
Chapter 13	**Poisoning**	278–282
Chapter 14	**Psychiatry**	283–290
Chapter 15	**Obesity**	291–292
Chapter 16	**Genetics**	293–294
Chapter 17	**Geriatric Problem**	295–296
Chapter 18	**Immunity**	297–298
Chapter 19	**Environment**	299–301
Chapter 20	**Nutrition**	302–305
Chapter 21	**Electrolytes**	306–309

CHAPTER 3

Gastrointestinal System

Q.1. What are the common presentations of gastrointestinal system?

Ans. Common symptoms of gastrointestinal disease are:
- Dysphagia and odynophagia
- Dyspepsia
- Vomiting
- Constipation
- Diarrhea
- Abdominal pain
- Weight loss
- Hematemesis
- Melena.

Q.2. Define dysphagia and odynophagia.

Ans. Dysphagia is defined as difficulty in swallowing. Odynophagia means painful swallowing.

Q.3. What are the types of dysphagia?

Ans. The types of dysphagia are:
- Oropharyngeal dysphagia
- Esophageal dysphagia.

Q.4. What are the causes of oropharyngeal dysphagia?

Ans. The causes of oropharyngeal dysphagia are:
- Bulbar palsy
- Pseudobulbar palsy
- Myasthenia gravis.

Q.5. What are the causes of esophageal dysphagia?

Ans. Stricture—
- Benign

JAYPEE BROTHERS

- Peptic stricture
- Fibrous ring

- Malignant
  - Carcinoma of esophagus
  - Carcinoma of stomach
- Extrensic compression
- Esophagitis
  - Peptic esophagitis
  - Candidiasis
- Dysmotility–Achalasia.

Q.6. What are the differences between oropharyngeal and esophageal dysphagia?

Ans.

Oropharyngeal dysphagia	Esophageal dysphagia
Difficulty initiating swallowing +/– choking, nasal regurgitation or tracheal aspiration	Food 'sticking' after swallowing +/– regurgitation

Q.7. How will you investigate dysphagia?

Ans. The process of investigations are:

- Endoscopy of upper GI tract.
- Barium swallow with videofluoroscopic swallowing assessment.
- Esophageal manometry.

Q.8. What are the presentations of achalasia cardia?

Ans. The presentations of achalasia are:

i. The presentation is slowly developing dysphagia which is initially intermittent, and is worse for solids and eased by drinking liquids, and by standing and moving around after eating.
ii. Episodes of chest pain due to esophageal spasm.
iii. Nocturnal choking due to pulmonary aspiration.

Q.9. What is the management of achalasia cardia?

Ans. Management—

- Endoscopic—Pneumatic balloon dilatation using a 30–35 mm diameter.
- Surgical—Surgical myotomy (Heller's operation) with a partial fundoplication antireflux procedure.
- PPI therapy is often necessary after surgery.

Q.10. What is dyspepsia?

Ans. Dyspepsia is the medical term for indigestion, a

JAYPEE BROTHERS

symptom that includes epigastric pain, heartburn, distension, nausea or 'an acid feeling' occurring after eating or drinking.

Q.11. What are the alarm features of dyspepsia?

Ans. Alarm features in dyspepsia are:
- Weight loss
- Anemia
- Vomiting
- Hematemesis and/or melena
- Dysphagia
- Palpable abdominal mass.

Q.12. What are the neurological causes of vomiting?

Ans. Neurological causes of vomiting are:
- Raised intracranial pressure, e.g. brain tumor
- Labyrinthitis and Meniere's disease
- Migraine
- Meningitis.

Q.13. Give the description of vomiting of gastric outlet obstruction, e.g. pyloric stenosis.

Ans. Projectile vomiting of large volumes of gastric content that is not bile-stained (green). Vomitus contains previous day food.

Q.14. Give the description of vomiting in raised intracranial pressure, e.g. brain tumor.

Ans. Vomiting is sudden, more in the morning without any warning, i.e. without nausea.

Q.15. What is hematemesis?

Ans. Hematemesis is the vomiting of blood.

Q.16. What is melena?

Ans. Melena is the passage of tarry black stool.

Q.17. How can you differentiate between hematemesis and hemoptysis?

Ans.

Hematemesis	Hemoptysis
Vomiting of blood	Coughing up blood
Coffee ground in color	Bright red in color
Mixed with food particle	Frothy, not mixed with food
Acidic reaction	Alkaline in reaction

JAYPEE BROTHERS

Q.18. What are the common causes of hematemesis?

Ans. The common causes of hematemesis are:
- Peptic ulcer
- Gastric erosion
- Esophagitis
- Rupture esophageal varices
- Mallory–Weiss tear
- Carcinoma of stomach or esophagus
- Vascular malformation.

Q.19. What are the clinical features of upper GI bleeding?

Ans. Clinical features are:
- History of vomiting of blood or not.
- Features of shock—Pallor, cold extremities, thready pulse, and low blood pressure.
- Anemia—Iron deficiency anemia—Koloinychia, and pale smooth tongue.
- Stigmata of liver diseases such as jaundice, spider naevi, ascites, and splenomegaly.

Q.20. How much blood is lost to cause postural hypotension?

Ans. About 1.5 L blood is lost.

Q.21. How much blood is lost to produce shock?

Ans. About 3L blood is lost.

Q.22. What are the investigations done in acute upper GI bleeding?

Ans. Investigations are:
- Full blood count
- Blood grouping and crossmatching of at least 2 units of blood
- Urea and electrolytes
- Liver function test
- Prothrombin time
- Upper GI endoscopy.

Q.23. What is the management of acute upper GI bleeding?

Ans. Managements—
- Emergency management of acute nonvariceal upper gastrointestinal hemorrhage.
- Gain intravenous access with large-bore cannula.
- Check full blood count and routine biochemistry; crossmatch blood.

JAYPEE BROTHERS

- Perform hourly measurements of blood pressure, pulse and urine output; consider central venous pressure (CVP) monitoring in severe bleeding.
- Give intravenous colloids or crystalloids in patients with hypotension and tachycardia.
- Transfuse with blood if blood pressure remains low and patient is actively bleeding.
- Organize endoscopy for diagnosis and treatment.
- Give IV PPI therapy for bleeding peptic ulcer.
- Consider surgery or arterial embolization if bleeding recurs.

Q.24. Which etiologies bear the worst prognosis?

Ans. Malignancy and varices have the worst prognosis.

Q.25. Mention the criteria of stool in melena?

Ans. Black, tarry, foul smelling, and sticky.

Q.26. How much blood is required to cause melena?

Ans. At least 60 mL blood in single episode is needed to cause melena.

Q.27. Why is stool black?

Ans. Stool is black due to formation of acid hematin as a result of lysis of RBC from upper GI bleeding.

Q.28. What are the usual sites for hematemesis and melena?

Ans. Upper gastrointestinal tract, especially stomach and duodenum are the usual sites but hemorrhage from upto the right side of the colon may cause melena.

Q.29. What are the causes of lower GI bleeding?

Ans. Causes of lower GI are:

- Anal disease, e.g. fissure, and hemorrhoids
- Inflammatory bowel disease
- Carcinoma
- Rectal polyps
- Angiodysplasia
- Solitary rectal ulcer
- Diverticular disease
- Meckel's diverticulum.

Q.30. Define diarrhea?

Ans. Passage of loose stool three or more times in a day is called diarrhea.

Or

Gastroenterologists define diarrhea as the passage of more than 200 gm of stool daily.

JAYPEE BROTHERS

Diarrhea duration <2 weeks is called acute diarrhea and >2 weeks called chronic diarrhea.

Q.31. What are the causes of acute diarrhea?

Ans. **Infective causes**:

- Bacterial, e.g.
  - *Campylobacter jejuni*
  - Salmonella spp.
  - Shigella
  - *Escherichia coli*
  - Staphylococcal enterocolitis
  - *Bacillus cereus*
  - *Clostridium perfringens*, botulinum, and difficile
  - Gastrointestinal tuberculosis.
- Viral, e.g.
  - Rotavirus
- Fungal, e.g.
  - Histoplasmosis
- Parasitic, e.g.
  - Amebic dysentery (*Entamoeba histolytica*)
  - Giardia intestinalis

Noninfective causes of diarrhea:

- Drugs—Antibiotics, cytotoxic drugs, PPIs, and NSAIDs.

Q.32. What are the electrolyte imbalances occurring in acute watery diarrhea?

Ans. Electrolyte imbalances are:

- Hyponatremia
- Hypokalemia
- Metabolic acidosis, rarely alkalosis.

Q.33. What are the causes of bloody diarrhea?

Ans. Causes of bloody diarrhea are:

- Bacillary dysentery (Shigella)
- Amebic dysentery (*Entamoeba histolytica*)
- Inflammatory bowel disease
- Colonic carcinoma
- *Campylobacter jejuni*
- Salmonella spp.
- *Escherichia coli* (0157- H7)
- *Clostridium difficile*.

Q.34. Patient presented with acute watery diarrhea, how will you manage the patient?

Ans. Managements—

i. Assessment of dehydration

JAYPEE BROTHERS

ii. Correction of dehydration according to degree of dehydration.
   – No dehydration—Liquid diet, increased amount of fluid intake
   – Some dehydration—By ORS (oral rehydration salt)
   – Severe dehydration—By IV fluid, e.g. cholera saline(100 mL/kg body wt. total, 40 mL/kg in first ½ hour and 60 mL/kg in next 2 and ½ hours in adult).

iii. If infective diarrhea, antimicrobials, e.g. azithromycin 1 gm or ciprofloxacin 1000 mg single dose in bacterial infection or nitazoxanide in rotavirus.

Q.35. What are the causes of chronic diarrhea?

Ans. The causes of chronic diarrhea are:

i. Irritable bowel syndrome
ii. Inflammatory bowel disease
iii. Colonic carcinoma
iv. Malabsorption—
   a. Pancreatic—
      – Chronic pancreatitis
      – Cancer of pancreas
   b. Enteropathy—
      – Celiac disease
      – Tropical sprue
      – Lymphoma
      – Lymphangiectasia
   c. Small bowel—
      – Gastrointestinal tuberculosis
      – Drugs— NSAIDs
      – VIPoma.

Q.36. What is the most common cause of chronic diarrhea?

Ans. Irritable bowel syndrome (IBS) is the most common cause of chronic diarrhea.

Q.37. What is steatorrhea?

Ans. Steatorrhea is fatty stools, pale, bulky, greasy, and difficult to flush.

Q.38. What are the mechanisms responsible for malabsorption?

Ans. Mechanisms are:
   – Intraluminal maldigestion
   – Mucosal malabsorption
   – 'Postmucosal' lymphatic obstruction.

JAYPEE BROTHERS

Q.39. Define constipation.

Ans. Constipation is defined as infrequent passage of hard stools.

Q.40. What is the most common cause of constipation?

Ans. Simple idiopathic constipation is the most common cause of constipation.

Q.41. What are the neurological causes of constipation?

Ans. Neurological causes of constipation are:
- Multiple sclerosis
- Spinal cord lesions
- Cerebrovascular accidents
- Parkinsonism.

Q.42. What are the metabolic/endocrine causes of constipation?

Ans. Metabolic endocrine causes of constipation are:
- Diabetes mellitus (autonomic neuropathy)
- Hypercalcemia
- Hypothyroidism
- Pregnancy.

Q.43. What are the types of laxative?

Ans. Types of laxative—

i. Bulk-forming laxatives
   - Dietary fiber
   - Wheat bran
   - Methylcellulose
   - Mucilaginous seeds and seed coats, e.g. ispaghula husk.

ii. Stimulant laxatives (stimulate motility and intestinal secretion)
   - Bisacodyl
   - Anthraquinones—Senna and dantron
   - Docusate sodium.

iii. Osmotic laxatives
   - Magnesium sulfate
   - Lactulose.

Q.44. Tell five common causes of pathological weight loss.

Ans. Five common causes of pathological weight loss are:
- Diabetes mellitus
- Tuberculosis
- Thyrotoxicosis
- Malignancy
- Malabsorption/malnutrition.

JAYPEE BROTHERS

Q.45. What do you mean by significant weight loss?

Ans. More than 3 kg loss in 6 months or 10% of body weight in 6 month or 0.5 kg/month.

Q.46. What are the causes of weight loss with increased appetite?

Ans. Causes of weight loss with increased appetite are:
- Diabetes mellitus
- Thyrotoxicosis.

Q.47. What are the causes of acute abdominal pain (acute abdomen)?

Ans. Causes of acute abdominal pain are:

i. Inflammation
- Appendicitis
- Diverticulitis
- Cholecystitis
- Pelvic inflammatory disease
- Pancreatitis
- Pyelonephritis
- Intra-abdominal abscess.

ii. Perforation/rupture
- Peptic ulcer
- Diverticular disease
- Ovarian cyst
- Aortic aneurysm.

iii. Obstruction
- Intestinal obstruction
- Biliary colic
- Ureteric colic.

Q.48. What are the medical causes of acute abdominal pain (acute abdomen)?

Ans. Medical causes of acute abdominal pain are:
- Peptic ulcer
- Pancreatitis
- Pyelonephritis
- Diabetic ketoacidosis
- Addison's disease
- Acute intermittent porphyria
- Hypercalcemia.

Q.49. What are the causes of abdominal distension?

Ans. Causes of abdominal distension are:
- 5Fs

JAYPEE BROTHERS

- Fat
- Fluid (ascites)
- Feces
- Flatus
- Fetus.

Q.50. Define GERD.

Ans. GERD develops when the esophageal mucosa is exposed to gastroduodenal contents for prolong period of time, resulting in symptoms and, in a proportion of cases, esophagitis.

Q.51. What are the clinical features of GERD?

Ans. Clinical features of GERD—

- Heartburn and regurgitation provoked by bending, straining or lying down.
- Waterbrush-salivation due to reflex salivary gland stimulation.
- Odynophagia or dysphagia—Woken at night by choking as refluxed fluid irritates the larynx.
- Atypical chest pain (can mimic angina).

Q.52. What are the complications of GERD?

Ans. Complication of GERD are:

- Esophagitis
- Barrett's esophagus
- Anemia (iron deficiency anemia)
- Benign esophageal stricture (as a consequence of long-standing esophagitis).

Q.53. How can you treat GERD?

Ans. Treatment of GERD—

1. Lifestyle advice:
   - Elevation of bed head in those who experience nocturnal symptoms
   - Avoidance of dietary items which the patient finds worsen symptoms
   - Avoidance of late meals
   - Weight reduction
   - Giving up smoking.
2. Antacids and alginates provide symptomatic benefit
3. H2 receptor antagonist
4. PPI is the treatment of choice
5. Laparoscopic antireflux surgery.

JAYPEE BROTHERS

Q.54. What is Barrett's esophagus?

Ans. Barrett's esophagus is a premalignant condition in which the normal squamous lining of the lower esophagus is replaced by columnar mucosa (columnar lined esophagus; CLO) containing areas of intestinal metaplasia.

Q.55. What is PUD?

Ans. The term 'peptic ulcer' refers to an ulcer in the lower esophagus, stomach or duodenum, in the jejunum after surgical anastomosis to the stomach or, rarely, in the ileum adjacent to a Meckel's diverticulum.

Q.56. What are the common sites of PUD?

Ans. The common sites of PUD are:

i. Stomach
ii. Duodenum
iii. Lower end of esophagus
iv. In the jejunum after surgical anastomosis to the stomach
v. In the ileum adjacent to a Meckel's diverticulum.

Q.57. Is PUD possible in ileum?

Ans. Yes, adjacent to a Meckel's diverticulum.

Q.58. What are the causes of peptic ulcer disease (PUD)?

Ans. Causes of peptic ulcer disease are:

i. *Helicobacter pylori*: Peptic ulceration is strongly associated with *H.pylori* infection. Around 90% of duodenal ulcer patients and 70% of gastric ulcer patients are infected with *H. pylori*.
ii. *NSAID*: Damage mucosal barrier, reduce integrity of the duodenal mucosa, and increase the risk of bleeding or perforation from pre-existing gastric/duodenal ulcer.
iii. *Stress ulcer*: Curling and Cushing's ulcer.
iv. Zollinger-Ellison syndrome.
v. *Smoking*: Increases risk of gastric ulcer and to lesser extent duodenal ulcer.
vi. Blood group A.

Q.59. Which NSAIDs has very low risk in PUD?

Ans. NSAIDs with very low risk in PUD is:

– Celecoxib
– Etoricoxib.

JAYPEE BROTHERS

Q.60. What are the consequences of *H. pylori* infection?

Ans. Consequences of *H. pylori* infection are:
- Chronic gastritis
- Peptic ulcer disease
- Gastric carcinoma
- MALToma (mucosa associated lymphoid tissue).

Q.61. What are the characteristics of peptic ulcer pain?

Ans. Characteristics of peptic ulcer are:
- It is episodic in nature
- Localization to epigastrium
- Nocturnal
- Pointing sign positive
- Relationship to food.

Q.62. How can you investigate PUD?

Ans. Investigations of PUD—

i. Upper GI endoscopy (confirmatory)
ii. Test for detection of *H.pylori* infection
   a. Invasive (endoscopy/biopsy required)
      - Rapid urease test
      - Histology
      - Culture
   b. Noninvasive
      - Serology
      - Urea breath test
      - Stool antigen
iii. Barium meal X-ray of stomach and duodenum(less used nowadays).

Q.63. What are the diagnostic and prognostic values of endoscopy?

Ans. Diagnostic and prognostic values of endoscopy are:
- Endoscopy is the confirmatory diagnostic tool for PUD (92% sensitive but 100% specific). It can exclude other lesions.
- Endoscopy can be used to see whether ulcer heals or not.

Q.64. What are the complications of PUD?

Ans. Complications of PUD are:
- GI bleeding
- Perforation
- Gastric outlet obstruction.

JAYPEE BROTHERS

or detailed information on PGMEE books, visit our website **www.jaypeebrothers.com,** for detailed information on PGM

Pre-exam Preparation *for* MEDICINE

Salient Features

- Contains 1,612 questions and answers
- Includes most of the questions asked in viva of undergraduate and postgraduate examinations
- Questions-answers are arranged according to system and topic-based
- Answers are complete and written as per questions
- To prepare answer multiple textbooks were consulted
- Overall, language used in this book is easy to read and remember.



HN Sarker MBBS FCPS (Medicine) MRCP (UK) FRCP (Edin) is an Associate Professor of Medicine in Sher-e-Bangla Medical College, Barisal, Bangladesh. He obtained MBBS in 1984, FCPS in Internal Medicine in 2004 from Bangladesh College of Physicians and Surgeons, Bangladesh and MRCP in 2011 from the Royal College of Physicians, UK and FRCP (Edin) in 2013.

He has been serving as a teacher since 1995 in different medical colleges as Registrar, Assistant Professor and Associate Professor. He is an examiner of undergraduate examination.

He is the author of six medical books. He has more than 35 publications in national and international journals.

Available at all medical book stores
or buy directly from Jaypee Brothers through online shopping
at www.jaypeebrothers.com

JAYPEE BROTHERS
Medical Publishers (P) Ltd.
www.jaypeebrothers.com

Join us on facebook.com/jaypeebrothers

ISBN 978-93-5152-549-3