

International School of Medicine / Medicine (English)

2023 - 2024 Academic Year

CARDIOLOGY

Syllabus

| Course Description | | | | | |
|-------------------------------------|---|----------|-------------------------|---------------------------|------|
| Name | Code | Semester | T+A Hour | Credit | ECTS |
| CARDIOLOGY | ISM3015443 | Yearly | 15+6 | 0 | 2 |
| Prerequisites Courses | | | | | |
| Recommended Elective Courses | Cardiovascular surgery | | | | |
| Language of Instruction | English | | | | |
| Course Level | First Cycle (Bachelor's Degree) | | | | |
| Course Type | Committee Course | | | | |
| Course Coordinator | | | | | |
| Name of Lecturer(s) | Prof.Dr. Fethi KILIÇASLAN, Prof.Dr. Hacı Murat GÜNEŞ, Prof.Dr. Ekrem GÜLER, Assist.Prof. Fatih Erkam OLGUN, Prof.Dr. Mesut YILMAZ, Assoc.Prof. Beytullah ÇAKAL, Assist.Prof. Erhan GÖNEN, Assoc.Prof. Esra DEMİR, Prof.Dr. İbrahim Oğuz KARACA, Assist.Prof. Hasan Can KÖNTE | | | | |
| Assistant(s) | - | | | | |
| Aim | To gain knowledge of respiratory and circulatory system diseases with physiopathology, clinical course, diagnosis and treatment directions. | | | | |
| Course Content | <p>This course contains; 1 Introduction to hypertension 2 Basic Electrocardiography knowledge 3 History taking and physical examination in cardiovascular system disorders-1-2 4 Introduction to coronary artery disease 5 Pathophysiology, classification and diagnosis of heart failure 6 Introduction to heart rhythm disorders 7 Introduction to heart valve diseases 8 Introduction to aortic diseases 9 TBL-Respiratory System Pathology 10 TBL-Cardiovascular System Pathology11 Cardiomyopathies and myocarditis 12 Pericardial and valvular heart diseases13 Pathology of ischemic heart diseases 14 Hypertensive vascular diseases and atherosclerosis 15 Pathology of pleural diseases 16 Medical Pharmacology-Treatment of hypertension 1-2-3-4 17 Pathology of nonspecific infections of lung18 Pathology of pulmonary tuberculosis 19 Pathology of diffuse interstitial lung disease 20 Antiplatelet and anticoagulant agents 1-2 21 Pathology of lung tumors 22 Medical Pharmacology-COPD and cough medications 1-2 23 History, physical examination and diagnostic methods in cardiovascular diseases I 24 History, physical examination and diagnostic methods in cardiovascular diseases II 25 Congenital heart diseases26 Heart failure 27 Fetal circulation 28 ECG evaluation in childhood 29 History, physical examination and diagnostic methods in respiratory system diseases30 Scientific Research-Cohort Studies 31 Introduction to sepsis 1-232 Introduction to Upper Respiratory Tract Infections33 Systemic infections(Brucellosis, Salmonellosis, Leptospirosis, Malaria)-1-2 34 Infective endocarditis : Pathogenesis, diagnosis 1-2-3 35 Epidemiology of Noncommunicable Diseases 36 Air Pollution and Effects on Health 37 Airborne Diseases 38 Climate Change and Effects on Health39 Microbiology of Respiratory and circulatory system infections 1-240 Radiology of cardiovascular system 1-241 Radiology of respiratory system 1-242 Nuclear Medicine/Nuclear medicine use in cardiovascular diseases 43 Symptoms and signs in pulmonary diseases 44 Physical examination in pulmonary diseases 45 Testing of blood gases46 Pulmonary diseases and smoking 47 Lung cancer 48 Pneumonia 49 Chronic obstructive pulmonary disease (COPD) 50 Pulmonary embolism 51 Bronchiectasis 52 Diffuse interstitial pulmonary diseases 53 Respiratory function tests54 Asthma55 Pulmonary Tuberculosis 56 Pulmonary Emergencies57 TBL-Respiratory Disease 58 Acute Rheumatic Fever59 Syncope and hypotension60 Basic diagnostic work-up and therapeutic tools in cardiovascular system disorders61 Blood pressure measurement 62 Obtaining and evaluating an ECG (Interactive group study)63 Diseases of veins /lymphatics and vascular tumors 64 Pathology of pulmonary vascular diseases 65 Pathology of chronic obstructive pulmonary disease 66 Pathology of diffuse interstitial lung disease - pneumoconiosis 67 Drugs used in arrhythmia 1-2 68 Drugs used in ischemic heart disease 1-269 Drugs used in heart failure 1-2.</p> | | | | |
| Course Learning Outcomes | | | Teaching Methods | Assessment Methods | |

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| <p>At the end of this class the students: 1- Know the prevalence and global burden of heart diseases and how to establish primary prevention for certain heart diseases.2- Make differential diagnosis based on cardinal symptoms of heart diseases (chest pain, shortness of breath, palpitations, fainting) by taking history, performing physical examination and using basic methods such as ECG and chest radiograph.3- Know the common predisposing factors for atherosclerosis and ischemic heart disease.4- Summarize medical treatment of stable ischemic heart disease, follow-up of disease process and determine the timing of revascularization requirement.5- Propose preliminary diagnosis of peripheral vascular disease with physical examination and decide when the urgent treatment and referral to a specialist is required.6- Administer initial treatment to patients with acute coronary syndrome (STEMI or NSTEMI) after evaluating basic physical findings ,namely vital signs, and baseline ECG. Know the clinical settings in which patients need to undergo cardiac catheterization for immediate revascularization. 7- Know the criteria for normal ECG. Recognize the ischemic ECG changes. Become familiar with certain tachycardia and bradycardia.8- Explain the main findings of cardiovascular system disorders on chest radiography (assessment of midline structures and pulmonary congestion signs)9- Define basic cardiovascular anatomy for cardiovascular surgery10- Know the indications for correction of valvular heart diseases and common congenital heart diseases, and coronary artery by-pass grafting as well.11- Have a knowledge about preoperative evaluation of cardiac surgery and surgical techniques. Explain common adverse events in the early post-operative period.12- Know the symptoms and signs of heart failure. Make the diagnosis and classification of acute heart failure and execute the initial treatment.13- Diagnose cardiogenic shock.14- Know the appropriate treatment and follow-up strategies of chronic heart failure. Define the possible causes of decompensation in chronic heart failure15- Know the findings of valvular heart diseases on physical examination. Summarize the most common causes of valve diseases. Distinguish the situations that require an echocardiographic assessment.16- Define the diagnostic criteria of acute rheumatic fever. Know the basic treatment strategies and secondary prophylaxis.17- Define the diagnostic criteria of infective endocarditis. Distinguish the clinical situations to suspect from infective endocarditis and to recommend prophylaxis.18- Are familiar with prosthetic heart valves, cardiac transplantation, ventricular assist devices and percutaneous treatment options in structural heart diseases.19- Know the classification and diagnostic criteria of hypertension. Summarize the life-style changes and distinguish the situations to start medical therapy along with recommendations for life-style changes. Have the ability to perform a clinical follow-up of a patient with hypertension.20- Know the clinical situations that rise a suspicion of secondary hypertension.21- Know the evidence-based therapeutic agents used in hypertension management. Decide the appropriate anti-hypertensive drug in line with the multiple-benefit principle. 22- Recognize the hypertensive emergencies. Define the basic diagnostic tests and treatment options.23- Have the ability to suspect from aortic dissection and determine urgency.24- Know the clinical situations that require further tests for diagnosis of deep venous thrombosis and pulmonary embolism. Distinguish the high risk patient with pulmonary embolism. Knowb the indications for deep venous thrombosis prophylaxis.25- Concern pulmonary hypertension as a differential diagnosis. Know the most common diseases which are related to pulmonary hypertension..26- Become familiar with initial diagnosis of tachyarrhythmias and bradyarrhythmias. Determines the clinical situations that require emergent cardioversion or defibrillation and implantation of a temporary pace-maker.27- Recognize atrial fibrillation patients with high risk of cardioembolic stroke. Are familiar with the necessity and alternatives of anticoagulation.28- Summarize the possible cardiovascular causes of syncope. Become familiar with determination of sudden cardiac death risk relying upon history (searching for family history of sudden death or diseases related to sudden cardiac death), physical examination and specific ECG findings.29- Know the classification of cardiomyopathies. Distinguish the cardiomyopathies with a high risk of sudden cardiac death. Explain the indications for family screening.30- Establish initial diagnosis of myocarditis and pericarditis depending on history, physical examination and basic laboratory markers. Recognize cardiac tamponade and know the indications for emergency needle pericardiosynthesis.</p> | | 13, 16, 4, 5, 6, 8, 9 | A, D |
| Teaching Methods | 13: Case Study Method, 16: Question - Answer Technique, 4: Inquiry-Based Learning, 5: Cooperative Learning, 6: Experiential Learning, 8: Flipped Classroom Learning, 9: Lecture Method | | |
| Assessment Methods | A: Traditional Written Exam, D: Oral Exam | | |
| Lecture Schedule | | | |
| Sequence | Topics | Preliminary Preparation | |

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| Evaluation Methods | | Weight(%) |
| Midterm Exam | | 40 |
| General Exam | | 60 |

| Resources |
|---|
| Instructor's lecture notes.1. Kayaalp, SO: Rasyonel Tedavi Yönünden Tıbbi Farmakoloji, Ankara. 2. Hardman JG, Limbird LE, Eds.: Goodman and Gilman's The Pharmacological Basis of Therapeutics, New York. 3. Katzung & Trevor: Farmakoloji, Ankara. 4. A. Yüksel Barut: Radyolojide Doğrudan Tanı, Rota Tıp Yayınevi. 5. Tefvik Özlü: Göğüs Hastalıkları El Kitabı, Rota Tıp Yayınevi. 6. M. Sadık Demirsoy: Çocuk Hastalıklarında Öykü Alma ve Fizik Muayene (PROPEDÖTİK), Nobel Tıp Kitabevi. 7. Işık BAŞAR, Lale KOLDAŞ, Faruk AYAN: Kardiyolojik Semiyoloji EKG, Nobel Tıp Kitabevleri. |