

# Gastro Intestinal Pathology

**Duration: 04 weeks (20 days)**

| Topic/ Concept   | Objectives  | Time | Dept.     | T/L Activity  | Comments                           |
|--|---|------|-----------|---------------|------------------------------------|
| <b>3/SBM-4/01</b>  |   |      |           |               |                                    |
| <b>Alimentation in health</b>                                | 1. recall digestion, absorption and metabolism relating to, carbohydrates, proteins, fat, vitamins, minerals & trace elements                                       |      |           | Recall        |                                    |
|  | 2. recall normal structure and functions of the liver, gut, pancreas and biliary tract  |      |           |               |                                    |
|  | 3. recall the neural and hormonal control of the alimentation   |      |           |               |                                    |
| <b>3/SBM-4/02</b>  |   |      |           |               |                                    |
| <b>The role of nutrients, the requirements &amp; sources</b> | recall  |      |           | Recall        |                                    |
| 1. the concept of a healthy wholesome diet                   |   |      |           |               |                                    |
| <b>3/SBM-4/03</b>  |   |      |           |               |                                    |
| <b>Normal bowel flora</b>                                    | recall  |      |           | Recall        |                                    |
| <b>3/SBM-4/04</b>  |   |      |           |               |                                    |
| <b>Diarrhoea</b>   |   |      |           |               |                                    |
| 1. Mechanisms  | recall  |      |           |               |                                    |
| 2. Effects   |   |      |           |               |                                    |
| 3. Therapies   | <b>2006-3/SBM-4/8</b>   |      |           |               |                                    |
| <b>3/SBM-4/05</b>  |   |      |           |               |                                    |
| <b>Vomiting</b>  |   |      |           |               |                                    |
| 1. Mechanisms  | recall  |      |           | Self learning |                                    |
| 2. Effects   |   |      |           |               |                                    |
| 3. Therapies   | <b>2006-3/SBM-4/8</b>   |      |           |               |                                    |
|  | <b>At the end of the module, student should be able to,</b>   |      |           |               |                                    |
| <b>3/SBM-4/06</b>  |   |      |           |               |                                    |
| <b>Introduction to GI pathology</b>                          | 1. apply principles of general pathology to the diseases of the gastrointestinal system (acute and chronic inflammation, metaplasia, dysplasia, neoplasia) – Recall |      | Pathology |               | Recall - Done in Foundation Module |

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| <b>3/SBM-4/07</b>  |   |         |              |                       |   |
| <b>Infective disease in relation to alimentation</b>         |   |         |              |                       |   |
| <b>a. Infective diarrhoea, Food poisoning</b>                | 1. list the causes of infective diarrhoea and food poisoning  |         |              |                       |   |
|  | 2. describe the pathogenesis of infective diarrhoea   |         |              |                       |   |
|  | 3. state the key methods of diagnosis of infective diarrhoea and food poisoning   |         | Microbiology | Lecture               | Done in Infection module                                      |
|  | 4. outline key methods in prevention of infective diarrhoea and food poisoning  |         |              |                       |   |
| <b>b. Pathological changes in gut infections</b>             | 1. describe the pathogenesis, morphological changes and complications of infections in the oesophagus, stomach, duodenum, small intestine, colon and anus. 2. List the opportunistic infections in the gastrointestinal system in immunocompromised hosts.  | 2h      | Pathology    | Lecture               |   |
| <b>c. Malnutrition associated with Intestinal Infections</b> | 1. name the intestinal protozoans and helminths that cause malnutrition in Sri Lanka  |         |              |                       |   |
|  | 2. state the general clinical features that indicate malnutrition with infection caused by each of these agents   |         | Parasitology | Lecture               | Ascariasis, Giardiasis, HW disease - Done in Infection module |
|  | 3. describe briefly the major mechanisms responsible for malnutrition in each infection   |         |              |                       |   |
| <b>2006-3/SBM-4/08</b>                                       |   |         |              |                       |   |
| <b>a. Oesophagus &amp; Stomach</b>                           | <b>Oesophagus:</b><br>1. discuss the effects and complications of gastroesophageal reflux disease.<br>2. name the causes of oesophagitis.<br><b>: Stomach:</b><br>1. discuss the causes, morphology and complications of acute gastritis<br>2. discuss the causes, morphology and complications of chronic gastritis<br>3. discuss the causes of gastric ulceration, emphasising the morphological changes in each condition. | 1h + 2h | Pathology    | Lecture+ Museum class |   |

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| <b>b. Diseases of small intestine and appendix</b>   | <p>Malabsorption syndromes:</p> <ol style="list-style-type: none"> <li>1. recall the physiology of digestion and absorption</li> <li>2. discuss the outcomes in failure in each step in digestion and absorption.</li> <li>3. list causes of malabsorption.</li> <li>4. discuss the etiopathogenesis, morphology, clinical symptoms and complications of coeliac disease.</li> <li>5. outlines the etiopathogenesis, morphology, clinical symptoms and complications of Whipples disease and tropical sprue</li> </ol> | 2h | Pathology | Lecture                     |  |
| <p>Appendix 1. List the causes of inflammation of the appendix. 2. Discuss the aetiopathogenesis, morphology, complications and clinical outcomes of acute appendicitis.</p> |  |    |           |                             |  |
| <b>3/SBM-4/09</b>  |  |    |           |                             |  |
| <b>Inflammatory bowel disease</b>  | <ol style="list-style-type: none"> <li>1. recall chronic inflammation.</li> <li>2. describe the pathogenesis, morphological changes, clinical outcomes and complications of ulcerative colitis and Crohn's disease. 3. compare and contrast the features of ulcerative colitis and Crohn's disease</li> <li>4. List extraintestinal manifestations of the above.</li> </ol>  | 2h | Pathology | Lecture                     |  |
| <b>3/SBM-4/10</b>  |  |    |           |                             |  |
| <b>Anal and peri anal disease</b>  | <ol style="list-style-type: none"> <li>1. recall acute and chronic inflammation and carcinogenesis.</li> <li>2. describe the aetiopathogenesis, morphological appearances and complications of -fissures, fistulae, ulcers, haemorrhoids, and tumours.</li> </ol>  | 1h | Pathology | Lecture                     |  |
| <b>3/SBM-4/11</b>  |  |    |           |                             |  |
| <b>Neoplasms of the Gastrointestinal tract</b>   | <ol style="list-style-type: none"> <li>1. list the common neoplasms (benign and malignant) in the following organs: oesophagus, stomach, small intestine, colon, appendix and anus.</li> <li>2. discuss the malignant neoplasms of the above organs with regard to aetiopathogenesis (emphasising the premalignant lesions), morphology, modes of spread and clinical outcomes.</li> <li>3. outlines the polyposis syndromes in the gastrointestinal tract</li> </ol>  | 2h | Pathology | Lecture+<br>Museum<br>class |  |

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| <b>3/SBM-4/12</b>                      |   |     |           |                             |        |
| <b>Introduction to liver pathology</b> | apply the principles of general pathology to the liver diseases - Recall  |     | Pathology |                             | Recall |
| <b>3/SBM-4/13</b>                      |   |     |           |                             |        |
| <b>Liver disease</b>                   | 1. describe the aetiopathogenesis and morphological changes and complications of acute hepatitis, chronic hepatitis and liver abscess.  | 2h  | Pathology | Lecture+<br>Museum<br>class |        |
|  | 2. describe the pathogenesis, morphological appearances and complications of alcoholic liver disease, nonalcoholic fatty liver disease (NAFLD) and cirrhosis.   |     |           |                             |        |
|  | 3. describe the pathological changes and effects of portal hypertension.  |     |           |                             |        |
|  | 4. describe the pathology of hepatomegaly   |     |           |                             |        |
|  | 5. recall amyloidosis, storage diseases, acute and chronic venous congestion and steatosis  |     |           |                             |        |
|  | 6. interpretation of investigations in diseases of the liver -<br>(i). interpret serum markers of acute and chronic hepatitides.<br>(ii). understand the principles and interpretation of investigations of common liver diseases.(acute and chronic hepatitides, cirrhosis, portal hypertension, ascites,NAFLD,alcoholic liver disease and tumours.) | 1hr |           |                             |        |
|  |   | 1h  | Medicine  | Lecture                     |        |
| <b>3/SBM-4/14</b>                      |   |     |           |                             |        |
| <b>Diseases of the Biliary system</b>  | 1.describe the aetiopathogenesis, morphology, complications and clinical outcomes of obstructive jaundice, biliary calculi and acute and chronic cholecystitis.<br>2. outline the tumours of the liver and the biliary system and discuss their modes of spread   | 2h  | Pathology | Lecture+<br>Museum<br>class |        |

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| <b>3/SBM-4/15</b>  |   |            |                   |         |  |
| <b>Pancreatic disease</b>  | 1. describe the aetiopathogenesis, morphology, complications and clinical outcomes of acute and chronic pancreatitis.<br>2. outline the biochemical investigations in acute and chronic pancreatitis<br>3. outline the tumours of pancreas emphasising the modes of spread and clinical outcomes. | 2h         | Pathology         | Lecture |  |
| <b>3/SBM-4/16</b>  |   |            |                   |         |  |
| <b>a. Imaging of GI diseases</b>   |   |            |                   |         |  |
|  | 1. radiological, pathological correlation of gastrointestinal diseases discussed in this module   | 1h +<br>1h | Radiology/<br>NMU | Lecture |  |
|  | 2. radiological pathological correlation of hepatobiliary and pancreatic diseases   |            |                   | Lecture |  |
| <b>b. To introduce Nuclear medicine application in clinical practice</b> | 3. to understand organ physiology and its functions with regard to radioisotope uptake  |            |                   | Lecture |  |
|  | 4. to understand practical applications on given clinical areas   |            |                   |         |  |