UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Gastroenterology and Hepatology I

2526-5-H4102D060-H4102D156M

Aims

The aim of the Clerckship 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 (digestive tract diseases)
- Interpretation of biochemical and serological tests to be utilized in evaluating the GI tract
- interpretation of imaging techniques related to the GI tract
- indications and Interpretation of the endoscopic procedures of the GI Tract
- medical therapies of the GI Tract
- physician-patient communication
- relationship with collegues and health personell

Contents

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

Detailed program

Hepatology

- Chronic hepatitis (Pathology & Diagnostic Clinical Hepatology): Viral Hepatitis, Storage diseases, Acute & Chronic alcoholic hepatitis; Cholestatic liver diseases;
- Autoimmune liver disease, Drug Induced Liver disease (DILI; Non-alcoholic Fatty liver disease (NAFLD/MAFLD/DAFLD)
- Cirrhosis: Staging systems; Portal hypertension (Ascites, Collateral circles, Hepatic encephalopathy)
- Acute on Chronic Liver Failure (ACLF): Physiopathology, Clinic & Management
- Acute Liver Failure: Physiopathology, Clinic & Management
- Hepatocellular Carcinoma (HCC): Pathology & Diagnostic Clinical Hepatology; Interventional Radiology; Surgery
- Cholangiocarcinoma: Pathology & Diagnostic; Clinical Gastroenterology; Endoscopy; Surgery
- Liver transplant: Indications/Complications

Prerequisites

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

Teaching form

the clerckship sessione are subdivided in the following teaching modality, alternating prasctical 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 envised by the digestive disease vertical track which is based on:
End of Clerckship 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 clerckship 9 shall be: Idoneous or Non Idoneous (and is considered propedeutic 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 may 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 RELATIOSHIP: practical implementation of the good clinical practices of patient-phyisician relationship: listening, dialogue, information, clearness, consent acquisition.
Relationship with collegues 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 courve
SKILLS: INJCTIONS: venous catheter placement, ev. infusiuons, 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 conscousness - Hepatic Hencephalopathy
Diuresis, Bowel alterations Diarrhea and constipation (stool exam)
Pruritus, skin alterations-pigmentation- Jaundice/Skin disorders /Infectious exanthemas
Gastrointestinal bleeding
Nutritional Status /Idratation/ Unintentional weight loss/Thirst / Hunger
Edemas
Nutrition - fluid balance
identifications of objective signs od 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 & therapeutical plam design
Principles of Liver biopsy
THERAPY principles of medical therapy in Hepat-Gastroenterology
OUTPATIENT CARE: Assisting to Hepatologic, Trapiantologic, Gastroenterologic outpatient visit
Simulation of an Hepatologic, Trapiantologic, Gastroenterologic outpatient visit
CLINICA REASONING: Capability of framing the reason for admission within the contesx of complex chronicity conditions of the patient. concepts of Frailty
To show knowledge and application of clinical reasonment: 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