



UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Gastroenterology and Hepatology II

2627-5-H4102D060-H4102D157M

Aims

The aim of the Clerkship 9 (subdivided in two sections: Gastroenterology & Hepatology I e II) are:

A) To integrate the knowledge of the digestive tract (liver, pancreas & intestine) completing and elaborating on the argument presented during the frontal lessons through:

1. To provide the basic knowledge the digestive system in health and disease. Provide the necessary knowledge of the aetiology, pathophysiology, diagnosis, differential diagnosis of the digestive systems.
 2. To understand the indications for the diagnostic testing, and the role of endoscopy and of imaging. To provide the theoretical and practical knowledge for the correct prescription of diagnostic imaging based on the clinical question, and for correct interpretation of first level diagnostic imaging.
 3. To understand the principle of medical treatment of digestive system diseases and the concepts of prevention and the relevant life-style measures.
- B) to acquire skills on semeiology, diagnosis, treatment and management of the digestive disease tract

practical skills to be acquired:

History taking and diary & chart management

physical examination of the patients with digestive tract diseases

Interpretation of biochemical and serological test to be utilized in GI tract

interpretation of imaging technique of the GI tract

indications and Interpretation of the endoscopic procedures of the GI Tract

medical therapies of the GI Tract

patient communication

relationship with colleagues and health personell

Learning outcomes according to the Dublin Descriptors

1. Knowledge and understanding

At the end of the clerkship, students will have acquired integrated knowledge of the digestive system in health and disease, with particular reference to gastrointestinal, hepatic and pancreatic disorders.

Students will understand the epidemiology, aetiology, pathophysiology, clinical presentation, diagnosis, differential

diagnosis and management of the main digestive tract diseases, including gastrointestinal bleeding, oesophageal and upper gastrointestinal disorders, inflammatory bowel disease, coeliac disease, gastrointestinal tumours, neuroendocrine tumours, acute abdomen, pancreatitis and pancreatic tumours.

They will also understand the indications for biochemical, serological, imaging and endoscopic investigations, as well as the principles of medical treatment, prevention and lifestyle measures in gastroenterology and hepatology.

2. Applying knowledge and understanding

Students will be able to apply the acquired knowledge to the clinical assessment and management of patients with gastrointestinal, hepatic and pancreatic diseases.

They will be able to collect a focused medical history, perform a physical examination with particular attention to the abdomen and signs of digestive or liver disease, manage clinical charts and diaries, and interpret biochemical, serological, imaging and endoscopic findings.

Students will also be able to identify appropriate diagnostic pathways, formulate diagnostic hypotheses and differential diagnoses, understand indications for endoscopic and imaging procedures, and contribute to the planning of basic therapeutic strategies.

Through supervised clinical activities, outpatient and inpatient attendance, PBL sessions, multidisciplinary case discussions and tutor-guided practice, students will progressively apply their clinical knowledge to real patient scenarios.

3. Making judgements

Students will develop the ability to critically evaluate clinical symptoms, physical signs, laboratory data, imaging results and endoscopic findings in order to support diagnostic and therapeutic decision-making.

They will be able to recognise priority and urgent clinical problems, frame the reason for admission within the context of complex chronic conditions and frailty, and assess the need for further diagnostic investigations or therapeutic interventions.

Students will also be encouraged to integrate clinical, biochemical, instrumental and endoscopic information to formulate diagnostic hypotheses, design diagnostic algorithms and identify appropriate management strategies.

The clerkship will promote the development of clinical judgement through supervised patient care, multidisciplinary discussion, clinical problem solving and case analysis.

4. Communication skills

Students will be able to communicate appropriately with patients affected by gastrointestinal and liver diseases, using clear, respectful and understandable language.

They will develop skills in listening, dialogue, information sharing, explanation of diagnostic and therapeutic procedures, and acquisition of informed consent.

Students will also be able to interact effectively with colleagues, tutors and healthcare personnel, using appropriate medical terminology and contributing to multidisciplinary discussion.

The clerkship will strengthen communication skills through patient-physician interaction, clinical chart documentation, outpatient and inpatient activities, case presentation and discussion of clinical reasoning.

5. Learning skills

Students will acquire the learning skills necessary to further develop their clinical competence in gastroenterology and hepatology during the continuation of their medical training and future professional practice.

They will be able to use clinical cases, patient records, biochemical and imaging data, endoscopic reports, textbooks, guidelines and scientific literature to improve their knowledge and clinical reasoning.

The clerkship will promote autonomous and continuous learning through supervised clinical practice, bedside teaching, outpatient activities, PBL sessions, multidisciplinary case discussions and feedback from tutors.

Students will progressively develop the ability to identify their own learning needs, reflect on clinical experiences and integrate theoretical knowledge with practical skills in the management of digestive tract diseases.

Contents

Main description of Liver, Pancreas & Digestive disease tract diseases: epidemiology, pathophysiology, clinical presentation, diagnosis & management, integrated by the acquisition of practical skills the management of patients with digestive tract diseases

Detailed program

Gastroenterology Section:

- GI Bleeding: Clinic, diagnosis & management
- Upper GI: Oesophageal disorders; Functional disorders MRGE (and NERD); Peptic disorders
- GI tract Tumours: Pathology & Diagnostic; Clinical Gastroenterology; Endoscopy; Surgery
- IBD: Pathology & Diagnostic; Clinical Gastroenterology; Endoscopy; Surgery
- Celiac disease: Pathology & Diagnostic; Clinical Gastroenterology; Endoscopy
- NET tumours
- Acute abdomen: Clinic, diagnosis and management
- Pancreas: pancreatitis (Acute & Chronic), Pancreatic tumours

Prerequisites

Propaedeutic skills & Advanced knowledge in anatomy, semeiology, biology and molecular biology.

Teaching form

the clerkship sessions are divided in the following teaching modality, alternating practical sessions in the medical units and interactive activities as follows:

Lectures with interactive presentation and discussion.

PBL sessions

Multidisciplinary cases discussions

attendance of the following activities:

Inpatients & Outpatients:

- patient History (supervised activity)
- acquisition/interpretation of biochemical, microbiological, instrumental reports (supervised activity)
- physical examination of the patient (supervised activity)
 - US Scan (observation & acquisition of basic theoretical Skills)
 - Endoscopy (observation & acquisition of basic theoretical Skills)

The ratio Student/Tutor is 1:1

In case of pandemic resurgence the lessons will be through webinar.

Textbook and teaching resource

- Harrison's Principles of Internal Medicine: The 20th edition of the book, edited by Dennis Kasper, Anthony Fauci, Stephen Hauser, Dan Longo, J. Larry Jameson and Joseph Loscalzo, (17 August 2018). The 21st edition of the book to be released on 28 March 2022
- Zakim and Boyer's Hepatology. A Textbook of Liver Disease. Seventh Edition (2018) (Edited by: Arun J. Sanyal, Thomas D. Boyer, Norah A. Terrault, and Keith D. Lindor)
- Sleisenger and Fordtran's Gastrointestinal and Liver Disease- 2 Volume Set Pathophysiology, Diagnosis, Management. 11th Edition - June 9, 2020. Authors: Mark Feldman, Lawrence Friedman, Lawrence Brandt
- Clinical Gastrointestinal Endoscopy: A Comprehensive Atlas. (2018) Ed. Hoon Jai Chun, Suk-Kyun Yang, Myung-Gyu Choi
- Malattie Dell'apparato Digerente 2019-2022: Unigastro (Editrice Gastroenterologica Italiana)
- Reviews

Semester

Second semester

Assessment method

The exam will be carried out in an integrated manner according to the modality envisaged by the digestive disease vertical track which is based on:

End of Clerkship evaluation, which includes: >70% attendance and confirmation by the tutor of the required practical skills

these requirements shall allow the access to:

- Multiple Choice Test (45 questions)
All assessments will be done in English language
The evaluation of clerkship 9 shall be: Idoneous or Non Idoneous (and is considered propedeutical to the general exam of the Digestive disease Tract exam (Oral exam on the topics covered during the lectures, discussion on clinical problem solving and clinical case analysis)

• In the event of pandemic emergency period, only telematics exams might be available. They will be carried out using the WebEx platform and on the e-learning page there will be displayed a public link where possible virtual spectators may get access and assist to the examination

Clerkship 9 VT Gastro SKILLS ASSESSMENT:

PATIENT-PHYSICIAN RELATIONSHIP: practical implementation of the good clinical practices of patient-physician relationship: listening, dialogue, information, clearness, consent acquisition.

Relationship with colleagues and health personell

MEDICAL HISTORY: family, social, physiological, pathological, current problems

Diary & chart management

PARAMETERS assessment: central & peripheral hearth rate, Respiratory rate, features of breathing, Blood arterial pressure in clino & ortho, centeal & peripheral pulses, interpretation of a thermic curve

SKILLS: INJCTIONS: venous catheter placement, ev. infusiouns, arterial infusions, i.m. injections, s.c injections

O2: principlkes of O2 therapy - Saturimetry

ECG: to execute an ECG

Interpretations of the main ECG pictutes

ADMINISTRATIVE ISSUES: How to fill a medica chart (written & electronical), built a discharge letter & SDO how to request informed consent

Compile a medical prescription or a biochemical & imaging test request

CONTAGION & PREVENTION: Knowledge & application of protection measures from infection.

Knowing the actions of prevention and health education

PHYSICAL EXAMINATION Examination of the abdomen

State of consciousness - Hepatic Encephalopathy

Diuresis, Bowel alterations Diarrhea and constipation (stool exam)

Pruritus, skin alterations-pigmentation- Jaundice/Skin disorders /Infectious exanthemas

Gastrointestinal bleeding

Nutritional Status /Hydration/ Unintentional weight loss/Thirst / Hunger

Edemas

Nutrition - fluid balance

identifications of objective signs of dehydration

SPECIALISTIC TESTING:

imaging interpretation of the main Hepato & GI pathologies

Interpretation of biochemical tests

Indication to & interpretation of the endoscopic procedures of the GI Tract

Diagnostic hypothesis formulation & therapeutic plan design

Principles of Liver biopsy

THERAPY principles of medical therapy in Hepat-Gastroenterology

OUTPATIENT CARE: Assisting to Hepatologic, Transplantologic, Gastroenterologic outpatient visit

Simulation of an Hepatologic, Transplantologic, Gastroenterologic outpatient visit

CLINICAL REASONING: Capability of framing the reason for admission within the context of complex chronicity conditions of the patient. concepts of Frailty

To show knowledge and application of clinical reasoning: capability of identifying priority & urgent issues. proposing diagnostic hypothesis and to plan diagnostic algorithms

Office hours

The professor receives by appointment upon agreement by e-mail

Sustainable Development Goals

GOOD HEALTH AND WELL-BEING | QUALITY EDUCATION | GENDER EQUALITY
