

SUBJECT TEACHING GUIDE

G137 - Medical Pathology I

Degree in Medicine

Academic year 2019-2020

1. IDENTIFYING DATA					
Degree	Degree in Medicine			Type and Year	Compulsory. Year 4
Faculty	Faculty of Medicine				
Discipline	Human Clinical Training Subject Area: Human Pathology				
Course unit title and code	G137 - Medical Pathology I				
Number of ECTS credits allocated	6	Term	Semester based (1)		
Web					
Language of instruction	Spanish	English Friendly	Yes	Mode of delivery	Face-to-face

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Other lecturers	DAVID ITURBE FERNANDEZ MONICA GONZALEZ MARTINEZ JOSE MANUEL CIFRIAN MARTINEZ IVAN OLAVARRI MIGUEL FRANCISCO JESUS GONZALEZ VILCHEZ MANUEL JESÚS ZARAUZA NAVARRO JOSE MARIA DE LA TORRE HERNANDEZ CARLOS ANTONIO AMADO DIAGO

3.1 LEARNING OUTCOMES

- At the end of the course, students should be able to the
- Approach a patient with respiratory or cardiovascular complaints
- Obtain medically relevant data from the history and physical examination
- Identify the key symptoms
- Plan an appropriate diagnostic work-up
- Elaborate a differential diagnosis
- Elaborate a therapeutic approach

4. OBJECTIVES

THEORETICAL KNOWLEDGE OF THE CARDIOVASCULAR AND RESPIRATORY DISEASES

1. Epidemiology and socio-sanitary impact
2. Etiopathogenic, anatomopathological and pathophysiological mechanisms
3. Key symptoms and clinical signs
4. Prognosis, evolutionary course and common complications.
5. Appropriate usage and priority of the complementary diagnostic studies
6. Medical, interventional and surgical therapeutic approaches
7. Referral criteria to specialized care

PRACTICAL KNOWLEDGE OF THE CARDIOVASCULAR AND RESPIRATORY DISEASES

The acquisition of this knowledge by the student will take place within the framework of clinical seminars through the study of interactive clinical cases and problem solving seminars, as well as the different teaching materials available.

1. Obtaining a clinical history oriented to cardiac and respiratory pathology.
2. Recognize the clinical manifestations by physical examination
3. Basic knowledge of the indication and interpretation of the main diagnostic tests in cardio-respiratory pathology (chest x-ray, ECG, Echocardiography, spirometry, blood gases analysis, etc.).

RESPIRATORY DISORDERS

- 1.- Introduction to Pneumology
- 2.- Pulmonary Function Testing
- 3.- Respiratory Failure
- 4.- Sleep Apnea Syndrome
- 5.- Chronic Obstructive Pulmonary Disease (I)
- 6.- Chronic Obstructive Pulmonary Disease (II)
- 7.- Bronchial asthma
- 8.- Infections of the respiratory tract
- 9.- Pneumonias acquired in the community
- 10.- Nosocomial and Immunocompromised host pneumonia
- 11.- Pulmonary tuberculosis and atypical mycobacterias
- 12.- Bronchiectasis and cystic fibrosis
- 13.- Interstitial lung diseases
- 14.- Extrinsic allergic alveolitis.
- 15.- Lung and connective tissue diseases
- 16.- Pulmonary vasculitis
- 17.- Sarcoidosis
- 18.- Occupational pulmonary disorders
- 19.- Respiratory distress
- 20.- Pleural disease
- 21.- Pulmonary neoplasms (I)
- 22.- Pulmonary neoplasms (II)
- 23.- Pulmonary trombo-embolic disease
- 24.- Pulmonary hypertension.
- 25.- Pulmonary transplantation.

CARDIOVASCULAR DISORDERS

-INTRODUCTION TO CARDIOLOGY

1. Cardiovascular Diseases in the XXI century.
2. Evidence based Cardiology. Clinical practice guidelines. Bayesian approach.

-DIAGNOSTIC TESTS IN CARDIOLOGY

ELECTROCARDIOGRAPHY

3. Basic aspects of electrocardiography
4. Atrial and ventricular arrhythmias
5. Conduction abnormalities. Chamber hypertrophy and enlargement.

6. Ischemic syndromes. Other common clinical disorders.

CARDIAC IMAGING

7. Echocardiography

8. Cardiac magnetic resonance, computed tomography, nuclear medicine

OTHER DIAGNOSTIC MODALITIES

9. Cardiac catheterization and angiography. Electrophysiological study, Tilt test, Holter monitoring. Stress testing.

HEART FAILURE:

10. Pathophysiology, classification and diagnosis.

11. Medical treatment of heart failure. Advanced therapies: Resynchronization, ventricular assist devices and cardiac transplantation.

12. Idiopathic dilated cardiomyopathy. Specific cardiomyopathies with reduced ejection fraction. Myocarditis.

13. Heart failure with preserved ejection fraction.

14. Hypertrophic cardiomyopathy

15. Restrictive cardiomyopathy.

ISCHEMIC HEART DISEASE

16. Epidemiology and cardiovascular risk factors

17. Atherosclerosis

18. Stable ischemic heart disease

19. Acute coronary syndromes: STEMI and NSTEMI

20. Complications of myocardial infarction

ARRHYTHMIAS AND CONDUCTION ABNORMALITIES

21. Sinus disease, AV and IV conduction disorders. Electronic pacing.

22. Atrial Fibrillation and atrial flutter

23. Other supraventricular arrhythmias. Micro and macro reentry.

24. Ventricular arrhythmias. Arrhythmogenic RV Dysplasia. Channelopathies. Sudden death. AICD.

25. Syncope

VALVULAR HEART DISEASE

26. Mitral stenosis and insufficiency

27. Aortic stenosis and insufficiency. Aortic syndromes.

28. Tricuspid and pulmonary valve abnormalities.

29. Bacterial endocarditis

30. ADULT CONGENITAL DISORDERS

31. DISEASES OF THE PERICARDIUM

32. CARDIAC TUMORS. CARDIAC MANIFESTATIONS OF SYSTEMIC DISEASES

6. COURSE ORGANIZATION	
CONTENTS	
1	Respiratory disorders
2	Respiratory disorders
3	Respiratory disorders
4	Respiratory disorders
5	Respiratory disorders
6	Respiratory disorders
7	Cardiovascular disorders
8	Cardiovascular disorders
9	Cardiovascular disorders
10	Cardiovascular disorders
11	Cardiovascular disorders
12	Cardiovascular disorders
13	Cardiovascular and Respiratory disorders

7. ASSESSMENT METHODS AND CRITERIA				
Description	Type	Final Eval.	Reassessn	%
Written examination. (Multiple choice test with 50 questions + 2 essay questions)	Written exam	No	Yes	50,00
		No	No	0,00
Written examination. (Multiple choice test with 50 questions + 2 essay questions)	Written exam	No	Yes	50,00
TOTAL				100,00
Observations				
The final score will be the average between the Respiratory and Cardiovascular block results. An individual score below 4/10 in either the Respiratory or the Cardiovascular block implies a failing grade. However, Respiratory and Cardiovascular block results of 5/10 or higher will be held in the september examination.				
Observations for part-time students				

8. BIBLIOGRAPHY AND TEACHING MATERIALS

BASIC

MEDICINA INTERNA

- *HARRISON. PRINCIPIOS DE MEDICINA INTERNA. 19ª edición. Mc Graw Hill, 2016
- *GOLDMAN-CECIL MEDICINE, 25th Edition, Lee Goldman and Andrew I. Schafer: Elsevier, 2016.
- *FARRERAS ROZMAN. MEDICINA INTERNA. 18ª edición. Elsevier, 2016

NEUMOLOGÍA

- NEUMOLOGÍA CLÍNICA. Segunda edición. Álvarez Sala y colaboradores. Elsevier 2016.
- GUÍA PNEUMOLOGICA. 10ª edición. Morell y colaboradores. Ergon, 2016.

CARDIOLOGÍA

- BRAUNWALD'S HEART DISEASE. A textbook of Cardiovascular Medicine. 11th edition, Elsevier 2018.
- PATHOPHYSIOLOGY OF HEART DISEASE: a collaborative project of medical students and faculty. Lilly LS. 6th edition, Wolters Kluver 2016
- LIBRO DE CARDIOLOGÍA EN VALDECILLA. Berrazueta JR, Vázquez de Prada JA. TEIBA, 2017