



MEDICINE AND SURGERY

Course: Patient management

Year (1st-2nd-3rd-4th-5th-6th): 6th

Period (1st-2nd semester – annual): 1st 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: 6TH YEAR-1ST SEMESTER

How to treat: Diabetes mellitus and metabolic urgencies

Learning outcomes

After this lecture, the students should:

- Know the “old” drugs for diabetes mellitus and metabolic urgencies
- Know the “new” drugs for diabetes mellitus and metabolic urgencies

After this lecture, the students should be able to:

- Prescribe an up-to-date treatment for diabetes mellitus
- Prescribe an up-to-date treatment for metabolic urgencies

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
- Know the commonest drugs used in transplanted patients
- Know the commonest indications and the outcome of solid organs' transplantation

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

Shock (part 1)

Learning outcomes

After this lecture, the students should:

- Know the definition of shock
- Know the classification and etiology of shock (in particular of cardiogenic and anaphylactic shock)
- Understand the pathophysiology of shock
- Understand the approach to patients with shock
- Know the therapy of cardiogenic shock
- Know the therapy of anaphylactic shock

After this lecture, the students should be able to:

- Diagnose a shock
- Perform a differential diagnosis among different types of shock (in particular cardiogenic and anaphylactic ones)
- Identify the most appropriate investigations to perform
- Manage patients with shock (in particular those with cardiogenic and anaphylactic shock)
- Plan the appropriate treatment

Shock (part 2)

Learning outcomes

After this lecture, the students should:

- Understand the etiology and pathophysiology of shock (in particular hypovolemic and septic shocks)
- Understand the approach to patients with shock
- Know the therapy of septic shock
- Know the therapy of hypovolemic shock
- Understand the management of surgical infections, and of surgery-related sepsis
- Understand the principles of the medical, interventional and surgical treatments of shock

After this lecture, the students should be able to:



- Perform a differential diagnosis among different types of shock (in particular hypovolemic and septic shocks)
- Identify the most appropriate investigations to be performed
- Manage patients with shock (in particular hypovolemic and septic shocks) including antibiotic therapy
- Plan the appropriate treatment

Shock (part 3 & 4) - Group work activities (Clinical cases)

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

After this activity, the students should be able to:

- Diagnose a shock
- Perform a differential diagnosis among different types of shock
- Identify the most appropriate investigations to be performed
- Manage patients with shock
- Set the appropriate treatment

Hernia and stoma. Outline on prosthetic materials

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
- Know the definition of stoma
- Know different types of stoma
- Understand potential complications associated with stoma

After this lecture, the students should be able to:

- Identify a hernia and its complications
- Evaluate a stoma
- Identify stoma-related complications
- Manage patients with hernia or stoma
- Plan the appropriate treatment

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

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

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: 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

Wound care

Learning outcomes

After this lecture, the students should:

- Know the most frequent causes of skin ulcer
- Know the concept of a difficult injury
- Understand what is a negative pressure wound therapy

After this lecture, the students should be able to:

- Evaluate patients with a skin ulcer
- Plan adequate management of cutaneous ulcers based on the rational use of the devices available

Burn

Learning outcomes

After this lecture, the students should:

- Know the clinical presentation of a burn
- Know the different degrees of burn
- Know the possible systemic complications of burn

After this lecture, the students should be able to:

- Evaluate the severity of a burn
- Plan the hospital management of the burn victims
- Plan the main medical and surgical therapies to manage a burn area

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: 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

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

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

Clinical cases: discussions 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

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. Remarkable emphasis will be given to the therapeutic aspect,

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 on-line by 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 in teams



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.

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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.

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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>