UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Cardiovascular Diseases A

2526-3-H4101D257-H4101D043M

Aims

The Medical-Surgical Pathology Course 1 focuses on pathologies of the Cardiovascular and Respiratory systems. It is aimed at achieving the following objectives:

1.acquisition of the various methods of patient assessment with particular attention to the collection of the anamnesis, physical examination and laboratory tests with a view to their subsequent application in the specialist field;
2.knowledge of the main symptoms and signs of the pathologies considered and their pathophysiological bases. The topics of the Course constitute the necessary tools for understanding the semeiological bases and the pathophysiogy of the main morbid conditions, in order to allow an adequate approach to their management in the clinical field. The notions provided represent the indispensable basis for the acquisition of a scientific method applicable to all the fields in which students will be engaged in the course of their professional growth.

Contents

In relation to the cardiovascular and respiratory systems:

- History collection
  -General and specific physical examination
  -Laboratory tests
  Diagnostic reasoning of symptoms, Main clinical signs and symptoms related to medical and surgical pathologies of the cardiovascular and respiratory systems, with guidance in their diagnosis and understanding of their pathophysiology. Role, limitations and purpose of laboratory tests. Differential diagnosis of symptoms of major diseases of the two systems, with guidance on their diagnostic/prognostic evaluation.

Detailed program

Rationale for the correct prescription of instrumental investigations
Measuring blood pressure
-Measurement techniques and modalities

Epidemiology, cardiovascular risk factors and prevention
Dyslipidaemia
Non-classical cardiovascular risk factors
-Primary and secondary arterial hypertension
Management of the hypertensive patient
Correct interpretation of instrumental investigations
Therapeutic goals in the hypertensive patient
Resistant and secondary hypertension
International guidelines
-Main Congenital Heart Diseases

- *Main channelopathies*
  -Physiological and haemodynamic aspects of structural alterations of the heart muscle and valves

Diseases of the pericardium, endocardium and myocardium
Pathophysiological mechanisms of pericarditis, endocarditis, myocarditis and cardiomyopathies
Signs and symptoms of the disease, its evolution and aggravation
Management of pathology based on current international guidelines
Follow-up and interpretation of instrumental and laboratory
examinations
-Ischaemic heart disease
Stable and unstable angina
Myocardial infarction
Pathophysiological mechanisms
Signs and symptoms of the disease, its evolution and aggravation
Acute and chronic management of the patient
Planning and interpretation of instrumental and laboratory examinations

```
***Pulmonary embolism**
```

Pathophysiology
Main aetiological factors
Clinical picture
Diagnostic procedure and follow-up
-Pulmonary hypertension
Pathophysiology
Main aetiological factors
Clinical picture
Diagnostic procedure and follow-up

-Valvulopathies
Congenital and acquired valvulopathies
Etiopathogenetic and physiological mechanisms
Signs and symptoms of the disease, its evolution and aggravation
Follow-up, indications and interpretation of instrumental examinations

-Cardiac rhythm disorders
Hypokinetic arrhythmias
Hyperkinetic arrhythmias
Principles of electrophysiology and electrostimulation
Indications for PM and ICD implantation

-Heart failure
Pathophysiological mechanisms and aetiology of heart failure
Symptoms and signs: from development to disease progression
Acute pulmonary oedema
NYHA classification
Planning and interpretation of laboratory and instrumental examinations
Management of the patient with acute and chronic heart failure in the light of the latest international guidelines

-Interdisciplinary aspects of cardiovascular pathologies
Cardiological causes of cerebrovascular pathology
Integrated cardio-respiratory monitoring tools
Sleep: physiology and quali-quantitative alterations;
Sleep: cardiovascular effects

Prerequisites

Knowledge of the propedeutic courses specified in the degree course regulations

Teaching form

Lectures and training at patients' bedside

Textbook and teaching resource

Lectures content
Harrison’s: “Principles of Internal Medicine” Ed. McGraw Hill

other textbooks
HURST- The Heart 12th Ed. McGraw Hill
Dioguardi – Sanna: Moderni aspetti di semeiotica medica - Segni sintomi e malattie Ed.Seu
Sabiston: “Textbook of surgery” Ed. Saunders
Zanussi: “Il metodo in medicina clinica” Ed. Mattioli
McPherson RA, Pincus MR Henry's Clinical Diagnosis and Management by Laboratory Methods, 23a edizione in lingua inglese. Ed. Elsevier, 2016
Antonozzi - Gulletta Medicina di Laboratorio - Logica e Patologia CliniCA. Ed. Piccin 2019

Semester

First Semester

Assessment method

see main course syllabus

Office hours

By appointment (through email)

Sustainable Development Goals

GOOD HEALTH AND WELL-BEING