

SYLLABUS FOR INTERNATIONAL DIPLOMA IN SURGICAL GASTROENTEROLOGY

SECTIONS

General

Oesophagus

Stomach & Duodenum

Colon, rectum and Anus

Small Intestine

Spleen

Hepatobiliary System

General Hepatobiliary

Gall Bladder

Pancreas

Liver

Each Chapter:

Key Points

Practical Oriented

Algorithms: diagnosis, management, follow up.

Case vignettes

MCQ on line test

I. GENERAL

1. Homeostasis:
2. Fluid and electrolyte management of the surgical patients
3. Principles of operative surgery: Antisepsis, technique , sutures and drains, Sterilization
4. Surgical infections and Antibiotics in surgical patients
5. Nutrition in Surgical patients
6. Energy devices
7. Stapling and suturing
8. Improving outcome in hernia surgery

II. OESOPHAGUS

9. Embryology & Anatomy
10. Congenital Abnormalities
11. Lower esophageal Sphincters
12. Investigations for Esophageal Disorders
 - 12.1 Radiological Evaluation
 - 12.2 Endoscopic Evaluation
 - 12.3 EUS
 - 12.4 Physiologic Diagnostic Studies
 - 12.4.1 Esophageal Motility
 - 12.4.2 pH & Bilirubin Monitoring
 - 12.4.3 Multichannel Intraluminal Impedence
13. Esophageal Trauma
14. GERD & Hiatal Hernia
 - 14.1 Overview of GERD, Hiatal Hernia & their complication
 - 14.2 Medical Management of GERD
 - 14.3 Surgical Management
 - 14.3.1 Laparoscopic & Open Nissen's Fundoplication
 - 14.3.2 Partial fundoplications
 - 14.3.3 Endoscopic Antireflux Repairs
 - 14.4 Reflux Stricture & Short Esophagus
 - 14.5 Barrett's Esophagus
 - 14.5.1 History & Definition
 - 14.5.1 Pathophysiology
 - 14.5.3 Surgical Management
 - 14.5.4 Endoscopic Ablations
 - 14.6 Hiatus Hernia

- 14.7 Benign esophageal stricture
- 15. Functional Disorders of Esophagus
 - 15.1 Oropharyngeal Dysphagia
 - 15.2 Achalasia Cardia
 - 15.3 Diffuse & Segmental Esophageal Spasm
 - 15.4 Miscellaneous
- 16. Esophageal Diverticula
 - 16.1 Zenker's Diverticula
 - 16.2 Epiphrenic Diverticula
 - 16.3 Traction Midesophageal Diverticula
 - 16.4 Surgical Management
- 17. Benign Tumors & Cysts
- 18. Carcinoma of Esophagus
 - 18.1 Epidemiology
 - 18.2 Etiology
 - 18.3 Pathology
 - 18.4 Diagnosis
 - 18.5 Evaluation
 - 18.6 Staging
 - 18.7 Management
 - 18.7.1 Surgical Management
 - 18.7.2 Radiotherapy
 - 18.7.3 Chemotherapy
 - 18.7.4 Multimodality Therapy
 - 18.8 Other Palliative Therapy
 - 18.8.1 Stenting
 - 18.8.2 Others
- 19. Esophageal Reconstruction
- 20. Complications of Esophageal Surgery

III. STOMACH & DUODENUM

- 21. Anatomy & Physiology of Stomach
 - 21.1 Divisions & Anatomic Relationship
 - 21.2 Blood Supply & Innervations
 - 21.3 Lymphatic Drainage
 - 21.4 Histology & Glandular Organization
 - 21.5 Gastric Acid Secretion & its Functions
 - 21.6 Other Gastric Secretory Products
 - 21.7 Gastric Peptides
 - 21.8 Gastric Motility
- 22. Anatomy & Physiology of Duodenum
 - 22.1 Gross Anatomy
 - 22.2 Blood Supply, Lymphatic Drainage & Innervations
 - 22.3 Histology

- 22.4 Anatomic Abnormalities in Adults
 - 22.4.1 Preduodenal Portal Vein
 - 22.4.2 Superior mesenteric Artery Syndrome
 - 22.4.3 Para duodenal Hernias
 - 22.4.4 Duodenal Diverticula
- 22.5 Duodenal Physiology
 - 22.5.1 Exocrine Physiology
 - 22.5.2 Endocrine Physiology
 - 22.5.3 Duodenal Motility
- 23. Duodenal Ulcer
 - 23.1 History & Epidemiology
 - 23.2 Etiology
 - 23.3 Clinical Features & Diagnostic Studies
 - 23.4 Management
 - 23.4.1 Medical
 - 23.4.2 Surgical
- 24. Gastric Ulcer
 - 24.1 History & Epidemiology
 - 24.2 Etiology & Pathophysiology
 - 24.3 Clinical Features & Diagnostic Studies
 - 24.4 Management of Benign Ulcers
 - 24.4.1 Medical Management
 - 24.4.2 Surgical Management
 - 24.5 Associated complications of DU
- 25. Mechanical & motility Disorders of Stomach & Duodenum
 - 25.1 Gastric Volvulus
 - 25.2 Gastric Webs
 - 25.3 Hypertrophic Pyloric Stenosis in Adults
 - 25.4 Gastro paresis
 - 25.5 Postvagotomy Stasis & Roux Limb Syndrome
 - 25.6 Gastric Pacing
- 26. Tumors of Stomach
 - 26.1 Classification
 - 26.2 Adeno Carcinoma
 - 26.2.1 Epidemiology & Etiology
 - 26.2.1 Diagnostic Evaluation
 - 26.2.3 Pre Op Staging
 - 26.2.4 Pathology
 - 26.2.5 Management
 - 26.3 Nonepithelial Tumors
 - 26.3.1 Lymphoma
 - 26.3.2 Endocrine Tumors
 - 26.3.3 Sarcomas
- 27. Reoperative Gastric Surgery & Post Gastrectomy Syndrome
- 28. Injuries to the Stomach & Duodenum
- 29. Gastric & Duodenal Perforation & Fistula

- 30. Bariatric Surgery
 - 30.1 Epidemiology & History
 - 30.2 Preoperative Work up
 - 30.3 Surgeries
 - 30.3.1 Restrictive procedures
 - 30.3.2 Malabsorptive Procedures
 - 30.3.3 Mixed
- 31. Minimal Invasive Surgeries for Stomach & Duodenum

IV. Colon, rectum and anus

- 32. Surgical anatomy of colon and rectum
 - 32.1 General anatomic considerations.
 - 32.2 Vascular anatomy and innervations
 - 32.3 Endoscopic view of colon
- 33. Embryology of colon
 - 33.1 Embryological development of colon, rectum and anal canal
 - 33.2 Developmental anomalies
- 34. Physiology of colon
 - 34.1 Functions- motility, fluid & electrolyte physiology and colonic metabolism.
 - 34.2 Defecation
 - 34.3 Colonic sensation
 - 34.4 Abnormalities in colonic motility
- 35. Diagnosis of colon rectal and anal diseases
 - 35.1 History taking in colorectal diseases
 - 35.2 Signs and symptoms of colorectal diseases
 - 35.3 Investigations in colorectal diseases
 - 35.4 Blood and stool examinations
 - 35.5 Anoscopy, rigid and flexible proctosigmoidoscopy
 - 35.6 Colonoscopy
 - 35.7 Radiologic tests
 - 35.8 CT scan
 - 35.9 MRI
 - 35.10 PET scan
 - 35.11 Angiography
 - 35.12 Tests of pelvic floor functions.
- 36. Ultrasonographic diagnosis of anorectal diseases
- 37. Fecal incontinence
 - 37.1 Clinical features
 - 37.1.1 Investigations
 - 37.2 Medical treatment
 - 37.3 Biofeed back
 - 37.4 Surgical treatment

- 38. Surgical management of constipation
- 39. Rectovaginal fistulas
 - 39.1 Etiology,
 - 39.2 Classifications,
 - 39.3 Local repair, tissue transfer procedure
 - 39.4 Abdominal procedures
- 40. Rectourethral fistula
- 41. Rectal prolapse
 - 41.1 Evaluation
 - 41.2 Perineal approach
 - 41.3 Abdominal approaches
 - 41.4 Laparoscopic approach
- 42. Pilonidal disease
 - 42.1 Acute pilonidal sinus
 - 42.2 Chronic pilonidal sinus
 - 42.3 Pilonidal disease and carcinoma
- 43. Traumatic colorectal injuries
- 44. Colonic intussusception
- 45. Colonic volvulus
 - 45.1 Sigmoid volvulus
 - 45.2 Cecal volvulus
 - 45.3 Ileosigmoid knotting
 - 45.4 Transverse colon and splenic flexure volvulus
- 46. Colonic bleeding
 - 46.1 Vascular ectasia
 - 46.2 Hemangiomas
 - 46.3 Arteriovenous malformation
 - 46.4 Colonic varices and telengectasia
- 47. Colonic ischemia
- 48. Diverticular disease
- 49. Hemorrhoids
 - 48.1 Evaluation
 - 48.2 Non-excisional treatment
 - 48.3 Excisional treatment
 - 48.4 Procedure for prolapsing hemorrhoids
- 50. Fissure in ano
 - 50.1 Acute and chronic fissure in ano
 - 50.2 Conservative and medical management
 - 50.3 Surgical management
- 51. Anal fistula
 - 51.1 Low anal fistula
 - 51.2 High anal fistula
- 52. Anorectal abscess
- 53. Anal strictures
- 54. Pruritus ani

- 55. Anal pain syndromes
- 56. Solitary rectal ulcers
- 57. Hidradenitis suppuritiva
- 58. Inflammatory bowel disease
 - 58.1 Ulcerative colitis
 - 58.2 Crohn's colitis
 - 58.3 Surgical management of inflammatory bowel diseases
- 59. Appendix
 - 59.1 Acute appendicitis
 - 59.2 Recurrent and chronic appendicitis
 - 59.3 Tumors of the appendix
- 60. Colorectal polyps
- 61. Polyposis syndromes
- 62. Familial adenomatous polyposis
 - 62.1 HNPCC
 - 62.2 Juvenile polyposis syndrome
 - 62.3 Peutz jehgers syndrome
 - 62.4 Cowden's syndrome
 - 62.5 Ruvalcaba Myhre-Smith syndrome
 - 62.6 Cronkite Canada syndrome
 - 62.7 Hereditary mixed polyposis syndrome
- 63. Adenocarcinoma of the colon and rectum.
 - 63.1 Cancer risk factors
 - 63.2 Cancer Screening
 - 63.3 Management of colorectal cancers
 - 63.4 Role of laparoscopy in colorectal cancers
 - 63.5 Local excision of rectal cancers
 - 63.6 Low anterior resection
 - 63.7 Abdominoperineal resection
 - 64.8 Recurrent and metastatic colorectal cancers
- 64. Neoplasms of the anus
 - 64.1 Anal intraepithelial neoplasia
 - 64.2 Anal neoplasms
 - 64.2.1 Squamous cell carcinoma
 - 64.2.3 Basal cell carcinoma
 - 64.2.4 Melanoma
 - 64.2.5 Paget's disease
 - 64.2.6 Adenocarcinoma
- 65. Retrorectal tumors
- 66. Rare colorectal malignancies
 - 66.1 Carcinoid tumors
 - 66.2 Neuroendocrine tumors
 - 66.3 Squamous cell carcinoma
 - 66.4 Mesenchymal tumors of rectum
 - 66.5 Primary lymphoma of the colon and rectum
 - 66.6 Primary and secondary melanoma of the large intestine

- 66.7 Bowen's disease and Bushke-Lowenstein tumors
- 67. Radiation injuries of the rectum
- 68. Antibiotics and bowel preparations
- 69. Laparoscopic colorectal surgery
- 70. Ostomy management
- 71. Surgery in immunocompromised patient
- 72. Anorectal anomalies
- 73. Reoperative pelvic surgeries

V. Small intestine

- 74. Anatomy and Embryology of small intestine.
- 75. Small bowel physiology
- 76. Anatomy and physiology of Mesenteric circulation
- 77. Small bowel investigations
 - 77.1 Barium meal follow through
 - 77.2 Enteroclysis
 - 77.3 CECT
 - 77.4 MRI
 - 77.5 Angiography
 - 77.6 Capsule Endoscopy
 - 77.7 Enteroscopy
- 78. Small bowel obstruction
 - 78.1 Investigations
 - 78.2 Medical management
 - 78.3 Surgical management
 - 78.4 Role of laparoscopy
- 79. Motility disorders.
- 80. Benign tumors, neoplastic polyps and polyposis syndromes.
- 81. Adenocarcinoma of duodenum and small intestine
- 82. Foreign bodies and bezoars of small intestine
- 83. Gall stone ileus
- 84. Volvulus of the small bowel
- 85. Crohn's disease of the small intestine
 - 85.1 General considerations
 - 85.2 Medical management
 - 85.3 Surgical management
 - 85.4 Management of complicated small bowel disease
- 86. Ileostomy
 - 86.1 Types
 - 86.2 Indications
 - 86.3 Techniques
 - 86.4 Complications
 - 86.5 Stoma management.
- 87. Small bowel anastomosis and stapling

- 88. Duodenal and small intestinal fistulas
 - 88.1 Etiology
 - 88.2 Classification and staging
 - 88.3 Complications
 - 88.4 Management.
- 89. Internal hernia
 - 89.1 Congenital
 - 89.2 Acquired
- 90. Mesenteric arterial trauma
 - 90.1 Classification of injuries
 - 90.2 Management principles
 - 90.3 Surgical techniques and result
- 91. Superior mesenteric artery syndrome
- 92. Radiation enteritis
 - 92.1 Pathophysiology
 - 92.2 Natural history
 - 92.3 Diagnosis
 - 92.4 Management
- 93. Short bowel syndrome
 - 93.1 Factors influencing outcome,
 - 93.2 Intestinal adaptation
 - 93.3 Medical management
 - 93.4 Surgical management
 - 93.6 Small intestine transplantation
- 94. Gastrointestinal carcinoid tumors
- 95. Gastrointestinal stromal tumors
 - 95.1 Pathology
 - 95.2 Evaluation
 - 95.3 Targeted treatment
 - 95.4 Surgical management
 - 95.5 Adjuvant therapy.
- 96. Gastrointestinal lymphomas
 - 96.1 Classifications
 - 96.2 Staging and grading
 - 96.3 Diagnosis and treatment
- 97. Pediatric surgical conditions of the small bowel
 - 97.1 Congenital Duodenal obstruction
 - 97.2 Hypertrophic pyloric stenosis
 - 97.3 Atresia and stenosis
 - 97.4 Malrotations.
 - 97.5 Duplication cyst
 - 97.6 Omphalomesenteric duct remnants and Meckel's
diverticulum
 - 97.7 Necrotizing enterocolitis
 - 97.8 Intussusception
- 98. Mesenteric ischemia

- 98.1 Acute arterial mesenteric ischemia
- 98.2 Embolic occlusion
- 98.3 Thrombotic occlusion
- 98.4 Nonocclusive mesenteric occlusion
- 98.5 Venous occlusion
- 98.6 Chronic mesenteric ischemia
- 99. Aortoenteric fistulas
- 100. Small intestine transplantation
- 101. Visceral artery aneurysms

VI. Spleen

- 102. Anatomy Spleen
- 103. Cyst and tumors of spleen
- 104. Splenic abscess
- 105. Splenic Injury
- 106. Indication for splenectomy

VII. HEPATOBILIARY SYSTEM

A. General Hepatobiliary

- 107. Anatomy of hepatobiliary system
 - 107.1 Anatomy of liver
 - 107.2 Anatomy of gall bladder
 - 107.3 Anatomy of common bile duct
 - 107.4 Anatomy of pancreas
 - 107.5 Anatomy of spleen
- 108. Physiology of hepatobiliary system
 - 108.1. Assessment of liver function
 - 108.2. Bile Metabolism
 - 108.3. Pathogenesis of gall stones
- 109. Investigations of hepatobiliary system
 - 109.1. Ultrasound
 - 109.2. Endoscopic ultrasound
 - 109.3. Computerized tomography
 - 109.4. Magnetic resonance imaging
 - 109.5. Oral cholecystography
 - 109.6. ERCP
 - 109.7. PTBD
 - 109.8. PET SCAN
 - 109.9. HIDA SCAN
- 110. Congenital anomalies of hepatobiliary system
 - 110.1. Biliary anomalies
 - 110.1.1. Biliary Atresia
 - 110.2. Pancreatic anomalies
 - 110.2.1. Annular Pancreas

- 110.2.2. Pancreatic Divisum
- 111. Injuries of hepatobiliary system
 - 111.1. Hepatic injuries
 - 111.1.1. Modes if injury
 - 111.1.2. Classification
 - 111.1.3. Management
 - 118.2. Pancreatic trauma
 - 111.2.1. Modes if injury
 - 111.2.2. Classification
 - 111.2.3. Management

B. GALL BLADDER

- 112. Gallstone disease
 - 112.1. Etiopathogenesis of Gall stone disease
 - 112 .2. Calculous Cholecystitis
 - 112.3. Acalculous Cholecystitis
 - 112.4. Complications of gallstone
 - 112.5. Open cholecystectomy
 - 112.6. Laparoscopic cholecystectomy
- 113. Choledocholithiasis
 - 113.1. Etiopathogenesis of Choledocholithiasis
 - 113.2. Management of Choledocholithiasis
 - 113.2.1. Endoscopic approach
 - 113.2.2. Percutaneous approach
 - 113.2.3. laparoscopic approach
 - 113.2.4. open surgical approach
 - 113.3. Residual Choledocholithiasis
- 114. Intrahepatic stones
 - 114.1. Etiopathogenesis of Intrahepatic stones
 - 114.2. Management of Intrahepatic stones
 - 114.2.1. Endoscopic approach
 - 114.2.2. Percutaneous approach
 - 114.2.3. Surgical approach
- 115. Biliary stricture
 - 115.1. Benign biliary stricture
 - 115.2. Malignant biliary stricture
- 116. Biliary fistula
- 117. Tumours of gall bladder
 - 117.1. Aetiopathogenesis
 - 117.2. Staging
 - 117.3. Management
- 118 Cholangiocarcinoma
 - 118.1. Aetiopathogenesis
 - 118.2. Staging and management
 - 118.3. Role of liver transplantation

- 119. Miscellaneous
 - 119.1. Sphincter of Oddi Dysfunction

C. PANCREAS

- 120. Pancreatitis
 - 120.1. Classification and definition of Acute Pancreatitis
 - 120.2. Etiology of Acute Pancreatitis
 - 120.3. Severity Indices in AP
 - 120.4. Inflammatory/Prognostic Markers in Acute pancreatitis
 - 120.5. Etiology of Chronic Pancreatitis
 - 120.6. Pain Mechanism and management in Chronic Pancreatitis
 - 120.7. Indications of Surgery in Chronic Pancreatitis
- 121. Tumours of pancreas
 - 121.1. Pathology and classification of Neoplasms
 - 121.2. Periapillary tumors
 - 121.3. Pancreatic tumors
 - 121.4. Cystic tumors of pancreas
 - 121.5. Endocrine tumors of pancreas
 - 121.5.1 Insulinoma
 - 121.5.2. Gastrinoma
 - 121.5.3. Glucagonoma
 - 121.5.4. VIPoma
 - 121.6. Palliation of Pancreatic Malignancy
- 122. Pancreas transplant
 - 122.1. Indications
 - 122.2. Contraindications
 - 122.3. Islet cell transplant
- 123. Operations of pancreas
 - 123.1. Pancreatic necrosectomy
 - 123.2. Pancreaticoduodenectomy
 - 123.3. Central Pancreatectomy
 - 123.4. Freys Pancreatectomy
 - 123.5. Spleen preserving Distal Pancreatectomy
 - 123.6. Distal Pancreatectomy and Splenectomy

D. LIVER

- 124. Biliary infections
 - 124.1. Cholangitis
 - 124.2. Recurrent pyogenic cholangitis
 - 124.3. Pyogenic liver abscess
 - 124.4. Amoebiasis
- 125. Cystic diseases
 - 125.1 Hydatid disease
 - 125.2 choledochal cyst
- 126. Tumours of liver
 - 126.1. Hepatocellular carcinoma
 - 126.2. Focal nodular hyperplasia

- 126.3. Hepatoblastoma
- 127. Management of colorectal metastasis
- 128. Management of Neuroendocrine metastasis
- 129. Radiofrequency ablation
- 130. Cryoablation
- 131. Management of SOL Liver
- 132. Liver transplantation
 - 132.1. Indications
 - 132.2 Contraindications
 - 132.3. Scoring systems
 - 132.4. Donor Hepatectomy
 - 132.5. Receptient Hepatectomy
 - 132.6. Early and late complications of Transplant
- 133. Portal hypertension
 - 133.1. Variceal bleeding
 - 133.2. Liver Failure
 - 133.3. Assesment of functional hepatic reserve
- 134. Spontaneous bacterial peritonitis
- 135. Ascites evaluation and pathophysiology
- 136. Hepatorenal syndrome
- 137. Hepato pulmonary syndrome
- 138. TIPS
- 139. Budd Chiari syndrome