

MINISTRY OF HEALTHCARE OF THE RUSSIAN FEDERATION
State Government-Funded Educational Institution of Higher Professional Education
«NORTHERN STATE MEDICAL UNIVERSITY»
of Ministry of Healthcare of the Russian Federation

METHODOLOGICAL GUIDELINES FOR STUDENTS
Polyclinic therapy

2024

Topic 1: “Organization of the work of a district doctor and a therapeutic service in a polyclinic, qualification characteristics of the specialty. Primary site documentation.

1. Theme of the class, its goals and tasks: To learn the general principles of organizing and providing medical care to patients in the aspect of the activity of a general practitioner in outpatient practice.

Tasks:

1. To study the main issues of organizing outpatient therapeutic care, to know the structure, functions of the clinic, the organization of the work of the local therapist.
2. Check and consolidate the basic theoretical knowledge and practical skills of the district doctor, obtained during self-training, and in industrial practice as an assistant to the district doctor.
3. Get to know and learn how to draw up the main primary documents used in the work of a district doctor.
4. Get to know the main responsibilities of the local therapist.
5. Get acquainted with the legislative documents regulating the activities of the district doctor.
6. Get acquainted with the concept of development of the healthcare system in the Russian Federation until 2024.

2. Basic definitions to be mastered by students during studying of the topic (list of notions):

Qualification

The main sections of the work of the local therapist

Primary documents

Performance indicators

Regulations

3. Questions for the class studies:

1. Functional duties of the district doctor.
2. Continuity in the activities of the district doctor.
3. Temporary indicators of the work of the district doctor.
4. Qualitative indicators of the work of the district doctor.
5. Criteria for the effectiveness of the activity of the local general practitioner.
6. Accounting and reporting forms of primary medical documentation used in the work of a district doctor.
7. Features of the organization of home care.
8. Stationary-replacing forms of medical care in the clinic.
9. Features of maintaining standard accounting and reporting medical documentation in outpatient clinics using software products, Internet resources, information systems and Microsoft Office capabilities.

Main documents:

- outpatient medical record (form 025/y);
- coupon for an outpatient (f. No. 25-10 / y-97);
- a coupon for an appointment with a doctor (form 025-4 / y);
- a record book of doctor's house calls (form 031/y);
- a diary of the work of a doctor in a polyclinic (outpatient clinic), dispensary, consultation (form 039 / y);
- control card of dispensary observation (form 030/y);
- referral for consultation and auxiliary offices (form 028/y);
- an extract from the medical card of an outpatient, inpatient (form 027 / y);
- card of preventive fluorographic examinations (form 052/y);
- emergency notification of an infectious disease, food, acute, occupational poisoning, unusual reaction to vaccination (form 058/y);
- referral to MSEC (form 088/y);
- certificate of incapacity for work; certificate of temporary disability of students, students of vocational schools about diseases, quarantine of a child attending a school, a preschool institution (form 095 / y);
- certificate for obtaining a voucher (form 070/y);
- health resort card (form 072/y);
- prescription (form 107/y); a prescription for a medicine containing narcotic substances (form 107/y-NP, form 148-1/y-88); prescription when prescribing medicines to citizens entitled to receive medicines free of charge or at a discount form 148-1 / y-04 (I), prescription "free, payment of 50%, 20% of the cost", etc. (form 108 / y) ;

4. Questions for the self-assessment

1. City polyclinic: structure, tasks, functions. Organization and content of the work of the therapeutic department of the polyclinic. Organization of medical care at home. Stationary-replacing technologies. Continuity in the provision of medical and preventive care.
2. Which order of the Ministry of Health sets out the procedure for organizing medical care for the population according to the district principle.
3. What is the recommended size of the attached population in the therapeutic area.
4. Indicate the decreed contingents subject to mandatory dispensary observation by the district doctor.
5. List the areas of activity of citizens who are subject to additional medical examination in accordance with the order of the Ministry of Health of the Russian Federation.
6. List the population groups subject to DLO according to the order of the Ministry of Health of the Russian Federation.
7. List the main accounting forms for evaluating the effectiveness of the work of the district doctor.
8. Indicate what primary document the district doctor draws up for the patient if he has indications for spa treatment.
9. Analysis of the incidence of the population. Registration of the passport of the site, planning of work for the year, month, quarter. Making report.

10. Sections of the annual report.

11. Concepts of morbidity, morbidity, lethality and mortality.

5. Compulsory and supplementary literature on the theme:

5.1 Compulsory literature

1. Ivashkin V. T. Internal diseases propedeutics [Электронный ресурс]/ V. T. Ivashkin, A. V. Okhlobystin. - Москва: ГЭОТАР-Медиа, 2020. -176 p.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970455555.html>

2. Oslopov V. N. General Care of a Patient [Электронный ресурс] : tutorial/ V. N. Oslopov, O. V. Bogoyavlenskaya. - Москва: ГЭОТАР-Медиа, 2021. -208 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970460429.html>

3. Outpatient Therapy [Электронный ресурс] : textbook/ ed. V. N. Larina. - Москва: ГЭОТАР-Медиа, 2023. -456 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970477083.html>

5.2. Supplementary literature

1. Basics of medical care = Основы медицинского ухода [Электронный ресурс] : пособие для студентов учреждений высшего образования, обучающихся по специальности «Лечебное дело» : manual for students of higher education institutions studying in the specialty «General Medicine»/ Т. П. Пронько, Э. Э. Поплавская, Е. М. Сурмач. - Гродно: ГрГМУ, 2019. -208 с.- URL: <https://www.books-up.ru/ru/book/basics-of-medical-care-12061289>

2. Borodulina E. A. Diagnosis and prevention of tuberculosis in general medical practice [Электронный ресурс] : tutorial guide/ E. A. Borodulina, B. E. Borodulin. - Москва: ГЭОТАР-Медиа, 2024. -104 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970481905.html>

3. Diagnostics and treatment of internal diseases in outpatient department = Диагностика и лечение терапевтических заболеваний на амбулаторном этапе [Электронный ресурс] : пособие для студентов учреждений высшего образования, обучающихся по специальности «Лечебное дело» : manual for students of higher education institutions studying in the specialty/ Е. А. Кежун, Н. С. Слободская, Д. В. Пицко, К. В. Гончар. - Гродно: ГрГМУ, 2020. -200 с.- URL: <https://www.books-up.ru/ru/book/diagnostics-and-treatment-of-internal-diseases-in-outpatient-department-11950033>

4. The organization and carrying out of examination of temporary disability = Организация и проведение экспертизы временной нетрудоспособности [Электронный ресурс] : an educational manual for English-speaking students/ А. Г. Сердюков, И. Б. Набережная, Ж. Б. Набережная, А. С. Нимгирова. - Астрахань: Астраханский ГМУ, 2020. -103 с.- URL: <https://www.books-up.ru/ru/book/the-organization-and-carrying-out-of-examination-of-temporary-disability-10835934>

5. Поликлиническая терапия [Электронный ресурс] : учебник/ ред.: И. Л. Давыдкин, Ю. В. Щукин. -2-е изд., испр. и доп.. -Москва: ГЭОТАР-Медиа, 2022. -840 с.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970471999.html>

Regulations:

1. Federal Law No. 323-FZ dated November 21, 2011 "On the Fundamentals of Protecting the Health of Citizens in the Russian Federation.
2. Order of the Ministry of Health of the Russian Federation of November 15, 2012 N 923n The procedure for providing medical care to the adult population in the field of "therapy"
3. Order of the Ministry of Health and Social Development of Russia dated May 15, 2012 N 543n (as amended on September 30, 2015) "On approval of the Regulations on the organization of primary health care for the adult population"
4. Order of the Ministry of Health and Social Development of Russia dated April 23, 2012 No. 390n "On approval of the list of certain types of medical interventions for which citizens give informed voluntary consent when choosing a doctor and medical organization for receiving primary health care
5. Order of the Ministry of Health of Russia dated December 20, 2012 N 1177n (as amended on August 10, 2015) "On approval of the procedure for giving informed voluntary consent to medical intervention and refusal of medical intervention in relation to certain types of medical interventions, forms of informed voluntary consent to medical intervention and forms of refusal of medical intervention"
6. Order of the Ministry of Health of Russia of December 9, 1999 N 438 "On the organization of the activities of day hospitals in health care facilities."
7. Order of the Ministry of Health of Russia dated March 6, 2015 N 87n "On the unified form of medical documentation and the form of statistical reporting used in the conduct of clinical examination of certain groups of the adult population and preventive medical examinations, the procedures for filling them out" (together with the "Procedure for filling out the registration form N 131 / y "Medical examination record card (preventive medical examination)", "The procedure for filling out and deadlines for submitting statistical reporting form N 131 "Information on the medical examination of certain groups of the adult population").

6. List of the information and telecommunications Internet resources required for mastering of the course

№	Resources	URL address	Resource Annotation
1	Website of the European Society of Cardiologists	http://www.escardio.org	contains cardiological articles, clinical recommendations
2	MedLib	http://med-lib.ru/	contains cardiological articles, clinical recommendations
3	Website of the American Heart Society and the American Society of Cardiologists	www.heart.org/HEARTORG	contains cardiological articles, clinical recommendations

4	PubMed	https://pubmed.ncbi.nlm.nih.gov	An electronic search engine with more than 30 million publications, including studies, meta-analyses, clinical trials and systematic reviews in medicine, dentistry, physiology, biology and psychology. The site is intended primarily for medical professionals and medical students.
5	UpToDate	https://www.wolterskluwer.com	One of the most authoritative sources of information on clinical medicine for physicians. Articles on the site contain up-to-date data on diseases, etiology, pathophysiology, diagnosis and therapy. The information on pathologies and treatments is based on the principles of evidence-based medicine. The site contains many illustrations, tables, infographics and videos.
6	Mayo Clinic	https://www.mayoclinic.org	A nonprofit organization and research center. The site contains current and reliable information on diseases, causes, diagnosis and treatment for physicians and medical students. More than 3,000 physicians and researchers contribute to the articles. The information will help physicians decide on a treatment and medication if they are in a state of uncertainty.
7	Drugs	https://www.drugs.com	An encyclopedia site with information about most existing medicines in medicine. You can find out, for example, whether drugs are compatible with each other and what side effects they can cause. The peculiarity of the site is that it does not represent any pharmacy or pharmaceutical company, so the information about drugs is provided neutrally, without interest in its sale.
8	The Lancet	https://www.thelancet.com	An internationally respected journal for physicians and medical professionals, published for almost 200 years. It has many subdivisions,

			such as The Lancet Neurology, which publishes articles on neurology, and The Lancet Oncology, which covers oncological diseases. The journal is peer-reviewed, which means that the credibility of facts, studies and results are checked by experts and specialists in their fields. There are videos, infographics, and podcasts, for example, about successful treatment cases.
9	The BMJ	https://www.bmj.com	The British Medical Journal publishes articles, systematic reviews, and clinical studies. It is one of the most cited journals. The purpose of the publication is to educate young physicians and medical staff who have recently begun to practice and to combat unreliable, unethical, and outdated information.
10	CDC	https://www.cdc.gov	Centers for Disease Control and Prevention. The site contains statistics, review articles and current research with links to primary sources, and provides up-to-date health data.
11	FDA	https://www.fda.gov	Centers for Disease Control and Prevention Food and Drugs Administration. The site contains statistics, review articles and current research with links to primary sources, and provides up-to-date health data. This resource generally provides up-to-date information about the development, testing, and introduction of medicines, including vaccines. The FDA is the authority on whose approval a drug's fate depends, and if it approves a drug, it is considered to have passed a clinical trial and to have proven efficacy.
12	Medscape	https://www.medscape.org	An online resource for medical professionals, physicians, and medical students. Contains many

			original reviews, monographs, clinical studies, and articles. The site has a library. The front pages talk about current topics in medicine and medicines.
13	«Emergency Medical Help»	https://vk.com/emhelp	A community of medical professionals in the social network "VKontakte", algorithms, recommendations, audio and video tutorials.

7.List of the software and information & reference systems:Telegram, Veeva Engage, Zoom, Skype, Moodle

8. List of questions and assignments for independent work, including those using e-learning and distance learning technologies

Sections and topics for self-study	Types and content of independent work
Independent solution of case studies	The tasks are located in Moodle

Topic 2: “Primary prevention of chronic non-communicable diseases (chronic NCDs). Integrated global monitoring system for non-communicable diseases in the Russian Federation. Healthy lifestyle, the basics of rational nutrition. The main risk factors for chronic NCDs and their correction.

1. Theme of the class, its goals and tasks:

To get acquainted with the basic principles of prevention of NCDs, to study the main factors of NCDs and be able to correct them.

Tasks:

1. To study the main strategies for the prevention of chronic non-communicable diseases.
2. To study the legal and organizational basis for the prevention of chronic non-communicable diseases in the Russian Federation.
3. Familiarize yourself with the organization of the prevention of chronic non-communicable diseases in the framework of primary health care.
4. Know the main preventive medical services provided to the population during the period of clinical examination and preventive medical examination.
5. Familiarize yourself with preventive counseling for patients with risk factors for chronic noncommunicable diseases.
6. Learn the basics of rational nutrition.
7. Know methods for correcting risk factors for chronic NCDs.

2. Basic definitions to be mastered by students during studying of the topic (list of notions):

Health groups
Clinical examination
Disease
Health
Medical checkup
medical rehabilitation
Prevention
Preventive medical examination
Preliminary medical examination
Periodic medical examination
Risk factors

3. Questions for the class studies:

1. The main regulatory and legal framework for the prevention of chronic NCDs and the formation of a healthy lifestyle among the Russian population.
2. The structure of preventive institutions and subdivisions.
3. Clinical examination, preventive medical examinations of the population.
4. The main stages of clinical examination.
5. The role of the district physician, general practitioner (family), specialist doctors, nurse, paramedic in the prevention of chronic non-communicable diseases.
6. The main tasks of medical workers of the department (office) of medical prevention.
7. Methods for correcting risk factors for chronic NCDs.
8. Fundamentals of rational nutrition.
9. Nutrition for various diseases.
10. Lifestyle: concept, characteristics, significance in human health.
11. Healthy lifestyle: concept, characteristics, formation technologies.
12. The place of lifestyle in the structure of the causes that cause human pathology.
13. The main aspects of a healthy lifestyle: rational nutrition, physical activity, personal and communal hygiene, work and rest regimen, rejection of bad habits, sexual culture, environmentally competent behavior, etc.

4. Questions for the self-assessment

1. List of diseases(conditions) for which dispensary observation is carried out by a local general practitioner.
2. Prevention of chronic non-communicable diseases in the conditions of inpatient care and in sanatorium-and-spa institutions.
3. The content of vitamins and minerals in the edible part of the products.
4. Ways to form a healthy lifestyle. Forms, means and methods of hygienic education.
5. Activities of medical and non-medical institutions for hygienic education of various groups of the population.
6. Smoking as a risk factor for a number of diseases.
7. Alcohol as a risk factor for somatic diseases.
8. Alimentary obesity as a risk factor for major non-communicable diseases.

9. Hyperlipoproteinemia (dyslipidemia) as a risk factor for a number of cardiovascular diseases.
10. Physical inactivity as a risk factor for major non-communicable diseases.

5. Compulsory and supplementary literature on the theme:

5.1 Compulsory literature

1. Ivashkin V.T. Internal diseases propedeutics [Электронный ресурс]/ V. T. Ivashkin, A. V. Okhlobystin. -Москва: ГЭОТАР-Медиа, 2020. -176 p.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970455555.html>
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3. Outpatient Therapy [Электронный ресурс] : textbook/ ed. V. N. Larina. -Москва: ГЭОТАР-Медиа, 2023. -456 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970477083.html>

5.2. Supplementary literature

1. Basics of medical care = Основы медицинского ухода [Электронный ресурс] : пособие для студентов учреждений высшего образования, обучающихся по специальности «Лечебное дело» : manual for students of higher education institutions studying in the specialty «General Medicine»/ Т. П. Пронько, Э. Э. Поплавская, Е. М. Сурмач. -Гродно: ГрГМУ, 2019. -208 с.- URL: <https://www.books-up.ru/ru/book/basics-of-medical-care-12061289>
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3. Diagnostics and treatment of internal diseases in outpatient department = Диагностика и лечение терапевтических заболеваний на амбулаторном этапе [Электронный ресурс] : пособие для студентов учреждений высшего образования, обучающихся по специальности «Лечебное дело» : manual for students of higher education institutions studying in the specialty/ Е. А. Кежун, Н. С. Слободская, Д. В. Пицко, К. В. Гончар. -Гродно: ГрГМУ, 2020. -200 с.- URL: <https://www.books-up.ru/ru/book/diagnostics-and-treatment-of-internal-diseases-in-outpatient-department-11950033>
4. The organization and carrying out of examination of temporary disability = Организация и проведение экспертизы временной нетрудоспособности [Электронный ресурс] : an educational manual for English-speaking students/ А. Г. Сердюков, И. Б. Набережная, Ж. Б. Набережная, А. С. Нимгирова. -Астрахань: Астраханский ГМУ, 2020. -103 с.- URL: <https://www.books-up.ru/ru/book/the-organization-and-carrying-out-of-examination-of-temporary-disability-10835934>
5. Поликлиническая терапия [Электронный ресурс] : учебник/ ред.: И. Л. Давыдкин, Ю. В. Щукин. -2-е изд., испр. и доп.. -Москва: ГЭОТАР-Медиа, 2022. -840 с.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970471999.html>

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3	Website of the American Heart Society and the American Society of Cardiologists	www.heart.org/HEARTORG	contains cardiological articles, clinical recommendations
4	PubMed	https://pubmed.ncbi.nlm.nih.gov	An electronic search engine with more than 30 million publications, including studies, meta-analyses, clinical trials and systematic reviews in medicine, dentistry, physiology, biology and psychology. The site is intended primarily for medical professionals and medical students.
5	UpToDate	https://www.wolterskluwer.com	One of the most authoritative sources of information on clinical medicine for physicians. Articles on the site contain up-to-date data on diseases, etiology, pathophysiology, diagnosis and therapy. The information on pathologies and treatments is based on the principles of evidence-based medicine. The site contains many illustrations, tables, infographics and videos.
6	Mayo Clinic	https://www.mayoclinic.org	A nonprofit organization and research center. The site contains current and reliable information on diseases, causes, diagnosis and treatment for physicians and medical students. More than 3,000 physicians and researchers contribute to the articles. The information will help physicians decide on a treatment and

			medication if they are in a state of uncertainty.
7	Drugs	https://www.drugs.com	An encyclopedia site with information about most existing medicines in medicine. You can find out, for example, whether drugs are compatible with each other and what side effects they can cause. The peculiarity of the site is that it does not represent any pharmacy or pharmaceutical company, so the information about drugs is provided neutrally, without interest in its sale.
8	The Lancet	https://www.thelancet.com	An internationally respected journal for physicians and medical professionals, published for almost 200 years. It has many subdivisions, such as The Lancet Neurology, which publishes articles on neurology, and The Lancet Oncology, which covers oncological diseases. The journal is peer-reviewed, which means that the credibility of facts, studies and results are checked by experts and specialists in their fields. There are videos, infographics, and podcasts, for example, about successful treatment cases.
9	The BMJ	https://www.bmj.com	The British Medical Journal publishes articles, systematic reviews, and clinical studies. It is one of the most cited journals. The purpose of the publication is to educate young physicians and medical staff who have recently begun to practice and to combat unreliable, unethical, and outdated information.
10	CDC	https://www.cdc.gov	Centers for Disease Control and Prevention. The site contains statistics, review articles and current research with links to primary sources, and provides up-to-date health data.
11	FDA	https://www.fda.gov	Centers for Disease Control and Prevention Food and Drugs

			Administration. The site contains statistics, review articles and current research with links to primary sources, and provides up-to-date health data. This resource generally provides up-to-date information about the development, testing, and introduction of medicines, including vaccines. The FDA is the authority on whose approval a drug's fate depends, and if it approves a drug, it is considered to have passed a clinical trial and to have proven efficacy.
12	Medscape	https://www.medscape.org	An online resource for medical professionals, physicians, and medical students. Contains many original reviews, monographs, clinical studies, and articles. The site has a library. The front pages talk about current topics in medicine and medicines.
13	«Emergency Medical Help»	https://vk.com/emhelp	A community of medical professionals in the social network "VKontakte", algorithms, recommendations, audio and video tutorials.

7. List of the software and information & reference systems: Telegram, Veeva Engage, Zoom, Skype, Moodle

8. List of questions and assignments for independent work, including those using e-learning and distance learning technologies

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Independent solution of case studies	The tasks are located in Moodle

Topic 3: “Epidemiology of socially significant diseases. Immunization of the adult population.

1. Theme of the class, its goals and tasks:

to acquaint students with the main directions in the prevention of social diseases in the area.

Tasks:

1. Check and consolidate the student's theoretical knowledge about the classification and etiology of social diseases.
2. To form knowledge about the main methods of prevention and treatment of social diseases.
3. To acquaint students with medical orders regulating the work of a local therapist for the prevention of social diseases.
4. Show the role of the doctor in the prevention of social diseases.
5. Give an idea of the system of organization of measures that reduce the incidence.
6. Fill in the medical documentation of a geriatrician in the medical information system "Ariadna"; ITS Medicine on the platform 1C: Enterprise (1C: Medicine (Polyclinic); TrasMed multidisciplinary network software package (TM: MIS), use Microsoft Office.

2. Basic definitions to be mastered by students during studying of the topic (list of notions):

Vaccination

Early diagnosis

Prevention

Tuberculosis

STI

Hepatitis B, C

HIV infection

Malignant neoplasms

Diabetes

Mental and behavioral disorders

Diseases characterized by high blood pressure

3. Questions for the class studies:

1. Socially significant diseases: concept, characteristics, prevalence among the population of the Russian Federation, medical and social consequences.
2. Social work on the prevention of socially significant diseases: purpose and objectives, content, methods and forms.
3. Technologies of social work on the prevention of diseases of the cardiovascular system in health care institutions of various types (outpatient clinics, sanatoriums).
4. Technologies of social work of pathogenetic orientation with persons suffering from diseases of the circulatory system in health care institutions of various types (outpatient clinics, sanatoriums and resorts) and social service institutions.
5. Technologies of social work of preventive and pathogenetic orientation with persons at risk and patients with diabetes mellitus.
6. Technologies of social work of preventive and pathogenetic orientation with persons at risk and patients with malignant neoplasms.
7. Technologies of social work of preventive and pathogenetic orientation with persons at risk and patients with hereditary diseases.
8. Technologies of social work on prevention of HIV infection with the population of risk groups.

9. An integrated approach to the prevention of tuberculosis in Russia.
10. Immunoprophylaxis of infectious diseases as a measure of primary prevention.
11. Features of maintaining standard accounting and reporting medical documentation in outpatient clinics using software products, Internet resources, information systems and Microsoft Office capabilities

4. Questions for the self-assessment

1. Primary and secondary prevention of cardiovascular diseases.
2. Pharmacological prevention of cardiovascular diseases.
3. Prevention of oncological diseases.
4. Prevention of acute disorders of cerebral circulation.
5. Prevention of chronic broncho-pulmonary diseases.
6. Prevention of type 2 diabetes.
7. Social prevention as a set of measures.
8. Subjects and objects of disease prevention.

5. Compulsory and supplementary literature on the theme:

5.1 Compulsory literature

1. Ivashkin V.T. Internal diseases propedeutics [Электронный ресурс]/ V. T. Ivashkin , A. V. Okhlobystin. -Москва: ГЭОТАР-Медиа, 2020. -176 p.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970455555.html>
2. Oslopov V. N. General Care of a Patient [Электронный ресурс] : tutorial/ V. N. Oslopov, O. V. Bogoyavlenskaya. -Москва: ГЭОТАР-Медиа, 2021. -208 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970460429.html>
3. Outpatient Therapy [Электронный ресурс] : textbook/ ed. V. N. Larina. - Москва: ГЭОТАР-Медиа, 2023. -456 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970477083.html>

5.2. Supplementary literature

1. Basics of medical care = Основы медицинского ухода [Электронный ресурс] : пособие для студентов учреждений высшего образования, обучающихся по специальности «Лечебное дело» : manual for students of higher education institutions studying in the specialty «General Medicine»/ Т. П. Пронько, Э. Э. Поплавская, Е. М. Сурмач. -Гродно: ГрГМУ, 2019. -208 с.- URL: <https://www.books-up.ru/ru/book/basics-of-medical-care-12061289>
2. Borodulina E. A. Diagnosis and prevention of tuberculosis in general medical practice [Электронный ресурс] : tutorial guide/ Е. А. Borodulina, В. Е. Borodulin. -Москва: ГЭОТАР-Медиа, 2024. -104 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970481905.html>
3. Diagnostics and treatment of internal diseases in outpatient department = Диагностика и лечение терапевтических заболеваний на амбулаторном этапе [Электронный ресурс] : пособие для студентов учреждений высшего образования, обучающихся по специальности «Лечебное дело» : manual for students of higher education institutions studying in the specialty/ Е. А. Кежун, Н. С. Слободская, Д. В. Пицко, К. В. Гончар. -Гродно: ГрГМУ, 2020. -200 с.- URL: <https://www.books-up.ru/ru/book/diagnostics-and-treatment-of-internal-diseases-in-outpatient-department-11950033>

4.The organization and carrying out of examination of temporary disability = Организация и проведение экспертизы временной нетрудоспособности [Электронный ресурс] : an educational manual for English-speaking students/ А. Г. Сердюков, И. Б. Набережная, Ж. Б. Набережная, А. С. Нимгирова. - Астрахань: Астраханский ГМУ, 2020. -103 с.- URL: <https://www.books-up.ru/ru/book/the-organization-and-carrying-out-of-examination-of-temporary-disability-10835934>

5.Поликлиническая терапия [Электронный ресурс] : учебник/ ред.: И. Л. Давыдкин, Ю. В. Щукин. -2-е изд., испр. и доп.. -Москва: ГЭОТАР-Медиа, 2022. -840 с.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970471999.html>

6. List of the information and telecommunications Internet resources required for mastering of the course

№	Resources	URL address	Resource Annotation
1	Website of the European Society of Cardiologists	http://www.escardio.org	contains cardiological articles, clinical recommendations
2	MedLib	http://med-lib.ru/	contains cardiological articles, clinical recommendations
3	Website of the American Heart Society and the American Society of Cardiologists	www.heart.org/HEARTORG	contains cardiological articles, clinical recommendations
4	PubMed	https://pubmed.ncbi.nlm.nih.gov	An electronic search engine with more than 30 million publications, including studies, meta-analyses, clinical trials and systematic reviews in medicine, dentistry, physiology, biology and psychology. The site is intended primarily for medical professionals and medical students.
5	UpToDate	https://www.wolterskluwer.com	One of the most authoritative sources of information on clinical medicine for physicians. Articles on the site contain up-to-date data on diseases, etiology, pathophysiology, diagnosis and therapy. The information on pathologies and treatments is based on the principles of evidence-based medicine. The site contains many illustrations,

			tables, infographics and videos.
6	Mayo Clinic	https://www.mayoclinic.org	A nonprofit organization and research center. The site contains current and reliable information on diseases, causes, diagnosis and treatment for physicians and medical students. More than 3,000 physicians and researchers contribute to the articles. The information will help physicians decide on a treatment and medication if they are in a state of uncertainty.
7	Drugs	https://www.drugs.com	An encyclopedia site with information about most existing medicines in medicine. You can find out, for example, whether drugs are compatible with each other and what side effects they can cause. The peculiarity of the site is that it does not represent any pharmacy or pharmaceutical company, so the information about drugs is provided neutrally, without interest in its sale.
8	The Lancet	https://www.thelancet.com	An internationally respected journal for physicians and medical professionals, published for almost 200 years. It has many subdivisions, such as The Lancet Neurology, which publishes articles on neurology, and The Lancet Oncology, which covers oncological diseases. The journal is peer-reviewed, which means that the credibility of facts, studies and results are checked by experts and specialists in their fields. There are videos, infographics, and podcasts, for example, about successful treatment cases.
9	The BMJ	https://www.bmj.com	The British Medical Journal publishes articles, systematic reviews, and clinical studies. It is one of the most cited journals. The purpose of the publication is to educate young physicians and medical staff who have recently

			begun to practice and to combat unreliable, unethical, and outdated information.
10	CDC	https://www.cdc.gov	Centers for Disease Control and Prevention. The site contains statistics, review articles and current research with links to primary sources, and provides up-to-date health data.
11	FDA	https://www.fda.gov	Centers for Disease Control and Prevention Food and Drugs Administration. The site contains statistics, review articles and current research with links to primary sources, and provides up-to-date health data. This resource generally provides up-to-date information about the development, testing, and introduction of medicines, including vaccines. The FDA is the authority on whose approval a drug's fate depends, and if it approves a drug, it is considered to have passed a clinical trial and to have proven efficacy.
12	Medscape	https://www.medscape.org	An online resource for medical professionals, physicians, and medical students. Contains many original reviews, monographs, clinical studies, and articles. The site has a library. The front pages talk about current topics in medicine and medicines.
13	Открытая группа «Emergency Medical Help»	https://vk.com/emhelp	A community of medical professionals in the social network "VKontakte", algorithms, recommendations, audio and video tutorials.

7. List of the software and information & reference systems: Telegram, Veeva Engage, Zoom, Skype, Moodle

8. List of questions and assignments for independent work, including those using e-learning and distance learning technologies

Sections and topics for self-study	Types and content of independent
------------------------------------	----------------------------------

	work
Independent solution of case studies	The tasks are located in Moodle

Topic 4: "The role of medical personnel in secondary prevention of diseases."

1. Theme of the class, its goals and tasks:

To consolidate students' knowledge of secondary prevention of diseases in outpatient settings.

Tasks:

1. To study the main legal acts regulating the work of medical workers in secondary prevention of diseases.
2. Know the secondary prevention of coronary heart disease.
3. Know the secondary prevention of hypertension.
4. Know the secondary prevention of type 2 diabetes.
5. Know the secondary prevention of chronic kidney disease.
6. Know the secondary prevention of COPD, bronchial asthma.
7. Know the secondary prevention of peptic ulcer, chronic gastritis.
8. To study the main tasks and functions of health schools.

2. Basic definitions to be mastered by students during studying of the topic (list of notions):

Secondary prevention

3. Questions for the class studies:

1. Normative legal acts regulating the organization and conduct of health schools for patients and their environment.
2. Dispensary observation of patients with hypertension, coronary artery disease, type 2 diabetes, CKD, COPD, PU, gastritis.
3. The main goals and objectives of the activities of health schools.
4. Organization of health schools for patients and their environment with circulatory diseases (arterial hypertension, coronary heart disease, heart failure), chronic obstructive pulmonary diseases, primarily bronchial asthma and chronic obstructive bronchitis, rheumatic diseases, diabetes mellitus, growth disorders of endocrine etiology, hemophilia, HIV infection, for patients on chronic dialysis.
5. Organization and conduct of systematic hygienic and cultural education and upbringing in health schools according to the developed structured programs.
6. Teaching patients how to reduce the adverse effects on health of behavioral risk factors (bad habits, nutrition, physical activity, stress control); formation of a responsible attitude to health, methods of self-monitoring of the state of health and prevention of complications, self-help in case of exacerbations of the disease, increasing motivation for recovery and adherence to treatment and the implementation of doctor's recommendations.

4. Questions for the self-assessment

1. Monitoring the level of acquired knowledge, skills and abilities in patients studying at a health school.
 2. Factors affecting the effectiveness and efficiency of health schools.
 3. Recommended methods for analyzing the effectiveness of the health school.
- Registration of medical documentation reflecting the conduct of preventive work in the health school.
4. Learn to draw up a program of preventive measures.
 5. Substantiate labor recommendations.

5. Compulsory and supplementary literature on the theme:

5.1 Compulsory literature

1. Ivashkin V.T. Internal diseases propedeutics [Электронный ресурс]/ V. T. Ivashkin, A. V. Okhlobystin. -Москва: ГЭОТАР-Медиа, 2020. -176 p.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970455555.html>
2. Oslopov V. N. General Care of a Patient [Электронный ресурс] : tutorial/ V. N. Oslopov, O. V. Bogoyavlenskaya. -Москва: ГЭОТАР-Медиа, 2021. -208 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970460429.html>
3. Outpatient Therapy [Электронный ресурс] : textbook/ ed. V. N. Larina. -Москва: ГЭОТАР-Медиа, 2023. -456 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970477083.html>

5.2. Supplementary literature

1. Basics of medical care = Основы медицинского ухода [Электронный ресурс] : пособие для студентов учреждений высшего образования, обучающихся по специальности «Лечебное дело» : manual for students of higher education institutions studying in the specialty «General Medicine»/ Т. П. Пронько, Э. Э. Поплавская, Е. М. Сурмач. -Гродно: ГрГМУ, 2019. -208 с.- URL: <https://www.books-up.ru/ru/book/basics-of-medical-care-12061289>
2. Borodulina E. A. Diagnosis and prevention of tuberculosis in general medical practice [Электронный ресурс] : tutorial guide/ E. A. Borodulina, B. E. Borodulin. -Москва: ГЭОТАР-Медиа, 2024. -104 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970481905.html>
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4. The organization and carrying out of examination of temporary disability = Организация и проведение экспертизы временной нетрудоспособности [Электронный ресурс] : an educational manual for English-speaking students/ А. Г. Сердюков, И. Б. Набережная, Ж. Б. Набережная, А. С. Нимгирова. -Астрахань: Астраханский ГМУ, 2020. -103 с.- URL: <https://www.books-up.ru/ru/book/the-organization-and-carrying-out-of-examination-of-temporary-disability-10835934>

5.Поликлиническая терапия [Электронный ресурс] : учебник/ ред.: И. Л. Давыдкин, Ю. В. Щукин. -2-е изд., испр. и доп.. -Москва: ГЭОТАР-Медиа, 2022. -840 с.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970471999.html>

6. List of the information and telecommunications Internet resources required for mastering of the course

№	Resources	URL address	Resource Annotation
1	Website of the European Society of Cardiologists	http://www.esca-rdio.org	contains cardiological articles, clinical recommendations
2	PubMed Central (PMC)	PubMed (nih.gov)	contains cardiological articles, clinical recommendations
3	MedLib	http://med-lib.ru/	contains cardiological articles, clinical recommendations
4	Website of the American Heart Society and the American Society of Cardiologists	www.heart.org/HEARTORG	contains cardiological articles, clinical recommendations

7.List of the software and information & reference systems:Telegram, Veeva Engage, Zoom, Skype, Moodle

8. List of questions and assignments for independent work, including those using e-learning and distance learning technologies

Sections and topics for self-study	Types and content of independent work
Independent solution of case studies	The tasks are located in Moodle

Topic 5: "Organization of examination of temporary disability".

1. Theme of the class, its goals and tasks:

To learn the general principles of organizing an examination of temporary disability. To develop the practical skills of its implementation in mass therapeutic pathology at the outpatient stage of patient treatment.

Tasks:

1. Check and consolidate the basic theoretical knowledge and practical skills obtained during self-training, training at the Institute of Public Health on the cycle "Organization of Health", in industrial practice as an assistant to a district doctor.
2. Learn the order of the Ministry of Health No. 1089n dated November 23, 2021.

3. To work out practical skills in issuing disability certificates in the outpatient practice of therapists in typical situations.

2. Basic definitions to be mastered by students during studying of the topic (list of notions):

Single observation

Licensing

medical result

Temporary and permanent disability

Social insurance

Compulsory Medical Insurance Fund

Disability list

Working capacity examination

3. Questions for the class studies:

1. Normative and legal acts of the examination of working capacity.
2. Classification of disability.
3. Clinical and labor prognosis.
4. Factors for determining the state of working capacity.
5. Organization of examination of temporary disability in medical facilities: the first level of examination, the second level of examination.
6. Functions of the medical control commission.
7. Organization of quality control examination.

4. Questions for the self-assessment

1. What categories of citizens are entitled to receive a sick leave.
2. Which medical institutions do not have the right to issue a certificate of incapacity for work.
3. Which of the medical workers has the right to issue a sick leave.
4. In what cases and by whom, during outpatient treatment according to the intermittent method, a certificate of incapacity for work can be issued.
5. For how long and by whom can L / N be extended during aftercare in a specialized sanatorium.
6. How long will a parent receive L/N for caring for a child under the age of 18, if the disease has occurred as a result of radiation exposure.
7. Indicate the duration of L / N during childbirth occurring in the period from 22 to 30 weeks of pregnancy.

5. Compulsory and supplementary literature on the theme:

5.1 Compulsory literature

1. Ivashkin V.T. Internal diseases propedeutics [Электронный ресурс]/ V. T. Ivashkin , A. V. Okhlobystin. -Москва: ГЭОТАР-Медиа, 2020. -176 p.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970455555.html>
2. Oslopov V. N. General Care of a Patient [Электронный ресурс] : tutorial/ V. N. Oslopov, O. V. Bogoyavlenskaya. -Москва: ГЭОТАР-Медиа, 2021. -208 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970460429.html>

3.Outpatient Therapy [Электронный ресурс] : textbook/ ed. V. N. Larina. - Москва: ГЭОТАР-Медиа, 2023. -456 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970477083.html>

5.2. Supplementary literature

1.Basics of medical care = Основы медицинского ухода [Электронный ресурс] : пособие для студентов учреждений высшего образования, обучающихся по специальности «Лечебное дело» : manual for students of higher education institutions studying in the specialty «General Medicine»/ Т. П. Пронько, Э. Э. Поплавская, Е. М. Сурмач. -Гродно: ГрГМУ, 2019. -208 с.- URL: <https://www.books-up.ru/ru/book/basics-of-medical-care-12061289>

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3.Diagnostics and treatment of internal diseases in outpatient department = Диагностика и лечение терапевтических заболеваний на амбулаторном этапе [Электронный ресурс] : пособие для студентов учреждений высшего образования, обучающихся по специальности «Лечебное дело» : manual for students of higher education institutions studying in the specialty/ Е. А. Кежун, Н. С. Слободская, Д. В. Пицко, К. В. Гончар. -Гродно: ГрГМУ, 2020. -200 с.- URL: <https://www.books-up.ru/ru/book/diagnostics-and-treatment-of-internal-diseases-in-outpatient-department-11950033>

4.The organization and carrying out of examination of temporary disability = Организация и проведение экспертизы временной нетрудоспособности [Электронный ресурс] : an educational manual for English-speaking students/ А. Г. Сердюков, И. Б. Набережная, Ж. Б. Набережная, А. С. Нимгирова. -Астрахань: Астраханский ГМУ, 2020. -103 с.- URL: <https://www.books-up.ru/ru/book/the-organization-and-carrying-out-of-examination-of-temporary-disability-10835934>

5.Поликлиническая терапия [Электронный ресурс] : учебник/ ред.: И. Л. Давыдкин, Ю. В. Щукин. -2-е изд., испр. и доп.. -Москва: ГЭОТАР-Медиа, 2022. -840 с.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970471999.html>

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2	MedLib	http://med-lib.ru/	contains cardiological articles, clinical recommendations
3	Website of the American Heart Society and the	www.heart.org/HEARTORG	contains cardiological articles, clinical recommendations

	American Society of Cardiologists		
4	PubMed	https://pubmed.ncbi.nlm.nih.gov	An electronic search engine with more than 30 million publications, including studies, meta-analyses, clinical trials and systematic reviews in medicine, dentistry, physiology, biology and psychology. The site is intended primarily for medical professionals and medical students.
5	UpToDate	https://www.wolterskluwer.com	One of the most authoritative sources of information on clinical medicine for physicians. Articles on the site contain up-to-date data on diseases, etiology, pathophysiology, diagnosis and therapy. The information on pathologies and treatments is based on the principles of evidence-based medicine. The site contains many illustrations, tables, infographics and videos.
6	Mayo Clinic	https://www.mayoclinic.org	A nonprofit organization and research center. The site contains current and reliable information on diseases, causes, diagnosis and treatment for physicians and medical students. More than 3,000 physicians and researchers contribute to the articles. The information will help physicians decide on a treatment and medication if they are in a state of uncertainty.
7	Drugs	https://www.drugs.com	An encyclopedia site with information about most existing medicines in medicine. You can find out, for example, whether drugs are compatible with each other and what side effects they can cause. The peculiarity of the site is that it does not represent any pharmacy or pharmaceutical company, so the information about drugs is provided neutrally, without interest in its sale.
8	The	https://www.thelancet.com	An internationally respected journal

	Lancet		for physicians and medical professionals, published for almost 200 years. It has many subdivisions, such as The Lancet Neurology, which publishes articles on neurology, and The Lancet Oncology, which covers oncological diseases. The journal is peer-reviewed, which means that the credibility of facts, studies and results are checked by experts and specialists in their fields. There are videos, infographics, and podcasts, for example, about successful treatment cases.
9	The BMJ	https://www.bmj.com	The British Medical Journal publishes articles, systematic reviews, and clinical studies. It is one of the most cited journals. The purpose of the publication is to educate young physicians and medical staff who have recently begun to practice and to combat unreliable, unethical, and outdated information.
10	CDC	https://www.cdc.gov	Centers for Disease Control and Prevention. The site contains statistics, review articles and current research with links to primary sources, and provides up-to-date health data.
11	FDA	https://www.fda.gov	Centers for Disease Control and Prevention Food and Drugs Administration. The site contains statistics, review articles and current research with links to primary sources, and provides up-to-date health data. This resource generally provides up-to-date information about the development, testing, and introduction of medicines, including vaccines. The FDA is the authority on whose approval a drug's fate depends, and if it approves a drug, it is considered to have passed a clinical trial and to have proven efficacy.

12	Medscape	https://www.medscape.org	An online resource for medical professionals, physicians, and medical students. Contains many original reviews, monographs, clinical studies, and articles. The site has a library. The front pages talk about current topics in medicine and medicines.
13	«Emergency Medical Help»	https://vk.com/emhelp	A community of medical professionals in the social network "VKontakte", algorithms, recommendations, audio and video tutorials.

7. List of the software and information & reference systems: Telegram, Veeva Engage, Zoom, Skype, Moodle

8. List of questions and assignments for independent work, including those using e-learning and distance learning technologies

Sections and topics for self-study	Types and content of independent work
Independent solution of case studies	The tasks are located in Moodle

Topic 6: "Examination of permanent disability."

1. Theme of the class, its goals and tasks:

To learn the general principles of organizing the examination of permanent disability and to learn medical and social examination in the aspect of the activity of an outpatient therapist.

Tasks:

1. Check and consolidate the basic theoretical knowledge and practical skills obtained during self-training in industrial practice as an assistant to a district doctor.
2. To work out practical skills in filling out a mailing list for ITU in case of pathology of internal organs.

2. Basic definitions to be mastered by students during studying of the topic (list of notions):

Medical and social expertise

Disabled person

Disability

Persistent disability

Life restriction
Rehabilitation
Rehabilitation potential
Recovery prognosis
Ability to work
Social insufficiency
Social protection
Social support
Individual rehabilitation program

3. Questions for the class studies:

1. Regulatory documents for the examination of permanent disability.
2. Classification of violations of the basic functions of the human body.
3. Classification of violations of the basic functions of the human body according to the degree of severity.
4. Classification of the main categories of life activity and disability according to the degree of severity.
5. Criteria for establishing the degree of limitation of the ability to work.
6. Criteria for establishing a disability group.
7. The volume of expert rehabilitation diagnostics for major disabling diseases of internal organs.
8. Determination of the degree of severity of disorders of the function of blood circulation, respiration, digestion.
9. Procedure for the examination of a disabled person.
10. Principles for determining the rehabilitation potential and rehabilitation prognosis for people with disabilities due to diseases of internal organs.

4. Questions for the self-assessment

1. General questions. Definition of concepts: object of examination of working capacity, types of working capacity and disability. Stages of examination of working capacity. The concept of medical and social criteria that determine disability. Duration of incapacity. Recovery and rehabilitation.
2. Medical commission. Main areas of work. VK functions and their content. The competence of the VC in matters of examination of working capacity, social protection of sick and disabled people.
3. Employment. Forms of transfers to easier work. Minor and significant changes in working conditions, the procedure and rules for transferring to another job.
4. Instruction "On the procedure for issuing documents certifying the temporary disability of citizens" (No. 1089n of 11/23/2021). General provisions and structure of the document.
5. Basic provisions of the Federal Law "On the Social Protection of the Disabled in the Russian Federation".
6. The procedure for issuing a certificate of incapacity for work when referring to the ITU.
7. The procedure for recognizing citizens as disabled (Decree of the Government of the Russian Federation No. 95 of 20.02.06). The procedure for sending and

conducting a medical and social examination (ITU). Recertification of the disabled. Reasons for disability.

8. Classifications and criteria used in the implementation of ITU.

5. Compulsory and supplementary literature on the theme:

5.1 Compulsory literature

1. Ivashkin V. T. Internal diseases propedeutics [Электронный ресурс]/ V. T. Ivashkin, A. V. Okhlobystin. - Москва: ГЭОТАР-Медиа, 2020. -176 p.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970455555.html>

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5.2. Supplementary literature

1. Basics of medical care = Основы медицинского ухода [Электронный ресурс] : пособие для студентов учреждений высшего образования, обучающихся по специальности «Лечебное дело» : manual for students of higher education institutions studying in the specialty «General Medicine»/ Т. П. Пронько, Э. Э. Поплавская, Е. М. Сурмач. - Гродно: ГрГМУ, 2019. -208 с.- URL: <https://www.books-up.ru/ru/book/basics-of-medical-care-12061289>

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5. Decree of the Government of Russia No. 805 of December 16, 2004 "On the procedure for the organization and activities of federal state institutions of medical and social expertise."

6. Order of the Ministry of Health and Social Development of the Russian Federation of August 27, 2019 N 585n (as amended on October 6, 2021) "On the

classifications and criteria used in the implementation of medical and social examination of citizens by federal state institutions of medical and social examination"

7. Order of the Ministry of Health and Social Development of Russia of 05.05.2012 N 502n (as amended on 02.12.2013) "On approval of the procedure for the creation and activities of the medical commission of a medical organization"

8. Decree of the Government of the Russian Federation of February 20, 2006 N 95 (as amended on August 10, 2016) (as amended by the Decree of the Government of the Russian Federation of April 7, 2008 N 247).

9. Order of the Ministry of Health and Social Development of the Russian Federation of April 24, 2008 N 194n (as amended on January 18, 2012) "On approval of the Medical criteria for determining the severity of harm caused to human health"

10. Medical examination: working capacity, medical and social, military medical - M.: ZAO "NPP" Dzhanger ", 2007. - 768s.

6. List of the information and telecommunications Internet resources required for mastering of the course

No	Resources	URL address	Resource Annotation
1	Website of the European Society of Cardiologists	http://www.escardio.org	contains cardiological articles, clinical recommendations
2	MedLib	http://med-lib.ru/	contains cardiological articles, clinical recommendations
3	Website of the American Heart Society and the American Society of Cardiologists	www.heart.org/HEARTORG	contains cardiological articles, clinical recommendations
4	PubMed	https://pubmed.ncbi.nlm.nih.gov	An electronic search engine with more than 30 million publications, including studies, meta-analyses, clinical trials and systematic reviews in medicine, dentistry, physiology, biology and psychology. The site is intended primarily for medical professionals and medical students.
5	UpToDate	https://www.wolterskluwer.com	One of the most authoritative sources of information on clinical medicine for physicians. Articles on the site contain up-to-date data on diseases, etiology, pathophysiology,

			diagnosis and therapy. The information on pathologies and treatments is based on the principles of evidence-based medicine. The site contains many illustrations, tables, infographics and videos.
6	Mayo Clinic	https://www.mayoclinic.org	A nonprofit organization and research center. The site contains current and reliable information on diseases, causes, diagnosis and treatment for physicians and medical students. More than 3,000 physicians and researchers contribute to the articles. The information will help physicians decide on a treatment and medication if they are in a state of uncertainty.
7	Drugs	https://www.drugs.com	An encyclopedia site with information about most existing medicines in medicine. You can find out, for example, whether drugs are compatible with each other and what side effects they can cause. The peculiarity of the site is that it does not represent any pharmacy or pharmaceutical company, so the information about drugs is provided neutrally, without interest in its sale.
8	The Lancet	https://www.thelancet.com	An internationally respected journal for physicians and medical professionals, published for almost 200 years. It has many subdivisions, such as The Lancet Neurology, which publishes articles on neurology, and The Lancet Oncology, which covers oncological diseases. The journal is peer-reviewed, which means that the credibility of facts, studies and results are checked by experts and specialists in their fields. There are videos, infographics, and podcasts, for example, about successful treatment cases.
9	The BMJ	https://www.bmj.com	The British Medical Journal publishes articles, systematic

			reviews, and clinical studies. It is one of the most cited journals. The purpose of the publication is to educate young physicians and medical staff who have recently begun to practice and to combat unreliable, unethical, and outdated information.
10	CDC	https://www.cdc.gov	Centers for Disease Control and Prevention. The site contains statistics, review articles and current research with links to primary sources, and provides up-to-date health data.
11	FDA	https://www.fda.gov	Centers for Disease Control and Prevention Food and Drugs Administration. The site contains statistics, review articles and current research with links to primary sources, and provides up-to-date health data. This resource generally provides up-to-date information about the development, testing, and introduction of medicines, including vaccines. The FDA is the authority on whose approval a drug's fate depends, and if it approves a drug, it is considered to have passed a clinical trial and to have proven efficacy.
12	Medscape	https://www.medscape.org	An online resource for medical professionals, physicians, and medical students. Contains many original reviews, monographs, clinical studies, and articles. The site has a library. The front pages talk about current topics in medicine and medicines.
13	Открытая группа «Emergency Medical Help»	https://vk.com/emhelp	A community of medical professionals in the social network "VKontakte", algorithms, recommendations, audio and video tutorials.

7. List of the software and information & reference systems: Telegram, Veeva Engage, Zoom, Skype, Moodle

8. List of questions and assignments for independent work, including those using e-learning and distance learning technologies

Sections and topics for self-study	Types and content of independent work
Independent solution of case studies	The tasks are located in Moodle

Topic 7: "Hypertension in the practice of a district general practitioner".

1. Theme of the class, its goals and tasks:

Introduction

Arterial hypertension (AH) is a disease characterized by an increase in blood pressure and a chronic progressive course. The relevance of the issue is determined by the wide prevalence (according to the literature, the frequency of arterial hypertension alone in the population is about 15-20%). Social and medical significance is determined on the one hand by a significant decrease in the quality of life of this category of the population, on the other hand, by the formed opinion, even among doctors, as a non-dangerous condition. The latter determines the insufficiently active actions of doctors and the patient himself, thereby reinforcing the idea that a number of patient complaints: a decrease in physical and mental performance, headaches, dizziness and the flashing of flies before the eyes – from a certain age is an integral "companion" of life.

The purpose of the lesson: To learn how to diagnose and provide medical care to patients with hypertension on an outpatient basis.

Tasks:

1. Formation of theoretical knowledge on the diagnosis and treatment of hypertension
2. Formation of skills for the formulation of the clinical diagnosis of hypertension in accordance with the classification, indicating the stage, degree of the disease, the risk of complications.
3. Formation of action skills in identifying patients with hypertension symptoms in a polyclinic.
4. Formation of tactics of management and treatment of patients with GB in outpatient settings.
6. Formation of the ability to properly conduct the selection for hospitalization of patients with GB.
6. Formation of emergency care skills in hypertensive crisis.
7. Formation of skills for solving issues of medical and labor expertise in GB.
8. Formation of skills of medical examination of patients with GB.

2. Basic definitions to be mastered by students during studying of the topic (list of notions):

Diagnostic standard.

Indications for hospitalization.
Treatment algorithm.
Examination of working capacity.
Medical examination.

3. Questions for the class studies:

1. Classification of AG.
2. The program of differential diagnostic examination of patients in a polyclinic.
3. Treatment of hypertension.
4. Emergency care for hypertensive crisis.
5. Examination of temporary disability in hypertension.
6. Medical and social criteria for persistent disability of AG.
7. Medical examination of patients with hypertension.
8. Sanatorium-resort treatment of patients with hypertension.

4. Questions for the self-assessment

1. Name the main risk factors of hypertension.
2. List additional risk factors that negatively affect the prognosis of hypertension.
3. Specify the associated clinical conditions (ACS) with GB 3 st, which are the criteria for risk stratification.
4. Specify the indications for daily outpatient blood pressure monitoring.
5. What are the main principles of antihypertensive therapy?
6. Issue the following prescriptions: verapamil, nifedipine, amlodipine, bisoprolol, metoprolol, indapamide, hypothyazid, captopril, enalapril, perindopril, fosinopril, torasemide, moxonidine, valsartan.
7. Issue a certificate of disability in case of hypertension.

5. Compulsory and supplementary literature on the theme:

5.1 Compulsory literature

1. Ivashkin V.T. Internal diseases propedeutics [Электронный ресурс]/ V. T. Ivashkin , A. V. Okhlobystin. -Москва: ГЭОТАР-Медиа, 2020. -176 p.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970455555.html>
2. Oslopov V. N. General Care of a Patient [Электронный ресурс] : tutorial/ V. N. Oslopov, O. V. Bogoyavlenskaya. -Москва: ГЭОТАР-Медиа, 2021. -208 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970460429.html>
3. Outpatient Therapy [Электронный ресурс] : textbook/ ed. V. N. Larina. - Москва: ГЭОТАР-Медиа, 2023. -456 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970477083.html>

5.2. Supplementary literature

1. Basics of medical care = Основы медицинского ухода [Электронный ресурс] : пособие для студентов учреждений высшего образования, обучающихся по специальности «Лечебное дело» : manual for students of higher education institutions studying in the specialty «General Medicine»/ Т. П. Пронько, Э. Э. Поплавская, Е. М. Сурмач. -Гродно: ГрГМУ, 2019. -208 с.- URL: <https://www.books-up.ru/ru/book/basics-of-medical-care-12061289>
2. Borodulina E. A. Diagnosis and prevention of tuberculosis in general medical practice [Электронный ресурс] : tutorial guide/ E. A. Borodulina, B. E.

Borodulin. -Москва: ГЭОТАР-Медиа, 2024. -104 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970481905.html>

3.Diagnostics and treatment of internal diseases in outpatient department = Диагностика и лечение терапевтических заболеваний на амбулаторном этапе [Электронный ресурс] : пособие для студентов учреждений высшего образования, обучающихся по специальности «Лечебное дело» : manual for students of higher education institutions studying in the specialty/ Е. А. Кежун, Н. С. Слободская, Д. В. Пицко, К. В. Гончар. -Гродно: ГрГМУ, 2020. -200 с.- URL: <https://www.books-up.ru/ru/book/diagnostics-and-treatment-of-internal-diseases-in-outpatient-department-11950033>

4.The organization and carrying out of examination of temporary disability = Организация и проведение экспертизы временной нетрудоспособности [Электронный ресурс] : an educational manual for English-speaking students/ А. Г. Сердюков, И. Б. Набережная, Ж. Б. Набережная, А. С. Нимгирова. - Астрахань: Астраханский ГМУ, 2020. -103 с.- URL: <https://www.books-up.ru/ru/book/the-organization-and-carrying-out-of-examination-of-temporary-disability-10835934>

5.Поликлиническая терапия [Электронный ресурс] : учебник/ ред.: И. Л. Давыдкин, Ю. В. Щукин. -2-е изд., испр. и доп.. -Москва: ГЭОТАР-Медиа, 2022. -840 с.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970471999.html>

6. List of the information and telecommunications Internet resources required for mastering of the course

EO and DOT platform	Name of the e-course, authors, URL	E-course implementation model
Moodle	5 course English medium Polyclinical therapy Outpatient therapy https://edu.nsmu.ru/course/view.php?id=93	mixed learning +EC

7.List of the software and information & reference systems:Telegram, Veeva Engage, Zoom, Skype, Moodle

8. List of questions and assignments for independent work, including those using e-learning and distance learning technologies

№	Name of the resource	URL address
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	OTAR-Media, 2018. - 576 p. (Series "Library of a specialist doctor") - ISBN 978-5-9704-4195-4.	http://www.studmedlib.ru/book/ISBN9785970441954.html
	Skvortsova, T. I. Computer communications and networks : an educational and methodological guide / T. I. Skvortsova. — Moscow	https://e.lanbook.com/book/163825
	Vladimirsky, A.V. Telemedicine / A.V. Vladzimirsky, G. S. Lebedev - Moscow: GEOTAR-Media, 2018. - 576 p. (Series "Library of a specialist doctor") - ISBN 978-5-9704-4195-4. - Text : electronic // EBS "Student consultant" : [website].	https://www.studentlibrary.ru/book/ISBN9785970441954.html (дата обращения: 30.04.2021).

Topic 8"ECG in the practice of a therapist"

1. Theme of the class, its goals and tasks:

The purpose of the lesson: To recall and repeat the previously studied:•the main mechanisms underlying the formation of a normal ECG; the methodology of ECG registration. To study: ECG-signs of hypertrophy of the chambers of the heart; ECG-signs of conduction disorders; methods for determining the electrical axis of the heart; ECG changes in cardiac arrhythmia.

Tasks:

1. Formation of theoretical knowledge on ECG decoding
2. Formation of ECG decoding skills

2. Basic definitions to be mastered by students during studying of the topic (list of notions):

Basic concepts that should be learned by students in the process of studying the topic

Normal adult ECG

Atrial hypertrophy Ventricular hypertrophy

ECG-signs of cardiac arrhythmia

Electrical axis of the heart

3. Questions for the class studies:

3. Indications for ECG
4. Determination of heart rate
5. Analysis of teeth and intervals.

6. Signs of a normal ECG.
 - Signs of normal sinus rhythm.
 - Methods of calculating heart rate.
 - The concept of EOS, methods of definition.
 - ECG conclusion diagram.
7. ECG changes in hypertrophy.
 - Signs of hypertrophy of the right atrium.
 - Signs of hypertrophy of the left atrium.
 - Signs of left ventricular hypertrophy.
 - Signs of right ventricular hypertrophy.
8. The concept of "overload of the atria and ventricles", ECG signs, fundamental differences from hypertrophy of the chambers of the heart.
9. ECG changes during blockades
 - PBLNPG
 - BPVLNPG
 - BZVLNPG
 - PBPNGP
 - NBPGPG
 - Three-point blockade
8. Violation of atrioventricular conduction.
 - AV blockade of the 1st degree
 - AV blockade of the 2nd degree
 - AV-blockade of 3 degrees
1. Rhythm disturbances:
 - Atrial extrasystole
 - Ventricular extrasystole
 - Paroxysmal tachycardia
 - Atrial fibrillation
 - Ventricular fibrillation
2. ECG for myocardial infarction, angina pectoris, PE, heart aneurysm.

4. Questions for the self-assessment

1. Electrophysiological basics of electrocardiography.
2. Technique and technique of ECG registration.
3. Generally accepted designations and the origin of individual ECG elements.
4. The effect of medicines.

5. Compulsory and supplementary literature on the theme:

5.1 Compulsory literature

1. Ivashkin V.T. Internal diseases propedeutics [Электронный ресурс]/ V. T. Ivashkin , A. V. Okhlobystin. -Москва: ГЭОТАР-Медиа, 2020. -176 p.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970455555.html>
2. Oslopov V. N. General Care of a Patient [Электронный ресурс] : tutorial/ V. N. Oslopov, O. V. Bogoyavlenskaya. -Москва: ГЭОТАР-Медиа, 2021. -208 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970460429.html>

3.Outpatient Therapy [Электронный ресурс] : textbook/ ed. V. N. Larina. - Москва: ГЭОТАР-Медиа, 2023. -456 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970477083.html>

5.2. Supplementary literature

1.Basics of medical care = Основы медицинского ухода [Электронный ресурс] : пособие для студентов учреждений высшего образования, обучающихся по специальности «Лечебное дело» : manual for students of higher education institutions studying in the specialty «General Medicine»/ Т. П. Пронько, Э. Э. Поплавская, Е. М. Сурмач. -Гродно: ГрГМУ, 2019. -208 с.- URL: <https://www.books-up.ru/ru/book/basics-of-medical-care-12061289>

2.Borodulina E. A. Diagnosis and prevention of tuberculosis in general medical practice [Электронный ресурс] : tutorial guide/ Е. А. Borodulina, В. Е. Borodulin. -Москва: ГЭОТАР-Медиа, 2024. -104 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970481905.html>

3.Diagnostics and treatment of internal diseases in outpatient department = Диагностика и лечение терапевтических заболеваний на амбулаторном этапе [Электронный ресурс] : пособие для студентов учреждений высшего образования, обучающихся по специальности «Лечебное дело» : manual for students of higher education institutions studying in the specialty/ Е. А. Кежун, Н. С. Слободская, Д. В. Пицко, К. В. Гончар. -Гродно: ГрГМУ, 2020. -200 с.- URL: <https://www.books-up.ru/ru/book/diagnostics-and-treatment-of-internal-diseases-in-outpatient-department-11950033>

4.The organization and carrying out of examination of temporary disability = Организация и проведение экспертизы временной нетрудоспособности [Электронный ресурс] : an educational manual for English-speaking students/ А. Г. Сердюков, И. Б. Набережная, Ж. Б. Набережная, А. С. Нимгирова. -Астрахань: Астраханский ГМУ, 2020. -103 с.- URL: <https://www.books-up.ru/ru/book/the-organization-and-carrying-out-of-examination-of-temporary-disability-10835934>

5.Поликлиническая терапия [Электронный ресурс] : учебник/ ред.: И. Л. Давыдкин, Ю. В. Щукин. -2-е изд., испр. и доп.. -Москва: ГЭОТАР-Медиа, 2022. -840 с.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970471999.html>

6. List of the information and telecommunications Internet resources required for mastering of the course

EO and DOT platform	Name of the e-course, authors, URL	E-course implementation model
Moodle	5 course English medium Polyclinical therapy Outpatient therapy https://edu.nsmu.	mixed learning +EC

	ru/course/view.php?id=93	
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7. List of the software and information & reference systems: Telegram, Veeva Engage, Zoom, Skype, Moodle

8. List of questions and assignments for independent work, including those using e-learning and distance learning technologies

№	Name of the resource	URL address
	OTAR-Media, 2018. - 576 p. (Series "Library of a specialist doctor") - ISBN 978-5-9704-4195-4.	http://www.studmedlib.ru/book/ISBN9785970441954.html
	Skvortsova, T. I. Computer communications and networks : an educational and methodological guide / T. I. Skvortsova. — Moscow	https://e.lanbook.com/book/163825
	Vladimirsky, A.V. Telemedicine / A.V. Vladzimirsky, G. S. Lebedev - Moscow: GEOTAR-Media, 2018. - 576 p. (Series "Library of a specialist doctor") - ISBN 978-5-9704-4195-4. - Text : electronic // EBS "Student consultant" : [website].	https://www.studentlibrary.ru/book/ISBN9785970441954.html (дата обращения: 30.04.2021).

Topic 9 : "Chronic heart failure – management of patients on an outpatient basis."

1. Theme of the class, its goals and tasks:

Introduction

Chronic heart failure (CHF) is a disease with a complex of characteristic symptoms (shortness of breath, fatigue and decreased physical activity, edema, etc.) that are associated with inadequate perfusion of organs and tissues at rest or during exercise and often with fluid retention in the body (Russian National Guidelines for the diagnosis and treatment of CHF, 2013).

Purpose Classes: Learn how to diagnose and provide medical care to patients with CHF on an outpatient basis

Tasks:

1. Formation of knowledge of the features of outpatient admission of a patient with CHF.
2. Formation of prevention skills, including secondary CHF.
 1. Formation of theoretical knowledge of etiology, pathogenesis, classification, diagnosis, differential diagnosis of CHF.
 2. Formation of knowledge of the main groups of drugs used in the treatment of CHF.
 3. Formation of skills of emergency care in CHF
 4. Formation of the ability to issue standard medical documentation.
 5. Formation of skills of examination of temporary and permanent disability in CHF.

2. Basic definitions to be mastered by students during studying of the topic (list of notions):

Diagnostic standard for CHF

Indications for hospitalization with CHF

The algorithm of treatment of CHF

Examination of working capacity in CHF

Medical examination for CHF

3. Questions for the class studies:

1. Definition and classification of CHF.
2. Etiology and pathogenesis.
3. Factors of progression of CHF.
4. Diagnostic criteria. Diagnostic algorithm.
5. Laboratory and instrumental diagnostic methods. CHF screening.
6. Treatment program for CHF.
7. Classification of pharmacological drugs used in the treatment of CHF.
8. Non-pharmacological methods of treatment.
9. Medical examination of patients with CHF.
10. Prevention and rehabilitation.
11. Examination of temporary disability. The order of referral to the ITU.

4. Questions for the self-assessment

1. Be able to examine a patient with CHF in a polyclinic
2. Assign the necessary complex of laboratory and instrumental studies and interpret the results obtained.
3. Registration of medical documentation in a polyclinic (outpatient card, disability certificate, referral to MSEC).
4. The ability to organize measures for the prevention of CHF. Conducting dispensary monitoring of a patient with CHF
5. Prescribing medicines, treatment regimens. Preparation of prescription forms for the appointment of essential medicines (hypothiazid, veroshpiron,

furosemide, simvastatin, bisoprolol, carvedilol, nebivolol, metoprolol succinate, perindopril, ramipril, valsartan, losartan, digoxin, omacor).

5. Compulsory and supplementary literature on the theme:

5.1 Compulsory literature

1. Ivashkin V.T. Internal diseases propedeutics [Электронный ресурс]/ V. T. Ivashkin, A. V. Okhlobystin. -Москва: ГЭОТАР-Медиа, 2020. -176 p.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970455555.html>
2. Oslopov V. N. General Care of a Patient [Электронный ресурс] : tutorial/ V. N. Oslopov, O. V. Bogoyavlenskaya. -Москва: ГЭОТАР-Медиа, 2021. -208 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970460429.html>
3. Outpatient Therapy [Электронный ресурс] : textbook/ ed. V. N. Larina. -Москва: ГЭОТАР-Медиа, 2023. -456 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970477083.html>

5.2. Supplementary literature

1. Basics of medical care = Основы медицинского ухода [Электронный ресурс] : пособие для студентов учреждений высшего образования, обучающихся по специальности «Лечебное дело» : manual for students of higher education institutions studying in the specialty «General Medicine»/ Т. П. Пронько, Э. Э. Поплавская, Е. М. Сурмач. -Гродно: ГрГМУ, 2019. -208 с.- URL: <https://www.books-up.ru/ru/book/basics-of-medical-care-12061289>
2. Borodulina E. A. Diagnosis and prevention of tuberculosis in general medical practice [Электронный ресурс] : tutorial guide/ E. A. Borodulina, B. E. Borodulin. -Москва: ГЭОТАР-Медиа, 2024. -104 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970481905.html>
3. Diagnostics and treatment of internal diseases in outpatient department = Диагностика и лечение терапевтических заболеваний на амбулаторном этапе [Электронный ресурс] : пособие для студентов учреждений высшего образования, обучающихся по специальности «Лечебное дело» : manual for students of higher education institutions studying in the specialty/ Е. А. Кежун, Н. С. Слободская, Д. В. Пицко, К. В. Гончар. -Гродно: ГрГМУ, 2020. -200 с.- URL: <https://www.books-up.ru/ru/book/diagnostics-and-treatment-of-internal-diseases-in-outpatient-department-11950033>
4. The organization and carrying out of examination of temporary disability = Организация и проведение экспертизы временной нетрудоспособности [Электронный ресурс] : an educational manual for English-speaking students/ А. Г. Сердюков, И. Б. Набережная, Ж. Б. Набережная, А. С. Нимгирова. -Астрахань: Астраханский ГМУ, 2020. -103 с.- URL: <https://www.books-up.ru/ru/book/the-organization-and-carrying-out-of-examination-of-temporary-disability-10835934>
5. Поликлиническая терапия [Электронный ресурс] : учебник/ ред.: И. Л. Давыдкин, Ю. В. Щукин. -2-е изд., испр. и доп.. -Москва: ГЭОТАР-Медиа, 2022. -840 с.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970471999.html>

6. List of the information and telecommunications Internet resources required for mastering of the course

EO and DOT platform	Name of the e-course, authors, URL	E-course implementation model
Moodle	5 course English medium Polyclinical therapy Outpatient therapy https://edu.nsmu.ru/course/view.php?id=93	mixed learning +EC

7. List of the software and information & reference systems :Telegram, Veeva Engage, Zoom, Skype, Moodle

8. List of questions and assignments for independent work, including those using e-learning and distance learning technologies

№	Name of the resource	URL address
	OTAR-Media, 2018. - 576 p. (Series "Library of a specialist doctor") - ISBN 978-5-9704-4195-4.	http://www.studmedlib.ru/book/ISBN9785970441954.html
	Skvortsova, T. I. Computer communications and networks : an educational and methodological guide / T. I. Skvortsova. — Moscow	https://e.lanbook.com/book/163825
	Vladimirsky, A.V. Telemedicine / A.V. Vladzimirsky, G. S. Lebedev - Moscow: GEOTAR-Media, 2018. - 576 p. (Series "Library of a specialist doctor") - ISBN 978-5-9704-4195-4. - Text : electronic // EBS "Student consultant" : [website].	https://www.studentlibrary.ru/book/ISBN9785970441954.html (дата обращения: 30.04.2021).

Topic 10 : "Atherosclerosis in the practice of a district therapist"

1. Theme of the class, its goals and tasks:

Atherosclerosis is considered one of the most dangerous diseases that leads to death. Atherosclerosis is recognized most often when there are problems with the blood supply to the heart, limbs and brain, i.e. the disease is diagnosed already in the last stages. Atherosclerosis is one of the main causes of the development of cardiovascular diseases, coronary heart disease and myocardial infarction.

The percentage of people with atherosclerosis increases depending on their age, i.e. this disease is characteristic of older people. Therefore, doctors call it senile disease, but every year it gets younger, which is related to lifestyle.

The purpose of the lesson: to learn how to diagnose and provide medical care to patients with atherosclerosis at the outpatient stage.

Tasks:

1. Formation of knowledge about risk factors for atherosclerosis.
2. Formation of skills of physical examination of the patient to detect atherosclerosis.
3. Formation of knowledge about methods of laboratory diagnostics of atherosclerosis.
4. Formation of skills working with the Score scale
5. Formation of knowledge about risk categories.
6. Formation of knowledge of classification of hyperlipoproteinemia.
7. Formation of knowledge of target values of the level of LDL-C.
8. Formation of knowledge about the methods of correction of dyslipidemia.

2. Basic definitions to be mastered by students during studying of the topic (list of notions):

Basic concepts that should be learned by students in the process of studying the topic

Score Scale

Effectiveness of statins

3. Questions for the class studies:

1. Risk factors for atherosclerosis.
2. Classification of hyperlipoproteinemia
3. Modern algorithm of examination of the patient to detect atherosclerosis.
4. Interpretation of the results on the Score scale
5. Risk categories.
6. Optimal value of lipid parameters depending on risk categories.
7. Drug therapy of dyslipidemia.
8. Methods of prevention of atherosclerosis.

4. Questions for the self-assessment

1. Non-drug treatment of dyslipidemia
2. The effect of lifestyle changes on lipid levels.
3. Pharmacokinetics of statins and fibrates.
4. Write prescriptions for statins and fibrates.
5. Treatment of patients with dyslipidemia and diabetes mellitus or metabolic

syndrome.

6. Treatment of patients with dyslipidemia and CKD

5.Compulsory and supplementary literature on the theme:

5.1 Compulsory literature

- 1.Ivashkin V.T. Internal diseases propedeutics [Электронный ресурс]/ V. T. Ivashkin , A. V. Okhlobystin. -Москва: ГЭОТАР-Медиа, 2020. -176 p.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970455555.html>
- 2.Oslopov V. N. General Care of a Patient [Электронный ресурс] : tutorial/ V. N. Oslopov, O. V. Bogoyavlenskaya. -Москва: ГЭОТАР-Медиа, 2021. -208 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970460429.html>
- 3.Outpatient Therapy [Электронный ресурс] : textbook/ ed. V. N. Larina. - Москва: ГЭОТАР-Медиа, 2023. -456 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970477083.html>

5.2. Supplementary literature

- 1.Basics of medical care = Основы медицинского ухода [Электронный ресурс] : пособие для студентов учреждений высшего образования, обучающихся по специальности «Лечебное дело» : manual for students of higher education institutions studying in the specialty «General Medicine»/ Т. П. Пронько, Э. Э. Поплавская, Е. М. Сурмач. -Гродно: ГрГМУ, 2019. -208 с.- URL: <https://www.books-up.ru/ru/book/basics-of-medical-care-12061289>
- 2.Borodulina E. A. Diagnosis and prevention of tuberculosis in general medical practice [Электронный ресурс] : tutorial guide/ E. A. Borodulina, B. E. Borodulin. -Москва: ГЭОТАР-Медиа, 2024. -104 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970481905.html>
- 3.Diagnostics and treatment of internal diseases in outpatient department = Диагностика и лечение терапевтических заболеваний на амбулаторном этапе [Электронный ресурс] : пособие для студентов учреждений высшего образования, обучающихся по специальности «Лечебное дело» : manual for students of higher education institutions studying in the specialty/ Е. А. Кежун, Н. С. Слободская, Д. В. Пицко, К. В. Гончар. -Гродно: ГрГМУ, 2020. -200 с.- URL: <https://www.books-up.ru/ru/book/diagnostics-and-treatment-of-internal-diseases-in-outpatient-department-11950033>
- 4.The organization and carrying out of examination of temporary disability = Организация и проведение экспертизы временной нетрудоспособности [Электронный ресурс] : an educational manual for English-speaking students/ А. Г. Сердюков, И. Б. Набережная, Ж. Б. Набережная, А. С. Нимгирова. - Астрахань: Астраханский ГМУ, 2020. -103 с.- URL: <https://www.books-up.ru/ru/book/the-organization-and-carrying-out-of-examination-of-temporary-disability-10835934>
- 5.Поликлиническая терапия [Электронный ресурс] : учебник/ ред.: И. Л. Давыдкин, Ю. В. Щукин. -2-е изд., испр. и доп.. -Москва: ГЭОТАР-Медиа, 2022. -840 с.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970471999.html>

6. List of the information and telecommunications Internet resources required for mastering of the course

EO and DOT platform	Name of the e-course, authors, URL	E-course implementation model
Moodle	5 course English medium Polyclinical therapy Outpatient therapy https://edu.nsmu.ru/course/view.php?id=93	mixed learning +EC

7. List of the software and information & reference systems :Telegram, Veeva Engage, Zoom, Skype, Moodle

8. List of questions and assignments for independent work, including those using e-learning and distance learning technologies

№	Name of the resource	URL address
	OTAR-Media, 2018. - 576 p. (Series "Library of a specialist doctor") - ISBN 978-5-9704-4195-4.	http://www.studmedlib.ru/book/ISBN9785970441954.html
	Skvortsova, T. I. Computer communications and networks : an educational and methodological guide / T. I. Skvortsova. — Moscow	https://e.lanbook.com/book/163825
	Vladimirsky, A.V. Telemedicine / A.V. Vladzimirsky, G. S. Lebedev - Moscow: GEOTAR-Media, 2018. - 576 p. (Series "Library of a specialist doctor") - ISBN 978-5-9704-4195-4. - Text : electronic // EBS "Student consultant" : [website].	https://www.studentlibrary.ru/book/ISBN9785970441954.html (дата обращения: 30.04.2021).

Topic 11: "Coronary heart disease: therapy, examination of working capacity, medical examination and rehabilitation of patients".

1. Theme of the class, its goals and tasks:

Introduction

Chest pain is one of the most frequent symptoms in the practice of doctors of many specialties when observing patients with various diseases. Despite the many existing classifications of the causes of this symptom, the doctor, examining the patient, most often solves two main issues:

1. Does the patient have typical (definite) or atypical angina associated with ischemic heart disease, or extracardial chest pain;
2. Chest pain is acute (myocardial infarction, spontaneous pneumothorax) or chronic (vertebrogenic muscular pathology, neurocirculatory dystonia).

This is due to the possible prognostic feature of coronary heart disease and some other acute clinical conditions (pulmonary embolism (PE), dissecting aortic aneurysm) for a particular patient in the near future, and possibly even in the coming hours and minutes. The correct answer to these questions will determine the volume and timeliness of adequate medical intervention, therefore, all the variety of manifestations of chest pain should be considered from these positions.

Purpose: To learn how to diagnose and provide medical care to patients with coronary heart disease on an outpatient basis

Tasks:

1. Formation of theoretical knowledge about the diagnosis and treatment of patients with coronary heart disease.
2. Formation of skills for the diagnosis of chronic forms of coronary heart disease in outpatient settings.
3. Formation of skills to formulate a clinical diagnosis in accordance with the classification
4. Formation of skills of management tactics and issues of treatment of patients with angina pectoris in outpatient settings.
5. Formation of skills to properly conduct the selection for hospitalization.
6. Formation of emergency care skills in case of angina attack, acute coronary syndrome
7. Formation of skills for solving issues of medical and labor expertise of patients with angina pectoris and myocardial infarction.
8. Outline the schemes of medical examination of patients with angina pectoris in outpatient settings.
9. Formation of skills for prescribing basic therapy, therapeutic and recreational measures during the rehabilitation of patients with myocardial infarction

2. Basic definitions to be mastered by students during studying of the topic (list of notions):

The basic concepts that should be learned by students in the process of studying the topic (list of concepts).

Diagnostic standard.

Acute coronary syndrome.

Indications for hospitalization.

Treatment algorithm.
Examination of working capacity.
Medical examination.
Rehabilitation.

3. Questions for the class studies:

1. Classification of coronary heart disease
2. Differential diagnostic signs of chest pain
3. The main clinical manifestations of angina pectoris.
4. Diagnosis of chronic forms of coronary heart disease at the outpatient stage
5. Standard of diagnosis of acute coronary syndrome at the prehospital stage.
6. Basic principles of treatment of patients with coronary heart disease in a polyclinic.
7. Examination of temporary disability in case of coronary heart disease
8. Medical and social criteria for persistent disability of coronary heart disease
9. Medical examination of patients with angina pectoris.
10. Principles of medical examination and rehabilitation of patients with myocardial infarction.
11. Sanatorium-resort treatment of patients with coronary heart disease.

4. Questions for the self-assessment

1. What does the term "unstable angina" include.
2. Indications and contraindications to stress tests.
3. Principles of step therapy of stable angina pectoris.
4. Contraindications to the appointment of beta-blockers.
5. Describe the polyclinic stage of rehabilitation of patients who have undergone AMI
6. What are the medical contraindications for referral to the rehabilitation department of the cardiology sanatorium

Solve a situational problem:

The patient, 49 years old, a pilot, being on a hunt, woke up for the first time at night from an acute sudden chest pain, with irradiation in his left arm. The pain was accompanied by a feeling of fear, general excitement, copious cold sweat. The attack lasted 10 minutes, was stopped by taking nitroglycerin, When contacting the polyclinic, the general condition was satisfactory. Body temperature is normal, blood pressure is 130/80 mmHg, pulse is 74 per minute. The liver is not enlarged. There is no swelling

UAC is normal. ECG without pathological changes.

Questions: Your preliminary diagnosis. Tactics of patient management.

5. Compulsory and supplementary literature on the theme:

5.1 Compulsory literature

1. Ivashkin V.T. Internal diseases propedeutics [Электронный ресурс]/ V. T. Ivashkin, A. V. Okhlobystin. -Москва: ГЭОТАР-Медиа, 2020. -176 p.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970455555.html>

- 2.Oslopov V. N. General Care of a Patient [Электронный ресурс] : tutorial/ V. N. Oslopov, O. V. Bogoyavlenskaya. -Москва: ГЭОТАР-Медиа, 2021. -208 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970460429.html>
- 3.Outpatient Therapy [Электронный ресурс] : textbook/ ed. V. N. Larina. - Москва: ГЭОТАР-Медиа, 2023. -456 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970477083.html>

5.2. Supplementary literature

- 1.Basics of medical care = Основы медицинского ухода [Электронный ресурс] : пособие для студентов учреждений высшего образования, обучающихся по специальности «Лечебное дело» : manual for students of higher education institutions studying in the specialty «General Medicine»/ Т. П. Пронько, Э. Э. Поплавская, Е. М. Сурмач. -Гродно: ГрГМУ, 2019. -208 с.- URL: <https://www.books-up.ru/ru/book/basics-of-medical-care-12061289>
- 2.Borodulina E. A. Diagnosis and prevention of tuberculosis in general medical practice [Электронный ресурс] : tutorial guide/ Е. А. Borodulina, В. Е. Borodulin. -Москва: ГЭОТАР-Медиа, 2024. -104 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970481905.html>
- 3.Diagnostics and treatment of internal diseases in outpatient department = Диагностика и лечение терапевтических заболеваний на амбулаторном этапе [Электронный ресурс] : пособие для студентов учреждений высшего образования, обучающихся по специальности «Лечебное дело» : manual for students of higher education institutions studying in the specialty/ Е. А. Кежун, Н. С. Слободская, Д. В. Пицко, К. В. Гончар. -Гродно: ГрГМУ, 2020. -200 с.- URL: <https://www.books-up.ru/ru/book/diagnostics-and-treatment-of-internal-diseases-in-outpatient-department-11950033>
- 4.The organization and carrying out of examination of temporary disability = Организация и проведение экспертизы временной нетрудоспособности [Электронный ресурс] : an educational manual for English-speaking students/ А. Г. Сердюков, И. Б. Набережная, Ж. Б. Набережная, А. С. Нимгирова. -Астрахань: Астраханский ГМУ, 2020. -103 с.- URL: <https://www.books-up.ru/ru/book/the-organization-and-carrying-out-of-examination-of-temporary-disability-10835934>
- 5.Поликлиническая терапия [Электронный ресурс] : учебник/ ред.: И. Л. Давыдкин, Ю. В. Щукин. -2-е изд., испр. и доп.. -Москва: ГЭОТАР-Медиа, 2022. -840 с.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970471999.html>

6. List of the information and telecommunications Internet resources required for mastering of the course

EO and DOT platform	Name of the e-course, authors, URL	E-course implementation model
Moodle	5 course English medium Polyclinical therapy Outpatient therapy https://edu.nsmu.ru/course/view.php?i	mixed learning +EC

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7. List of the software and information & reference systems :Telegram, Veeva Engage, Zoom, Skype, Moodle

8. List of questions and assignments for independent work, including those using e-learning and distance learning technologies

№	Name of the resource	URL address
	OTAR-Media, 2018. - 576 p. (Series "Library of a specialist doctor") - ISBN 978-5-9704-4195-4.	http://www.studmedlib.ru/book/ISBN9785970441954.html
	Skvortsova, T. I. Computer communications and networks : an educational and methodological guide / T. I. Skvortsova. — Moscow	https://e.lanbook.com/book/163825
	Vladimirsky, A.V. Telemedicine / A.V. Vladzimirsky, G. S. Lebedev - Moscow: GEOTAR-Media, 2018. - 576 p. (Series "Library of a specialist doctor") - ISBN 978-5-9704-4195-4. - Text : electronic // EBS "Student consultant" : [website].	https://www.studentlibrary.ru/book/ISBN9785970441954.html (дата обращения: 30.04.2021).

Topic 12: "Acquired mitral heart defects and tricuspid valve insufficiency. Classification. Etiology. Pathogenesis. Diagnostics. Principles of treatment".

1. Theme of the class, its goals and tasks:

Acquired heart defects are a problem that remains relevant at the present time. In view of this, every doctor should know the main manifestations of this pathology. Mitral valve lesion ranks 1st in frequency among all valvular heart lesions. A comprehensive assessment of the anamnesis data, objective and instrumental examinations of the patient will contribute to the correct diagnosis of mitral or tricuspid valve damage.

The purpose of the lesson is to teach students the methods of questioning and objective examination, basic instrumental studies, principles of treatment and prevention of patients with mitral and tricuspid valve insufficiency, stenosis of the left atrioventricular orifice.

2. Basic definitions to be mastered by students during studying of the topic (list of notions):

The basic concepts that should be learned by students in the process of studying the topic (list of concepts).

Diagnostic standard.

Acute coronary syndrome.
Indications for hospitalization.
Treatment algorithm.
Examination of working capacity.
Medical examination.
Rehabilitation.

1. Formation of knowledge about the etiology, intracardiac hemodynamics, semiotics, classification and principles of treatment of mitral defects and tricuspid valve insufficiency;
2. Formation of skills for examination of the cardiovascular system (examination, palpation, percussion and auscultation) in mitral heart defects and tricuspid valve insufficiency;
3. Formation of skills to correctly interpret the received physical examination data; – teach to evaluate the results of instrumental (X-ray, electrocardiographic (ECG), phonocardiographic (FKG) and echocardiographic (EchoCG)) methods of examination;

3. Questions for the class studies:

1. List the main complaints of mitral valve insufficiency.
2. Specify the main etiological factors of the development of relative and organic mitral valve insufficiency.
3. Name the main links of pathogenesis and hemodynamic changes in mitral valve insufficiency.
4. List the changes detected during examination, palpation and percussion in patients with mitral valve insufficiency.
5. Indicate auscultative signs in case of mitral valve insufficiency (characteristic of heart tones and noises).
6. List the instrumental methods of examination for mitral valve insufficiency (ECG, PCG, EchoCG, X-ray methods).
7. List the main signs of mitral valve insufficiency.
8. What are the main principles of treatment of mitral valve insufficiency?
9. List the main causes of stenosis of the left atrioventricular orifice.
10. Name the change in hemodynamics in mitral stenosis.
11. Specify the main complaints of mitral stenosis.
12. What are the main signs of mitral stenosis during examination, palpation and percussion.
13. List the data of auscultation of the heart with narrowing of the left atrioventricular orifice.
14. List the main changes that are detected during instrumental studies in patients with mitral stenosis (ECG, PCG, EchoCG, X-ray methods).
15. Specify the main signs of mitral stenosis.
16. What are the main principles of treatment of mitral stenosis.
17. Indicate the main signs of tricuspid valve insufficiency.
18. Explain the etiology and changes in hemodynamics in tricuspid valve insufficiency.

19. Name the complaints and inspection data for the insufficiency of the tricuspid valve.
20. Specify the data of palpation and percussion in case of tricuspid valve insufficiency.
21. What are the instrumental methods of investigation for tricuspid valve insufficiency?

4. Questions for the self-assessment

1. anamnesis collection, physical examination of a patient with acquired heart defects
2. The appointment of a clinical minimum of laboratory and instrumental methods of research in patients with acquired heart defects in an outpatient service.
3. Registration of medical documentation in a polyclinic (outpatient card, disability sheet).
4. The choice of tactics for the management of a patient with acquired heart defects at the outpatient stage of management: emergency care, the appointment of basic therapy.
5. Monitoring the effectiveness of treatment.
6. Dispensary observation of patients with acquired heart defects.

5. Compulsory and supplementary literature on the theme:

5.1 Compulsory literature

1. Ivashkin V.T. Internal diseases propedeutics [Электронный ресурс]/ V. T. Ivashkin, A. V. Okhlobystin. -Москва: ГЭОТАР-Медиа, 2020. -176 p.- URL: <https://www.studentlibrary.ru/book/ISBN9785970455555.html>
2. Oslopov V. N. General Care of a Patient [Электронный ресурс] : tutorial/ V. N. Oslopov, O. V. Bogoyavlenskaya. -Москва: ГЭОТАР-Медиа, 2021. -208 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970460429.html>
3. Outpatient Therapy [Электронный ресурс] : textbook/ ed. V. N. Larina. -Москва: ГЭОТАР-Медиа, 2023. -456 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970477083.html>

5.2. Supplementary literature

1. Basics of medical care = Основы медицинского ухода [Электронный ресурс] : пособие для студентов учреждений высшего образования, обучающихся по специальности «Лечебное дело» : manual for students of higher education institutions studying in the specialty «General Medicine»/ Т. П. Пронько, Э. Э. Поплавская, Е. М. Сурмач. -Гродно: ГрГМУ, 2019. -208 с.- URL: <https://www.books-up.ru/ru/book/basics-of-medical-care-12061289>
2. Borodulina E. A. Diagnosis and prevention of tuberculosis in general medical practice [Электронный ресурс] : tutorial guide/ E. A. Borodulina, B. E. Borodulin. -Москва: ГЭОТАР-Медиа, 2024. -104 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970481905.html>
3. Diagnostics and treatment of internal diseases in outpatient department = Диагностика и лечение терапевтических заболеваний на амбулаторном этапе [Электронный ресурс] : пособие для студентов учреждений высшего образования, обучающихся по специальности «Лечебное дело» : manual for students of higher education institutions studying in the specialty/ Е. А. Кежун, Н.

С. Слободская, Д. В. Пицко, К. В. Гончар. -Гродно: ГрГМУ, 2020. -200 с.- URL: <https://www.books-up.ru/ru/book/diagnostics-and-treatment-of-internal-diseases-in-outpatient-department-11950033>

4.The organization and carrying out of examination of temporary disability = Организация и проведение экспертизы временной нетрудоспособности [Электронный ресурс] : an educational manual for English-speaking students/ А. Г. Сердюков, И. Б. Набережная, Ж. Б. Набережная, А. С. Нимгирова. - Астрахань: Астраханский ГМУ, 2020. -103 с.- URL: <https://www.books-up.ru/ru/book/the-organization-and-carrying-out-of-examination-of-temporary-disability-10835934>

5.Поликлиническая терапия [Электронный ресурс] : учебник/ ред.: И. Л. Давыдкин, Ю. В. Щукин. -2-е изд., испр. и доп.. -Москва: ГЭОТАР-Медиа, 2022. -840 с.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970471999.html>

6. List of the information and telecommunications Internet resources required for mastering of the course

EO and DOT platform	Name of the e-course, authors, URL	E-course implementation model
Moodle	5 course English medium Polyclinical therapy Outpatient therapy https://edu.nsmu.ru/course/view.php?id=93	mixed learning +EC

7.List of the software and information & reference systems :Telegram, Veeva Engage, Zoom, Skype, Moodle

8. List of questions and assignments for independent work, including those using e-learning and distance learning technologies

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	OTAR-Media, 2018. - 576 p. (Series "Library of a specialist doctor") - ISBN 978-5-9704-4195-4.	http://www.studmedlib.ru/book/ISBN9785970441954.html
	Skvortsova, T. I. Computer communications and networks : an educational and methodological guide / T. I. Skvortsova. — Moscow	https://e.lanbook.com/book/163825
	Vladimirsky, A.V. Telemedicine / A.V. Vladzimirsky, G. S. Lebedev - Moscow: GEOTAR-Media, 2018. - 576 p. (Series "Library of a specialist doctor") - ISBN 978-5-9704-4195-	https://www.studentlibrary.ru/book/ISBN9785970441954.html (дата обращения:

4. - Text : electronic // EBS "Student consultant" : [website].	30.04.2021).
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Topic 13: "Atrial fibrillation in the practice of a general practitioner"

1. Theme of the class, its goals and tasks:

Atrial fibrillation is one of the most common cardiac arrhythmias, accounting for about a third of all hospitalizations due to cardiac arrhythmias. Currently, there is a trend of aging of the population and an increase in total life expectancy, which will further lead to an increase in the number of patients with atrial fibrillation. So in the USA by 2050. more than 5 million patients with atrial fibrillation are expected – this allows some authors to call atrial fibrillation an "epidemic" of the 21st century. The annual risk of stroke associated with AF is 3.7%, and the number of disabling and non-disabling strokes, one way or another associated with AF, in the United States, for example, is 100,000. Thromboembolism is the main cause of death in patients with AF, the main one is the development of ischemic stroke. Approximately 15% of all ischemic strokes are caused by AF, and at the age of 80-89, approximately 24% of strokes are associated with AF. The frequency of ischemic strokes in patients with non-rheumatic AF averages 5% per year, which is 2.7 times higher than this indicator in the group of people without AF. The incidence of AF-related strokes in the Framingham study increased from 1.5% at the age of 50-59 years to 23.5% in 80-89-year-olds.

The purpose of the lesson: To learn how to diagnose and provide medical care to patients with atrial fibrillation on an outpatient basis

Tasks:

1. Be able to receive a patient with arrhythmia syndrome: to collect anamnesis (to assess risk factors and the presence of associated clinical conditions and complications), to conduct a physical examination, to appoint a clinical minimum examination of the patient, to analyze the results and differential diagnosis of nosological causes of AF.
2. Know the etiology and pathogenesis of AF.
3. Be able to determine the tactics of managing a patient with AF in outpatient conditions, issues of medical examination and examination of temporary disability.
4. Be able to provide emergency medical care for various forms of AF and possible complications.

2. Basic definitions to be mastered by students during studying of the topic (list of notions):

Oral anticoagulants
Antiarrhythmic drugs
MNO

3. Questions for the class studies:

1. Definition of FP.

2. Etiology and pathogenesis of AF.
3. Clinical manifestations of AF. Physical examination of patients.
4. Laboratory and instrumental methods of diagnosis of AF, Frederick's syndrome.
5. Tactics of managing a patient with AF in a polyclinic: emergency medical care, basic therapy of patients with AF, non-drug treatment methods.
6. Classification of antiarrhythmic drugs used in the treatment of AF.
7. Associated clinical conditions, complications in AF, prevention of their occurrence.
8. Examination of temporary disability, indications for planned and emergency hospitalization of patients with AF.

4. Questions for the self-assessment

1. anamnesis collection, physical examination of a patient with arthymia syndrome.
2. Appointment of the clinical minimum of laboratory and instrumental methods of research in patients with AF in the conditions of outpatient polyclinic service.
3. Registration of medical documentation in a polyclinic (outpatient card, disability sheet).
4. The choice of tactics for the management of a patient with AF at the outpatient stage of management: emergency care, the appointment of basic therapy.
5. Monitoring the effectiveness of treatment.
6. Dispensary observation of patients with AF.
7. The ability to issue prescriptions for the following drugs: amiodarone, ibutilide, novocainamide, propafenone, quinidine, digoxin, verapamil, anaprilin, egilok, sotalol, aspirin, warfarin, concor, bisoprolol.

5. Compulsory and supplementary literature on the theme:

5.1 Compulsory literature

1. Ivashkin V.T. Internal diseases propedeutics [Электронный ресурс]/ V. T. Ivashkin , A. V. Okhlobystin. -Москва: ГЭОТАР-Медиа, 2020. -176 p.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970455555.html>
2. Oslopov V. N. General Care of a Patient [Электронный ресурс] : tutorial/ V. N. Oslopov, O. V. Bogoyavlenskaya. -Москва: ГЭОТАР-Медиа, 2021. -208 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970460429.html>
3. Outpatient Therapy [Электронный ресурс] : textbook/ ed. V. N. Larina. - Москва: ГЭОТАР-Медиа, 2023. -456 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970477083.html>

5.2. Supplementary literature

1. Basics of medical care = Основы медицинского ухода [Электронный ресурс] : пособие для студентов учреждений высшего образования, обучающихся по специальности «Лечебное дело» : manual for students of higher education institutions studying in the specialty «General Medicine»/ Т. П. Пронько, Э. Э. Поплавская, Е. М. Сурмач. -Гродно: ГрГМУ, 2019. -208 с.- URL: <https://www.books-up.ru/ru/book/basics-of-medical-care-12061289>
2. Borodulina E. A. Diagnosis and prevention of tuberculosis in general medical practice [Электронный ресурс] : tutorial guide/ Е. А. Borodulina, В. Е. Borodulin. -Москва: ГЭОТАР-Медиа, 2024. -104 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970481905.html>

3. Diagnostics and treatment of internal diseases in outpatient department = Диагностика и лечение терапевтических заболеваний на амбулаторном этапе [Электронный ресурс] : пособие для студентов учреждений высшего образования, обучающихся по специальности «Лечебное дело» : manual for students of higher education institutions studying in the specialty/ Е. А. Кежун, Н. С. Слободская, Д. В. Пицко, К. В. Гончар. - Гродно: ГрГМУ, 2020. - 200 с.- URL: <https://www.books-up.ru/ru/book/diagnostics-and-treatment-of-internal-diseases-in-outpatient-department-11950033>

4. The organization and carrying out of examination of temporary disability = Организация и проведение экспертизы временной нетрудоспособности [Электронный ресурс] : an educational manual for English-speaking students/ А. Г. Сердюков, И. Б. Набережная, Ж. Б. Набережная, А. С. Нимгирова. - Астрахань: Астраханский ГМУ, 2020. - 103 с.- URL: <https://www.books-up.ru/ru/book/the-organization-and-carrying-out-of-examination-of-temporary-disability-10835934>

5. Поликлиническая терапия [Электронный ресурс] : учебник/ ред.: И. Л. Давыдкин, Ю. В. Щукин. - 2-е изд., испр. и доп.. - Москва: ГЭОТАР-Медиа, 2022. - 840 с.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970471999.html>

6. List of the information and telecommunications Internet resources required for mastering of the course

EO and DOT platform	Name of the e-course, authors, URL	E-course implementation model
Moodle	5 course English medium Polyclinical therapy Outpatient therapy https://edu.nsmu.ru/course/view.php?id=93	mixed learning +EC

7. List of the software and information & reference systems : Telegram, Veeva Engage, Zoom, Skype, Moodle

8. List of questions and assignments for independent work, including those using e-learning and distance learning technologies

№	Name of the resource	URL address
	OTAR-Media, 2018. - 576 p. (Series "Library of a specialist doctor") - ISBN 978-5-9704-4195-4.	http://www.studmedlib.ru/book/ISBN9785970441954.html
	Skvortsova, T. I. Computer communications and networks : an educational and methodological guide / T. I. Skvortsova. — Moscow	https://e.lanbook.com/book/163825

	Vladimirsky, A.V. Telemedicine / A.V. Vladzimirsky, G. S. Lebedev - Moscow: GEOTAR-Media, 2018. - 576 p. (Series "Library of a specialist doctor") - ISBN 978-5-9704-4195-4. - Text : electronic // EBS "Student consultant" : [website].	https://www.studentlibrary.ru/book/ISBN9785970441954.html (дата обращения: 30.04.2021).
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Topic of lesson 14 Myocarditis, management of patients in outpatient settings.

1. Theme of the class, its goals and tasks:

Myocarditis is one of the most complex and urgent problems of cardiology. This is due to the increase in morbidity, the difficulty of early diagnosis, especially with the latent course of the disease, the frequent development of complications, including sudden death, the complexity of treatment (30-50% of patients have a recurrent course of the disease) and insufficient development of a program of medical, social, and physical rehabilitation of patients.

2. THE PURPOSE OF THE LESSON

Be able to diagnose myocarditis and prescribe treatment to the patient based on knowledge of the etiology, clinical manifestations, complications, diagnostic methods and principles of treatment of myocarditis.

Tasks

Lesson objectives:

1. Formation of knowledge about the etiology, pathogenesis, classification and principles of treatment of myocarditis;
2. Formation of skills for examination of the cardiovascular system (examination, palpation, percussion and auscultation) in myocarditis
3. Formation of skills to correctly interpret the received physical examination data; – teach to evaluate the results of instrumental (X-ray, electrocardiographic (ECG), and echocardiographic (EchoCG)) methods of examination;

2. Basic definitions to be mastered by students during studying of the topic (list of notions):

Basic concepts that should be learned by students in the process of studying the topic

Diagnostic standard.

Indications for hospitalization.

Treatment algorithm.

Examination of working capacity.

Medical examination.

Rehabilitation.

3. Questions for the class studies:

1. The concept of "myocarditis", definition.
2. Classification of myocarditis.
3. Etiology, pathogenesis and pathomorphology of myocarditis.
4. Clinical manifestations and diagnostic methods of myocarditis.
5. Clinical course of myocarditis.
6. Differential diagnosis of myocarditis.
7. Principles of treatment and rehabilitation of patients with myocarditis.

4. Questions for the self-assessment

A clinical task.

Patient K., 40 years old, a car mechanic, turned to the district therapist with complaints of aching pain in the heart area for 2 days, palpitations and shortness of breath during exercise, general weakness. The recorded ECG revealed atrial fibrillation, and therefore the patient was hospitalized.

From the age of 35, the patient noted a short-term paroxysmal heartbeat. For six months after the flu, heart palpitations became more frequent and became more prolonged, occurred with normal physical exertion and were accompanied by shortness of breath and general weakness. 2 weeks ago, he had an acute respiratory illness, manifested by rhinorrhea, headache and fever up to 38 ° C. For 2 days, the constant aching pain in the heart area, which does not weaken after taking nitroglycerin, the heartbeat has become constant, swelling of the feet has appeared.

On examination at the time of admission, cyanosis of the lips and tip of the nose, swelling of the feet and ankles, small bubbly wheezing in the lower posterior parts of the lungs, displacement of the left border of the heart by 2 cm to the left, deafness of heart tones, tachycardia, arrhythmic pulse, 120 per minute (there is no pulse deficit), blood pressure - 100/60 mm Hg., the liver protrudes 3 cm from under the edge of the costal arch, painful on palpation. In the blood test, leukocytosis ($10.3 \times 10^9 / l$), increased ESR (38 mm /h), hypergammaglobulinemia (23%), CRP - "+++", hyperfibrinogenemia (5.3 g/l), a slight increase in the activity of AST, ALT,

CK.

General urinalysis: relative density - 1,020, protein - trace amounts, glucose was not detected, leukocytes -1-2 in the field of vision, erythrocytes - 1-2 in the field of vision. ECG shows atrial fibrillation, tachysystolic form, ST segment depression and negative T wave in leads I, aVL, V4-6. Echocardiography: dilation of the ventricles and atria, diffuse myocardial hypokinesis,

PV - 32%, mitral regurgitation of the II degree. X-ray examination of the chest organs revealed the expansion and small structure of the lung roots, an increase in the size of the heart, a small amplitude of heart pulsation.

1. Formulate a clinical diagnosis.
2. With what diseases should a differential diagnosis be carried out? Make a survey plan.
3. What are the morphological changes in the myocardium in the chronic course of myocarditis?
4. Prescribe treatment, justify your decision.
5. What is the prognosis of the disease?

5.Compulsory and supplementary literature on the theme:

5.1 Compulsory literature

- 1.Ivashkin V.T. Internal diseases propedeutics [Электронный ресурс]/ V. T. Ivashkin , A. V. Okhlobystin. -Москва: ГЭОТАР-Медиа, 2020. -176 p.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970455555.html>
- 2.Oslopov V. N. General Care of a Patient [Электронный ресурс] : tutorial/ V. N. Oslopov, O. V. Bogoyavlenskaya. -Москва: ГЭОТАР-Медиа, 2021. -208 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970460429.html>
- 3.Outpatient Therapy [Электронный ресурс] : textbook/ ed. V. N. Larina. - Москва: ГЭОТАР-Медиа, 2023. -456 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970477083.html>

5.2. Supplementary literature

- 1.Basics of medical care = Основы медицинского ухода [Электронный ресурс] : пособие для студентов учреждений высшего образования, обучающихся по специальности «Лечебное дело» : manual for students of higher education institutions studying in the specialty «General Medicine»/ Т. П. Пронько, Э. Э. Поплавская, Е. М. Сурмач. -Гродно: ГрГМУ, 2019. -208 с.- URL: <https://www.books-up.ru/ru/book/basics-of-medical-care-12061289>
- 2.Borodulina E. A. Diagnosis and prevention of tuberculosis in general medical practice [Электронный ресурс] : tutorial guide/ E. A. Borodulina, B. E. Borodulin. -Москва: ГЭОТАР-Медиа, 2024. -104 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970481905.html>
- 3.Diagnostics and treatment of internal diseases in outpatient department = Диагностика и лечение терапевтических заболеваний на амбулаторном этапе [Электронный ресурс] : пособие для студентов учреждений высшего образования, обучающихся по специальности «Лечебное дело» : manual for students of higher education institutions studying in the specialty/ Е. А. Кежун, Н. С. Слободская, Д. В. Пицко, К. В. Гончар. -Гродно: ГрГМУ, 2020. -200 с.- URL: <https://www.books-up.ru/ru/book/diagnostics-and-treatment-of-internal-diseases-in-outpatient-department-11950033>
- 4.The organization and carrying out of examination of temporary disability = Организация и проведение экспертизы временной нетрудоспособности [Электронный ресурс] : an educational manual for English-speaking students/ А. Г. Сердюков, И. Б. Набережная, Ж. Б. Набережная, А. С. Нимгирова. - Астрахань: Астраханский ГМУ, 2020. -103 с.- URL: <https://www.books->

up.ru/ru/book/the-organization-and-carrying-out-of-examination-of-temporary-disability-10835934

5.Поликлиническая терапия [Электронный ресурс] : учебник/ ред.: И. Л. Давыдкин, Ю. В. Щукин. -2-е изд., испр. и доп.. -Москва: ГЭОТАР-Медиа, 2022. -840 с.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970471999.html>

6. List of the information and telecommunications Internet resources required for mastering of the course

EO and DOT platform	Name of the e-course, authors, URL	E-course implementation model
Moodle	5 course English medium Polyclinical therapy Outpatient therapy https://edu.nsmu.ru/course/view.php?id=93	mixed learning +EC

7.List of the software and information & reference systems :Telegram, Veeva Engage, Zoom, Skype, Moodle

8. List of questions and assignments for independent work, including those using e-learning and distance learning technologies

№	Name of the resource	URL address
	OTAR-Media, 2018. - 576 p. (Series "Library of a specialist doctor") - ISBN 978-5-9704-4195-4.	http://www.studmedlib.ru/book/ISBN9785970441954.html
	Skvortsova, T. I. Computer communications and networks : an educational and methodological guide / T. I. Skvortsova. — Moscow	https://e.lanbook.com/book/163825
	Vladimirsky, A.V. Telemedicine / A.V. Vladzimirsky, G. S. Lebedev - Moscow: GEOTAR-Media, 2018. - 576 p. (Series "Library of a specialist doctor") - ISBN 978-5-9704-4195-4. - Text : electronic // EBS "Student consultant" : [website].	ttps://www.studentlibrary.ru/book/ISBN9785970441954.html (дата обращения: 30.04.2021).

Topic 15: "Management of patients with chronic kidney disease in the outpatient phase"

1. Theme of the class, its goals and tasks:

To learn how to diagnose, provide medical care, solve expert questions in the outpatient phase of patients with chronic kidney disease.

2. Basic definitions to be mastered by students during studying of the topic (list of notions):

Standards for the diagnosis of kidney disease. Treatment, follow-up of patients with renal pathology.

1. Have an understanding of the classification of kidney and urinary tract diseases: ICD-10.
2. To master the ability to conduct a differential diagnostic search among laboratory instrumental and clinical findings.
3. To substantiate a preliminary diagnosis of renal disease variants and to formulate an understanding of different treatment and prophylactic strategies for this pathology.
4. Knowledge of the classification of chronic kidney disease, treatment guidelines, criteria for permanent disability.
5. To outline patterns of follow-up of patients with renal pathology.

3. Questions for the class studies:

1. Classification of chronic kidney disease (according to ICD-10).
2. Current understanding of the etiology and pathogenesis of diseases leading to the formation of chronic kidney disease.
3. Standards for diagnosis of CKD: data from history, complaints, clinical manifestations, laboratory and instrumental examinations.
4. The main areas of prevention of CKD.
5. The basic principles of treating CKD.
6. Indications for haemodialysis (and other replacement therapy).
7. SCF calculation methods.

4. Questions for the self-assessment

1. Kidney function, structure, nephron.
2. Methods of assessing renal function.
3. The concept of CKD
4. Classification of CKD, stages of development, principles of treatment.
5. Sanatorium treatment for kidney disease.
6. Organise follow-up care for a patient with chronic kidney disease.
7. Prescription forms when prescribing essential medicines (*captopril, enalapril, perindopril, amoxicillin, erythromycin, prednisolone tablets, simvastatin, sorbifer, ciprofloxacin, levofloxacin, nitrofurantoin*)

5. Compulsory and supplementary literature on the theme:

5.1 Compulsory literature

1. Ivashkin V.T. Internal diseases propedeutics [Электронный ресурс]/ V. T. Ivashkin, A. V. Okhlobystin. -Москва: ГЭОТАР-Медиа, 2020. -176 p.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970455555.html>

- 2.Osloпов V. N. General Care of a Patient [Электронный ресурс] : tutorial/ V. N. Osloпов, O. V. Bogoyavlenskaya. -Москва: ГЭОТАР-Медиа, 2021. -208 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970460429.html>
- 3.Outpatient Therapy [Электронный ресурс] : textbook/ ed. V. N. Larina. -Москва: ГЭОТАР-Медиа, 2023. -456 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970477083.html>

5.2. Supplementary literature

- 1.Basics of medical care = Основы медицинского ухода [Электронный ресурс] : пособие для студентов учреждений высшего образования, обучающихся по специальности «Лечебное дело» : manual for students of higher education institutions studying in the specialty «General Medicine»/ Т. П. Пронько, Э. Э. Поплавская, Е. М. Сурмач. -Гродно: ГрГМУ, 2019. -208 с.- URL: <https://www.books-up.ru/ru/book/basics-of-medical-care-12061289>
- 2.Borodulina E. A. Diagnosis and prevention of tuberculosis in general medical practice [Электронный ресурс] : tutorial guide/ Е. А. Borodulina, В. Е. Borodulin. -Москва: ГЭОТАР-Медиа, 2024. -104 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970481905.html>
- 3.Diagnostics and treatment of internal diseases in outpatient department = Диагностика и лечение терапевтических заболеваний на амбулаторном этапе [Электронный ресурс] : пособие для студентов учреждений высшего образования, обучающихся по специальности «Лечебное дело» : manual for students of higher education institutions studying in the specialty/ Е. А. Кежун, Н. С. Слободская, Д. В. Пицко, К. В. Гончар. -Гродно: ГрГМУ, 2020. -200 с.- URL: <https://www.books-up.ru/ru/book/diagnostics-and-treatment-of-internal-diseases-in-outpatient-department-11950033>
- 4.The organization and carrying out of examination of temporary disability = Организация и проведение экспертизы временной нетрудоспособности [Электронный ресурс] : an educational manual for English-speaking students/ А. Г. Сердюков, И. Б. Набережная, Ж. Б. Набережная, А. С. Нимгирова. -Астрахань: Астраханский ГМУ, 2020. -103 с.- URL: <https://www.books-up.ru/ru/book/the-organization-and-carrying-out-of-examination-of-temporary-disability-10835934>
- 5.Поликлиническая терапия [Электронный ресурс] : учебник/ ред.: И. Л. Давыдкин, Ю. В. Щукин. -2-е изд., испр. и доп.. -Москва: ГЭОТАР-Медиа, 2022. -840 с.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970471999.html>

6. List of the Internet resources required for mastering of the course (module)*

№	Resources	URL address	Resource Annotation
1	Website of the European Society of Cardiologists	http://www.escardio.org	contains cardiological articles, clinical recommendations
2	MedLib	http://med-lib.ru/	contains cardiological articles, clinical recommendations

3	Website of the American Heart Society and the American Society of Cardiologists	www.heart.org/HEARTORG	contains cardiological articles, clinical recommendations
4	PubMed	https://pubmed.ncbi.nlm.nih.gov	An electronic search engine with more than 30 million publications, including studies, meta-analyses, clinical trials and systematic reviews in medicine, dentistry, physiology, biology and psychology. The site is intended primarily for medical professionals and medical students.
5	UpToDate	https://www.wolterskluwer.com	One of the most authoritative sources of information on clinical medicine for physicians. Articles on the site contain up-to-date data on diseases, etiology, pathophysiology, diagnosis and therapy. The information on pathologies and treatments is based on the principles of evidence-based medicine. The site contains many illustrations, tables, infographics and videos.
6	Mayo Clinic	https://www.mayoclinic.org	A nonprofit organization and research center. The site contains current and reliable information on diseases, causes, diagnosis and treatment for physicians and medical students. More than 3,000 physicians and researchers contribute to the articles. The information will help physicians decide on a treatment and medication if they are in a state of uncertainty.
7	Drugs	https://www.drugs.com	An encyclopedia site with information about most existing medicines in medicine. You can find out, for example, whether drugs are compatible with each other and what side effects they can cause. The peculiarity of the site is that it does not represent any pharmacy or

			pharmaceutical company, so the information about drugs is provided neutrally, without interest in its sale.
8	The Lancet	https://www.thelancet.com	An internationally respected journal for physicians and medical professionals, published for almost 200 years. It has many subdivisions, such as The Lancet Neurology, which publishes articles on neurology, and The Lancet Oncology, which covers oncological diseases. The journal is peer-reviewed, which means that the credibility of facts, studies and results are checked by experts and specialists in their fields. There are videos, infographics, and podcasts, for example, about successful treatment cases.
9	The BMJ	https://www.bmj.com	The British Medical Journal publishes articles, systematic reviews, and clinical studies. It is one of the most cited journals. The purpose of the publication is to educate young physicians and medical staff who have recently begun to practice and to combat unreliable, unethical, and outdated information.
10	CDC	https://www.cdc.gov	Centers for Disease Control and Prevention. The site contains statistics, review articles and current research with links to primary sources, and provides up-to-date health data.
11	FDA	https://www.fda.gov	Centers for Disease Control and Prevention Food and Drugs Administration. The site contains statistics, review articles and current research with links to primary sources, and provides up-to-date health data. This resource generally provides up-to-date information about the development, testing, and introduction of medicines, including vaccines. The FDA is the authority on whose approval a drug's fate

			depends, and if it approves a drug, it is considered to have passed a clinical trial and to have proven efficacy.
12	Medscape	https://www.medscape.org	An online resource for medical professionals, physicians, and medical students. Contains many original reviews, monographs, clinical studies, and articles. The site has a library. The front pages talk about current topics in medicine and medicines.
13	«Emergency Medical Help»	https://vk.com/emhelp	A community of medical professionals in the social network "VKontakte", algorithms, recommendations, audio and video tutorials.

7. List of the software and information & reference systems :Telegram, Veeva Engage, Zoom, Skype, Moodle

8. List of questions and assignments for independent work, including those using e-learning and distance learning technologies

Sections and topics for self-study	Types and content of independent work
Health resort treatment for kidney disease.	Preparing a presentation in Moodle

Topic 16: "Examination of disability of patients with acute and chronic glomerulonephritis and patients with chronic pyelonephritis"

1. Theme of the class, its goals and tasks:

To learn how to diagnose, provide medical care, and resolve expert questions on an outpatient basis in patients with acute and chronic glomerulonephritis and patients with chronic pyelonephritis.

2. Basic definitions to be mastered by students during studying of the topic (list of notions):

1. Have an understanding of the classification of kidney and urinary tract diseases: ICD-10.
2. Master the ability to conduct a differential diagnostic search among laboratory instrumental and clinical findings.

3. Provide evidence for a preliminary diagnosis of renal disease, and formulate an understanding of the various treatment and prophylactic options for this pathology.
4. To know the classification, directions for treatment, criteria for permanent disability.
5. To outline a scheme for the screening of patients with renal pathology.

3. Questions for the class studies:

1. Definition, terminology, classification of pyelonephritis and glomerulonephritis.
2. Epidemiology, screening, prevention of pyelonephritis and glomerulonephritis.
3. Etiology, pathogenesis, risk factors for pyelonephritis and glomerulonephritis.
4. Diagnosis of pyelonephritis and glomerulonephritis: history, physical examination, complex laboratory and instrumental investigations. Differential diagnosis.
5. Treatment of pyelonephritis and glomerulonephritis: goals, indications for hospitalisation, drug treatment
6. Dispensary care for pyelonephritis and glomerulonephritis.
7. Examination of temporary and permanent disability in pyelonephritis and glomerulonephritis.
8. Indications for spa treatment for pyelonephritis and glomerulonephritis.

4. Questions for the self-assessment

1. Kidney function, structure, nephron.
2. Methods of assessing renal function.
3. List of diseases accompanied by urinary syndrome:
 - (a) In the form of haematuria, proteinuria and cylinduria;
 - b) in the form of leucocyturia and bacteriuria.
4. Diagnostic criteria for glomerulonephritis, pyelonephritis, difference.
5. Classification of chronic pyelonephritis.
6. Treatment of chronic pyelonephritis.
8. Sanatorium treatment of kidney disease.

5. Compulsory and supplementary literature on the theme:

5.1 Compulsory literature

1. Ivashkin V.T. Internal diseases propedeutics [Электронный ресурс]/ V. T. Ivashkin, A. V. Okhlobystin. -Москва: ГЭОТАР-Медиа, 2020. -176 p.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970455555.html>
2. Oslopov V. N. General Care of a Patient [Электронный ресурс] : tutorial/ V. N. Oslopov, O. V. Bogoyavlenskaya. -Москва: ГЭОТАР-Медиа, 2021. -208 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970460429.html>
3. Outpatient Therapy [Электронный ресурс] : textbook/ ed. V. N. Larina. -Москва: ГЭОТАР-Медиа, 2023. -456 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970477083.html>

5.2. Supplementary literature

1. Basics of medical care = Основы медицинского ухода [Электронный ресурс] : пособие для студентов учреждений высшего образования, обучающихся по специальности «Лечебное дело» : manual for students of higher education institutions studying in the specialty «General Medicine»/ Т. П. Пронько, Э. Э. Поплавская, Е. М. Сурмач. -Гродно: ГрГМУ, 2019. -208 с.- URL: <https://www.books-up.ru/ru/book/basics-of-medical-care-12061289>
2. Borodulina E. A. Diagnosis and prevention of tuberculosis in general medical practice [Электронный ресурс] : tutorial guide/ Е. А. Borodulina, В. Е. Borodulin. -Москва: ГЭОТАР-Медиа, 2024. -104 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970481905.html>
3. Diagnostics and treatment of internal diseases in outpatient department = Диагностика и лечение терапевтических заболеваний на амбулаторном этапе [Электронный ресурс] : пособие для студентов учреждений высшего образования, обучающихся по специальности «Лечебное дело» : manual for students of higher education institutions studying in the specialty/ Е. А. Кежун, Н. С. Слободская, Д. В. Пицко, К. В. Гончар. -Гродно: ГрГМУ, 2020. -200 с.- URL: <https://www.books-up.ru/ru/book/diagnostics-and-treatment-of-internal-diseases-in-outpatient-department-11950033>
4. The organization and carrying out of examination of temporary disability = Организация и проведение экспертизы временной нетрудоспособности [Электронный ресурс] : an educational manual for English-speaking students/ А. Г. Сердюков, И. Б. Набережная, Ж. Б. Набережная, А. С. Нимгирова. -Астрахань: Астраханский ГМУ, 2020. -103 с.- URL: <https://www.books-up.ru/ru/book/the-organization-and-carrying-out-of-examination-of-temporary-disability-10835934>
5. Поликлиническая терапия [Электронный ресурс] : учебник/ ред.: И. Л. Давыдкин, Ю. В. Щукин. -2-е изд., испр. и доп.. -Москва: ГЭОТАР-Медиа, 2022. -840 с.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970471999.html>

6. List of the Internet resources required for mastering of the course (module)*

№	Resources	URL address	Resource Annotation
1	Website of the European Society of Cardiologists	http://www.escardio.org	contains cardiological articles, clinical recommendations
2	MedLib	http://med-lib.ru/	contains cardiological articles, clinical recommendations
3	Website of the American Heart Society and the American Society of Cardiologists	www.heart.org/HEARTORG	contains cardiological articles, clinical recommendations

4	PubMed	https://pubmed.ncbi.nlm.nih.gov	An electronic search engine with more than 30 million publications, including studies, meta-analyses, clinical trials and systematic reviews in medicine, dentistry, physiology, biology and psychology. The site is intended primarily for medical professionals and medical students.
5	UpToDate	https://www.wolterskluwer.com	One of the most authoritative sources of information on clinical medicine for physicians. Articles on the site contain up-to-date data on diseases, etiology, pathophysiology, diagnosis and therapy. The information on pathologies and treatments is based on the principles of evidence-based medicine. The site contains many illustrations, tables, infographics and videos.
6	Mayo Clinic	https://www.mayoclinic.org	A nonprofit organization and research center. The site contains current and reliable information on diseases, causes, diagnosis and treatment for physicians and medical students. More than 3,000 physicians and researchers contribute to the articles. The information will help physicians decide on a treatment and medication if they are in a state of uncertainty.
7	Drugs	https://www.drugs.com	An encyclopedia site with information about most existing medicines in medicine. You can find out, for example, whether drugs are compatible with each other and what side effects they can cause. The peculiarity of the site is that it does not represent any pharmacy or pharmaceutical company, so the information about drugs is provided neutrally, without interest in its sale.
8	The Lancet	https://www.thelancet.com	An internationally respected journal for physicians and medical professionals, published for almost 200 years. It has many subdivisions,

			such as The Lancet Neurology, which publishes articles on neurology, and The Lancet Oncology, which covers oncological diseases. The journal is peer-reviewed, which means that the credibility of facts, studies and results are checked by experts and specialists in their fields. There are videos, infographics, and podcasts, for example, about successful treatment cases.
9	The BMJ	https://www.bmj.com	The British Medical Journal publishes articles, systematic reviews, and clinical studies. It is one of the most cited journals. The purpose of the publication is to educate young physicians and medical staff who have recently begun to practice and to combat unreliable, unethical, and outdated information.
10	CDC	https://www.cdc.gov	Centers for Disease Control and Prevention. The site contains statistics, review articles and current research with links to primary sources, and provides up-to-date health data.
11	FDA	https://www.fda.gov	Centers for Disease Control and Prevention Food and Drugs Administration. The site contains statistics, review articles and current research with links to primary sources, and provides up-to-date health data. This resource generally provides up-to-date information about the development, testing, and introduction of medicines, including vaccines. The FDA is the authority on whose approval a drug's fate depends, and if it approves a drug, it is considered to have passed a clinical trial and to have proven efficacy.
12	Medscape	https://www.medscape.org	An online resource for medical professionals, physicians, and medical students. Contains many

			original reviews, monographs, clinical studies, and articles. The site has a library. The front pages talk about current topics in medicine and medicines.
13	Открытая группа «Emergency Medical Help»	https://vk.com/emhelp	A community of medical professionals in the social network "VKontakte", algorithms, recommendations, audio and video tutorials.

7. List of the software and information & reference systems :Telegram, Veeva Engage, Zoom, Skype, Moodle

8. List of questions and assignments for independent work, including those using e-learning and distance learning technologies

Sections and topics for self-study	Types and content of independent work
Health resort treatment for kidney disease.	Preparing a presentation in Moodle

Topic 17: 'Examination of disability in Helicobacter-associated disease'.

1. Theme of the class, its goals and tasks:

To learn how to diagnose, provide medical care, solve expert questions on the outpatient stage of patients with chronic gastritis, peptic ulcer disease, 12 duodenal ulcer disease.

2. Basic definitions to be mastered by students during studying of the topic (list of notions):

1. Check and consolidate the basic theoretical knowledge and practical skills acquired in self-study and previous internal medicine courses.
2. To learn the standard of diagnosis of chronic gastritis in an outpatient setting.
3. Learn the standard of diagnosis of gastric and duodenal ulcers in the outpatient setting.
4. Learn to formulate a clinical diagnosis in chronic gastritis, gastric and duodenal ulcers according to the classification.
5. Learn the management of patients with chronic gastritis, peptic ulcer disease and duodenal ulcer disease on an outpatient basis.
6. To be able to make a proper selection for hospital admission.
7. To learn how to deal with medical and occupational expertise in chronic gastritis, peptic ulcer and duodenal ulcer.
8. To outline schemes for the screening of patients with chronic gastritis, peptic ulcer disease and duodenal ulcer disease.
9. Learn how to work with the primary health care documents.

The main concepts to be learned by the students in the course of the topic
(list of concepts).

The diagnostic standard.

Indications for hospitalisation.

The standard of care.

A disability assessment.

Balneotherapy.

Dispensary.

3. Questions for the class studies:

1. Acid-related diseases. Classification, definition.
2. GERD. Etiology, pathogenesis, clinic of various forms. Barrett's esophagus. Treatment. Prevention. Examination of temporary disability. Occupational prognosis, employment. Dispensary care.
3. Diseases associated with *Helicobacter* infection. Main provisions of the Maastricht IV Agreement 2011.
4. Peptic ulcer disease of the stomach and duodenum. Main clinical symptoms. Indications for outpatient treatment and for hospital admission. Treatment during exacerbation in day hospital of polyclinic. Diet, non-drug and drug therapy for exacerbations. The tactics of the outpatient clinic therapist in the development of complications (bleeding, pyloric stenosis, penetration, perforation). Eradication therapy (first and second line therapy in accordance with the Maastricht Agreement 2011). Indications for surgical treatment. Sanatorium treatment. Prophylaxis (on-demand and continuous supportive care). Medical evaluation of temporary disability, its criteria and duration. Employment.
5. Chronic pancreatitis. Main clinical manifestations during exacerbation and remission. Classification. Methods of examination. Treatment in remission and exacerbation - diet, indications for employment. Prevention. Sanatorium and spa treatment.
6. Value of antacids, proton pump inhibitors, H₂-blockers, prokinetics in the treatment of acid-dependent diseases.

4. Questions for the self-assessment

- State the main diagnostic methods for *H. pylori*.
- Name the main complications of chronic gastritis and peptic ulcer disease.
- Describe the pain syndrome in chronic gastritis.
- Describe the pain syndrome of peptic ulcer disease of the stomach and duodenum.
- Name the main groups of medicines used for acute peptic ulcers.
- State the principles of diet therapy in chronic gastritis depending on the secretory function of the stomach, the phase of the disease
- Name the main gastroenterological spas.

Formulate a diagnostic hypothesis and name a method to confirm it in the following situations:

A 32-year-old man has been suffering from severe dyspeptic complaints, poor milk tolerance and a tendency to diarrhoea for six months. On examination of gastric secretion with an oral irritant there is no free hydrochloric acid. Total acidity 10-20 units. Gastric fluoroscopy without pathology.

A 54-year-old woman complains of a heavy stomach after a meal, loss of appetite, weight loss and diarrhoeal stools.

Objective: Decreased nutrition. Skin is pale, with elements of pigmentation. Bruised fingernails. Tongue covered with whitish plaque. Abdomen slightly painful in epigastric region.

Blood count: Erythrocytes $3.6 \times 10^{12}/L$, Hb-110g/L colour index-0.6. Gastric juice analysis with histamine: no free HCl. Gastric fluoroscopy: mucosal folds are thinning, thickened.

Patient B., 30 years old, consulted a general practitioner with complaints of epigastric pain occurring 1 hour after a meal, sometimes at night, nausea, weakness. Objectively: the tongue was swollen at the root. Abdomen was soft, painful on palpation in the epigastric region and pyloroduodenal area.

Solve the situation problem:

Patient I., 23 years old, a house painter, consulted a general practitioner with complaints of epigastric pain in the epigastric region with irradiation to the back, occurring 1.5-2 hours after a meal or at night, relieved at night or by taking croutons. The present symptoms are observed within 2 years, after a strong nervous shock. Objectively: asthenic physique. Tongue was thickly covered with whitish plaque. Abdomen was soft, palpation of the subalar region revealed muscle protection, local painfulness along the rectus abdominis muscle.

The haemogram is without any special features. Examination of gastric contents: free HCl on an empty stomach - 20 units, after oral stimulus at 90-120 units. On gastric fluoroscopy - rapid evacuation of barium from the 12 duodenum. Preliminary diagnosis. Examination plan. Management tactics, expert decision.

5. Compulsory and supplementary literature on the theme:

5.1 Compulsory literature

1. Ivashkin V.T. Internal diseases propedeutics [Электронный ресурс]/ V. T. Ivashkin, A. V. Okhlobystin. -Москва: ГЭОТАР-Медиа, 2020. -176 p.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970455555.html>
2. Oslopov V. N. General Care of a Patient [Электронный ресурс] : tutorial/ V. N. Oslopov, O. V. Bogoyavlenskaya. -Москва: ГЭОТАР-Медиа, 2021. -208 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970460429.html>
3. Outpatient Therapy [Электронный ресурс] : textbook/ ed. V. N. Larina. -Москва: ГЭОТАР-Медиа, 2023. -456 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970477083.html>

5.2. Supplementary literature

1. Basics of medical care = Основы медицинского ухода [Электронный ресурс] : пособие для студентов учреждений высшего образования, обучающихся по специальности «Лечебное дело» : manual for students of higher education institutions studying in the specialty «General Medicine»/ Т. П. Пронько, Э. Э. Поплавская, Е. М. Сурмач. -Гродно: ГрГМУ, 2019. -208 с.- URL: <https://www.books-up.ru/ru/book/basics-of-medical-care-12061289>
2. Borodulina E. A. Diagnosis and prevention of tuberculosis in general medical practice [Электронный ресурс] : tutorial guide/ Е. А. Borodulina, В. Е. Borodulin. -Москва: ГЭОТАР-Медиа, 2024. -104 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970481905.html>
3. Diagnostics and treatment of internal diseases in outpatient department = Диагностика и лечение терапевтических заболеваний на амбулаторном этапе [Электронный ресурс] : пособие для студентов учреждений высшего образования, обучающихся по специальности «Лечебное дело» : manual for students of higher education institutions studying in the specialty/ Е. А. Кежун, Н. С. Слободская, Д. В. Пицко, К. В. Гончар. -Гродно: ГрГМУ, 2020. -200 с.- URL: <https://www.books-up.ru/ru/book/diagnostics-and-treatment-of-internal-diseases-in-outpatient-department-11950033>
4. The organization and carrying out of examination of temporary disability = Организация и проведение экспертизы временной нетрудоспособности [Электронный ресурс] : an educational manual for English-speaking students/ А. Г. Сердюков, И. Б. Набережная, Ж. Б. Набережная, А. С. Нимгирова. -Астрахань: Астраханский ГМУ, 2020. -103 с.- URL: <https://www.books-up.ru/ru/book/the-organization-and-carrying-out-of-examination-of-temporary-disability-10835934>
5. Поликлиническая терапия [Электронный ресурс] : учебник/ ред.: И. Л. Давыдкин, Ю. В. Щукин. -2-е изд., испр. и доп.. -Москва: ГЭОТАР-Медиа, 2022. -840 с.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970471999.html>

6. List of the Internet resources required for mastering of the course (module)*

№	Resources	URL address	Resource Annotation
1	Website of the European Society of Cardiologists	http://www.escardio.org	contains cardiological articles, clinical recommendations
2	MedLib	http://med-lib.ru/	contains cardiological articles, clinical recommendations
3	Website of the American Heart Society and the American Society of Cardiologists	www.heart.org/HEARTORG	contains cardiological articles, clinical recommendations

4	PubMed	https://pubmed.ncbi.nlm.nih.gov	An electronic search engine with more than 30 million publications, including studies, meta-analyses, clinical trials and systematic reviews in medicine, dentistry, physiology, biology and psychology. The site is intended primarily for medical professionals and medical students.
5	UpToDate	https://www.wolterskluwer.com	One of the most authoritative sources of information on clinical medicine for physicians. Articles on the site contain up-to-date data on diseases, etiology, pathophysiology, diagnosis and therapy. The information on pathologies and treatments is based on the principles of evidence-based medicine. The site contains many illustrations, tables, infographics and videos.
6	Mayo Clinic	https://www.mayoclinic.org	A nonprofit organization and research center. The site contains current and reliable information on diseases, causes, diagnosis and treatment for physicians and medical students. More than 3,000 physicians and researchers contribute to the articles. The information will help physicians decide on a treatment and medication if they are in a state of uncertainty.
7	Drugs	https://www.drugs.com	An encyclopedia site with information about most existing medicines in medicine. You can find out, for example, whether drugs are compatible with each other and what side effects they can cause. The peculiarity of the site is that it does not represent any pharmacy or pharmaceutical company, so the information about drugs is provided neutrally, without interest in its sale.
8	The Lancet	https://www.thelancet.com	An internationally respected journal for physicians and medical professionals, published for almost 200 years. It has many subdivisions,

			such as The Lancet Neurology, which publishes articles on neurology, and The Lancet Oncology, which covers oncological diseases. The journal is peer-reviewed, which means that the credibility of facts, studies and results are checked by experts and specialists in their fields. There are videos, infographics, and podcasts, for example, about successful treatment cases.
9	The BMJ	https://www.bmj.com	The British Medical Journal publishes articles, systematic reviews, and clinical studies. It is one of the most cited journals. The purpose of the publication is to educate young physicians and medical staff who have recently begun to practice and to combat unreliable, unethical, and outdated information.
10	CDC	https://www.cdc.gov	Centers for Disease Control and Prevention. The site contains statistics, review articles and current research with links to primary sources, and provides up-to-date health data.
11	FDA	https://www.fda.gov	Centers for Disease Control and Prevention Food and Drugs Administration. The site contains statistics, review articles and current research with links to primary sources, and provides up-to-date health data. This resource generally provides up-to-date information about the development, testing, and introduction of medicines, including vaccines. The FDA is the authority on whose approval a drug's fate depends, and if it approves a drug, it is considered to have passed a clinical trial and to have proven efficacy.
12	Medscape	https://www.medscape.org	An online resource for medical professionals, physicians, and medical students. Contains many

			original reviews, monographs, clinical studies, and articles. The site has a library. The front pages talk about current topics in medicine and medicines.
13	«Emergency Medical Help»	https://vk.com/emhelp	A community of medical professionals in the social network "VKontakte", algorithms, recommendations, audio and video tutorials.

7. List of the software and information & reference systems :Telegram, Veeva Engage, Zoom, Skype, Moodle

8. List of questions and assignments for independent work, including those using e-learning and distance learning technologies

Sections and topics for self-study	Types and content of independent work
Working in an outpatient appointment with a general practitioner	Filling in the care diary

Topic 18: "Examination of disability in patients with chronic hepatitis and cirrhosis"

1. Theme of the class, its goals and tasks:

Introduction

This session on "Chronic Hepatitis. Liver cirrhosis" (CG and CP) will touch on theory and its practical application in real outpatient settings. The theoretical discussion will include modern views of the problem: classification of nosology, risk factors, management tactics for CG and CKD patients. In the practical sessions, students will be asked to analyse a clinical case study on the topic of the session. The practical skills will focus on both the physical examination of the patient with CG and/or CKD as well as knowledge of the clinical and laboratory minimums, with full interpolation of the findings: detailed analysis of the epidemiology, risk factors, complications and primary and secondary prevention. The clinical presentation will not only focus on the pharmacotherapy of CG and/or CKD, but also on lifestyle and nutritional issues. The issues of temporary disability assessment, indications for hospital admission and criteria are covered separately. At the end of the session, students will have acquired the necessary practical skills

and competencies for the competent management of patients with CG and/or CKD in the outpatient clinic setting.

2. Basic definitions to be mastered by students during studying of the topic (list of notions):

To learn how to diagnose, provide medical care, and deal with expert questions on an outpatient basis in patients with chronic hepatitis and cirrhosis of the liver.

Objectives:

1. Know the etiology and pathogenesis of CG and/or CKD.
2. To be able to admit a patient with CG and/or CKD: collect history (assess risk factors and presence of associated clinical conditions and complications), perform physical examination, prescribe clinical minimum examination of the patient, analyse findings and make differential diagnosis of nosological causes of CG and/or CKD.
3. To be able to determine the management of a patient with CG and/or CKD in an outpatient clinic setting, issues of follow-up and evaluation of temporary incapacity for work.
4. Be able to provide emergency medical care for various forms of CG and/or CKD and possible complications.

Basic concepts to be learned by students in the course of the topic

3. Questions for the class studies:

1. Determination of CG and/or CP.
2. Etiology and pathogenesis of CG and/or CKD.
3. Clinical manifestations of CG and/or CKD. Physical examination of patients.
4. Laboratory and instrumental methods for diagnosis of CG and/or CKD.
5. Tactics for managing a patient with CG and/or CKD in an outpatient clinic: medical care, baseline therapy for patients with CG and/or CKD. Classification of drugs used in the treatment of CG and/or CKD.
6. Complications of CG and/or CKD and prevention of their occurrence.
7. Assessment of temporary disability, indications for planned and emergency hospitalisation of patients with CG and/or CKD.

4. Questions for the self-assessment

1. Collection of medical history in a patient with CG and/or CKD.
2. Physical examination of a patient with CG and/or CKD.
3. Prescribing a clinical minimum of laboratory-instrumental investigations in patients with CG and/or CKD in an outpatient setting.
4. The preparation of medical documentation in the outpatient clinic setting (outpatient records, certificates of incapacity for work).
5. Choice of management of a patient with CG and/or CKD in the outpatient phase of management: emergency care, administration of baseline therapy.
6. Monitoring the effectiveness of treatment.
7. Dispensary follow-up of patients with CG and/or CKD.
8. Ability to fill prescriptions for CKD and CP medicines.

5. Compulsory and supplementary literature on the theme:

5.1 Compulsory literature

1. Ivashkin V. T. Internal diseases propedeutics [Электронный ресурс]/ V. T. Ivashkin, A. V. Okhlobystin. - Москва: ГЭОТАР-Медиа, 2020. -176 p.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970455555.html>
2. Oslopov V. N. General Care of a Patient [Электронный ресурс] : tutorial/ V. N. Oslopov, O. V. Bogoyavlenskaya. - Москва: ГЭОТАР-Медиа, 2021. -208 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970460429.html>
3. Outpatient Therapy [Электронный ресурс] : textbook/ ed. V. N. Larina. - Москва: ГЭОТАР-Медиа, 2023. -456 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970477083.html>

5.2. Supplementary literature

1. Basics of medical care = Основы медицинского ухода [Электронный ресурс] : пособие для студентов учреждений высшего образования, обучающихся по специальности «Лечебное дело» : manual for students of higher education institutions studying in the specialty «General Medicine»/ Т. П. Пронько, Э. Э. Поплавская, Е. М. Сурмач. - Гродно: ГрГМУ, 2019. -208 с.- URL: <https://www.books-up.ru/ru/book/basics-of-medical-care-12061289>
2. Borodulina E. A. Diagnosis and prevention of tuberculosis in general medical practice [Электронный ресурс] : tutorial guide/ E. A. Borodulina, B. E. Borodulin. - Москва: ГЭОТАР-Медиа, 2024. -104 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970481905.html>
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4. The organization and carrying out of examination of temporary disability = Организация и проведение экспертизы временной нетрудоспособности [Электронный ресурс] : an educational manual for English-speaking students/ А. Г. Сердюков, И. Б. Набережная, Ж. Б. Набережная, А. С. Нимгирова. - Астрахань: Астраханский ГМУ, 2020. -103 с.- URL: <https://www.books-up.ru/ru/book/the-organization-and-carrying-out-of-examination-of-temporary-disability-10835934>
5. Поликлиническая терапия [Электронный ресурс] : учебник/ ред.: И. Л. Давыдкин, Ю. В. Щукин. -2-е изд., испр. и доп.. -Москва: ГЭОТАР-Медиа, 2022. -840 с.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970471999.html>

6. List of the Internet resources required for mastering of the course (module)*

№	Resources	URL address	Resource Annotation
1	Website of the European	http://www.esca	contains cardiological

	Society of Cardiologists	rdio.org	articles, clinical recommendations
2	PubMed Central (PMC)	PubMed (nih.gov)	contains cardiological articles, clinical recommendations
3	MedLib	http://med-lib.ru/	contains cardiological articles, clinical recommendations
4	Website of the American Heart Society and the American Society of Cardiologists	www.heart.org/ HEARTORG	contains cardiological articles, clinical recommendations

7. List of the software and information & reference systems: Telegram, Veeva Engage, Zoom, Skype, Moodle

8. List of questions and assignments for independent work, including those using e-learning and distance learning technologies

Sections and topics for self-study	Types and content of independent work
Independent solution of case studies	The tasks are located in Moodle

Topic 19: "Examining the disability of anaemic patients"

1. Theme of the class, its goals and tasks:

Introduction.

Anaemia is a clinical and laboratory syndrome caused by a decrease in the number of haemoglobin and erythrocytes per unit blood volume.

The relevance of the issue is determined by the wide prevalence of the problem (according to the literature, the frequency of iron deficiency anemia alone in the population is about 15-20%). As **any anaemia is accompanied by the development of tissue oxygen starvation**, its correction in children, adolescents, women of childbearing age and the elderly, who constitute the bulk of the population with anaemia syndrome, is of particular importance. The social and medical importance is determined, on the one hand, by a significant reduction in the quality of life of this population, and, on the other hand, by the formed opinion, even among doctors, that it is not a dangerous condition. The latter determines insufficient action by doctors and the patient themselves to eliminate the cause and/or correction of anaemia syndrome, thus reinforcing the notion that a number of the patient's complaints: weakness, reduced physical and mental performance, attention, memory, drowsiness, flickering of flies before the eyes - from a certain age is an inevitable "companion" of life.

At the same time, anaemia is not infrequently the first syndrome that the patient and doctor may notice when serious pathology develops (kidney disease, chronic lead intoxication, systemic connective tissue disease, autoimmune diseases, cancer pathology).

Purpose: To learn how to diagnose and treat patients with anaemic syndrome on an outpatient basis.

1. Check and consolidate the basic theoretical knowledge and practical skills learned in the self-study and previous internal medicine courses.
2. To learn the principles of early diagnosis and treatment of anaemia in the outpatient setting.
3. Learn how to formulate a clinical diagnosis.
4. To learn how to manage anaemia on an outpatient basis and how to correctly select for admission to hospital.
5. To learn how to deal with occupational health issues in anaemic patients.
6. To outline outpatient rehabilitation schemes for anaemic patients
7. To outline patterns of follow-up of anaemic patients.
8. Learn how to work with the primary documents of the polyclinic.

2. Basic definitions to be mastered by students during studying of the topic (list of notions):

Iron deficiency anaemia

Hyposiderosis

B12 deficiency anaemia

3. Questions for the class studies:

1. Classification of anaemia.
2. The main clinical manifestations of anaemia.
3. Differential diagnostic signs of different etiological anaemias.
4. Basic criteria for severity and grade of anaemia.
5. Iron deficiency anaemia. Risk factors. Diagnostic criteria for iron deficiency anaemia.
6. Treatment and monitoring of the effectiveness of outpatient iron therapy. The examination of temporary and permanent disability. Indications for spa treatment
7. B₁₂ - deficiency anaemia. Causes of vitamin B deficiency₁₂.
8. Diagnostic criteria for B12 deficiency anaemia. The course of pathology, treatment at the out-of-hospital stage. Examination of work capacity. Dispensary care.

4. Questions for the self-assessment

1. Give a clinical description of the anaemic syndrome.
2. Outline an examination plan for a patient with anaemia.
3. Identify the risk factors for iron deficiency anaemia.

4. Describe the clinical manifestations of damage to the digestive and nervous system, changes in haematological parameters in B₁₂ - deficiency anaemia.
5. List the diagnostic criteria for B₁₂ - deficiency anaemia.
6. Outline a treatment plan for patients with B₁₂ - deficiency anaemia.
7. Be able to write prescriptions for the following medications (tardiferone, ferrogradument, fenuls, sorbifer-durules, pyridoxalphosphate, cyancobalamin, ascorbic acid, ferro-folgamma, erythrostim for injections, folic acid).
8. Write specific recommendations for correcting the diet of a patient with GAD.

5. Compulsory and supplementary literature on the theme:

5.1 Compulsory literature

1. Ivashkin V.T. Internal diseases propedeutics [Электронный ресурс]/ V. T. Ivashkin, A. V. Okhlobystin. -Москва: ГЭОТАР-Медиа, 2020. -176 p.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970455555.html>
2. Oslopov V. N. General Care of a Patient [Электронный ресурс] : tutorial/ V. N. Oslopov, O. V. Bogoyavlenskaya. -Москва: ГЭОТАР-Медиа, 2021. -208 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970460429.html>
3. Outpatient Therapy [Электронный ресурс] : textbook/ ed. V. N. Larina. -Москва: ГЭОТАР-Медиа, 2023. -456 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970477083.html>

5.2. Supplementary literature

1. Basics of medical care = Основы медицинского ухода [Электронный ресурс] : пособие для студентов учреждений высшего образования, обучающихся по специальности «Лечебное дело» : manual for students of higher education institutions studying in the specialty «General Medicine»/ Т. П. Пронько, Э. Э. Поплавская, Е. М. Сурмач. -Гродно: ГрГМУ, 2019. -208 с.- URL: <https://www.books-up.ru/ru/book/basics-of-medical-care-12061289>
2. Borodulina E. A. Diagnosis and prevention of tuberculosis in general medical practice [Электронный ресурс] : tutorial guide/ E. A. Borodulina, B. E. Borodulin. -Москва: ГЭОТАР-Медиа, 2024. -104 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970481905.html>
3. Diagnostics and treatment of internal diseases in outpatient department = Диагностика и лечение терапевтических заболеваний на амбулаторном этапе [Электронный ресурс] : пособие для студентов учреждений высшего образования, обучающихся по специальности «Лечебное дело» : manual for students of higher education institutions studying in the specialty/ Е. А. Кежун, Н. С. Слободская, Д. В. Пицко, К. В. Гончар. -Гродно: ГрГМУ, 2020. -200 с.- URL: <https://www.books-up.ru/ru/book/diagnostics-and-treatment-of-internal-diseases-in-outpatient-department-11950033>
4. The organization and carrying out of examination of temporary disability = Организация и проведение экспертизы временной нетрудоспособности [Электронный ресурс] : an educational manual for English-speaking students/ А. Г. Сердюков, И. Б. Набережная, Ж. Б. Набережная, А. С. Нимгирова. -Астрахань: Астраханский ГМУ, 2020. -103 с.- URL: <https://www.books-up.ru/ru/book/the-organization-and-carrying-out-of-examination-of-temporary-disability-10835934>

5.Поликлиническая терапия [Электронный ресурс] : учебник/ ред.: И. Л. Давыдкин, Ю. В. Щукин. -2-е изд., испр. и доп.. -Москва: ГЭОТАР-Медиа, 2022. -840 с.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970471999.html>

6. List of the Internet resources required for mastering of the course (module)

№	Resources	URL address	Resource Annotation
1	Website of the European Society of Cardiologists	http://www.escardio.org	contains cardiological articles, clinical recommendations
2	MedLib	http://med-lib.ru/	contains cardiological articles, clinical recommendations
3	Website of the American Heart Society and the American Society of Cardiologists	www.heart.org/HEARTORG	contains cardiological articles, clinical recommendations
4	PubMed	https://pubmed.ncbi.nlm.nih.gov	An electronic search engine with more than 30 million publications, including studies, meta-analyses, clinical trials and systematic reviews in medicine, dentistry, physiology, biology and psychology. The site is intended primarily for medical professionals and medical students.
5	UpToDate	https://www.wolterskluwer.com	One of the most authoritative sources of information on clinical medicine for physicians. Articles on the site contain up-to-date data on diseases, etiology, pathophysiology, diagnosis and therapy. The information on pathologies and treatments is based on the principles of evidence-based medicine. The site contains many illustrations, tables, infographics and videos.
6	Mayo Clinic	https://www.mayoclinic.org	A nonprofit organization and research center. The site contains current and reliable information on diseases, causes, diagnosis and treatment for physicians and medical students. More than 3,000

			physicians and researchers contribute to the articles. The information will help physicians decide on a treatment and medication if they are in a state of uncertainty.
7	Drugs	https://www.drugs.com	An encyclopedia site with information about most existing medicines in medicine. You can find out, for example, whether drugs are compatible with each other and what side effects they can cause. The peculiarity of the site is that it does not represent any pharmacy or pharmaceutical company, so the information about drugs is provided neutrally, without interest in its sale.
8	The Lancet	https://www.thelancet.com	An internationally respected journal for physicians and medical professionals, published for almost 200 years. It has many subdivisions, such as The Lancet Neurology, which publishes articles on neurology, and The Lancet Oncology, which covers oncological diseases. The journal is peer-reviewed, which means that the credibility of facts, studies and results are checked by experts and specialists in their fields. There are videos, infographics, and podcasts, for example, about successful treatment cases.
9	The BMJ	https://www.bmj.com	The British Medical Journal publishes articles, systematic reviews, and clinical studies. It is one of the most cited journals. The purpose of the publication is to educate young physicians and medical staff who have recently begun to practice and to combat unreliable, unethical, and outdated information.
10	CDC	https://www.cdc.gov	Centers for Disease Control and Prevention. The site contains statistics, review articles and current research with links to primary

			sources, and provides up-to-date health data.
11	FDA	https://www.fda.gov	Centers for Disease Control and Prevention Food and Drugs Administration. The site contains statistics, review articles and current research with links to primary sources, and provides up-to-date health data. This resource generally provides up-to-date information about the development, testing, and introduction of medicines, including vaccines. The FDA is the authority on whose approval a drug's fate depends, and if it approves a drug, it is considered to have passed a clinical trial and to have proven efficacy.
12	Medscape	https://www.medscape.org	An online resource for medical professionals, physicians, and medical students. Contains many original reviews, monographs, clinical studies, and articles. The site has a library. The front pages talk about current topics in medicine and medicines.
13	Открытая группа «Emergency Medical Help»	https://vk.com/emhelp	A community of medical professionals in the social network "VKontakte", algorithms, recommendations, audio and video tutorials.

7. List of the software and information & reference systems: Telegram, Veeva Engage, Zoom, Skype, Moodle

8. List of questions and assignments for independent work, including those using e-learning and distance learning technologies

Sections and topics for self-study	Types and content of independent work
Independent solution of case studies	The tasks are located in the Moodle system

Topic 20: "COPD, outpatient management tactics. Bronchial asthma: baseline therapy, assessment of work capacity, follow-up and rehabilitation of patients".

1. Theme of the class, its goals and tasks:

Introduction

Chronic obstructive pulmonary disease (COPD) is an environmentally mediated chronic inflammatory disease with predominant involvement of the distal airways, lung parenchyma and emphysema, characterised by restricted airflow with incompletely reversible or irreversible bronchial obstruction caused by a productive non-specific persistent inflammatory response. The disease develops in predisposed individuals and is manifested by cough, sputum production and increasing breathlessness, with a steadily progressive course leading to chronic respiratory failure and pulmonary heart failure. In the Federal Programme for Chronic Obstructive Pulmonary Disease (1999), COPD has been defined in two ways. Firstly, COPD was interpreted as a collective concept, uniting a group of chronic diseases of the respiratory system (chronic obstructive bronchitis, pulmonary emphysema, pneumosclerosis, severe bronchial asthma), accompanied by bronchial obstruction. Secondly, COPD is a disease characterised by signs of slowly progressing irreversible bronchial obstruction with increasing phenomena of chronic respiratory failure. This approach to the definition of COPD has long existed in a number of international guidelines, which formed the basis of the federal programme. The situation has now changed. A significant contribution to the understanding of COPD was made by the World Health Organisation and National Heart, Lung and Blood Institute working group report "Global strategy: diagnosis, treatment and prevention of chronic obstructive pulmonary disease"; (in English abbreviation - GOLD), created based on evidence-based medicine. GOLD has defined COPD since 2001 as a disease, rather than a group of diseases, characterised by incompletely reversible airflow limitation, having a steadily progressive nature and caused by an abnormal inflammatory response of lung tissue to irritation by various pathogenic particles and gases. COPD is treated as a distinct nosological form, with appropriate staging, and each stage is characterised by a distinct clinical picture and functional and morphological characteristics. The key points of the definition of COPD are: clinical presentation, pathophysiological mechanisms, morphological changes, risk factors.

Purpose of the session: To learn how to diagnose, treat and manage outpatients with COPD and bronchial asthma

1. Know the characteristics of an outpatient appointment for a patient with COPD.
2. You should be aware of the prevention of COPD, including secondary prevention
3. You should know the basic theory of the ITU issue.
4. You must know the issues of work capacity assessment when admitting a patient with COPD: collect an occupational history,

address the issues of work capacity assessment (identify signs of temporary or permanent disability).

5. You should be able to refer a patient with COPD to an ITEC: conduct the necessary examinations, know the criteria for determining disability groups.

2. Basic definitions to be mastered by students during studying of the topic (list of notions):

COPD, CAT, MMRC.

3. Questions for the class studies:

1. Definition of COPD.
2. The etiology and pathogenesis of COPD.
3. Clinical manifestations of COPD. Physical examination of patients.
4. Laboratory and instrumental methods of diagnosis of COPD.
5. Tactics for managing a COPD patient in an outpatient clinic: emergency care, baseline therapy for COPD patients, non-medicinal treatments.
6. Classification of drugs used in the treatment of COPD.
7. Complications of COPD and how to prevent them.
8. The assessment of temporary disability, indications for planned and emergency hospitalisation of patients with COPD.

4. Questions for the self-assessment

1. Collecting a history in a patient with COPD.
2. Physical examination of a patient with COPD.
3. Prescribing a clinical minimum of laboratory-instrumental investigations in COPD patients in an outpatient setting.
4. The preparation of medical documentation in the outpatient clinic setting (outpatient records, certificates of incapacity for work).
5. Choosing the management of the COPD patient in the outpatient phase of care: emergency care, prescribing baseline therapy.
6. Monitoring the effectiveness of treatment.
7. Dispensary care for patients with COPD.
8. Can write prescriptions for the following drugs: salbutamol, terbutaline, fenoterol, formoterol, ipratropium, eufylline, theoprec, aldicin, berotec, budesonide.

5. Compulsory and supplementary literature on the theme:

5.1 Compulsory literature

1. Ivashkin V.T. Internal diseases propedeutics [Электронный ресурс]/ V. T. Ivashkin , A. V. Okhlobystin. -Москва: ГЭОТАР-Медиа, 2020. -176 p.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970455555.html>

- 2.Osloпов V. N. General Care of a Patient [Электронный ресурс] : tutorial/ V. N. Osloпов, O. V. Bogoyavlenskaya. -Москва: ГЭОТАР-Медиа, 2021. -208 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970460429.html>
- 3.Outpatient Therapy [Электронный ресурс] : textbook/ ed. V. N. Larina. -Москва: ГЭОТАР-Медиа, 2023. -456 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970477083.html>

5.2. Supplementary literature

- 1.Basics of medical care = Основы медицинского ухода [Электронный ресурс] : пособие для студентов учреждений высшего образования, обучающихся по специальности «Лечебное дело» : manual for students of higher education institutions studying in the specialty «General Medicine»/ Т. П. Пронько, Э. Э. Поплавская, Е. М. Сурмач. -Гродно: ГрГМУ, 2019. -208 с.- URL: <https://www.books-up.ru/ru/book/basics-of-medical-care-12061289>
- 2.Borodulina E. A. Diagnosis and prevention of tuberculosis in general medical practice [Электронный ресурс] : tutorial guide/ Е. А. Borodulina, В. Е. Borodulin. -Москва: ГЭОТАР-Медиа, 2024. -104 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970481905.html>
- 3.Diagnostics and treatment of internal diseases in outpatient department = Диагностика и лечение терапевтических заболеваний на амбулаторном этапе [Электронный ресурс] : пособие для студентов учреждений высшего образования, обучающихся по специальности «Лечебное дело» : manual for students of higher education institutions studying in the specialty/ Е. А. Кежун, Н. С. Слободская, Д. В. Пицко, К. В. Гончар. -Гродно: ГрГМУ, 2020. -200 с.- URL: <https://www.books-up.ru/ru/book/diagnostics-and-treatment-of-internal-diseases-in-outpatient-department-11950033>
- 4.The organization and carrying out of examination of temporary disability = Организация и проведение экспертизы временной нетрудоспособности [Электронный ресурс] : an educational manual for English-speaking students/ А. Г. Сердюков, И. Б. Набережная, Ж. Б. Набережная, А. С. Нимгирова. -Астрахань: Астраханский ГМУ, 2020. -103 с.- URL: <https://www.books-up.ru/ru/book/the-organization-and-carrying-out-of-examination-of-temporary-disability-10835934>
- 5.Поликлиническая терапия [Электронный ресурс] : учебник/ ред.: И. Л. Давыдкин, Ю. В. Щукин. -2-е изд., испр. и доп.. -Москва: ГЭОТАР-Медиа, 2022. -840 с.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970471999.html>

6. List of the Internet resources required for mastering of the course (module)

№	Resources	URL address	Resource Annotation
1	Website of the European Society of Cardiologists	http://www.esca-rdio.org	contains cardiological articles, clinical recommendations
2	PubMed Central (PMC)	PubMed (nih.gov)	contains cardiological articles, clinical recommendations
3	MedLib	http://med-lib.ru/	contains cardiological articles, clinical

			recommendations
4	Website of the American Heart Society and the American Society of Cardiologists	www.heart.org/ HEARTORG	contains cardiological articles, clinical recommendations

7.List of the software and information & reference systems:Telegram, Veeva Engage, Zoom, Skype, Moodle

8. List of questions and assignments for independent work, including those using e-learning and distance learning technologies

Sections and topics for self-study	Types and content of independent work
Independent solution of case studies	The tasks are located in Moodle

Topic 21: 'Community-acquired pneumonia in primary care practice'.

1. Theme of the class, its goals and tasks:

Introduction

Community-acquired pneumonia (CAP) is one of the most common illnesses in humans and is one of the leading causes of death from infectious diseases.

According to official statistics (Roszdrav Central Research Institute for Health Care Organization and Information), there were 591,493 cases in the Russian Federation in 2006, a rate of 4.14%; for those aged > 18 the incidence was 3.44%. Mortality in VP is lowest (1-3%) in young and middle-aged individuals with no comorbidities. In contrast, in patients over 60 years of age with severe comorbidities (chronic obstructive pulmonary disease, malignancies, alcoholism, diabetes mellitus, renal and liver disease, cardiovascular disease, etc.) and in cases of severe VP (multilobar infiltration, secondary bacteraemia, respiratory rate > 30/min, hypotension, acute renal failure), this rate reaches 15-30%.

Purpose: To learn how to diagnose and treat pneumonia in an outpatient setting.

Objectives:

- 1.Check and consolidate the basic theoretical knowledge and practical skills learned in the self-study and previous internal medicine courses.
- 2.To learn the principles of early diagnosis and treatment of pneumonia in the outpatient setting.
- 3.Learn to formulate a clinical diagnosis of pneumonia.

- 4.To learn the management of pneumonia in the outpatient setting and be able to correctly select for admission to hospital.
- 5.To learn how to deal with the medical and occupational assessment of pneumonia patients.
- 6.To outline outpatient pneumonia rehabilitation schemes
- 7.To outline patterns of follow-up of patients with pneumonia.
8. Learn how to work with the primary documents of the polyclinic.

2. Basic definitions to be mastered by students during studying of the topic (list of notions):

The diagnostic standard.
Criteria for severity.
Indications for hospitalisation.
Empirical antibiotic therapy.
Treatment algorithm.
A disability assessment.
Dispensary.
Rehabilitation.

3. Questions for the class studies:

4. Classification of pneumonia.
5. The main clinical manifestations of pneumonia.
6. Differential diagnostic features of different etiological forms of pneumonia.
7. Basic adaptive defence mechanisms of the respiratory organs.
8. Scheme of the pathogenesis of lingering pneumonia
9. Basic criteria for severity and severity of pneumonias.
- 10.Pulmonary and extrapulmonary complications of pneumonia
- 11.Basic principles of treatment for pneumonia
- 12.A disability assessment.
- 13.Principles of antibiotic therapy
- 14.Principles of rehabilitation for rehabilitated pneumonia patients.
- 15.Spa and sanatorium treatment for pneumonia recuperators.

4. Questions for the self-assessment

1. Outline a treatment regimen for patients in the following situations:

Patient A., aged 40, has pneumonia with chronic bronchitis.

Patient B., 48 years old, pneumonia, with associated obstructive bronchitis.

Patient D., 78, has focal pneumonia in the lower lobe of the right lung.

2. Consider a plan for follow-up examination of a patient with pneumonia in preparation for discharge when the clinical picture is good.

3. Solve the situation problems:

Patient J., 69 years old, was examined by a local GP at home. Complains of marked weakness, shortness of breath, pain in the right side of the chest, cough,

fever -39 g. She had been sick for five days. From the beginning after the cold, the patient had a runny nose and subfebrile temperature, dry cough. Objectively: condition was of medium severity, marked cyanosis of the lips, acrocyanosis. The lungs on the right have shortened percussion sound, sharply weakened breathing, crepitations, increased bronchophony and vocal trembling. BP- 100\70. The liver is soft, enlarged by 2 centimetres. No edema.

Questions:

Clinical diagnosis

Survey plan

Your actions.

Patient M., aged 45, treated for pneumonia at home for three days. She has a history of chronic alcoholism.

At the next visit, the doctor notices a worsening of the condition:

- An increase in blood pressure of 15-20 mmHg in relation to normal values,
- intoxication syndrome increased (nausea, vomiting, headaches, dizziness).
- objective indicators have worsened (respirations 27 per minute, tachycardia 120 per min).
- Hyperthermia up to 39°C persists and there were chills during the night.

Questions: What to explain the worsening of the condition. What is the tactic.

5.Compulsory and supplementary literature on the theme:

5.1 Compulsory literature

- 1.Ivashkin V.T. Internal diseases propedeutics [Электронный ресурс]/ V. T. Ivashkin , A. V. Okhlobystin. -Москва: ГЭОТАР-Медиа, 2020. -176 p.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970455555.html>
- 2.Oslopov V. N. General Care of a Patient [Электронный ресурс] : tutorial/ V. N. Oslopov, O. V. Bogoyavlenskaya. -Москва: ГЭОТАР-Медиа, 2021. -208 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970460429.html>
- 3.Outpatient Therapy [Электронный ресурс] : textbook/ ed. V. N. Larina. - Москва: ГЭОТАР-Медиа, 2023. -456 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970477083.html>

5.2. Supplementary literature

- 1.Basics of medical care = Основы медицинского ухода [Электронный ресурс] : пособие для студентов учреждений высшего образования, обучающихся по специальности «Лечебное дело» : manual for students of higher education institutions studying in the specialty «General Medicine»/ Т. П. Пронько, Э. Э. Поплавская, Е. М. Сурмач. -Гродно: ГрГМУ, 2019. -208 с.- URL: <https://www.books-up.ru/ru/book/basics-of-medical-care-12061289>
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С. Слободская, Д. В. Пицко, К. В. Гончар. -Гродно: ГрГМУ, 2020. -200 с.- URL: <https://www.books-up.ru/ru/book/diagnostics-and-treatment-of-internal-diseases-in-outpatient-department-11950033>

4.The organization and carrying out of examination of temporary disability = Организация и проведение экспертизы временной нетрудоспособности [Электронный ресурс] : an educational manual for English-speaking students/ А. Г. Сердюков, И. Б. Набережная, Ж. Б. Набережная, А. С. Нимгирова. - Астрахань: Астраханский ГМУ, 2020. -103 с.- URL: <https://www.books-up.ru/ru/book/the-organization-and-carrying-out-of-examination-of-temporary-disability-10835934>

5.Поликлиническая терапия [Электронный ресурс] : учебник/ ред.: И. Л. Давыдкин, Ю. В. Щукин. -2-е изд., испр. и доп.. -Москва: ГЭОТАР-Медиа, 2022. -840 с.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970471999.html>

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3	MedLib	http://med-lib.ru/	contains cardiological articles, clinical recommendations
4	Website of the American Heart Society and the American Society of Cardiologists	www.heart.org/HEARTORG	contains cardiological articles, clinical recommendations

7.List of the software and information & reference systems:Telegram, Veeva Engage, Zoom, Skype, Moodle

8. List of questions and assignments for independent work, including those using e-learning and distance learning technologies

Sections and topics for self-study	Types and content of independent work
Preparing for a test on the topic "Diseases of the bronchopulmonary system"	Test solution

Topic 22: "Acute respiratory infections, influenza, angina, new coronavirus infection (SARS-CoV-2) outpatient care

1. Theme of the class, its goals and tasks:

Introduction

Acute respiratory diseases (**ARIs**) **are** a group of common respiratory tract infections with similar (especially in the initial stages) clinical manifestations such as inflammation of the nasopharyngeal mucosa, cough, fever, often complicated by bronchitis, pneumonia, ear and sinus infections.

A sore throat is a common acute infectious disease in which local acute inflammation affects the lymphadenoid tissue of the various tonsils of the pharynx. In medical practice, the term "sore throat" refers to acute inflammation of the palatine tonsils as the most common form.

ARI is a group of infections - viral, bacterial, mycoplasma, occurring with lesions of the mucous membranes of the respiratory tract rhinopharyngeal zone, sometimes with conjunctivitis and bronchitis, often complicated by pneumonia (E.E. Gogin, E.S. Tikhomirov, 1991, A.I. Rykov, 1997).

Purpose of the session: To learn how to diagnose and treat patients with acute respiratory infections, influenza and sore throat in an outpatient setting.

Objectives:

1. To know the basic theoretical background of influenza, acute respiratory infections, angina, new coronavirus infection (Covid 19).
2. Be able to develop routine and emergency prevention measures.
3. Awareness of early diagnosis and differential diagnosis (pneumonia, GLPS, meningococcal infection, UTI, etc.)
4. To be able to admit a patient with influenza, acute respiratory infections: take a medical history, perform a physical examination, prescribe the necessary range of laboratory tests, decide on the examination of work capacity, determine the indications for hospitalisation,
5. Provide qualified medical care, including emergency care.
6. Know the special features of the management of this category of patients in outpatient settings;

2. Basic definitions to be mastered by students during studying of the topic (list of notions):

Classification

Diagnostic criteria for acute respiratory infections.

Epidemiological history.

3. Questions for the class studies:

1. Etiology, pathogenesis, clinic of influenza, acute respiratory infections, a new coronavirus infection (Covid 19).
2. Classification of acute respiratory infections.
3. Indications for hospitalisation, including emergencies.

4. Treatment of acute respiratory infections, influenza, angina, new coronavirus infection (Covid 19). Complications. Diagnosis. Tactics.
5. Planned and emergency prevention of acute respiratory infections.
6. Differential diagnosis of angina.
7. Short-term check-ups for influenza, acute respiratory infections and sore throat.
8. A disability assessment.

4. Questions for the self-assessment

1. Diseases grouped under the term "acute respiratory infections".
2. Physical examination of a patient with influenza, acute respiratory infections and sore throat.
3. Formulate a detailed clinical diagnosis in case of influenza, acute respiratory infections, angina, new coronavirus infection (Covid 19).
4. Make the following medical records (outpatient card, sick leave).
5. Early signs of complications in the course of the disease, development of an emergency
6. Be able to organise planned prophylaxis and emergency prophylaxis in an outbreak.
7. Can write prescriptions for the following medicines (remantadine, oxolin ointment, antigrippine, libexin, paracetamol, leucocyte interferon, IRS-19, bromhexin, amoxicillin, amoxiclav, doxycycline, augmentin, clacid, bioparox, imudon).

5. Compulsory and supplementary literature on the theme:

5.1 Compulsory literature

1. Ivashkin V.T. Internal diseases propedeutics [Электронный ресурс]/ V. T. Ivashkin , A. V. Okhlobystin. -Москва: ГЭОТАР-Медиа, 2020. -176 p.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970455555.html>
2. Oslopov V. N. General Care of a Patient [Электронный ресурс] : tutorial/ V. N. Oslopov, O. V. Bogoyavlenskaya. -Москва: ГЭОТАР-Медиа, 2021. -208 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970460429.html>
3. Outpatient Therapy [Электронный ресурс] : textbook/ ed. V. N. Larina. - Москва: ГЭОТАР-Медиа, 2023. -456 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970477083.html>

5.2. Supplementary literature

1. Basics of medical care = Основы медицинского ухода [Электронный ресурс] : пособие для студентов учреждений высшего образования, обучающихся по специальности «Лечебное дело» : manual for students of higher education institutions studying in the specialty «General Medicine»/ Т. П. Пронько, Э. Э. Поплавская, Е. М. Сурмач. -Гродно: ГрГМУ, 2019. -208 с.- URL: <https://www.books-up.ru/ru/book/basics-of-medical-care-12061289>
2. Borodulina E. A. Diagnosis and prevention of tuberculosis in general medical practice [Электронный ресурс] : tutorial guide/ Е. А. Borodulina, В. Е. Borodulin. -Москва: ГЭОТАР-Медиа, 2024. -104 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970481905.html>
3. Diagnostics and treatment of internal diseases in outpatient department = Диагностика и лечение терапевтических заболеваний на амбулаторном этапе [Электронный ресурс] : пособие для студентов учреждений высшего

образования, обучающихся по специальности «Лечебное дело» : manual for students of higher education institutions studying in the specialty/ Е. А. Кежун, Н. С. Слободская, Д. В. Пицко, К. В. Гончар. -Гродно: ГрГМУ, 2020. -200 с.- URL: <https://www.books-up.ru/ru/book/diagnostics-and-treatment-of-internal-diseases-in-outpatient-department-11950033>

4.The organization and carrying out of examination of temporary disability = Организация и проведение экспертизы временной нетрудоспособности [Электронный ресурс] : an educational manual for English-speaking students/ А. Г. Сердюков, И. Б. Набережная, Ж. Б. Набережная, А. С. Нимгирова. - Астрахань: Астраханский ГМУ, 2020. -103 с.- URL: <https://www.books-up.ru/ru/book/the-organization-and-carrying-out-of-examination-of-temporary-disability-10835934>

5.Поликлиническая терапия [Электронный ресурс] : учебник/ ред.: И. Л. Давыдкин, Ю. В. Щукин. -2-е изд., испр. и доп.. -Москва: ГЭОТАР-Медиа, 2022. -840 с.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970471999.html>

6. List of the Internet resources required for mastering of the course (module)*

№	Resources	URL address	Resource Annotation
1	Website of the European Society of Cardiologists	http://www.esca-rdio.org	contains cardiological articles, clinical recommendations
2	PubMed Central (PMC)	PubMed (nih.gov)	contains cardiological articles, clinical recommendations
3	MedLib	http://med-lib.ru/	contains cardiological articles, clinical recommendations
4	Website of the American Heart Society and the American Society of Cardiologists	www.heart.org/HEARTORG	contains cardiological articles, clinical recommendations

7.List of the software and information & reference systems:Telegram, Veeva Engage, Zoom, Skype, Moodle

8. List of questions and assignments for independent work, including those using e-learning and distance learning technologies

Sections and topics for self-study	Types and content of independent work
Preparing for a test on "Diseases of the bronchopulmonary system"	Test solution

Topic 23: Examination of disability in patients with joint syndrome

1. Theme of the class, its goals and tasks:

Course objective: To learn how to diagnose, provide medical care, and solve expert questions on an outpatient basis in patients with joint syndrome.

Objectives:

1. To teach the student to take a medical history, to clarify the nature of the joint damage.
2. Master the ability to make a differential diagnosis for joint syndrome.
3. Justify the diagnosis and formulate it according to the available classification.
4. Draw up a plan for further examination and treatment of the patient.
5. To develop knowledge of the criteria for permanent disability.
6. To outline schemes for the screening of patients.

2. Basic definitions to be mastered by students during studying of the topic (list of notions):

Rheumatoid arthritis

Deforming osteoarthritis

Gout

3. Questions for the class studies:

1. Definition of rheumatoid arthritis.
2. Diagnostic criteria for rheumatoid arthritis.
3. The working classification of rheumatoid arthritis.
4. Principles of treatment for rheumatoid arthritis.
5. Definition of osteoarthritis.
6. Diagnostic criteria for osteoarthritis.
7. Kellgren's radiological criteria for osteoarthritis.
8. Principles of osteoarthritis treatment.
9. Definition of gout.
10. Diagnostic criteria for gout.
11. Principles of gout treatment.

4. Questions for the self-assessment

1. State the main diagnostic criteria for rheumatoid arthritis.
2. State the principles of the diagnosis of rheumatoid arthritis.
3. Specify the drugs used in the treatment of rheumatoid arthritis.
4. State the main diagnostic criteria for osteoarthritis.
5. State the principles of the diagnosis of osteoarthritis.
6. Specify the drugs used in the treatment of rheumatoid osteoarthritis.
7. State the main diagnostic criteria for gout.
8. State the principles of the diagnosis of gout.
9. Name the drugs used in the treatment of gout.
10. Prescription forms for essential medicines (*diclofenac, indomethacin, ibuprofen, meloxicam, celecoxib, nimesulide, prednisolone tablets,*

methotrexate, sulphasalazine, chondroitin sulphate, glucosamine sulphate, colchicine, erythromycin, clarithromycin)

5. Compulsory and supplementary literature on the theme:

5.1 Compulsory literature

1. Ivashkin V. T. Internal diseases propedeutics [Электронный ресурс]/ V. T. Ivashkin, A. V. Okhlobystin. - Москва: ГЭОТАР-Медиа, 2020. -176 p.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970455555.html>
2. Oslopov V. N. General Care of a Patient [Электронный ресурс] : tutorial/ V. N. Oslopov, O. V. Bogoyavlenskaya. - Москва: ГЭОТАР-Медиа, 2021. -208 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970460429.html>
3. Outpatient Therapy [Электронный ресурс] : textbook/ ed. V. N. Larina. - Москва: ГЭОТАР-Медиа, 2023. -456 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970477083.html>

5.2. Supplementary literature

1. Basics of medical care = Основы медицинского ухода [Электронный ресурс] : пособие для студентов учреждений высшего образования, обучающихся по специальности «Лечебное дело» : manual for students of higher education institutions studying in the specialty «General Medicine»/ Т. П. Пронько, Э. Э. Поплавская, Е. М. Сурмач. - Гродно: ГрГМУ, 2019. -208 с.- URL: <https://www.books-up.ru/ru/book/basics-of-medical-care-12061289>
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 4. The organization and carrying out of examination of temporary disability = Организация и проведение экспертизы временной нетрудоспособности [Электронный ресурс] : an educational manual for English-speaking students/ А. Г. Сердюков, И. Б. Набережная, Ж. Б. Набережная, А. С. Нимгирова. - Астрахань: Астраханский ГМУ, 2020. -103 с.- URL: <https://www.books-up.ru/ru/book/the-organization-and-carrying-out-of-examination-of-temporary-disability-10835934>
 5. Поликлиническая терапия [Электронный ресурс] : учебник/ ред.: И. Л. Давыдкин, Ю. В. Щукин. -2-е изд., испр. и доп.. -Москва: ГЭОТАР-Медиа, 2022. -840 с.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970471999.html>
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4	Website of the American Heart Society and the American Society of Cardiologists	www.heart.org/HEARTORG	contains cardiological articles, clinical recommendations

7. List of the software and information & reference systems: Telegram, Veeva Engage, Zoom, Skype, Moodle

8. List of questions and assignments for independent work, including those using e-learning and distance learning technologies

Sections and topics for self-study	Types and content of independent work
Preparing to solve case studies	Problem solving in Moodle

Topic 24: "Examination of disability in patients with diabetes mellitus"

1. Theme of the class, its goals and tasks:

Purpose of the session: To learn how to diagnose, provide medical care and deal with expert questions in the outpatient phase of patients with diabetes mellitus.

Objectives:

1. To teach the student to take a medical history, to clarify the status of carbohydrate metabolism, liver, kidney and other body systems.
2. To be able to make a differential diagnosis for the underlying syndrome of impaired carbohydrate tolerance.
3. Justify the diagnosis and formulate it according to the available classification.
4. Draw up a plan for further examination and treatment of the patient.
5. To develop knowledge of the criteria for permanent disability in diabetes mellitus.

To outline schemes for the screening of patients with diabetes mellitus.

2. Basic definitions to be mastered by students during studying of the topic (list of notions):

Hyperglycaemia
Hypoglycaemia
Glycosylated haemoglobin
Glucose tolerance test
Insulin resistance
insulin therapy

3. Questions for the class studies:

4. Definition of diabetes mellitus.
5. Risk factors for diabetes mellitus.
6. Symptoms of worsening diabetes mellitus.
7. Timely diagnosis of complications.
5. basic principles of therapy.
6. Rehabilitation measures used in patients with diabetes mellitus.

4. Questions for the self-assessment

11. Name the factors that worsen the prognosis of the disease.
12. State the main signs and methods of diagnosis of diabetes mellitus.
13. State the rules of a therapeutic diet.
14. List the main treatment measures.
15. The role of diabetes schools.
16. Health resort treatment for kidney disease.

5. Compulsory and supplementary literature on the theme:

5.1 Compulsory literature

1. Ivashkin V.T. Internal diseases propedeutics [Электронный ресурс]/ V. T. Ivashkin, A. V. Okhlobystin. -Москва: ГЭОТАР-Медиа, 2020. -176 p.- URL: <https://www.studentlibrary.ru/book/ISBN9785970455555.html>
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5.2. Supplementary literature

1. Basics of medical care = Основы медицинского ухода [Электронный ресурс] : пособие для студентов учреждений высшего образования, обучающихся по специальности «Лечебное дело» : manual for students of higher education institutions studying in the specialty «General Medicine»/ Т. П. Пронько, Э. Э. Поплавская, Е. М. Сурмач. -Гродно: ГрГМУ, 2019. -208 с.- URL: <https://www.books-up.ru/ru/book/basics-of-medical-care-12061289>
2. Borodulina E. A. Diagnosis and prevention of tuberculosis in general medical practice [Электронный ресурс] : tutorial guide/ E. A. Borodulina, B. E.

Borodulin. -Москва: ГЭОТАР-Медиа, 2024. -104 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970481905.html>

3. Diagnostics and treatment of internal diseases in outpatient department = Диагностика и лечение терапевтических заболеваний на амбулаторном этапе [Электронный ресурс] : пособие для студентов учреждений высшего образования, обучающихся по специальности «Лечебное дело» : manual for students of higher education institutions studying in the specialty/ Е. А. Кежун, Н. С. Слободская, Д. В. Пицко, К. В. Гончар. -Гродно: ГрГМУ, 2020. -200 с.- URL: <https://www.books-up.ru/ru/book/diagnostics-and-treatment-of-internal-diseases-in-outpatient-department-11950033>

4. The organization and carrying out of examination of temporary disability = Организация и проведение экспертизы временной нетрудоспособности [Электронный ресурс] : an educational manual for English-speaking students/ А. Г. Сердюков, И. Б. Набережная, Ж. Б. Набережная, А. С. Нимгирова. -Астрахань: Астраханский ГМУ, 2020. -103 с.- URL: <https://www.books-up.ru/ru/book/the-organization-and-carrying-out-of-examination-of-temporary-disability-10835934>

5. Поликлиническая терапия [Электронный ресурс] : учебник/ ред.: И. Л. Давыдкин, Ю. В. Щукин. -2-е изд., испр. и доп.. -Москва: ГЭОТАР-Медиа, 2022. -840 с.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970471999.html>

6. List of the Internet resources required for mastering of the course (module)*

№	Resources	URL address	Resource Annotation
1	Website of the European Society of Cardiologists	http://www.escardio.org	contains cardiological articles, clinical recommendations
2	MedLib	http://med-lib.ru/	contains cardiological articles, clinical recommendations
3	Website of the American Heart Society and the American Society of Cardiologists	www.heart.org/HEARTORG	contains cardiological articles, clinical recommendations
4	PubMed	https://pubmed.ncbi.nlm.nih.gov	An electronic search engine with more than 30 million publications, including studies, meta-analyses, clinical trials and systematic reviews in medicine, dentistry, physiology, biology and psychology. The site is intended primarily for medical professionals and medical students.

5	UpToDate	https://www.wolterskluwer.com	One of the most authoritative sources of information on clinical medicine for physicians. Articles on the site contain up-to-date data on diseases, etiology, pathophysiology, diagnosis and therapy. The information on pathologies and treatments is based on the principles of evidence-based medicine. The site contains many illustrations, tables, infographics and videos.
6	Mayo Clinic	https://www.mayoclinic.org	A nonprofit organization and research center. The site contains current and reliable information on diseases, causes, diagnosis and treatment for physicians and medical students. More than 3,000 physicians and researchers contribute to the articles. The information will help physicians decide on a treatment and medication if they are in a state of uncertainty.
7	Drugs	https://www.drugs.com	An encyclopedia site with information about most existing medicines in medicine. You can find out, for example, whether drugs are compatible with each other and what side effects they can cause. The peculiarity of the site is that it does not represent any pharmacy or pharmaceutical company, so the information about drugs is provided neutrally, without interest in its sale.
8	The Lancet	https://www.thelancet.com	An internationally respected journal for physicians and medical professionals, published for almost 200 years. It has many subdivisions, such as The Lancet Neurology, which publishes articles on neurology, and The Lancet Oncology, which covers oncological diseases. The journal is peer-reviewed, which means that the credibility of facts, studies and results are checked by experts and specialists in their fields. There are

			videos, infographics, and podcasts, for example, about successful treatment cases.
9	The BMJ	https://www.bmj.com	The British Medical Journal publishes articles, systematic reviews, and clinical studies. It is one of the most cited journals. The purpose of the publication is to educate young physicians and medical staff who have recently begun to practice and to combat unreliable, unethical, and outdated information.
10	CDC	https://www.cdc.gov	Centers for Disease Control and Prevention. The site contains statistics, review articles and current research with links to primary sources, and provides up-to-date health data.
11	FDA	https://www.fda.gov	Centers for Disease Control and Prevention Food and Drugs Administration. The site contains statistics, review articles and current research with links to primary sources, and provides up-to-date health data. This resource generally provides up-to-date information about the development, testing, and introduction of medicines, including vaccines. The FDA is the authority on whose approval a drug's fate depends, and if it approves a drug, it is considered to have passed a clinical trial and to have proven efficacy.
12	Medscape	https://www.medscape.org	An online resource for medical professionals, physicians, and medical students. Contains many original reviews, monographs, clinical studies, and articles. The site has a library. The front pages talk about current topics in medicine and medicines.
13	«Emergency Medical Help»	https://vk.com/emhelp	A community of medical professionals in the social network "VKontakte", algorithms, recommendations, audio and video

		tutorials.
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7. List of the software and information & reference systems: Telegram, Veeva Engage, Zoom, Skype, Moodle

8. List of questions and assignments for independent work, including those using e-learning and distance learning technologies

Sections and topics for self-study	Types and content of independent work
Preparing to deal with case studies	Problem solving in Moodle

Lesson 25

Topic: **Coma of unclear etiology**

1. The goals and tasks of the lesson

- training in the algorithm of diagnosis of the main types of acute cerebral insufficiency;
- to study the pathophysiological features of development, clinical picture, diagnosis of comatose states
- to study the algorithm of first aid in primary and secondary comas, in a coma of unclear etiology.

2. Basic definitions to be mastered by students during studying of the topic (list of notions):

- Coma
- Precoma
- ketoacidosis,
- hyperosmolarity,
- lactic acidemia,
- hypoglycemia

3. Questions for the class studies

1. Name the qualitative syndromes of disturbance (obscuration) of consciousness.
2. Describe the disorders of consciousness: stupor, delirium.
3. Give a description of disorders of consciousness: amnesia, oneiroid.
4. Give a description of the disorders of consciousness: twilight clouding of consciousness, lethargy.
5. Make a differential diagnosis between hemorrhagic and ischemic strokes.
6. Name the causes of hyperglycemic conditions.
7. Name the causes of hypoglycemic conditions.

4. Questions for the self-assessment

- 1) Methods of restoring airway patency.
- 2) Etiology and pathogenesis of comatose states.
- 3) Coma caused by an overdose of narcotic drugs.
- 4) Alcoholic coma.
- 5) Diagnostic methods and initial examination of the patient in a coma.
- 6) Differential diagnosis of hypoglycemic and hyperglycemic coma.

5. Compulsory and supplementary literature on the theme:

5.1 Compulsory literature

1. Ivashkin V. T. Internal diseases propedeutics [Электронный ресурс]/ V. T. Ivashkin, A. V. Okhlobystin. - Москва: ГЭОТАР-Медиа, 2020. -176 p.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970455555.html>
2. Oslopov V. N. General Care of a Patient [Электронный ресурс] : tutorial/ V. N. Oslopov, O. V. Bogoyavlenskaya. - Москва: ГЭОТАР-Медиа, 2021. -208 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970460429.html>
3. Outpatient Therapy [Электронный ресурс] : textbook/ ed. V. N. Larina. - Москва: ГЭОТАР-Медиа, 2023. -456 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970477083.html>

5.2. Supplementary literature

1. Basics of medical care = Основы медицинского ухода [Электронный ресурс] : пособие для студентов учреждений высшего образования, обучающихся по специальности «Лечебное дело» : manual for students of higher education institutions studying in the specialty «General Medicine»/ Т. П. Пронько, Э. Э. Поплавская, Е. М. Сурмач. - Гродно: ГрГМУ, 2019. -208 с.- URL: <https://www.books-up.ru/ru/book/basics-of-medical-care-12061289>
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4. The organization and carrying out of examination of temporary disability = Организация и проведение экспертизы временной нетрудоспособности [Электронный ресурс] : an educational manual for English-speaking students/ А. Г. Сердюков, И. Б. Набережная, Ж. Б. Набережная, А. С. Нимгирова. - Астрахань: Астраханский ГМУ, 2020. -103 с.- URL: <https://www.books-up.ru/ru/book/the-organization-and-carrying-out-of-examination-of-temporary-disability-10835934>
5. Поликлиническая терапия [Электронный ресурс] : учебник/ ред.: И. Л. Давыдкин, Ю. В. Щукин. -2-е изд., испр. и доп.. -Москва: ГЭОТАР-Медиа, 2022. -840 с.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970471999.html>

6. List of the Internet resources required for mastering of the course (module)*

№	Resources	URL address	Resource Annotation
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7. List of the software and information & reference systems: Telegram, Veeva Engage, Zoom, Skype, Moodle

8. List of questions and assignments for independent work, including those using e-learning and distance learning technologies

Sections and topics for self-study	Types and content of independent work
Preparing to deal with case studies 2. Complete the final testing in the Moodle system 3. Complete an interactive simulation in the Moodle	Problem solving in Moodle

Lesson 26 and 27.

Topic: Circulatory and respiratory arrest at the prehospital stage. A universal algorithm for the provision of specialized resuscitation measures in emergency conditions. Cardiopulmonary resuscitation.

(Simulation and Certification Center)

1. The goal and tasks of the lesson

- familiarization with the etiology and pathogenesis of critical conditions, the pathophysiological essence of the processes occurring during the death and recovery of the body;
- familiarization with the concept of clinical death, the stages of terminal condition;
- training in modern CPR protocols, indications, contraindications and timing of resuscitation benefits;
- training in the sequence of CPR in adults and adolescents (artificial respiration technique, chest compression, safe position for the victim).

2. Basic definitions to be mastered by students during studying of the topic (list of notions):

terminal conditions
 clinical death
 defibrillation

3. Questions for the class studies

1. Describe the main biochemical processes occurring in the body normally and under hypoxia conditions.
2. Describe the main changes on the ECG during various cardiac arrests.
3. Name the main stages of the dying of the body.

4. Questions for the self-assessment

1. Sudden circulatory arrest – definition, clinical signs.
2. Stages of dying of an organism – characteristics and duration of each stage.
3. The complex of cardiopulmonary resuscitation – the main periods, goals.
4. Primary resuscitation complex – a sequence of actions of the stage of elementary life support.
5. ECG rhythms of sudden circulatory arrest.

5. Compulsory and supplementary literature on the theme:

5.1 Compulsory literature

1. Ivashkin V.T. Internal diseases propedeutics [Электронный ресурс]/ V. T. Ivashkin, A. V. Okhlobystin. -Москва: ГЭОТАР-Медиа, 2020. -176 p.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970455555.html>
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1. Basics of medical care = Основы медицинского ухода [Электронный ресурс] : пособие для студентов учреждений высшего образования, обучающихся по специальности «Лечебное дело» : manual for students of higher education institutions studying in the specialty «General Medicine»/ Т. П. Пронько, Э. Э. Поплавская, Е. М. Сурмач. -Гродно: ГрГМУ, 2019. -208 с.- URL: <https://www.books-up.ru/ru/book/basics-of-medical-care-12061289>
2. Borodulina E. A. Diagnosis and prevention of tuberculosis in general medical practice [Электронный ресурс] : tutorial guide/ E. A. Borodulina, B. E. Borodulin. -Москва: ГЭОТАР-Медиа, 2024. -104 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970481905.html>
3. Diagnostics and treatment of internal diseases in outpatient department = Диагностика и лечение терапевтических заболеваний на амбулаторном этапе [Электронный ресурс] : пособие для студентов учреждений высшего образования, обучающихся по специальности «Лечебное дело» : manual for students of higher education institutions studying in the specialty/ Е. А. Кежун, Н. С. Слободская, Д. В. Пицко, К. В. Гончар. -Гродно: ГрГМУ, 2020. -200 с.- URL: <https://www.books-up.ru/ru/book/diagnostics-and-treatment-of-internal-diseases-in-outpatient-department-11950033>
4. The organization and carrying out of examination of temporary disability = Организация и проведение экспертизы временной нетрудоспособности [Электронный ресурс] : an educational manual for English-speaking students/ А.

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5.Поликлиническая терапия [Электронный ресурс] : учебник/ ред.: И. Л. Давыдкин, Ю. В. Щукин. -2-е изд., испр. и доп.. -Москва: ГЭОТАР-Медиа, 2022. -840 с.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970471999.html>

6. List of the Internet resources required for mastering of the course (module)*

№	Resources	URL address	Resource Annotation
1	Website of the European Society of Cardiologists	http://www.esca-rdio.org	contains cardiological articles, clinical recommendations
2	PubMed Central (PMC)	PubMed (nih.gov)	contains cardiological articles, clinical recommendations
3	MedLib	http://med-lib.ru/	contains cardiological articles, clinical recommendations
4	Website of the American Heart Society and the American Society of Cardiologists	www.heart.org/ HEARTORG	contains cardiological articles, clinical recommendations

7.List of the software and information & reference systems:Telegram, Veeva Engage, Zoom, Skype, Moodle

8. List of questions and assignments for independent work, including those using e-learning and distance learning technologies

Sections and topics for self-study	Types and content of independent work
Preparing to deal with case studies 2. Complete the final testing in the Moodle system 3. Complete an interactive simulation in the Moodle	Problem solving in Moodle

Lesson 28.

Subject: **Acute heart failure**

1.The goal and tasks of the lesson

- to form the skills of diagnosing the clinical picture of a true cardiogenic shock;
- to form the fundamental knowledge and skills of emergency medical

care in cardiogenic shock;

– to teach qualified diagnostic and therapeutic measures for complications of acute coronary syndrome, acute myocardial infarction.

2. Basic definitions to be mastered by students during studying of the topic (list of notions):

To know:

- acute myocardial infarction;
- cardiogenic shock;
- pulmonary edema;

3. Questions for the class studies

1. List the main changes on the ECG in ACS (AMI)
2. Periods of myocardial infarction
3. IHD risk factors

4. Questions for the self-assessment

1. Acute coronary syndrome – classification, morphological cause, clinic, laboratory diagnostics. The main directions of therapy, the main difference in treatment.
2. Classification of Killip. Treatment of cardiogenic pulmonary edema.

5. Compulsory and supplementary literature on the theme:

5.1 Compulsory literature

1. Ivashkin V. T. Internal diseases propedeutics [Электронный ресурс]/ V. T. Ivashkin, A. V. Okhlobystin. -Москва: ГЭОТАР-Медиа, 2020. -176 p.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970455555.html>
2. Oslopov V. N. General Care of a Patient [Электронный ресурс] : tutorial/ V. N. Oslopov, O. V. Bogoyavlenskaya. -Москва: ГЭОТАР-Медиа, 2021. -208 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970460429.html>
3. Outpatient Therapy [Электронный ресурс] : textbook/ ed. V. N. Larina. -Москва: ГЭОТАР-Медиа, 2023. -456 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970477083.html>

5.2. Supplementary literature

1. Basics of medical care = Основы медицинского ухода [Электронный ресурс] : пособие для студентов учреждений высшего образования, обучающихся по специальности «Лечебное дело» : manual for students of higher education institutions studying in the specialty «General Medicine»/ Т. П. Пронько, Э. Э. Поплавская, Е. М. Сурмач. -Гродно: ГрГМУ, 2019. -208 с.- URL: <https://www.books-up.ru/ru/book/basics-of-medical-care-12061289>
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URL: <https://www.books-up.ru/ru/book/diagnostics-and-treatment-of-internal-diseases-in-outpatient-department-11950033>

4.The organization and carrying out of examination of temporary disability = Организация и проведение экспертизы временной нетрудоспособности [Электронный ресурс] : an educational manual for English-speaking students/ А. Г. Сердюков, И. Б. Набережная, Ж. Б. Набережная, А. С. Нимгирова. - Астрахань: Астраханский ГМУ, 2020. -103 с.- URL: <https://www.books-up.ru/ru/book/the-organization-and-carrying-out-of-examination-of-temporary-disability-10835934>

5.Поликлиническая терапия [Электронный ресурс] : учебник/ ред.: И. Л. Давыдкин, Ю. В. Щукин. -2-е изд., испр. и доп.. -Москва: ГЭОТАР-Медиа, 2022. -840 с.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970471999.html>

6. List of the Internet resources required for mastering of the course (module)*

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2	MedLib	http://med-lib.ru/	contains cardiological articles, clinical recommendations
3	Website of the American Heart Society and the American Society of Cardiologists	www.heart.org/HEARTORG	contains cardiological articles, clinical recommendations
4	PubMed	https://pubmed.ncbi.nlm.nih.gov	An electronic search engine with more than 30 million publications, including studies, meta-analyses, clinical trials and systematic reviews in medicine, dentistry, physiology, biology and psychology. The site is intended primarily for medical professionals and medical students.
5	UpToDate	https://www.wolterskluwer.com	One of the most authoritative sources of information on clinical medicine for physicians. Articles on the site contain up-to-date data on diseases, etiology, pathophysiology, diagnosis and therapy. The information on pathologies and treatments is based on the principles

			of evidence-based medicine. The site contains many illustrations, tables, infographics and videos.
6	Mayo Clinic	https://www.mayoclinic.org	A nonprofit organization and research center. The site contains current and reliable information on diseases, causes, diagnosis and treatment for physicians and medical students. More than 3,000 physicians and researchers contribute to the articles. The information will help physicians decide on a treatment and medication if they are in a state of uncertainty.
7	Drugs	https://www.drugs.com	An encyclopedia site with information about most existing medicines in medicine. You can find out, for example, whether drugs are compatible with each other and what side effects they can cause. The peculiarity of the site is that it does not represent any pharmacy or pharmaceutical company, so the information about drugs is provided neutrally, without interest in its sale.
8	The Lancet	https://www.thelancet.com	An internationally respected journal for physicians and medical professionals, published for almost 200 years. It has many subdivisions, such as The Lancet Neurology, which publishes articles on neurology, and The Lancet Oncology, which covers oncological diseases. The journal is peer-reviewed, which means that the credibility of facts, studies and results are checked by experts and specialists in their fields. There are videos, infographics, and podcasts, for example, about successful treatment cases.
9	The BMJ	https://www.bmj.com	The British Medical Journal publishes articles, systematic reviews, and clinical studies. It is one of the most cited journals. The purpose of the publication is to

			educate young physicians and medical staff who have recently begun to practice and to combat unreliable, unethical, and outdated information.
10	CDC	https://www.cdc.gov	Centers for Disease Control and Prevention. The site contains statistics, review articles and current research with links to primary sources, and provides up-to-date health data.
11	FDA	https://www.fda.gov	Centers for Disease Control and Prevention Food and Drugs Administration. The site contains statistics, review articles and current research with links to primary sources, and provides up-to-date health data. This resource generally provides up-to-date information about the development, testing, and introduction of medicines, including vaccines. The FDA is the authority on whose approval a drug's fate depends, and if it approves a drug, it is considered to have passed a clinical trial and to have proven efficacy.
12	Medscape	https://www.medscape.org	An online resource for medical professionals, physicians, and medical students. Contains many original reviews, monographs, clinical studies, and articles. The site has a library. The front pages talk about current topics in medicine and medicines.
13	«Emergency Medical Help»	https://vk.com/emhelp	A community of medical professionals in the social network "VKontakte", algorithms, recommendations, audio and video tutorials.

7. List of the software and information & reference systems: Telegram, Veeva Engage, Zoom, Skype, Moodle

8. List of questions and assignments for independent work, including those using e-learning and distance learning technologies

Sections and topics for self-study	Types and content of independent work
Preparing to deal with case studies 2. Complete the final testing in the Moodle system 3. Complete an interactive simulation in the Moodle	Problem solving in Moodle

Lesson 29 and 30

Topic: Life-threatening rhythm disturbances. Cardiac arrhythmias and Tachycardia with wide and narrow complexes by QRS complexes. at the pre-hospital stage. Ventricular fibrillation, ventricular tachycardia without pulse. Asystole

1.The goaland tasks of the lesson

- to form modern ideas about the pathogenesis of life-threatening cardiac arrhythmias;
- master the algorithm of diagnosis and differential diagnosis of life-threatening cardiac arrhythmias;
- to study the ECG signs of cardiac arrhythmias;
- to form knowledge of emergency medical care for cardiac arrhythmias.

2. Basic definitions to be mastered by students during studying of the topic (list of notions):

- cardiac arrhythmias and conduction disorders;
- ventricular tachyarrhythmias
- supraventricular tachyarrhythmias
- bradiarrhythmias
- atrioventricular blockade
- electro-pulse therapy
- cardioversion
- antiarrhythmic drugs;

3. Questions for the class studies

1. What are the main changes on the ECG in supraventricular tachyarrhythmia;
2. What are the main changes on the ECG in ventricular tachyarrhythmia;
3. Name the classification of antiarrhythmic drugs;
4. Name the clinical and pharmacological characteristics of the main antiarrhythmic drugs.

4. Questions for the self-assessment

1. Definition, etiology, pathogenesis of cardiac arrhythmias and conduction.
2. Classification of cardiac rhythm and conduction disorders.
3. Topical diagnosis of cardiac arrhythmias. ECG-signs of cardiac arrhythmias and conduction.
4. Algorithm of first aid for registration of tachycardia with narrow rhythmic QRS complexes (stable and unstable).
5. Algorithm of first aid for registration of tachycardia with narrow

irregular QRS complexes (stable and unstable).

6. Algorithm of first aid for registration of tachycardia with wide rhythmic QRS complexes (stable and unstable).

7. Algorithm of first aid for registration of tachycardia with wide irregular QRS complexes (stable and unstable).

5. Compulsory and supplementary literature on the theme:

5.1 Compulsory literature

1. Ivashkin V. T. Internal diseases propedeutics [Электронный ресурс]/ V. T. Ivashkin, A. V. Okhlobystin. - Москва: ГЭОТАР-Медиа, 2020. -176 p.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970455555.html>

2. Oslopov V. N. General Care of a Patient [Электронный ресурс] : tutorial/ V. N. Oslopov, O. V. Bogoyavlenskaya. - Москва: ГЭОТАР-Медиа, 2021. -208 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970460429.html>

3. Outpatient Therapy [Электронный ресурс] : textbook/ ed. V. N. Larina. - Москва: ГЭОТАР-Медиа, 2023. -456 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970477083.html>

5.2. Supplementary literature

1. Basics of medical care = Основы медицинского ухода [Электронный ресурс] : пособие для студентов учреждений высшего образования, обучающихся по специальности «Лечебное дело» : manual for students of higher education institutions studying in the specialty «General Medicine»/ Т. П. Пронько, Э. Э. Поплавская, Е. М. Сурмач. - Гродно: ГрГМУ, 2019. -208 с.- URL: <https://www.books-up.ru/ru/book/basics-of-medical-care-12061289>

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3. Diagnostics and treatment of internal diseases in outpatient department = Диагностика и лечение терапевтических заболеваний на амбулаторном этапе [Электронный ресурс] : пособие для студентов учреждений высшего образования, обучающихся по специальности «Лечебное дело» : manual for students of higher education institutions studying in the specialty/ Е. А. Кежун, Н. С. Слободская, Д. В. Пицко, К. В. Гончар. - Гродно: ГрГМУ, 2020. -200 с.- URL: <https://www.books-up.ru/ru/book/diagnostics-and-treatment-of-internal-diseases-in-outpatient-department-11950033>

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5. Поликлиническая терапия [Электронный ресурс] : учебник/ ред.: И. Л. Давыдкин, Ю. В. Щукин. -2-е изд., испр. и доп.. -Москва: ГЭОТАР-Медиа, 2022. -840 с.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970471999.html>

6. List of the Internet resources required for mastering of the course (module)*

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4	Website of the American Heart Society and the American Society of Cardiologists	www.heart.org/HEARTORG	contains cardiological articles, clinical recommendations

7. List of the software and information & reference systems: Telegram, Veeva Engage, Zoom, Skype, Moodle

8. List of questions and assignments for independent work, including those using e-learning and distance learning technologies

Sections and topics for self-study	Types and content of independent work
Preparing to deal with case studies 2. Complete the final testing in the Moodle system 3. Complete an interactive simulation in the Moodle	Problem solving in Moodle

Lesson 31

Topic: **Cardiac conduction disorders. Bradycardia.**

1. The goal and tasks of the lesson

- master the algorithm of diagnosis and differential diagnosis of cardiac conduction disorders;
- to study ECG signs of cardiac conduction disorders;
- master the algorithm of emergency medical care for cardiac conduction disorders.

2. Basic definitions to be mastered by students during studying of the topic (list of notions):

- cardiac conduction disorders;
- bradyarrhythmia
- atrioventricular blockade

3. Questions for the class studies

1. Describe the process of regulation of systemic hemodynamics, the basic principles of regulation of systemic circulation, the influence of chemical and hormonal factors.
2. Describe the conducting system and electrophysiological properties of the heart.
3. Describe the main changes on the ECG with a complete AV block.
4. Make a differential diagnosis between the AB II blockade of Mobitz I and Mobitz II.

4. Questions for the self-assessment

1. Classification of cardiac conduction disorders. The structure of the conducting system of the heart.
2. Algorithm of the first medical aid at registration of bradycardia.
3. Algorithm of first aid for life-threatening atrioventricular blockades.

5. Compulsory and supplementary literature on the theme:

5.1 Compulsory literature

1. Ivashkin V.T. Internal diseases propedeutics [Электронный ресурс]/ V. T. Ivashkin, A. V. Okhlobystin. -Москва: ГЭОТАР-Медиа, 2020. -176 p.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970455555.html>
2. Oslopov V. N. General Care of a Patient [Электронный ресурс] : tutorial/ V. N. Oslopov, O. V. Bogoyavlenskaya. -Москва: ГЭОТАР-Медиа, 2021. -208 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970460429.html>
3. Outpatient Therapy [Электронный ресурс] : textbook/ ed. V. N. Larina. -Москва: ГЭОТАР-Медиа, 2023. -456 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970477083.html>

5.2. Supplementary literature

1. Basics of medical care = Основы медицинского ухода [Электронный ресурс] : пособие для студентов учреждений высшего образования, обучающихся по специальности «Лечебное дело» : manual for students of higher education institutions studying in the specialty «General Medicine»/ Т. П. Пронько, Э. Э. Поплавская, Е. М. Сурмач. -Гродно: ГрГМУ, 2019. -208 с.- URL: <https://www.books-up.ru/ru/book/basics-of-medical-care-12061289>
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4. The organization and carrying out of examination of temporary disability = Организация и проведение экспертизы временной нетрудоспособности [Электронный ресурс] : an educational manual for English-speaking students/ А. Г. Сердюков, И. Б. Набережная, Ж. Б. Набережная, А. С. Нимгирова. -

Астрахань: Астраханский ГМУ, 2020. -103 с.- URL: <https://www.books-up.ru/ru/book/the-organization-and-carrying-out-of-examination-of-temporary-disability-10835934>

5.Поликлиническая терапия [Электронный ресурс] : учебник/ ред.: И. Л. Давыдкин, Ю. В. Щукин. -2-е изд., испр. и доп.. -Москва: ГЭОТАР-Медиа, 2022. -840 с.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970471999.html>

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1	Website of the European Society of Cardiologists	http://www.esca-rdio.org	contains cardiological articles, clinical recommendations
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3	MedLib	http://med-lib.ru/	contains cardiological articles, clinical recommendations
4	Website of the American Heart Society and the American Society of Cardiologists	www.heart.org/HEARTORG	contains cardiological articles, clinical recommendations

7.List of the software and information & reference systems:Telegram, Veeva Engage, Zoom, Skype, Moodle

8. List of questions and assignments for independent work, including those using e-learning and distance learning technologies

Sections and topics for self-study	Types and content of independent work
Preparing to deal with case studies 2. Complete the final testing in the Moodle system 3. Complete an interactive simulation in the Moodle	Problem solving in Moodle

Lesson 32

Subject: Anaphylactic shock

1.The goal and tasks of the lesson

- is to teach methods of diagnosing anaphylactic shock;
- to study the diagnostic clinical criteria of anaphylactic shock;
- mastering the algorithm of first aid in anaphylactic shock.

2. Basic definitions to be mastered by students during studying of the topic (list of notions):

- anaphylactic shock;
- vasogenic shocks

3. Questions for the class studies

1. Name the classification of allergic reactions.
2. Describe the pathogenesis of allergic reactions
3. Allergic reactions of the immediate type. Describe the pathophysiology, clinical manifestations, list the conditions related to this type of allergic reaction.
4. Describe the stages of allergic inflammation, the stages of formation, list the main biological markers.
5. Delayed allergic reactions (T-dependent). Describe the pathophysiology, clinical manifestations, list the conditions related to this type of allergic reaction.

4. Questions for the self-assessment

1. Shock – definition, clinical signs, types, hemodynamic profiles.
2. Anaphylaxis – causes, clinical manifestations.
3. Variants of anaphylactic shock depending on clinical manifestations.
4. Algorithm of first aid in anaphylactic shock.

5. Compulsory and supplementary literature on the theme:

5.1 Compulsory literature

1. Ivashkin V. T. Internal diseases propedeutics [Электронный ресурс]/ V. T. Ivashkin, A. V. Okhlobystin. -Москва: ГЭОТАР-Медиа, 2020. -176 p.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970455555.html>
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5.2. Supplementary literature

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С. Слободская, Д. В. Пицко, К. В. Гончар. -Гродно: ГрГМУ, 2020. -200 с.-
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4.The organization and carrying out of examination of temporary disability = Организация и проведение экспертизы временной нетрудоспособности [Электронный ресурс] : an educational manual for English-speaking students/ А. Г. Сердюков, И. Б. Набережная, Ж. Б. Набережная, А. С. Нимгирова. - Астрахань: Астраханский ГМУ, 2020. -103 с.- URL: <https://www.books-up.ru/ru/book/the-organization-and-carrying-out-of-examination-of-temporary-disability-10835934>

5.Поликлиническая терапия [Электронный ресурс] : учебник/ ред.: И. Л. Давыдкин, Ю. В. Щукин. -2-е изд., испр. и доп.. -Москва: ГЭОТАР-Медиа, 2022. -840 с.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970471999.html>

6. List of the Internet resources required for mastering of the course (module)*

№	Resources	URL address	Resource Annotation
1	Website of the European Society of Cardiologists	http://www.escardio.org	contains cardiological articles, clinical recommendations
2	MedLib	http://med-lib.ru/	contains cardiological articles, clinical recommendations
3	Website of the American Heart Society and the American Society of Cardiologists	www.heart.org/HEARTORG	contains cardiological articles, clinical recommendations
4	PubMed	https://pubmed.ncbi.nlm.nih.gov	An electronic search engine with more than 30 million publications, including studies, meta-analyses, clinical trials and systematic reviews in medicine, dentistry, physiology, biology and psychology. The site is intended primarily for medical professionals and medical students.
5	UpToDate	https://www.wolterskluwer.com	One of the most authoritative sources of information on clinical medicine for physicians. Articles on the site contain up-to-date data on diseases, etiology, pathophysiology, diagnosis and therapy. The information on pathologies and treatments is based on the principles

			of evidence-based medicine. The site contains many illustrations, tables, infographics and videos.
6	Mayo Clinic	https://www.mayoclinic.org	A nonprofit organization and research center. The site contains current and reliable information on diseases, causes, diagnosis and treatment for physicians and medical students. More than 3,000 physicians and researchers contribute to the articles. The information will help physicians decide on a treatment and medication if they are in a state of uncertainty.
7	Drugs	https://www.drugs.com	An encyclopedia site with information about most existing medicines in medicine. You can find out, for example, whether drugs are compatible with each other and what side effects they can cause. The peculiarity of the site is that it does not represent any pharmacy or pharmaceutical company, so the information about drugs is provided neutrally, without interest in its sale.
8	The Lancet	https://www.thelancet.com	An internationally respected journal for physicians and medical professionals, published for almost 200 years. It has many subdivisions, such as The Lancet Neurology, which publishes articles on neurology, and The Lancet Oncology, which covers oncological diseases. The journal is peer-reviewed, which means that the credibility of facts, studies and results are checked by experts and specialists in their fields. There are videos, infographics, and podcasts, for example, about successful treatment cases.
9	The BMJ	https://www.bmj.com	The British Medical Journal publishes articles, systematic reviews, and clinical studies. It is one of the most cited journals. The purpose of the publication is to

			educate young physicians and medical staff who have recently begun to practice and to combat unreliable, unethical, and outdated information.
10	CDC	https://www.cdc.gov	Centers for Disease Control and Prevention. The site contains statistics, review articles and current research with links to primary sources, and provides up-to-date health data.
11	FDA	https://www.fda.gov	Centers for Disease Control and Prevention Food and Drugs Administration. The site contains statistics, review articles and current research with links to primary sources, and provides up-to-date health data. This resource generally provides up-to-date information about the development, testing, and introduction of medicines, including vaccines. The FDA is the authority on whose approval a drug's fate depends, and if it approves a drug, it is considered to have passed a clinical trial and to have proven efficacy.
12	Medscape	https://www.medscape.org	An online resource for medical professionals, physicians, and medical students. Contains many original reviews, monographs, clinical studies, and articles. The site has a library. The front pages talk about current topics in medicine and medicines.
13	«Emergency Medical Help»	https://vk.com/emhelp	A community of medical professionals in the social network "VKontakte", algorithms, recommendations, audio and video tutorials.

7. List of the software and information & reference systems: Telegram, Veeva Engage, Zoom, Skype, Moodle

8. List of questions and assignments for independent work, including those using e-learning and distance learning technologies

Sections and topics for self-study	Types and content of independent work
Preparing to deal with case studies 2. Complete the final testing in the Moodle system 3. Complete an interactive simulation in the Moodle	Problem solving in Moodle

Lesson 33

Subject: **Acute respiratory failure, ARDS**

1. The goal and tasks of the lesson

- to study the main diagnostic criteria of ODN, its individual types;
- to study methods of artificial lung ventilation, indications for carrying out;
- to master the skills of differential diagnosis of conditions accompanied by acute respiratory failure;
- to learn how to work in accordance with modern algorithms for emergency care in one;
- to form knowledge about the etiology, diagnosis and emergency care for ARDS.

2. Basic definitions to be mastered by students during studying of the topic (list of notions):

To know

- acute respiratory
- asphyxia,
- laryngeal stenosis,
- respiratory distress syndrome,
- massive pneumonia;
- ARDS;

3. Questions for the class studies

1. Describe the pathophysiology of hypoxia.
2. Describe the pathophysiology of hypercapnia.
3. Describe the pathophysiology of hypocapnia acidosis.
4. Describe the pathophysiology of metabolic acidosis.
5. Name the main parameters of external respiration.

4. Questions for the self-assessment

1. Definition of the concept of "respiratory" and "pulmonary" insufficiency. Etiology and pathogenesis of respiratory failure.
2. Classification of respiratory failure. The main clinical manifestations of respiratory failure.
3. Differential diagnosis of respiratory failure.
4. Principles of intensive therapy for respiratory distress syndrome, massive pneumonia.
5. Resuscitation and intensive therapy for upper respiratory tract foreign body, asphyxia
6. Methods of restoring airway patency.

5. Compulsory and supplementary literature on the theme:

5.1 Compulsory literature

1. Ivashkin V. T. Internal diseases propedeutics [Электронный ресурс]/ V. T. Ivashkin, A. V. Okhlobystin. - Москва: ГЭОТАР-Медиа, 2020. -176 p.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970455555.html>
2. Oslopov V. N. General Care of a Patient [Электронный ресурс] : tutorial/ V. N. Oslopov, O. V. Bogoyavlenskaya. - Москва: ГЭОТАР-Медиа, 2021. -208 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970460429.html>
3. Outpatient Therapy [Электронный ресурс] : textbook/ ed. V. N. Larina. - Москва: ГЭОТАР-Медиа, 2023. -456 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970477083.html>

5.2. Supplementary literature

1. Basics of medical care = Основы медицинского ухода [Электронный ресурс] : пособие для студентов учреждений высшего образования, обучающихся по специальности «Лечебное дело» : manual for students of higher education institutions studying in the specialty «General Medicine»/ Т. П. Пронько, Э. Э. Поплавская, Е. М. Сурмач. - Гродно: ГрГМУ, 2019. -208 с.- URL: <https://www.books-up.ru/ru/book/basics-of-medical-care-12061289>
2. Borodulina E. A. Diagnosis and prevention of tuberculosis in general medical practice [Электронный ресурс] : tutorial guide/ E. A. Borodulina, B. E. Borodulin. - Москва: ГЭОТАР-Медиа, 2024. -104 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970481905.html>
3. Diagnostics and treatment of internal diseases in outpatient department = Диагностика и лечение терапевтических заболеваний на амбулаторном этапе [Электронный ресурс] : пособие для студентов учреждений высшего образования, обучающихся по специальности «Лечебное дело» : manual for students of higher education institutions studying in the specialty/ Е. А. Кежун, Н. С. Слободская, Д. В. Пицко, К. В. Гончар. - Гродно: ГрГМУ, 2020. -200 с.- URL: <https://www.books-up.ru/ru/book/diagnostics-and-treatment-of-internal-diseases-in-outpatient-department-11950033>
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5. Поликлиническая терапия [Электронный ресурс] : учебник/ ред.: И. Л. Давыдкин, Ю. В. Щукин. -2-е изд., испр. и доп.. -Москва: ГЭОТАР-Медиа, 2022. -840 с.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970471999.html>

6. List of the Internet resources required for mastering of the course (module)*

№	Resources	URL address	Resource Annotation
1	Website of the European Society of Cardiologists	http://www.esca-rdio.org	contains cardiological articles, clinical

			recommendations
2	PubMed Central (PMC)	PubMed (nih.gov)	contains cardiological articles, clinical recommendations
3	MedLib	http://med-lib.ru/	contains cardiological articles, clinical recommendations
4	Website of the American Heart Society and the American Society of Cardiologists	www.heart.org/ HEARTORG	contains cardiological articles, clinical recommendations

7. List of the software and information & reference systems: Telegram, Veeva Engage, Zoom, Skype, Moodle

8. List of questions and assignments for independent work, including those using e-learning and distance learning technologies

Sections and topics for self-study	Types and content of independent work
Preparing to deal with case studies 2. Complete the final testing in the Moodle system 3. Complete an interactive simulation in the Moodle	Problem solving in Moodle

Lesson 34

Subject: Final lesson

1. The goal and tasks of the lesson

- consolidation of theoretical knowledge of emergency conditions in therapy;
- checking the level of knowledge of students obtained in the course of classes, by means of an oral survey, by solving test and situational tasks;
- verification of proficiency in the basic methods of first aid in emergency conditions in therapy.

2. Basic definitions to be mastered by students during studying of the topic (list of notions):

3. Questions for the class studies

- Definition, etiology, pathogenesis of cardiac arrhythmias and conduction.
- Classification of cardiac arrhythmias and conduction.
- Topical diagnosis of cardiac arrhythmias. ECG-signs of cardiac arrhythmias and conduction.
- Algorithm of first aid for registration of tachycardia with narrow rhythmic QRS complexes (stable and unstable).
- Algorithm of first aid for registration of tachycardia with narrow

- irregular QRS complexes (stable and unstable).
- Algorithm of first aid for registration of tachycardia with wide rhythmic QRS complexes (stable and unstable).
- Algorithm of first aid for registration of tachycardia with wide non-rhythmic QRS complexes (stable and unstable).
- Algorithm of the first medical aid at registration of bradycardia.
- Algorithm of first aid for life-threatening atrioventricular blockades.
- Shock – definition, clinical signs, types, hemodynamic profiles.
- Anaphylaxis – causes, clinical manifestations.
- Variants of anaphylactic shock depending on clinical manifestations.
- Algorithm of first aid in anaphylactic shock.
- Classification of Killip. Treatment of cardiogenic pulmonary edema.
- Definition of "respiratory" and "pulmonary" insufficiency. Etiology and pathogenesis of respiratory failure.
- Classification of respiratory failure. The main clinical manifestations of respiratory failure.
- Differential diagnosis of respiratory failure.
- Resuscitation and intensive therapy for upper respiratory tract foreign body, asphyxia
- Principles of intensive therapy for respiratory distress syndrome, massive pneumonia.
- Signs of incipient exacerbation of bronchial asthma. Severity of exacerbation of bronchial asthma.
- Treatment of severe exacerbation of BP at the outpatient stage.
- Methods of restoring the patency of the respiratory tract.
- Etiology and pathogenesis of comatose states.
- Coma caused by an overdose of narcotic drugs.
- Alcoholic coma.
- Diagnostic methods and initial examination of a patient in a coma.
- Differential diagnosis of hypoglycemic and hyperglycemic coma.
- Sudden circulatory arrest – definition, clinical signs.
- Stages of dying of an organism – characteristics and duration of each stage.
- The complex of cardiopulmonary resuscitation – the main periods, goals.
- Primary resuscitation complex – a sequence of actions of the stage of elementary life support.
- ECG rhythms of sudden circulatory arrest.

5. Compulsory and supplementary literature on the theme:

5.1 Compulsory literature

1. Ivashkin V.T. Internal diseases propedeutics [Электронный ресурс]/ V. T. Ivashkin, A. V. Okhlobystin. -Москва: ГЭОТАР-Медиа, 2020. -176 p.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970455555.html>

- 2.Oslopov V. N. General Care of a Patient [Электронный ресурс] : tutorial/ V. N. Oslopov, O. V. Bogoyavlenskaya. -Москва: ГЭОТАР-Медиа, 2021. -208 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970460429.html>
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- 2.Borodulina E. A. Diagnosis and prevention of tuberculosis in general medical practice [Электронный ресурс] : tutorial guide/ Е. А. Borodulina, В. Е. Borodulin. -Москва: ГЭОТАР-Медиа, 2024. -104 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970481905.html>
- 3.Diagnostics and treatment of internal diseases in outpatient department = Диагностика и лечение терапевтических заболеваний на амбулаторном этапе [Электронный ресурс] : пособие для студентов учреждений высшего образования, обучающихся по специальности «Лечебное дело» : manual for students of higher education institutions studying in the specialty/ Е. А. Кежун, Н. С. Слободская, Д. В. Пицко, К. В. Гончар. -Гродно: ГрГМУ, 2020. -200 с.- URL: <https://www.books-up.ru/ru/book/diagnostics-and-treatment-of-internal-diseases-in-outpatient-department-11950033>
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3	Website of	www.heart.org/HEARTORG	contains cardiological articles,

	the American Heart Society and the American Society of Cardiologists		clinical recommendations
4	PubMed	https://pubmed.ncbi.nlm.nih.gov	An electronic search engine with more than 30 million publications, including studies, meta-analyses, clinical trials and systematic reviews in medicine, dentistry, physiology, biology and psychology. The site is intended primarily for medical professionals and medical students.
5	UpToDate	https://www.wolterskluwer.com	One of the most authoritative sources of information on clinical medicine for physicians. Articles on the site contain up-to-date data on diseases, etiology, pathophysiology, diagnosis and therapy. The information on pathologies and treatments is based on the principles of evidence-based medicine. The site contains many illustrations, tables, infographics and videos.
6	Mayo Clinic	https://www.mayoclinic.org	A nonprofit organization and research center. The site contains current and reliable information on diseases, causes, diagnosis and treatment for physicians and medical students. More than 3,000 physicians and researchers contribute to the articles. The information will help physicians decide on a treatment and medication if they are in a state of uncertainty.
7	Drugs	https://www.drugs.com	An encyclopedia site with information about most existing medicines in medicine. You can find out, for example, whether drugs are compatible with each other and what side effects they can cause. The peculiarity of the site is that it does not represent any pharmacy or pharmaceutical company, so the

			information about drugs is provided neutrally, without interest in its sale.
8	The Lancet	https://www.thelancet.com	An internationally respected journal for physicians and medical professionals, published for almost 200 years. It has many subdivisions, such as The Lancet Neurology, which publishes articles on neurology, and The Lancet Oncology, which covers oncological diseases. The journal is peer-reviewed, which means that the credibility of facts, studies and results are checked by experts and specialists in their fields. There are videos, infographics, and podcasts, for example, about successful treatment cases.
9	The BMJ	https://www.bmj.com	The British Medical Journal publishes articles, systematic reviews, and clinical studies. It is one of the most cited journals. The purpose of the publication is to educate young physicians and medical staff who have recently begun to practice and to combat unreliable, unethical, and outdated information.
10	CDC	https://www.cdc.gov	Centers for Disease Control and Prevention. The site contains statistics, review articles and current research with links to primary sources, and provides up-to-date health data.
11	FDA	https://www.fda.gov	Centers for Disease Control and Prevention Food and Drugs Administration. The site contains statistics, review articles and current research with links to primary sources, and provides up-to-date health data. This resource generally provides up-to-date information about the development, testing, and introduction of medicines, including vaccines. The FDA is the authority on whose approval a drug's fate depends, and if it approves a drug, it

			is considered to have passed a clinical trial and to have proven efficacy.
12	Medscape	https://www.medscape.org	An online resource for medical professionals, physicians, and medical students. Contains many original reviews, monographs, clinical studies, and articles. The site has a library. The front pages talk about current topics in medicine and medicines.
13	«Emergency Medical Help»	https://vk.com/emhelp	A community of medical professionals in the social network "VKontakte", algorithms, recommendations, audio and video tutorials.

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