



UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Gastroenterology and Hepatology IV

2627-5-H4102D060-H4102D200M

Aims

The course aims to provide students the tools and the necessary knowledge for performing a correct clinical diagnosis of the various pathologies of surgical interest related to the GI tract, formulating an adequate differential diagnosis between the various pathologies, and identifying the proper surgical indication and surgical procedure. The knowledge and skills provided during the course will give the student the ability to understand the surgical pathologies, also by means of the physical examination, history-taking and the study of challenge clinical cases. The clinical internship will make the students understand the treatment algorithm of the main surgical pathologies and the multidisciplinary management of the patients.

Learning outcomes according to the Dublin Descriptors

1. Knowledge and understanding

At the end of the module, students will have acquired knowledge of the main benign and malignant surgical diseases of the gastrointestinal tract, including oesophageal, upper gastrointestinal, small bowel, colorectal, anorectal and pancreatic disorders.

Students will understand the clinical presentation, complications, diagnostic pathways and general principles of surgical treatment of the main pathologies of surgical interest involving the digestive system.

They will acquire knowledge of the main diagnostic techniques used in surgical gastroenterology, including endoscopy, contrast radiology, manometry, pH-metry, echo-endoscopy, ultrasound, CT and MRI.

Students will also understand the role of surgery within the multidisciplinary management of gastrointestinal diseases and the basic principles guiding the choice of surgical indications and procedures.

2. Applying knowledge and understanding

Students will be able to apply the acquired knowledge to the clinical assessment of patients with gastrointestinal diseases of surgical interest.

They will be able to collect a focused clinical history, recognise relevant signs and symptoms, interpret the results of appropriate diagnostic investigations, and formulate diagnostic and differential diagnostic hypotheses.

Students will be able to identify, at a basic level, the appropriate diagnostic work-up and understand the rationale for surgical or non-surgical management in oesophageal, gastric, intestinal, colorectal, anorectal and pancreatic diseases.

Through lectures, multidisciplinary teaching and discussion of challenging clinical cases, students will apply clinical and surgical knowledge to realistic patient scenarios.

3. Making judgements

Students will develop the ability to critically evaluate clinical findings, diagnostic test results and disease-related complications in order to support diagnostic and therapeutic decision-making.

They will be able to assess the appropriateness of diagnostic investigations and surgical indications, considering patient characteristics, clinical presentation, disease severity, risks and expected benefits.

Students will also be encouraged to compare different diagnostic and therapeutic options and to understand when a multidisciplinary approach is required for optimal patient management.

The module will promote clinical judgement through case-based discussion, problem solving and analysis of surgical decision-making pathways.

4. Communication skills

Students will be able to communicate clinical information related to gastrointestinal surgical diseases using appropriate medical and surgical terminology.

They will develop the ability to discuss diagnostic hypotheses, differential diagnoses and treatment indications with teachers, colleagues and healthcare professionals involved in multidisciplinary care.

Students will also be able to present clinical cases in a clear, structured and coherent manner, explaining the rationale for diagnostic and therapeutic choices.

The module will strengthen communication skills through multidisciplinary lessons, clinical case discussion and oral examination based on clinical problem solving.

5. Learning skills

Students will acquire the learning skills necessary to further develop their knowledge of surgical gastroenterology and digestive diseases during clinical training and future medical practice.

They will be able to use textbooks, scientific literature, international and national guidelines, teaching materials and clinical cases to update their knowledge and improve their clinical reasoning.

The module will promote autonomous and continuous learning through lectures, multidisciplinary teaching, analysis of clinical cases and integration of diagnostic and therapeutic information.

Students will progressively develop the ability to connect theoretical knowledge with clinical and surgical decision-making in the management of gastrointestinal diseases.

Contents

Principle of diagnosis and treatment of benign and malignant pathologies of oesophagus, upper GI, pancreas, lower GI and proctology.

Detailed program

OESOPHAGEAL PATHOLOGY

Evaluate the different investigative studies and identify the proper diagnostic technique: esophagoscopy, esophagography, esophageal manometry, esophagus-gastric pHmetry, echo-endoscopy, CT.

Recognize the clinical pictures and complications, provide indications for surgical treatment and describe the general aspects of the main surgical interventions in relation to the following pathologies: Hiatal hernia and peptic esophagitis; Esophageal achalasia (and DMA); caustic esophageal injury; esophageal diverticula (Zenker, medi thoracic and epiphrenic); esophageal neoplasms (benign and malignant).

UPPER GI PATHOLOGY

Evaluate the different investigative studies and identify the proper diagnostic technique: gastroduodenoscopy,

digestive tract x-ray, echo-endoscopy, ultrasound, scintigraphy, CT. Recognize the clinical pictures and complications, provide indications for surgical treatment and describe the general aspects of the main surgical interventions in relation to the following pathologies: gastric ulcer; duodenal ulcer; acute erosive gastritis; gastric precancerous conditions; gastric neoplasms (benign and malignant).

SMALL BOWEL, COLON AND RECTUM-ANUS

Evaluate the different investigative studies and identify the proper diagnostic technique: rectoscopy, rectosigmoidoscopy, colonoscopy, x-ray digestive tract, contrast enema, defecography, intestinal transit time, anorectal manometry, endoscopy, ultrasound, CT, MRI. Recognize the clinical pictures and complications, provide indications for surgical treatment and describe the general aspects of the main surgical interventions in relation to the following pathologies: Crohn's disease and IBD; intestinal diverticulosis; neoplasms of the colon, rectum, anus; polyposis; rectal prolapse; benign anorectal pathology (anal fistulas, hemorrhoids, fissures, pilonidal cysts).

PANCREAS PATHOLOGY

Evaluate the different investigative studies and identify the proper diagnostic technique: endoscopy, ultrasound, echo-endoscopy; cholangiography, CT, MRI.

Recognize the clinical pictures and complications, provide indications for surgical treatment and describe the general aspects of the main surgical interventions in relation to the following pathologies: pancreatic neoplasms; pancreatic cysts; neuroendocrine tumors of the pancreas.

Prerequisites

Knowledge of the preparatory courses as indicated in the regulations of the degree course in Medicine and Surgery.

Teaching form

Frontal lessons, multidisciplinary lessons in presence and will be held in english

Textbook and teaching resource

Lessons on power point slides with references to national and international guidelines

Sabiston. Textbook of Surgery. Saunders

F. Minni. Chirurgia Generale. Zanichelli

F. D'Amico. Manuale di Chirurgia Generale. Piccin

References available on the scientific biomedical resource Pubmed

Semester

II semester

Assessment method

The exam will be carried out in an integrated manner according to the modality envisaged by the overall digestive disease vertical track which is based on Multiple Choice Test (45 questions)

Oral exam on the topics covered during the lectures, discussion on clinical problem solving and clinical case analysis

All assessments will be done in English language

Office hours

The teachers are reachable by e-mail

Sustainable Development Goals

QUALITY EDUCATION
