



## MEDICINE AND SURGERY

**Course:** Patient management  
**Year:** 6<sup>th</sup>  
**Period:** 1<sup>st</sup> Semester  
**Credits:** 8 credits

### Objectives

#### *Knowledge and understanding*

By the end of the course the student will know the diseases associated with the most relevant symptoms, their pathogenesis, the appropriate diagnostic flowchart to distinguish different diseases, and the basic principles of therapy according to the final diagnosis.

Knowledge acquired during this course is essential to reach an overview of medical sciences and to perform differential diagnosis among diseases. This exam is propaedeutic to the beginning of the professional activity as Medical Doctor.

#### *Application of knowledge and understanding*

By the end of the course student will be able to:

- Identify and clinically evaluate the commonest signs & symptoms
- Choose the most appropriate diagnostic approach to perform differential diagnosis
- Formulate diagnostic hypotheses by an appropriate use and evaluation of clinical data, imaging findings and laboratory tests
- Propose the most appropriate therapeutic approach
- Manage the most important side effects of drugs used for the mentioned diseases

#### *Making judgements; Communication skills; Learning skills*

By the end of the course students will:

- develop abilities to communicate and work in team
- acquire learning skills such as organize knowledge, revise and retain information, select information, make connections, choose among different option, critically review their clinical reasoning



## **Prerequisites**

To be allowed to attend to the Patient Management exam students must have passed the exams of:

BIOSTATISTICS

SYSTEM DISEASES 1, 2 AND 3

CLINICAL IMMUNOLOGY AND DERMATOLOGY

INFECTIOUS DISEASES

BONE AND JOINT DISEASES

CLINICAL NEUROSCIENCE

PATHOLOGY

NEUROPHARMACOLOGY

ONCOLOGY



## **CONTENTS**

**YEAR/SEMESTER: 6<sup>TH</sup> YEAR-1<sup>ST</sup> SEMESTER**

### **Transplantation immunology and bone marrow transplant**

#### *Learning outcomes*

After this lecture, the students should:

- Understand the principles of transplant immunology
- Know the commonest drugs used in transplanted patients
- Know the commonest indications and the outcome of bone marrow transplantation

### **Solid organs' transplantation**

#### *Learning outcomes*

After this lecture, the students should:

- Understand the principles of transplant of solid organs (liver transplant)
- Know the main issues related to solid organs' transplantation
- Know the commonest indications and the outcome of liver transplantation

### **Percutaneous & minimally invasive procedures**

#### *Learning outcomes*

After this lecture, the students should:

- Understand the different types of percutaneous procedures
- Know their commonest indications
- Know the main advantages and complications of percutaneous procedures
- Understand the principles of minimally invasive surgery
- Know the technical bases of minimally invasive surgery
- Know the pro and cons of minimally invasive surgery

### **Hernia**

#### *Learning outcomes*

After this lecture, the students should:

- Know the definition of hernia
- Understand the different types of hernia and the difference between hernia and incisional hernia
- Know signs and symptoms associated with hernias



- Understand potential complications of hernias
- Know the principles of surgical treatment of patients with hernia, including prosthetic materials, and the indications to emergency treatment

After this lecture, the students should be able to:

- Identify a hernia and its complications
- Manage patients with hernia
- Plan the appropriate treatment

### **Focus on chronic pain: oncologic and fibromyalgic pain**

#### Learning outcomes

After this lecture, the students should:

- Know the features of fibromyalgic and of oncologic pain
- Understand principles of therapy for fibromyalgic and oncologic pain

After this lecture, the students should be able to:

- Manage an up-to-date treatment of fibromyalgic and oncologic pain

### **Vascular disorders of the limb: arterial and venous**

#### Learning outcomes

After this lecture, the students should:

- Know the vascular anatomy of the limbs
- Know the commonest types of vascular disorders of the limbs
- Understand the basic principles of surgical or endovascular approach to vascular disorders of the limbs

After this lecture, the students should be able to:

- Perform physical examination of patients with vascular disorders of the limbs
- Perform differential diagnosis in patients with vascular disorders of the limbs
- Identify the most appropriate investigations to formulate a correct diagnosis
- Plan the appropriate treatment according to the hypothesized diagnosis

### **How to prepare the Thesis**

#### Learning outcomes

After this lecture, the students should:

- Understand the basic principles for writing the thesis
- Know the part of the thesis and their content



After this lecture, the students should be able to:

- Prepare an adequate thesis

## **DRG, Internal Review Board, medical electronic report**

### Learning outcomes

After this lecture, the students should:

- Know the disease-related grouping approach
- Understand the role of the Ethical Committee and the Internal Review Board
- Know the medical electronic report as a medical tool

## **Retroperitoneal masses**

### Learning outcomes

After this lecture, the students should:

- Know the etiology of retroperitoneal masses
- Understand the pathophysiology of retroperitoneal masses-related signs and symptoms
- Know the principles of surgical and non-surgical treatments of retroperitoneal masses

After this lecture, the students should be able to:

- Diagnose retroperitoneal masses
- Perform a differential diagnosis in patients with retroperitoneal masses
- Identify the most appropriate investigations to perform
- Plan the appropriate treatment

## **How to treat: Arthritis**

### Learning outcomes

After this lecture, the students should:

- Know the different types of therapy for arthritis
- Know the criteria to choose the best therapy
- Know the main side effects of treatments

After this lecture, the students should be able to:

- Prescribe an up-to-date treatment for arthritis
- Identify the side effects of treatments

## **How to treat: Antibiotics**

### Learning outcomes

After this lecture, the students should:



- Know the different types of antibiotics
- Know the criteria to choose the best antibiotic therapy
- Know the main side effects of antibiotics

After this lecture, the students should be able to:

- Prescribe an up-to-date antibiotic treatment (drug, dosage, and duration)
- Identify the side effects of antibiotics

### **How to treat: old and novel anticoagulants**

#### *Learning outcomes*

After this lecture, the students should:

- Know the “old” anticoagulants (Warfarin) and their side effects
- Know the “new” anticoagulants (NOAC) and their side effects

After this lecture, the students should be able to:

- Prescribe an up-to-date anticoagulant therapy
- Manage patients with anticoagulant therapy
- Identify side effects of anticoagulant therapy
- Treat side effect of anticoagulant therapy

### **How to treat: Diabetes mellitus**

#### *Learning outcomes*

After this lecture, the students should:

- Understand diagnosis of diabetes mellitus
- Know complications of diabetes mellitus
- Know the available drugs for the treatment of diabetes mellitus

After this lecture, the students should be able to:

- Diagnose diabetes mellitus and its complications
- Prescribe an up-to-date treatment for diabetes mellitus

### **How to treat: Chronic viral hepatitis, old and novel drugs**

#### *Learning outcomes*

After this lecture, the students should:

- Know the “old” drugs for chronic viral hepatitis
- Know the “new” drugs for chronic viral hepatitis
- Know side effects, costs and limits of drugs used in chronic viral hepatitis

After this lecture, the students should be able to:

- Manage patients with therapy for chronic viral hepatitis

## **Drug abuse**

### Learning outcomes

After this lecture, the students should:

- Understand social and psychological aspects of drug abuse
- Know the most used drugs
- Know the appropriate antidotes

After this lecture, the students should be able to:

- Manage patients with drug abuse
- Diagnose acute and chronic drug use
- Prescribe antidotes

## **How to treat: Corticosteroids**

### Learning outcomes

After this lecture, the students should:

- Know the different compounds of corticosteroids
- Understand the acute and chronic use of corticosteroids
- Know the clinical indication of steroids
- Know the side effects of chronic use of steroids

After this lecture, the students should be able to:

- Prescribe corticosteroids
- Manage patients with corticosteroid therapy and therapy-related side effects

## **How to treat: Cardiomyopathy**

### Learning outcomes

After this lecture, the students should:

- Know the definition, epidemiology and causes of cardiomyopathy
- Understand the different types of cardiomyopathies
- Understand diagnosis and complications of cardiomyopathy
- Know the treatments of cardiomyopathy

After this lecture, the students should be able to:

- Diagnose cardiomyopathy and its complications
- Identify causes of cardiomyopathy
- Prescribe the adequate therapy

## **How to treat: Tuberculosis**

### *Learning outcomes*

After this lecture, the students should:

- Know the definition, epidemiology and causes of tuberculosis
- Know the therapy of tuberculosis and its potential side effects

After this lecture, the students should be able to:

- Diagnose tuberculosis
- Manage the adequate therapy

## **How to treat: Hypertension and hypotension**

### *Learning outcomes*

After this lecture, the students should:

- Know the definition, epidemiology and causes of hypertension
- Know the secondary hypertension
- Understand diagnosis and complications of hypertension
- Know the non-pharmacological and pharmacological treatments of hypertension (according to new ESH guidelines)
- Know definition, epidemiology and causes of hypotension
- Understand the approach to the patient with chronic and orthostatic hypotension
- Know the therapy of neurogenic orthostatic hypotension

After this lecture, the students should be able to:

- Diagnose hypertension and hypotension and their complications
- Identify causes of hypertension and hypotension
- Prescribe the adequate therapy

## **The COVID-19 pandemia**

### *Learning outcomes*

After this lecture, the students should:

- Know the main signs and symptoms of COVID-19 infection
- Know the diagnostic flowchart for COVID-19 infection
- Understand the principles of differential diagnosis between COVID-19 infection and other pulmonary infections
- Know the outcome and evolution of COVID-19 infection
- Understand the principles of treatment of patients affected by COVID-19

After this lecture, the students should be able to:

- Diagnose COVID-19 infection
- Manage (basic principles) patients with COVID-19 infection and COVID-related complications



## **Clinical cases: discussion and professionalism**

### Learning outcomes

After this lecture, the students should be able to:

- Identify the main features of professionalism as it can be addressed by means of the discussion of clinical cases

## **Clinical cases: discussion**

### Learning outcomes

After this lecture, the students should be able to:

- Identify the priority presenting problem
- Evaluate clinical conditions of the patient
- Perform a differential diagnosis
- Identify the most appropriate investigations to reach a final diagnosis
- Plan the appropriate treatment

## **Lectures with the General Practitioners (GPs)**

The course schedules four lectures with the GPs to discuss the following topics:

- Toward a new model of GP care. The hospital / territorial services relationship.
- The role of GPs in the management of acute and chronic patients. Taking care of fragile patients
- Digital Health for GP. Telemedicine and other technologies
- GPs and end-of-life care.

### Learning outcomes

After these lectures, the students should:

- Know the relationship between the hospital and territorial services
- Understand the basis of the organization of the GP activity
- Understand the role of GPs in the management of acute and chronic patients
- Know the characteristics of fragile patients and the basis for their management
- Know the current and future application of the digital health to the GPs activity.
- Understand the principles of the end-of-life care



## Teaching Methods

### Lectures

The main purpose of lectures is to transfer knowledge to students by guiding them through the most relevant subjects of the disciplines included in the course of Patient Management.

For each topic, a multidisciplinary approach will be adopted. Professors of the main disciplines having an active role in diagnosis and treatment of symptom-related diseases will give separate lectures. One professor will coordinate lectures and provide a conclusive overview about the topic. Students are expected to participate to lectures in a proactive manner and to take notes as part of the learning process.

All lectures will be held synchronously, either in presence or using Teams.

### Group work activities/activation of knowledge

The purpose of these activities is to activate and solidify knowledge acquired during lectures and independent study, in a collaborative learning setting.

For these activities, students will be divided in groups.

Participation is mandatory. Student that cannot be on Campus for reasons related to the pandemics will participate on-line by Teams

## Attendance

To access the final exam, the students must attend  $\geq 75\%$  of the lectures and group work activities

## Verification of learning

Assessment of learning will take place through an exam having the following parts:

- Written part: The analysis of one chest X-ray and one ECG. Chest X-ray and ECG will be provided by the examiners. Students will have 30' to write a detailed medical report including main findings and diagnosis. After conclusion of the written part, all students will be admitted to the oral part (the same day).

- Oral part I: Examiners will evaluate the medical report provided for the chest X-ray and ECG. They will ask the student to comment on main findings and proposed diagnosis.

- Oral part II: Discussion of some clinical cases (at least one proposed by Internal Medicine professor and one by General Surgery professor). For each clinical case, the student will receive a concise description of clinical scenario. According to the main presenting symptoms the student must set diagnostic hypotheses, possible flowcharts, make a differential diagnosis. Interpretation of clinical data, radiological findings and laboratory test is required. Finally, students must plan a therapeutic approach and know the most important side effects of any mentioned drug.



## **Texts**

Jameson, et. al.  
Harrison's Principles of Internal Medicine, 20th Edition  
Publisher: McGraw-Hill  
Publish Year: 2018

Goldman, Schafer et al.  
Goldman-Cecil Medicine, 26th Edition  
Publisher: Elsevier  
Publish Year: 2019

Townsend, et al.  
Sabiston Textbook of Surgery, 20th Edition  
Publisher: Elsevier  
Publish Year: 2016

## ***Online resource***

UpToDate  
<https://www.uptodate.com>