

## CLINICAL CENTER RESIDENCY I (ML0135)

### 1. language

Inglese.

### 2. course contents

Coordinator: Prof. RAFFAELLI MARCO

Year Course: 2021/2022

Semester: Semestrale

UFC: 13

Modules and lecturers:

- GENERAL SURGERY I (ML0140) - 2 cfu - ssd MED/18  
Prof. Marco Raffaelli, Francesco Ardito, Carmela De Crea
- GENERAL SURGERY II (ML0139) - 1 cfu - ssd MED/18  
Prof. Domenico D'Ugo
- GENERAL SURGERY PROFESSIONAL TRAINING (ML0141) - 2 cfu - ssd MED/18  
Prof. Alberto Biondi, Francesco Pennestri', Laura Lorenzon, Emanuela Traini, Fausto Rosa, Valerio Papa
- INFECTIOUS DISEASES II (ML0137) - 1 cfu - ssd MED/17  
Prof. Simona Di Giambenedetto, Giancarlo Scoppettuolo
- INFECTIOUS DISEASES PROFESSIONAL TRAINING (ML0138) - 1 cfu - ssd MED/17  
Prof. Simona Di Giambenedetto, Giancarlo Scoppettuolo, Rita Murri, Mothanje Barbara Patricia Lucia, Katleen De Gaetano Donati, Antonella Cingolani
- INTERNAL MEDICINE I (ML0144) - 2 cfu - ssd MED/09  
Prof. Erica De Candia, Geltrude Mingrone
- INTERNAL MEDICINE II (ML0136) - 1 cfu - ssd MED/09  
Prof. Giovanni Gambassi
- INTERNAL MEDICINE PROFESSIONAL TRAINING (ML0145) - 1 cfu - ssd MED/09  
Prof. Luca Miele, Silvia Giovannini, Rocco Trisolini, Giovanni Pecorini, Esmeralda Capristo, Giuseppe De Matteis
- MEDICAL AND SURGERY PHARMACOLOGY (ML0143) - 1 cfu - ssd BIO/14  
Prof. Bianca Rocca
- OCCUPATIONAL PSYCHOLOGY (ML0142) - 1 cfu - ssd M-PSI/06  
Prof. Marco Di Nicola

### 3. bibliography

Harrison's principles of internal medicine, McGraw Hill, 20th

Edition Sabiston Textbook of Surgery, Elsevier, 20th Edition

Current Medical Diagnosis and Treatment 2019, Lange – McGraw Hill

Current Diagnosis and Treatment Surgery, Lange – McGraw Hill, 14th  
Edition

Abnormal Psychology, S. Nolen-Hoeksema, B Marroquín, McGraw Hill, 7th Edition

Goodman & Gilman's The Pharmacological Basis of Therapeutics. McGraw Hill. 13th

Edition Further bibliography will be suggested to students during the classes

#### 4. learning objectives

Knowledge and understanding – The integrate course is finalized to the acquisition of the following knowledge and understanding:

- Clinical presentation, basic physiology, key physical findings, differential diagnoses, diagnostic workup, medical and surgical management of the diseases and clinical conditions
- Appropriate use of diagnostic techniques, findings interpretation and integration into patient management
- Fundamental principles of pharmacology and drug use in different clinical scenarios
- Fundamental principles of medical and surgical patient management
- Basic clinical and surgical skills, by the participation in clinical activities in the medical and surgical wards and in the operating theatre

**Applying knowledge and understanding** – Students will be instructed on how to master clinical reasoning to synthesize data toward a prioritized differential diagnosis, working diagnosis, and therapeutic plan.

**Making judgements** – The students will develop abilities on how to make judgments and take decisions when facing the integrated clinical care and management of patients in different clinical scenarios. The students will then develop the ability to strategize the approach to get to a conclusive diagnosis or to the choice of different therapeutic strategies.

**Communication skills** – The students will acquire the skills to illustrate clinical cases and to communicate care processes and clinical decisions. The students will also learn how to present and contextualize risks and benefits of the different diagnostic techniques and therapeutic approaches.

**Learning skills** – The students will start to understand how to consolidate and extend medical knowledge, balancing evidence from textbooks, articles as well as by using online platforms, programs and web-based applications.

#### 5. PREREQUISITES

Essential prerequisite is background knowledge of anatomy, biochemistry, microbiology, physiology and pathophysiology, with particular regard to endocrine, gastrointestinal and circulatory systems and to blood cells.

#### 6. teaching methods

The course will consist of traditional classroom lectures, case-based learning, interactive learning, E-learning and self-study along with autonomous and tutor-guided professional training in the diverse clinical units.

**Knowledge and understanding** – During classroom presentation of clinical case will help students to understand the diseases and the clinical reasoning basing on updated evidences and integrated approaches. Professional training will allow student to participate in clinical activities in the medical and surgical wards and in the operating theatre with the primary aim to acquire basic clinical skills

**Applying knowledge and understanding** – Either in class but even more specifically during the professional training, the students will be introduced to real clinical scenario and invited to apply acquired knowledge to clinical practice.

**Making judgements** – Either in class but even more specifically during the professional training, the students will be asked to start to participate in the clinical decision making at every step in

the diagnostic and therapeutic management of the most common clinical scenarios.

**Communication skills** – The students will be stimulated to discuss real clinical cases using the most appropriate scientific language.

**Learning skills** – Beyond the classroom teaching and the professional training, the students will be stimulated to take any opportunity for a more in-depth and systematic study of any of the relevant didactic content

## 7. other informations

In addition to formal classes, teachers are available to meet students to answer questions related to Course topic and to furnish further teaching materials

## 8. methods for verifying learning and for evaluation

The final exam will consist of a multiple-choice questions evaluation (test items) based on topics of all teaching modules. Multiple choice will be preferably based on clinical scenarios. Items to be administered during the final test will address topic related to the content of each module and the number of items for each discipline will be proportional with the number of CFU/hours administered during the course. In order to pass the final exam, students must pass/reach a minimum score for all the module.

## 9. program

### Internal Medicine I and II

Swollen ankle and painful legs – case scenario to discuss about peripheral angiopathy and neuropathy in diabetes

Fatigue and splenomegaly – case scenario to discuss about splenomegaly and hyperviscosity/polycythemia

Confused about clear guidelines - case scenario to discuss about modern patients and EBM  
Hypertension, fatigue and altered mental status – Cushing ectopic

Confusion and hypoglycemia – case scenario to discuss about hypoglycemia and insulinoma

Metformin-associated Lactic acidosis – case scenario to discuss about differential diagnosis, precipitating factors and management

Deteriorating liver function after bariatric surgery – case scenario to discuss about complex biological systems

Should I bypass or rejuvenate my duodenum? – case scenario to discuss about recent advancements for diabetes

Hyperglycemia while in the hospital - case scenario to discuss about stress hyperglycemia

40 years woman with fever and hematuria – case scenario to discuss about thrombotic microangiopathies

Liver transplantation and coagulation

Skin hyperpigmentation and ferritin increase – case scenario to discuss about hemochromatosis

Catastrophic syndrome with hypercoagulation and hyperfibrinolysis – case scenario to discuss about DIC

Pro-thrombotic mutations and pill prescription

### Medical and surgery pharmacology

Drugs used for the treatment of gastrointestinal diseases. Drugs used for the treatment of gastric acidity, peptic ulcers, and gastroesophageal reflux disease. Physiological and pharmacological regulation of the gastric acid secretion. Gastric antiseptory drugs: proton pump inhibitors (e.g. omeprazole); H receptor antagonists (e.g. ranitidine); prostaglandin analogs (e.g. misoprostol); potassium-competitive acid blockers (e.g. vonoprazan). Miscellaneous agents: antacids; sucralfate; bismuth compounds. Prokinetic drugs. Acetylcholinesterase inhibitors (neostigmine). Dopamine receptor antagonists (domperidone). Drugs binding to both dopamine and serotonin receptors (e.g. metoclopramide). Selective serotonin receptor ligands (e.g. prucalopride). Motilin receptor agonists (e.g. erythromycin). Laxatives. Bulk-forming laxatives (e.g. psyllium). Stool

surfactant agents (e.g. docusate). Osmotic laxatives (e.g. magnesium hydroxide). Stimulant laxatives (e.g. senna). Prosecretory agents: Cl channel activators (lubiprostone); guanylin receptor agonists (e.g. linaclotide). Drugs used for the treatment of opioid-induced constipation (e.g. methylnaltrexone). Antidiarrheal agents. Opioid agonists (e.g. loperamide). Miscellaneous agents: octreotide; clonidine; colloidal bismuth compounds; bile salt-binding resins; telotristat; crofelemer. Antiemetic agents. Dopamine receptor antagonists (e.g. domperidone). 5-HT receptor antagonists (e.g. ondansetron). NK receptor antagonists (e.g. aprepitant). Miscellaneous agents. Scopolamine; antihistamines; glucocorticoids; benzodiazepines; cannabinoids; pyridoxine. Drugs used for the treatment of inflammatory bowel disease. Aminosalicylates (e.g. mesalamine). Topical glucocorticoids (e.g. budesonide). Immunosuppressants (e.g. thiopurine derivatives). Biological drugs: anti-TNF monoclonal antibodies (e.g. infliximab); anti-integrin monoclonal antibodies (e.g. vedolizumab); anti-IL-12 and -IL-23 monoclonal antibodies (e.g. ustekinumab). JAK inhibitors (e.g. tofacitinib).

Nonsteroidal drugs used for the therapy of inflammatory diseases, pain, and fever. Eicosanoids. Biosynthesis and degradation. Physiological roles and pharmacological effects. Therapeutic uses. Paracetamol (acetaminophen). Nonsteroidal anti-inflammatory drugs. Salicylates. Acetic acid derivatives: indole and indene (e.g. indomethacin); heteroaryl (e.g. diclofenac). Propionic acid derivatives (e.g. ibuprofen). Enolic acids (oxicams; e.g. piroxicam). COX-2 selective inhibitors (e.g. celecoxib).

Antiplatelet agents. Acetylsalicylic acid. P2Y receptor antagonists (e.g. clopidogrel). Thrombin receptor antagonists (e.g. vorapaxar). Dipyridamole. Glycoprotein IIb/IIIa inhibitors (e.g. abciximab).

Pharmacotherapy of diabetes mellitus. Insulin. Insulin secretagogues: direct (sulfonylureas, e.g. glyburide; meglitinides, e.g. repaglinide; GLP-1 receptor agonists, e.g. exenatide), and indirect (DPP-4 inhibitors, e.g. sitagliptin). Biguanides (e.g. metformin). Thiazolidinediones (e.g. pioglitazone). -Glucosidase inhibitors (e.g. acarbose). SGLT2 inhibitors (e.g. canagliflozin).

Occupational psychology

Eating disorders (ED): classification and diagnostic issues

Therapeutic projects for ED: psychopharmacology, rehabilitation and psychotherapy  
The pathway to bariatric surgery for obese patients

The aggressive patient in the Emergency

Department The risk of suicide in the patient with

medical pathology Addictions

## General surgery I and II

Surgical patient evaluation: principles

Surgery of the thyroid gland (surgical anatomy, hyperthyroidism, nodular goiter, thyroid cancer)

Surgery of the parathyroid glands (surgical anatomy, primary, secondary and tertiary hyperparathyroidism)

Surgery of the adrenal glands (surgical anatomy, Cushing's syndrome, primary hyperaldosteronism, pheochromocytoma, adrenal incidentaloma, adrenocortical carcinoma)

Neuroendocrine tumors of the gastro-entero-pancreatic tract

Surgery for obesity and related disorders (including diabetes)

Presentation and management of the gastrointestinal bleeding

Presentation and management of the acute pancreatitis

Presentation and management of chronic pancreatitis

Presentation and management of bile duct and gallbladder

stones Presentation and management of pancreatic tumors

Presentation and management of esophageal disorders (surgical anatomy, functional benign disorders, esophageal tumors)

Surgery of the stomach (surgical anatomy, gastric tumors) Surgery of the small intestine (surgical anatomy, tumors)

Surgery of the colon and rectum (surgical anatomy, tumors of the colon and rectum)

Disease of the anus (surgical anatomy, pelvic floor disorders, hemorrhoids, anal fissures and ulcers, ano-rectal fistulas and abscess, anal tumors)

Hernia and other lesions of the abdominal wall Surgical innovation, mentoring and tutoring

## Infectious disease II

HIV infection and management of HIV+ patients Hepatitis

T u b e r c u l o s i s

Meningoencephalitis

Gastro-intestinal

infections Intestinal

parasitosis

Infections of venous accesses