



UNIwersYTET
Andrzeja Frycza Modrzewskiego
w Krakowie

Collegium Medicum Faculty of Medicine

SUBJECT CARD

Field of studies: Medicine
Form of studies: Full-time course
Degree: long-cycle Master's program
Specializations: No specialization
Academic year: 2024/2025

| CARDIOLOGY II | |
|--------------------------------|---|
| SUBJECT NAME | Cardiology II |
| NUMBER OF ECTS POINTS: | 6 |
| LANGUAGE OF INSTRUCTION | english |
| TEACHER(S) | prof. nadzw. UAFM dr hab. n.med. Piotr Buszman prof. UAFM dr hab. Aleksander Żurakowski prof. UAFM dr hab. n.med. Adam Janas dr n.med. Wojciech Fil dr n.med. Katarzyna Czerwińska-Jelonkiewicz dr n. med. Magdalena Konkolewska dr n. med. Bogdan Gorycki dr n. med. Krzysztof Sanetra dr n. med. Bartosz Skwarna dr n. med. Tadeusz Dzielski lek. Eugeniusz Hrycek dr n. med. Jerzy Matysek (Szpital Św. Rafała) dr n. med. Tomasz Sanderek (Centrum Symulacji Medycznej) |
| PERSON RESPONSIBLE | prof. nadzw. UAFM dr hab. n.med. Piotr Buszman |
| NUMBER OF HOURS: | |

| CARDIOLOGY II | |
|---------------------------|---|
| LECTURES: | 30 godz. |
| CLASSES: | 45 godz. |
| GENERAL OBJECTIVES | |
| OBJECTIVE 1: | The student will be acquainted with knowledge in the field of prevention, diagnosis, treatment and rehabilitation of heart and vascular diseases |
| OBJECTIVE 2: | The student will acquire skills in the application of knowledge in the diagnosis and treatment of cardiological patients |
| LEARNING OUTCOMES | |
| MK1 | Knowledge: presents the principles of interpretation of laboratory test results and predicted clinical effects therapies used, including patient safety and monitoring of treatment effectiveness |
| MK2 | Knowledge: the student selects appropriate basic diagnostic methods adequate to the patient's health condition cardiological (RR, resting and exercise ECG, chest X-ray, spirometry, Holter EKG, Holter RR and others) |
| MK3 | Knowledge: the student selects appropriate methods of specialist diagnostics adequate to the patient's state of health cardiological (ultrasound, echocardiography, computed tomography, cardiological magnetic resonance imaging, coronarography and others) |
| MS1: | Skills: the student conducts an interview and physical examination of the patient and determines the appropriate test pattern diagnostic |
| MS2: | Skills: interprets laboratory and imaging results in cardiology and identifies the causes deviations |
| MS3: | Skills: the student participates in the implementation of basic procedures and medical procedures in cardiology (RR, resting and exercise ECG, Holter EKG, Holter RR, USG, Echocardiography, CT, cardiological magnetic resonance imaging, detailed examination of peripheral vessels) and prescribes appropriate pharmacological treatment and treatment |
| MC1: | Skills: the student has the ability to document the patient's illness (electronic record medical) |
| MC2: | Skills: student performs differential diagnosis of heart and blood vessel diseases |

CARDIOLOGY II

MC3:

Skills: recognizes states of immediate threat to life in cardiology

INTRODUCTORY REQUIREMENTS

student has knowledge of the symptoms of cardiovascular disease, definitions and methods of diagnosis and interpretation test results and indications for conservative and interventional treatment

student has skills in conducting interviews, physical examination of the patient, documenting the course of the patient's disease, and interpretation of the results of laboratory and imaging tests, as well as applied tests methods of treatment and monitoring their effectiveness

COURSE PROGRAM

DESCRIPTION

LECTURE 1:

Hypertension

LECTURE 2:

Heart and circulatory failur

LECTURE 3:

Imaging in cardiovascular diseases

LECTURE 4:

Heart and vascular surgery

LECTURE 5:

Diseases of the heart muscle, pericardium and endocardium

CLASS 1

Hypertension: a. Epidemiology and socioeconomic significance b. Pathophysiology of hypertension and causes: Primary, secondary c. Correct and elevated pressures based on the latest ESC guidelines d. Complications of hypertension e. Prevention f. The role of lifestyle modification and rehabilitation. g. Pharmacotherapy h. Resistant hypertension and the role of renal nervousness

CLASS 2

Heart failure a. Epidemiology and a growing social problem b. Distribution of failure - acute and chronic. c. Causes of heart failure i. Coronary heart disease ii. Hypertension iii. Valvular heart disease iv. inflammatory

CLASS 3

Imaging in cardiovascular diseases: a. Basic concepts about the sensitivity and specificity of a diagnostic test. b. Chest X-ray review - role, significance, quick diagnosis and why it is still irreplaceable. c. Echocardiography as a standard of cardiological diagnostics. Elements of 3D echocardiography, tissue doppler. New portable and mobile devices. Will they replace the stethoscope? d. Endovascular imaging e. Angio-CT scan of coronary arteries and large vessels. Indications, the growing diagnostic role in the diagnosis of coronary heart disease based on guidelines, f. Magnetic resonance imaging of the heart. Indications. Role. Dynamic testing. Standard in the assessment of heart defects. g. Perfusion scintigraphy of the heart. Role in the diagnosis of stable coronary artery disease. indications

CARDIOLOGY II

| CLASS 4 | Diseases of the heart muscle, pericardium and endocardium: • Ischemic and non-ischemic cardiomyopathy • Dilatative, hypertrophic, restrictive cardiomyopathy - diagnostics, pathophysiology, causes, pharmacotherapy and invasive treatment - Infectious endocarditis, diagnostics, pathophysiology, pharmacotherapy and invasive treatment • Pericarditis - symptoms, causes, types, diagnosis |
|--|---|
| CLASS 5 | Heart and vascular surgery: a. Coronary artery bypass grafting - method, indications, qualification. b. Surgical valve replacement and repair operations - methods, indications, qualification c. Thoracic and abdominal aortic aneurysms - symptoms, causes, types, diagnosis and d. Cardiac surgery in heart failure - mechanical circulatory support, heart transplantation - method, indications, qualification e. Transurethral treatment of heart defects - aortic valve replacement, mitral and tricuspid valve replacement and repair. Closing of defects and connections - PFO, VSD. Closing the left atrium tab. f. Percutaneous methods of circulatory support |
| DIDACTIC METHODS (APPLIED) | DESCRIPTION |
| | Laboratory exercises |
| | Lectures |
| | Teaching by the patient's bedside |
| | Professional practice |
| | Discussion |
| | Case study |
| STUDENTS WORKLOAD: | |
| CONTACT HOURS WITH THE ACADEMIC TEACHER | 75 |
| HOURS WITHOUT THE PARTICIPATION OF THE ACADEMIC TEACHER | Preparation for classes: 20 Preparation of report, presentation, medical history: 10 Preparation for the exam: 40 |
| TOTAL NUMBER OF HOURS FOR THE COURSE | 145 |

CONDITIONS FOR COURSE COMPLETION

CARDIOLOGY II

Attendance at seminars, clinical classes and on-call duty. Homework is possible only with the prior consent of the teacher. The student is obliged to justify the absence immediately after the obstacle ceases to participate in the classes of the responsible person.

Exercises 1,2,3,5: Case report of a patient with a practical skills test (physical and subjective examination) and an oral knowledge test about a disease case. Proposing therapy.

Exercises 4: Completing clinical exercises and practical skills test based on the presented diagnostic images

METHODS OF ASSESSMENT:

| | |
|--------------------------------|---|
| IN TERMS OF KNOWLEDGE: | Discussion and questions during exercises and seminars ended with credit. Oral test. |
| IN TERMS OF SKILLS: | Demonstration of physical and subjective examination. Evaluation of the prepared report from the physical examination and the history of the disease described. |
| IN TERMS OF SOCIAL COMPETENCE: | Activity during classes, observation of behavior towards patients, colleagues, assessment of group work |
| FORMATIVE: | Forming tests. Student's question ended with a credit or a mid-term colloquium |
| SUMMATIVE (I & II) | I Test consisting of 60 questions II A test consisting of 60 questions or an oral exam consisting of three randomly selected questions. |

GRADING SCALE

| | |
|-------------------------|--|
| 3,0 (Satisfactory) | student obtains a minimum of 60% of the points from the written exam |
| 3,5 (Satisfactory plus) | student obtains a minimum of 67% of the points from the written exam |
| 4,0 (Good) | student obtains a minimum of 74% of points from the written exam |
| 4,5 (Good plus) | student obtains a minimum of 82% of points from the written exam |
| 5,0 (Very Good) | student obtains a minimum of 91% of points from the written exam |

BASIC LITERATURE

[1] Internal medicine Szczeklik - Internal medicine handbook 2023

SUPPLEMENTARY LITERATURE

CARDIOLOGY II

- [1] Applicable Guidelines of the European Society of Cardiology
- [2] Applicable Guidelines of the Polish Society of Cardiology
- [3] Cardiology with elements of angiology - Piotr Pruszczyk
- [4] Cardiology E. Braunwald