«ТАСДИҚЛАЙМАН»

Магистратура бўлими

бошлиғи доц . Имамов А.А.

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**1st-YEAR MASTERS OF CARDIOLOGY SEMINAR PLAN FOR 2021-2022 ACADEMIC YEAR**

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| **№** | **Date** | Seminar topics | **hours** | **credits** |
|  | **I** | Cardiovascular diseases and methods of examination. |  |  |
| 1 | 10.09.2021. | Cardiovascular system's anatomy. Structural and functional properties of large and small circles of blood circulation. Ultrastructure of the myocardium. | 8 | 1 |
|  | 11.09.2021 | Cardiovascular system's anatomy. Conductive system and innervation of the heart. Anatomy of the lymphatic system. Microcirculator system. | 8 |
| 2 | 13.09.2021 | Physiology of the cardiovascular system. Features of heart's muscle. Pump activity of the heart. Cardiomyocytes structure, action potential. Electrophysiology of myocardium. | 8 |
|  | 14.09.2021 | Physiology of the cardiovascular system. Physiological role of microvascular regulation of circulation. Features of the coronary circulatory system. | 8 |
| 3 | 20.09.2021. | Semiotics of Cardiological diseases, methods of physical examination. Laboratory diagnostic methods in cardiology. Examination of the coagulationof hemostasis. | 8 | 1 |
|  | 21. 09.2021 | Semiotics of Cardiological diseases, methods of physical examination. Indications for inflammation, endothelial dysfunction, lipid metabolism. Control of AH during the day (DMAH) | 8 |
| 4 | 27.09.2021. | Record and evaluate the electrical properties of the heart. Evaluation of the electrical properties of the myocardium. Methods of obtaining an ECG monitoring. Normal ECG analysis and interpretation of results. | 8 | 1 |
|  | 28. 09.2021 | Daily ECG, HMECG, evaluation of blood vessel wall density, analysis of results. ECG signs of heart muscle damage | 8 |
| 5 | 04.10.2021 | Analysis of the results of electrocardiography. Signs of left and right ventricular hypertrophy on the ECG. | 8 |
|  | 05.10.2021 | Analysis of the results of electrocardiography. Right posterior and ventricular hypertrophy on the ECG, signs of their tension. ECG symptoms of changes in the myocardium. | 8 |
| 6 | 11.10.2021. | Electrophysiological examinations. Methodology, analysis. The basis of radiofrequency ablation at the ventricles extrasystole and at the ventricular tachycardia. | 8 | 1 |
|  | 12.10.2021. | Electrophysiological examinations. Methodology, analysis. PQ interval contraction, electrophysiological examination of the premature repolarisation of ventricles and radiofrequency ablation techniques | 8 |
| 7 | 18.10.2021. | Functional and pharmacological testing. Load tests, instructions and contraindications, analyse results to optimize diagnosis and treatment. | 8 | 1 |
|  | 19.10.2021 | Diagnostic electrocardiostimulation. Basics of 3D-EchoKG, stress-EchoKG, EchoKG transfer through the esophagus in the diagnosis of cardiovascular diseases | 8 |
| 8 | 25.10.2021. | Molecular-genetic studies in cardiology. Basics of cardiovascular biology and genetics. Diagnosis of cardiovascular diseases. | 8 | 1 |
|  | 26.10.2021 | Cardiovascular complications risk assessment scales (SCORE, Framingham, CHA2DVAS2C, HASBLED, GRACE, TIMI) | 8 |
| 9 | 01.11 2021. | X-ray and radiologic examination. Radiography. Scintigraphy. Ventriculography. Positron emission tomography. Methods of describing the izoisotope of the heart. | 8 | 1 |
|  | 02.11 2021 | X-ray and radiologic examination. Options for CT, NMR, MRT, MSCT in the diagnosis and comparative diagnosis of cardiovascular diseases. Indications and contraindications to their use and conduct | 8 |
| 10 | 08.11.2021. | Methods of invasive examination in cardiology. Diagnosis of various forms of CHD: scintigraphy, coronaroangiography. Surgical revascularization, coronary grafting method. | 8 | 1 |
|  | 09.11. 2021 | Methods of invasive examination in cardiology. Interventional radiology of CT scan in CHD. Cardiac transcatheterization and pericardial catheterization, endomyocardial biopsy | 8 |
| 11 | 15.11.2021 | The main principles of the ultrasound examination in diagnosis of cardiovascular diseases. Basic principles of echocardiography. Duplex scan of the brachiocefal artery. Determination of the elasticity of the local and regional arteries.  | 8 | 1 |
|  | 16.11.2021 | The main principles of the ultrasound examination in diagnosis of cardiovascular diseases. Echocardiography through the esophagus and stress-EchoKG | 8 |
| 12 | 22.11. 2021 | Diagnostic norms of the method of ultrasound examination in the diagnosis of increased heart defects | 8 | 1 |
|  | 23.11. 2021 | Diagnostic norms of the method of ultrasound examination in the diagnosis of congenital defects of the heart | 8 |
| 13 | 29.11. 2021 | Diagnostic norms of the method of ultrasound examination in the diagnosis of congenital defects of the heart | 8 |
|  | 30.11. 2021 | Diagnostic norms of the method of ultrasound examination in the diagnosis of congenital defects of the heart | 8 |
| 14 | 06.12. 2021 | Echocardiography in hypertension and cardiovascular Diseases.  | 8 | 1 |
|  | 07.12. 2021 | The importance of echocardiography methods in the diagnosis of coronary diseases of the myocardium and the analysis of their results | 8 |
| 15 | 13.12.2021 | Echodiagnostics of non-coronary diseases of the myocardium. Myocarditis, cardiomyopathies and pericarditis | 8 | 1 |
|  | 14.12.2021 | Echodiagnostics of non-coronary diseases of the myocardium. Myocarditis, cardiomyopathies and pericarditis | 8 |
|  |  |  | 240 hours | 12 credits |
|  | **II** | Arrhythmia and blockade.  |  |  |
| 16 | 20.12.2021. | Mechanisms of Rhythm disturbances. Arrhythmia etiology. Rhythm disturbances. Study of electrophysiological arrhythmias | 8 | 1 |
|  | 21.12.2021. | Mechanisms of Rhythm disturbances. Arrhythmia etiology. Rhythm disturbances. Study of electrophysiological arrhythmias | 8 |
| 17 | 14.01.2022. | Sinus node’s dysfunction. Impulse disturbances. SN disruption of the node's automatism. Sinus node apathy syndrome.  | 8 |
|  | 15.11.2022. | Sinus node dysfunction. Ectopic rhythms (heterotropic rhythms due to the overabundance of the automatism of ectopic centers and the mechanism of reversing the wave of reflection) | 8 |
| 18 | 17.01.2021. | Atrial arrhythmia. Acute tachycardia, clinical and ECG symptoms.  | 8 | 1 |
|  | 18.01.2021 | Atrial arrhythmia. Incision atrial arrhythmia | 8 |
| 19 | 24.01.2022. | Knotted rhythm disturbances. Atrioventricular, idioventricular rhythm, rhythm management migration | 8 |
|  | 25.01.2022. | Knotted rhythm disturbances. Accelerated AV rhythm. AV dissociation | 8 |
| 20 | 29.01.2022 | Atrial flutter and fibrillation. Electrophysiological methods In the diagnosis of fibrillation. High-tech diagnostics in cardiology  | 8 | 1 |
|  | 31.01.2022 | Atrial flutter and fibrillation. New methods of treatment in cardiology. Electrophysiological correction of atrial fibrillation. Cardioversion | 8 |
| 21 | 07.02.2022 | Ventricles rhythm disturbances. Classification of extrasystoles. Methods for diagnosing heart rhythm disorders.  | 6 | 1 |
|  | 08.02.2022 | Ventricles rhythm disturbances. Comparative diagnosis of arrhythmia. Treatment of extrasystoles | 5 |
| 22 | 14.02.2022 | General guidelines for the treatment of rhythm disturbances. Antiarrhythmic medicines. | 6 |
|  | 15.02.2022 | General guidelines for the treatment of rhythm disturbances. Indications and contraindications to antiarrhythmic agents | 5 |
| 23 | 21.02.2022 | Paroksizmal tachycardia. Ventricle’s paroksizmal tachycardia. Diagnosis and treatment | 6 | 1 |
|  | 22.02.2022 | Paroksizmal tachycardia. Paroksizmal tachycardia of the ventricles. Diagnosis and treatment | 5 |
| 24 | 28.02.2022 | Treatment of abnormal rhythm disturbances. Treatment of ventricular and supraventricular tachycardia by surgical method. Treatment of tachycardia of the ventricles of the “Piruet” type.  | 6 |
|  | 01.03.2022 | Treatment of abnormal rhythm disturbances. Profilactics of the sudden Death. Cardioverter-defibrillator ICD | 5 |
| 25 | 07.03.2022 | Violation of the conduction activity (above the ventricle) and its treatment. AV blockade and intraventricular blockade | 6 | 1 |
|  | 09.03.2022 | Violation of the conduction activity (above the ventricle) and its treatment. AV blockade and intraventricular blockade | 5 |
| 26 | 14.03.2022 | Violation of conduction activity (ventricular), its diagnosis and treatment | 6 |
|  | 15.03.2022 | Violation of conduction activity (ventricular), its diagnosis and treatment | 5 |
| 27 | 25.03.2022 | Combined, complex rhythm and conduction disturbances. Radiofrequency ablation methods in the treatment of heart rhythm disturbances. Treatment of concomitant rhythm and conduction disorders | 6 | 1 |
|  | 26.03.2022 | Combined, complex rhythm and conduction disturbances. Radiofrequency ablation methods in the treatment of heart rhythm disturbances. Treatment of concomitant rhythm and conduction disorders | 5 |
| 28 | 28.03.2022 | Differential treatment of rhythm and conduction disorders. Arrhythmias indications for therapy | 6 |
|  | 29.03.2022 | Differential treatment of rhythm and conduction disorders. Arrhythmias indications for therapy | 5 |
| 29 | 04.04.2022 | Treatment of blockades. Electrocardiostimulation. Electrocardioversion. Electrocardiostimulators in modern cardiology, cardioverter-defibrillators, biventricular ECS | 6 | 1 |
|  | 05.04.2022 | Treatment of blockades. Electrocardiostimulation. Electrocardioversion. Electrocardiostimulators in modern cardiology, cardioverter-defibrillators, biventricular ECS | 5 |
| 30 | 11.04.2022 | Electrical cardioversion.. Pharmacologic cardioversion. Non-medicamental methods of treatment of Arrhythmia and blockades. | 6 |
|  | 12.04.2022 | Electrical cardioversion.. Pharmacologic cardioversion. Non-medicamental methods of treatment of Arrhythmia and blockades. | 5 |
|  | **III** | Arterial hypertension. |  |  |
| 31 | 18.04.2022 | Arterial hypertension. Classification of Arterial hypertension. Essential hypertension. Management of Arterial pressure.  | 6 | 1 |
|  | 19.04.2022 | Arterial hypertension. Stratification of the risk of cardiovascular complications | 5 |
| 32 | 25.04.2022 | Diagnosis of Arterial hypertension. At ag nishon a'zolarining shikastlanishining zamonaviy nazariyasi va protektsiya qilish usullari.  | 6 |
|  | 26.04.2022 | Diagnosis of Arterial hypertension. Comparative diagnosis of Arterial hypertension. | 5 |
| 33 | 02.05.2022 | Arterial gipertenziyalarni davolash. Classification of hypotensive agents. Arterial blood pressure kunlik profilini hisobga olgan olgan ol the choice of antihypertensive drugs. | 6 | 1 |
|  | 03.05.2022 | Arterial gipertenziyalarni davolash. Profilactics of Arterial hypertension. Carrying patients with AH in a polyclinic, primary and secondary prophylaxis of complications of AH | 5 |
| 34 | 10.05.2022 | Dangerous arterial hypertension. Resistant hypertension. Salt hypertonic. Stagnant hypertensive disease, exacerbation. Clinical experience using multicomponent antihypertensive therapy | 6 | 1 |
|  | 11.05.2022 | Dangerous arterial hypertension. Resistant hypertension. Salt hypertonic. Stagnant hypertensive disease, exacerbation. Clinical experience using multicomponent antihypertensive therapy | 5 |
| 35 | 16.05.2022 | Hypertonic crisis clinic, diagnosis. Elimination of hypertonic crises. Basics of emergency medical care in hypertonic crises | 6 | 1 |
|  | 17.05.2022 | Hypertonic crisis clinic, diagnosis. Elimination of hypertonic crises. Basics of emergency medical care in hypertonic crises | 5 |
| 36 | 23.05.2022 | Symptomatic arterial hypertension (kidney and vascular diseases) etiopatogenesis, clinic, diagnosis and treatment | 6 | 1 |
|  | 24.05.2022 | Symptomatic arterial hypertension (in kidney and vascular diseases) etiopatogenesis, clinic, diagnosis and treatment | 5 |
| 37 | 30.05.2022 | Symptomatic arterial hypertension (endocrine, hemodynamic, Central, iatrogenic) clinic, diagnosis and treatment. | 6 |
|  | 31.05.2022 | Symptomatic arterial hypertension (endocrine, hemodynamic, Central, iatrogenic) clinic, diagnosis and treatment. | 5 |
|  | **IV** | Atherosclerosis.  |  |  |
| 38 | 06.06.2022 | Modern approaches to atherosclerosis. Pathomorphology of atherosclerosis. Classification.  | 6 | 1 |
|  | 07.06.2022 | Modern approaches to atherosclerosis. Lipid metabolism. Dyslipidemia and its types | 5 |
| 39 | 13.06.2022 | Principles of clinic, laboratory and instrumental diagnosis of atherosclerosis. Lipidology. Diagnostics of lipitension. | 6 |
|  | 14.06.2022 | Aortic atherosclerosis clinic, diagnosis, complications and prophylaxis | 5 |
| 40 | 20.06.2022 | Modern approach to atherosclerosis treatment. Medical and nomedicamental treatment of dyslipidemia. Treatment of multifocal atherosclerosis.  | 6 | 1 |
|  | 21.06.21 | Modern approach to atherosclerosis treatment. Surgical and interventional treatment of atherosclerosis. Angioplasty and stenting practice of renal and mesenteric arteries. Nomedicamentous treatment and prophylaxis of atherosclerosis | 5 |
|  |  |  Clinic cardiology | 300 hours | 15 credits |

Director of the programme, Associate Professor Shukurdjanova S.M.

Head of the Department, M.D., Associate Professor Nurillaeva N.M.