

**MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE
VOLODYMYR VYNNYCHENKO CENTRAL UKRAINIAN STATE
UNIVERSITY**

**Faculty of Mathematics, Natural Sciences and Technologies
Department of Natural Sciences and their teaching methods**

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**METHODOLOGICAL RECOMMENDATIONS
TO THE CONTENT AND ORGANIZATION OF THE INDEPENDENT
WORK OF STUDENTS IN THE EDUCATIONAL DISCIPLINE OF HUMAN
HEALTH: HISTORY AND DEVELOPMENT OF HEALTH CARE**

for students of the second (master's) level of higher education in the specialty
014 Secondary education (Chemistry)
Subject specialty: 014.06 Secondary education (Chemistry)
Combined subject specialty: 014.05 Secondary education
(Biology and Human Health)
Educational and professional program: Secondary education
(Chemistry, Biology and Human Health)
full-time and part-time (distance) forms of education

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Methodological recommendations include general guidelines for performing independent work, the curriculum of the academic discipline, tasks for independent work, criteria for its assessment, a list of topics for essays and presentations, basic and additional literature. The manual is recommended for students of the second (master's) level of higher education, Specialty 014 Secondary education (Chemistry), Subject specialty: 014.06 Secondary education (Chemistry), Combined subject specialty: 014.05 Secondary education (Biology and Human Health), Educational and professional program : Secondary education (Chemistry, Biology and Human Health) full-time and part-time (distance) forms of education.

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1. GENERAL INSTRUCTIONS REGARDING INDEPENDENT WORK

1. The student's independent work is a form of organization of the educational process, in which the planned tasks are performed by the student under the methodical guidance of the teacher, but without his direct participation.

The student's independent work is the main means of mastering educational material in the time free from compulsory educational classes.

The study time allocated for the student's independent work is determined by the curriculum and is not less than 1/3 and not more than 2/3 of the total amount of study time allocated for studying a specific discipline.

The ratio of the volume of classroom classes and independent work of students is determined taking into account the specifics and content of a specific educational discipline, its place, significance and didactic purpose in the implementation of the educational and professional program.

The student's independent work must be specific in its focus and be accompanied by effective control and evaluation of its results.

2. The content of the student's independent work consists of a scientifically based system of didactically and methodically designed educational material and is determined taking into account the structural and logical scheme of training specialists, which is reflected in the educational and professional program and work curriculum. The content of the student's independent work in each academic discipline is determined by the work program of the academic discipline, methodical materials, tasks and instructions of the teacher.

3. In the course of independent work, the student:

- learns theoretical material from the subject being studied (learning the lecture course, as well as its individual sections, topics, provisions, etc.);
- consolidates knowledge of theoretical material, using the necessary tools in a practical way (solving problems, performing calculation and graphic works, performing control works, self-check tests, physical fitness tests);
- applies acquired knowledge and practical skills to analyze situations and make the right decision (preparation for a group discussion, preparatory work as part of a business game, written analysis of a specific situation, development of art projects, during participation and organization of sports events, etc.);
- applies the acquired knowledge and skills to form one's own position, theory, model (writing coursework, qualification, master's thesis, scientific report, article, research paper).

4. Independent work on an academic discipline for students can include various forms, which are determined by the work program, depending on the purpose, tasks and content of the academic discipline, specifics of the direction of training, specialty. Conditionally independent work of students can be divided into basic and additional.

5. Basic independent work ensures the student's preparation for classroom classes and control measures in all educational disciplines of the curriculum. The results of this preparation are manifested in the student's activity in classes, when he completes control works, test tasks and other types of work.

The basic independent work of students may include the following types of work:

- elaboration of lecture material and recommended literature;
- search (selection) and review of literature and electronic sources of information on the individually set problem of the educational course;
- doing homework;
- translation of texts from foreign languages;
- study of the material submitted for independent study;
- workshop on educational discipline using software;
- preparation for laboratory work, practical (seminar) classes;
- preparation for writing control papers, other forms of current control;
- systematization of the studied material before the semester exam.

6. Additional independent work is aimed at deepening and consolidating the student's knowledge, developing analytical skills on the issues of the academic discipline. It may include the following types of work:

- scientific research work, participation in scientific student conferences, tournaments, seminars and olympiads;
- analysis of scientific publications on the topic determined by the teacher;
- writing an abstract, an essay on a given issue;
- bibliographic review of the literature on the given issue;
- development of multimedia presentation;
- development of a system of exercises, practical tasks, situational tasks (dialogues, polylogues, monologues, projects, discussion);
- preparation of chronological tables;
- making maps, tables and diagrams;
- preparation of terminological dictionaries/

7. Independent work is ensured:

- information resources (reference books, textbooks, training manuals, banks of individual tasks, etc.);
- library premises and resources, classrooms, computer classes, laboratories, sound cabinets, art workshops, etc.;
- methodical materials (instructions, workshops, recommendations, etc.);
- materials for control (examination tickets, control tasks, tests, etc.);
- consultations from the teacher;
- the possibility of public discussion of theoretical or practical results obtained by the student independently (debates, round tables, scientific seminars, conferences, olympiads, competitions).

8. A student's independent work is ensured by a system of educational and methodological tools provided for the study of a specific academic discipline, namely:

- programs from all academic disciplines;
- programs of all types of practices;
- textbooks, study guides, other educational and methodical literature;
- scientific, professional monographic and periodical literature;
- instructional and methodical materials, instructions for seminar, practical and

laboratory classes;

- tasks for seminar, practical and laboratory classes;
- control works on educational disciplines;
- methodical instructions for the implementation of individual educational and research tasks;
- methodical instructions for coursework, qualification, diploma, master's theses;
- lists of test questions.

Methodical materials for students' independent work should provide for the possibility of self-monitoring by the student.

9. Control of independent work and evaluation of its results includes:

- self-control and self-assessment of the student;
- control and assessment by the teacher

The main forms of control of independent work are:

- conducting a settlement;
- conducting control works;
- written or oral surveys of students;
- checking homework;
- verification of individual tasks;
- verification of creative tasks;
- protection of the abstract;
- and others.

10. The effectiveness of specific tasks for the student's independent work is evaluated in points, the number of which may be different for different types of tasks and is determined within the limits of a separate department. The full list of tasks for independent and individual work, their evaluation, terms and conditions of completion are brought to the attention of students at the beginning of studying the academic discipline.

2. INTRODUCTION

«Knowledge of history, knowledge itself, and not a superficial acquaintance, is mandatory for any serious specialist, no matter in which field of social science he works».

B. Ponomaryov

The state of health care and medicine has always been determined by the level of development of society, socio-economic conditions, achievements of science, technology and culture.

The study of health care and medicine, like any other field of human activity and knowledge, necessarily requires a thorough acquaintance with its history. It is impossible to thoroughly master science without knowledge of its history. A methodologically correct assessment of a phenomenon, fact, theory is its true essence. That is why the history of health care is one of the main theoretical disciplines in the field of medicine in general. It gives an understanding of the origin of the entire modern complex of knowledge in this field, traces the path of their development.

The general history of health care studies the development of medical knowledge in human society as a whole. General issues, the main regularities of the historical development of medicine are the subject of the history of medicine as a separate science, an independent discipline.

The private history of health care and medicine reflects the development of certain branches of medicine. It is an integral part of all medical disciplines. The general history of medicine and special historical-medical information make up the system of historical-medical education.

The history of health care and medicine course is a connecting link in the study of the development of all branches of medicine. Historical development is presented as a whole system, and not as a mechanical sum of individual scattered data from the history of various disciplines.

Materials from the history of health care and medicine are correlated in this course with materials from the history of science, religion, philosophy, economics, law, and social psychology. They demonstrate an approach to the history of health care as a holistic cultural process.

Special attention in this course is focused on how these or other medical ideas arose, how scientific and medical problems were solved in this or that historical era. The teaching of issues of the history of medicine is based on specific scientific facts and generalizations, which are considered through the prism of modern scientific and philosophical ideas.

3. EDUCATIONAL DISCIPLINE PROGRAM

The purpose of teaching the educational discipline «Human health: history and development of health care» is the interpretation of the development of knowledge about human health in historical retrospect, the interpretation of the main historical and medical events, the study of the main stages of the development of medicine in connection with development and change socio-economic conditions, the formation of sciences in the field of medicine and health care.

The task of the course is to master the skills of analyzing sources from the history of health care and medicine, determining the features of natural-scientific and medical knowledge, characteristic features of the development of health care and medicine in different historical periods, interpreting the main historical and medical events.

As a result of studying the academic discipline, the student must

Know:

- patterns of development and the history of health care, medical knowledge and health care activities of the peoples of the world in all periods of human history (from ancient times to the present day);
- the content of the most important stages of the formation and development of health care in historical retrospect;
- the contribution of outstanding medical scientists to the development of medicine and the preservation of health in their country and the world;
- the main discoveries and inventions in the field of medicine and health care from ancient times to the present;
- development of medicine and health care in Ukraine from ancient times to the present;
- the successes of each new era in the progress of medicine and health care.

Be able to:

- reveal the history of the development of health care as a complex interaction of the accumulation of scientific knowledge and paradigm changes;
- highlight the main stages (antiquity, the Middle Ages, modern times, modernity) and explain the regularities and features of the development of scientific medical knowledge in specific historical conditions;
- interpret the main historical and medical events;
- to analyze the factors of the development of medicine and health care, the growth of their independence from worldview and ideological attitudes;
- use the main sources from the history of medicine and health care;
- use knowledge about human health, the history and development of health care in professional activities.

Topics for self-study

№	Topic
1	Topic 1. Health care and Medicine of the Ancient World.
2	Topic 2. Health care and Medicine of the Antiquity era.
3	Topic 3. Health care and Medicine of the Middle Ages and the Renaissance.
4	Topic 4. Health care and modern Medicine.
5	Topic 5. Latest medicine and Health care.

Topic 1. Health care and medicine of the Ancient World

History and development of health care as a subject of teaching. Periodization and chronology. Sources of studying the history of health care and medicine. Peculiarities of primitive society. Anthroposociogenesis. Taboo, animism, fetishism, magic, totemism. The "golden age" hypothesis. Treatment in primitive society. General features of the development of treatment in the countries of the Ancient World. Two trends in Mesopotamia medicine. Hammurabi's laws and medicine. The main ancient Egyptian medical papyri. Concepts of anatomy in ancient Egypt. Hygienic skills of ancient Egyptians. Sanitary and technical buildings of the Harappan civilization. Vedas about medicine in ancient India. Ayurveda Anatomical knowledge in ancient India.

Surgery in Ancient India. Social structure of ancient Indian society and medicine. Peculiarities of preservation and medicine of Ancient Iran. Philosophical foundations of ancient Chinese medicine. Zhen-tzu therapy. Teaching about the pulse. Medicinal products of ancient Chinese medicine.

Topic 2. Health care and medicine of the Antiquity era.

The main stages of the development of medicine in Ancient Greece. Sanitary and technical buildings of civilization on the island. Crete. Asklepeaeons. Ancient Greek medical schools. Hippocrates, his life and activities. "Collection of Hippocrates". Hellenistic science and medicine. Anatomical explorations of Herophilus and Erasistratus. Scientific school of Aristotle. Periodization of the history and medicine of Ancient Rome. "Laws of the XII Tables". Sanitary and technical facilities in Ancient Rome. Methodical direction in the medicine of Rome. Ancient Roman military medicine. Galen's contribution to the development of anatomy, physiology, pharmacotherapy. Galen and Galenism in the history of medicine.

Topic 3. Health care and medicine of the Middle Ages and the Renaissance

Peculiarities of Byzantine culture and medicine. Byzantine medical scientists. Monastic hospitals and the organization of medical affairs in the Byzantine Empire. Peculiarities of the development of health care and medicine in Arabic-speaking caliphates. Famous medical scientists of Arabic-speaking caliphates. Abu Ali ibn Sina, contribution to medicine. "Hygienic advice" of Maimonides. Universities in the Middle Ages. Scholasticism and medicine. Arnold from Villanova. Leprosy epidemic

in Europe. Plague Pandemic Alchemy and Medicine. Medicine of Kyiv Rus.

Characteristics of the Early Modern period. Anatomical studies of Leonardo da Vinci. University of Padua in the 16th century. Andreas Vesalius and the Golden Age of Anatomy. Iatrophysics, iatromechanics, iatromathematics. Medical system of Paracelsus. Iatrochemistry. Formation of physiology as a science. U. Harvey and his contribution to science. Development of surgery. Peculiarities of the development of epidemics in the period of the late Middle Ages. J. Fracastoro. George Drohobych. Hospital schools and training of doctors. Medicine of the peoples of the American continent before and after the conquest. Main features and components of domestic medicine.

Topic 4. Health care and Modern medicine

Development of medical and biological sciences. Development of clinical sciences. Peculiarities of the formation and development of medical, social and hygienic sciences. Principles of Zemstvo medicine. Formation and development of microbiology and epidemiology. Higher medical education.

Topic 5. Latest medicine and Health care

Features of health care at the beginning of the 20th century. The health care system during the period of Ukrainian statehood in 1917–1919. The main directions of the development of health care in Ukraine during the Soviet period. The main principles of health care in independent Ukraine. The main directions and achievements of medicine and health care in Ukraine in the 20th century. World Health Organization (WHO). History of creation.

The history of the formation of the International Society of the Red Cross and Red Crescent. Discoveries in the field of physiology and medicine, awarded with the Nobel Prize. The main museums of medicine and pharmacy of Ukraine.

4. TASKS FOR INDEPENDENT WORK

HISTORY OF HEALTHCARE AND MEDICINE AS A SCIENCE AND SUBJECT OF TEACHING

Relevance of the topic

Medicine and health care are as ancient a field of activity as humanity itself. Along with the history of mankind, along with the entire public life, along with the history of culture, medicine also developed and enriched itself, historical and medical material emerged, science was created - the history of medicine and health care.

The history of medicine and health care, on the one hand, is a part of general history, on the other hand, it is the most important and integral part of human culture. As a branch of science, it studies the patterns of development and the history of treatment, medical knowledge and medical activity in different regions of the globe in all periods of human history: in primitive society, in the ancient world, in the Middle Ages, in modern times, and in the period of modern history. It demonstrates the reliability of medical knowledge, confirms the truth, shows how scientific medicine was formed based on the verification and generalization of empirical knowledge of the people, how medical science developed in close connection with the economic and political development of society.

As an educational discipline, the history of medicine and health care is designed to raise the level of general and professional culture of future teachers, to promote the development of logical thinking in them in understanding the laws of the historical process of the development of medical science, to the modern assessment of scientific achievements and discoveries, both in the past and in the present medicine.

Purpose: To be able to establish the importance of the history of medicine in:

- obtaining and interpreting data on the origin and development of treatment, medical knowledge and medical activity in all periods of human history, based on the development of socio-economic formations, philosophical worldviews, culture, natural sciences and the presence of historical finds;
- raising the level of general and professional culture of future doctors.

Be able to:

1. To determine the purpose, tasks and methods of the history of medicine as a science and subject of teaching.
2. To determine the importance of historical sources in obtaining information about medicine and the logical explanation of the laws of its development.
3. Establish the periods of development of medicine based on the periods of the history of human society.
4. To establish the influence of philosophical worldviews, natural science, natural and other sciences on the state of the theory and practice of medicine in different periods of history.
5. Show the role of medicine in human society and the prospects for its further development.

Content of training

Theoretical questions:

1. History of medicine as a science and subject of teaching. Its purpose, tasks, study methods.
2. Sources of studying the history of medicine at different stages of the development of human society, their characteristics and significance.
3. Periodization and chronology of world history.
4. The connection of medicine with the socio-economic development of society, the philosophical worldview, the level of development of sciences in different periods of the history of human society.
5. The role of medicine in human society and possible prospects for its further development.

Sources of information

1. [Mark Jackson](#). The History of Medicine. 2014, 256 p.
2. Tim Hall. History of Medicine: All That Matters. [McGraw-Hill Education](#).
3. Steve Parker. A Short History of Medicine. Dorling Kindersley. 2019 год, 400 p.
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Test tasks to test knowledge

Test 1

What does the private section of the history of medicine study?

- A. Regularities of the development process of treatment and medicine as a whole
- B. Historical development and achievements of certain medical disciplines
- C. Basic provisions of medical ethics and deontology
- D. National factors in the formation of medical science and practice
- E. Development of domestic medicine

Test 2

Researchers, studying the ethnic community, summarized the features of the traditional everyday (household) culture of the people, which form its ethnic appearance.

The main subject of which science are the described signs?

- A. Archaeology

- B. Anthropology
- C. Paleoanthropology
- D. Paleopsychology
- E. Ethnographies

Test 3

The study of the history of medicine involves the study of five main sections: treatment in primitive society, medicine of the Ancient World, medicine in the Middle Ages, medicine of modern times and medicine of recent (modern) history.

What principle is the basis of this distribution?

- A. Periodization and chronology of world history
- B. Stages of socio-economic development
- C. The internal logic of the development of scientific knowledge
- D. International nature of the development of scientific knowledge
- E. Political construction of states

Test 4

Confirmation of the religious and philosophical system of Confucianism as an official religion in ancient China in the II century. BC became the reason for the ban on dissection of the bodies of the dead.

What feature of treatment in ancient China was formed under the influence of this factor?

- A. Increased attention to treatment and preventive measures
- B. Development of the doctrine of the pulse
- C. Development of acupuncture and burning
- D. Limitations of operative treatment
- E. High perfection of treatment with the help of herbal medicines

Answers to the tests: 1 - B; 2 - E; 3 - A; 4 - D.

Independent work of students

Students' independent work on this topic includes two tasks for filling in tables: "Historical sources of information about medicine" and "Periodization and chronology of world history." When completing the task, it is recommended to use lecture material and a textbook.

Task 1

Compile the table "**Historical sources of information about medicine and health care**"

The name of the sciences that provide historical information about medicine	Subject of study	Material for study	What it can indicate

Task 2

Make a table "**Periodization and chronology of world history**"

Periods of world history (as well as the history of medicine)	Conventional chronological frameworks	Absolute age	Dominant socio-economic formation

A sample of task 1

The name of the sciences that provide historical information about medicine	The subject of study	The material for study	What it can testify to
Paleopathology	Pathological changes in the remains of primitive man (of his skeleton)	Bones of the skeleton (the nature of the change or damage is studied: left femur of the oldest human with significant bony outgrowths (exostosis) - age about 700 thousand years BC. (excavations on the island of Java); bones of the trunk or skull with traumatic defects, including with traces of skull trepanation	About lifestyle; about the average lifespan of primitive man; about diseases in primitive society (for example, arthritis); about the nature of injuries.

4.1. TOPIC 1. HEALTH CARE AND MEDICINE OF THE ANCIENT WORLD

TREATMENT IN PRIMITIVE SOCIETY

Relevance of the topic

The history of primitive society is an integral part of the world-historical process of the development of humanity and covers more than 99% of the entire history. It is also worth considering that the primitive communal system is a universal socio-economic formation through which all peoples of our planet have passed without exception. It is the basis of all subsequent higher development, and rational traditions and vast empirical experience of primitive treatment became one of the sources of traditional medicine of subsequent eras, including modern scientific medicine.

Purpose: To be able to interpret the stages of formation and development of treatment in primitive society.

Be able to:

1. Compare the various stages of human evolution and human society.
2. Determine the sources of information used to characterize the original system.
3. To reveal the main content of the periods of primitive history.
4. To characterize the achievements of treatment in primitive society.

Content of training

Theoretical questions:

1. Periodization and chronology of primitive history:
 - 1.1. Stages of human evolution.
 - 1.2. Conditional chronological framework of the era.
 - 1.3. Eras of development of human society.
 - 1.4. Periods of the primeval era.
2. Historical sources used for the study and reconstruction of primitive society.
3. The main content of various periods of primitive history, their achievements.
4. The content of treatment in primitive society during its period:
 - 4.1. becoming;
 - 4.2. flourishing;
 - 4.3. decline
5. The role of the formation and development of treatment in primitive society for the development of modern scientific medicine.

Sources of information

1. [Mark Jackson](#). The History of Medicine. 2014, 256 p.
2. Tim Hall. History of Medicine: All That Matters. [McGraw-Hill Education](#).
3. Steve Parker. A Short History of Medicine. Dorling Kindersley. 2019 год, 400 p.
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Test tasks to test knowledge

Test 1

Conventional chronological frames cover the period of history from 2 million years to 40 thousand years ago.

For which epoch of the development of human society are these chronological frameworks characteristic?

- A. The original neighborhood community
- B. Early tribal community
- C. Late ancestral community
- D. Tribal community (communal and tribal system)
- E. Primitive human herd (primordial community)

Test 2

In France, the skeleton of an ancient man with signs of arthritis of the cervical spine was found in the cave of La Chapelle-Pro-Seine.

Which of the sciences listed below made it possible to determine the indicated pathological changes in the remains of primitive man?

- A. Archaeology
- B. Paleopathology
- C. Paleobotany
- D. Paleoanthropology
- E. Paleopsychology

Test 3

Name the most important discoveries made by man in the first period of primitive history.

- A. The invention of writing
- B. The invention of the bow and arrow
- C. Obtaining and maintaining fire
- D. Invention of wheeled and sailing transport
- E. Manufacturing tools, including tools for treatment from metal

Test 4

One of the first religious beliefs of primitive people is belief in souls, spirits and the general spiritualization of nature. These beliefs are thought to be early forms of the cult of the dead.

Which of the first religious ideas of primitive people are these beliefs related to?

- A. With totemism
- B. With fetishism
- C. With animism
- D. With magic
- E. With witchcraft

Test 5

The consolidation and development of traditional skills and methods, the expansion of the range of medicines, the improvement of childbirth assistance, and operative treatment methods were characteristic of treatment during the period of the decline of primitive society.

What other feature of the development of treatment was characteristic of this historical period?

- A. The appearance of professional ministers of worship - doctors
- B. Treatment based exclusively on empirical experience
- C. The collective principle of treatment
- D. The appearance of the first rudiments of hygienic skills
- E. Absence of irrational ideas

Answers to tests: 1 - E; 2 - B; 3 - C; 4 - C; 5 - A.

Independent work of students

The students' independent work consists in determining the skills of treatment, the beginnings of hygienic skills and methods, operational methods of treatment in different eras of the development of primitive human society (primitive community, community-tribal system and primitive neighborhood community). It is recommended to use the textbook and lecture material in the work. Prepare the work in the form of a table according to the presented sample.

The development of treatment in different eras of the development of primitive human society

	Primitive human herd (primordial community)	Ancestral community (community-ancestral system)	The original neighborhood community
Healing skills in human society			
Operative methods of treatment			
The beginnings of			

hygienic knowledge and skills			
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MEDICINE OF THE ANCIENT WORLD

Relevance of the topic

The first civilizations began to emerge on earth more than 5,000 years ago (IV millennium BC). This period marks the end of the primitive era and the beginning of the history of class societies and states. By the time of the transition to the slave system, there was already considerable experience in recognizing, treating and preventing diseases, and preserving health. The development of empirical knowledge (including treatment) in the countries of the Ancient World, on the one hand, had common features, and on the other hand, each region of the globe had its own characteristic features related to the historical and cultural development of this region.

Purpose: To be able to interpret the level of development of medicine in the countries of the Ancient World and to show the influence of medicine of the slave period on the development of world medicine.

Be able to:

1. To highlight the main general features of the development of treatment in the slave-owning countries of the Ancient World.
2. Identify sources of information used to characterize treatment in the era of slavery.
3. To highlight the characteristic features of the development of theoretical knowledge, practical treatment and medical affairs in different periods of history in the countries of the Ancient World.
4. To determine the contribution of doctors of the Ancient World and materialistic medical schools to the development of medicine in their countries, other civilizations, and subsequent eras.
5. To interpret the influence of the treatment of the Ancient World on the further development of medicine.

Content of training

Theoretical questions:

1. General features of the development of treatment in slaveholding states.
2. Periodization and chronology of the history of slave-owning countries of the Ancient World.
3. Sources of information about the treatment of the era of slavery.
4. Peculiarities of the development of theoretical medical knowledge, practical treatment and medical affairs in different periods of history in the countries of the Ancient World.
5. Famous doctors and medical schools. Their contribution to the development of medicine in their countries, other civilizations, and subsequent eras.
6. The influence of treatment in the ancient world on the further development of medicine.

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Test tasks to test knowledge

Test 1

The oldest of the surviving texts of medical content was compiled in Mesopotamia at the end of the III millennium BC. It consists of 15 prescriptions for medicines written in cuneiform.

What is the name of this source of history and treatment?

- A. Papyrus Ebers
- B. Sushruta-samhita
- C. Yellow Emperor healing canon
- D. Cuneiform tablet from the city of Nippur
- E. Letters-plates of doctor Mukkalim

Test 2

The ancient method of pulse diagnosis, perfected by many generations of doctors, later turned into a sound teaching.

Which of the following famous doctors in the III century. not. taught the specified doctrine in his work?

- A. Dhanvan-tari
- B. Wang Shuhe
- C. Imhotep
- D. Huangfu Mi
- E. Mechen

Test 3

Treatment in one of the states of the Ancient World was characterized by natural-philosophical ideas about diseases, diagnosis was based on four methods of examining the patient, including the study of the pulse, there were traditional

methods of treatment - acupuncture and cauterization, the preventive direction in medicine was developing, the treatment reached a high level with the help of herbal medicines.

For which country of the Ancient East are these features of treatment characteristic?

- A. India
- B. Babylonian kingdom
- C. Egypt
- D. of the Sumerian state
- E. China

Test 4

How was the transfer of medical knowledge in ancient India?

- A. By studying in a traditional secular school
- B. Inheritance - from father to son
- C. In a narrow circle of devotees
- D. In medical schools at temples
- E. In special medical schools

Test 5

Until the middle of the 2nd millennium in Mesopotamia, doctors - Asu and Ashipu - were engaged in treatment.

The formation of these types of doctors in ancient Mesopotamia is due to the manifestation of what trait, common to all countries of the Ancient World?

- A. Development of ideas about the origin of diseases
- B. Training of doctors
- C. Formation of the foundations of medical ethics
- D. Formation of two directions of medical practice: empirical and cultic
- E. Development of a class approach to treatment

Answers to tests: 1 - D; 2 - B; 3 - E; 4 - D; 5 - D.

Independent work of students

The students' independent work consists in determining the stages of formation and development of treatment in the slave-owning countries of the Ancient World, the contribution of doctors and materialistic medical schools to the development of medicine in their countries, other civilizations, and subsequent eras. Each student receives one of 4 tasks and prepares the work in the form of tables, samples of which are given.

Task 1

A. To give a comparative description of treatment in the states of ancient Mesopotamia, taking into account information from written sources of medical content and mythology:

№	Characteristic	States		
		Sumer	Babylonia	Assyria

		Culture		
		Sumerian	Babylonian-Assyrian	
1	Scientific and cultural achievements			
2	Spiritual world (ideology)			
2.1	the presence of beliefs			
2.2	the use of magic in healing			
2.3	religion			
2.4	the use of religion in medical practice			
3	Use of medicines			
3.1	of plant origin			
3.2	of animal origin			
4	Use of medical instruments			
5	Application of vessels for medicines			
6	Nature of treatment			
7	Medical specialty			
8	Assistance during childbirth			
9	Hygienic means and rules			
10	Transfer of medical knowledge			
11	Availability of medical schools			
12	Outstanding doctors			

B. Give a general conclusion about the possibilities of treatment in ancient Mesopotamia.

Task 2

A. To describe the treatment in different eras of the development of Ancient Egypt:

№	Characteristic	Ages of the kingdom		
		early	average	new
1	Scientific and cultural achievements			
2	Spiritual world (ideology)			
2.1	the presence of beliefs			
2.2	the use of magic in healing			
2.3	religion			
2.4	use of religion (magic) in medical practice			
3	Class approach to treatment			
4	Use of medicines			
4.1	of plant origin			
4.2	of animal origin			

4.3	of mineral origin			
5	Use of medical instruments and vessels for medicines			
6	Nature of treatment			
7	Formation of military medicine			
8	Medical specialty			
9	Assistance during childbirth			
10	Ideas about the origin of diseases			
11	Hygienic skills and traditions			
12	Sanitary and technical constructions			
13	Transfer of medical knowledge			
14	Availability of medical schools			
15	Outstanding doctors			

B. Give a general conclusion about the possibilities of treatment in ancient Egypt.

Task 3

A. Describe treatment in different periods of ancient Indian civilization:

№	Characteristic	The period of civilization		
		Harappan	Vedic	classic
1	Scientific and cultural achievements			
2	Spiritual world (ideology)			
2.1	the presence of beliefs			
2.2	the use of magic in healing			
2.3	religion			
2.4	use of religion (magic) in medical practice			
3	Use of medicines			
3.1	of plant origin			
3.2	of animal origin			
3.3	of mineral origin			
4	Use of medical instruments and vessels for medicines			
5	Nature of treatment			
6	Medical specialty			
7	Assistance during childbirth			
8	Sanitary affairs:			
8.1	city planning			
8.2	availability of sanitary and			

	technical facilities			
8.3	the presence of a sewage system			
8.4	swimming pools, pools, baths			
8.5	use of water for drinking and cooking			
9	Medical ethics			
10	Transfer of medical knowledge			
11	Availability of medical schools			
12	Outstanding doctors			

B. Give a general conclusion about the possibilities of treatment in ancient India.

Task 4

A. To describe the treatment in different periods of the history of ancient China:

№	Characteristic	Periods	
1	Scientific and cultural achievements	tsarist	Han Empire
2	Spiritual world (ideology, philosophy)		
2.1	existence of beliefs, cults		
2.2	using magic		
2.3	religion and its use		
2.4	natural and scientific beliefs		
2.5	features of philosophical worldviews		
3	Use of medicines		
3.1	of plant origin		
3.2	of animal origin		
3.3	of mineral origin		
4	Use of medical instruments and vessels for medicines		
5	Knowledge about the structure of the human body		
6	Ideas about diseases and their treatment		
7	The art of diagnosis		
8	Characteristic features of medicine		
9	Operative treatment		
10	Disease prevention		
11	Medical specialty		
12	Assistance during childbirth		
13	Sanitary matter		

14	Transfer of medical knowledge		
15	Availability of medical schools		
16	Outstanding doctors		

B. Give a general conclusion about the possibilities of treatment in ancient China.

A sample task

A.

№	Characteristic	States		
		Sumer	Babylonia	Assyria
		Culture		
		Sumerian	Babylonian-Assyrian	
1	Scientific and cultural achievements	<i>They laid the foundations of arithmetic, geometry, astronomy.</i>	<i>Formation and development of architecture, linguistics, mathematics, astronomy, treatment.</i>	
2	Spiritual world (ideology)	<i>Time was calculated.</i>	<i>Production of sundials.</i>	
2.1	the presence of beliefs	<i>They created writing - cuneiform</i>	<i>Determining the duration of the lunar month, the solar year, the time of the spring and autumn equinoxes.</i>	
2.2	the use of magic in healing		<i>Creation of repositories of cuneiform texts.</i>	
2.3	religion	<i>It wasn't</i>		
2.4	the use of religion in medical practice	<i>It was not used</i>	<i>Worship of many gods, including to the gods of medicine, healing from illness, elimination of infectious diseases and fever, demigods, heroes</i>	
3	Use of medicines	<i>It was born, but it was not sufficiently formalized.</i>	<i>It was used.</i>	
3.1	of plant origin	<i>It was practically not used</i>	<i>They accepted the beliefs of the Sumerians, but gave the gods other names</i>	
3.2	of animal origin		<i>Influenced treatment (ritual-magical nature).</i>	
4	Use of medical instruments	<i>Used</i>		
5	Application of vessels for	<i>Used</i>	<i>Used</i>	

	medicines		
6	Nature of treatment	<i>Used</i>	<i>Used</i>
7	Medical specialty	<i>Used</i>	<i>Used</i>
8	Assistance during childbirth	<i>Empirical</i>	<i>Used</i>
9	Hygienic means and rules	<i>No data available.</i>	<i>2 directions: 1) empirical art of treatment - asu; 2) the art of incantation - ashipu.</i>
10	Transfer of medical knowledge	<i>Only women were involved.</i>	<i>There are data on eye doctors and veterinarians.</i>
11	Availability of medical schools	<i>Great attention was paid to their performance.</i>	<i>Women were involved, caesarean section was used to save the child after the death of the mother.</i>
12	Outstanding doctors	<i>Orally.</i>	<i>Great attention was paid to their observance.</i>

B. By the middle of the 1st millennium BC. the medicine of ancient Mesopotamia was valued lower than that of ancient Egypt. Throughout the centuries-old history, the Babylonian-Assyrian culture greatly influenced the development of scientific knowledge in the whole of Eastern Asia, where cuneiform also spread along with Mesopotamian medical texts, which corresponded almost without change until the beginning of our era. Thanks to the reign of Hammurabi, the laws of Babylonia have come down to us, which vividly reflect the social relations of the period of early slave ownership, as well as the legal aspects of the work of doctors.

4.2. TOPIC 2. HEALTH CARE AND MEDICINE ERA OF ANTIQUITY

Relevance of the topic

The ancient East is considered the cradle of the world history of human civilizations. Traditional systems of treatment in the countries of the Ancient East had a huge impact on the development of medicine of peoples of various contingents. The culture of the peoples of the Mediterranean (Ancient Greece, Ancient Rome) maintained its influence for several centuries after the loss of independence of the Hellenistic states and formed a significant part of the basis on which European, and with it, world culture and medicine successfully developed over the millennia. Thus, one of the most important sources of the development of medicine in subsequent historical periods was the achievements of the civilizations of the Antiquity era.

Purpose: To be able to interpret the level of development of medicine in the Mediterranean countries and to show the influence of medicine of this period on the development of world medicine.

Be able to:

1. To highlight the main general features of the development of treatment in the Mediterranean countries.
2. To highlight the peculiarities of the development of the periods in the Mediterranean countries.
3. Determine the sources of information used to characterize treatment in the Antiquity era.
4. To highlight the characteristic features of the development of theoretical knowledge, practical treatment and medical affairs in different periods of history in the Mediterranean countries.
5. To determine the contribution of doctors of the Antiquity era and materialistic medical schools to the development of medicine in their countries, other civilizations, and subsequent eras.
6. To interpret the influence of the treatment of the Antiquity era on the subsequent development of medicine.

Content of training

Theoretical questions:

1. General features of the development of treatment in the Mediterranean countries.
2. Peculiarities of the development of periods in the Mediterranean countries.
3. Sources of information about the treatment of the Antiquity era.
4. Features of the development of theoretical medical knowledge, practical treatment and medical affairs in different periods of history in the Mediterranean countries.
5. Famous doctors and medical schools. Their contribution to the development of medicine in their countries, other civilizations, and subsequent eras.
6. The influence of treatment in the Antiquity era on the subsequent development of medicine.

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Test tasks to test knowledge

Test 1

The period of the highest internal economic, political and cultural prosperity of Greece is associated with the rise of the power of Athens. The basis of the political system was the full equality of slave owners before the law. There was a need for a broad education, numerous philosophical and professional schools arose.

Which period of the history of ancient Greece is characterized by these features?

- A. Creto-Mycenaean
- B. Predopolsnoye
- C. Polisnoy
- D. Classical
- E. Hellenistic

Test 2

On the basis of the ancient Greek teaching about bodily juices, the humoral theory was later formed, which with some changes existed in medicine until the 19th century.

What is the essence of this teaching?

- A. The elements of the body (blood, muscles, fat, bones, brain, male seed) are formed from 5 elements and 3 fluids
- B. Health is the result of a favorable mixing of bodily juices (blood, mucus, yellow bile, black bile)
- C. Temperament is associated with the predominance of one of the bodily juices (blood, mucus, yellow bile, black bile)
- D. Health is the result of the balance of Yin and Yang and the five elements: water, fire, wood, metal and earth
- E. Vital processes are determined by the transformation of pneuma in the ventricles of the brain, in the liver, in the heart

Test 3

Doctors of the medical school of ancient Greece perceived a person, his health and diseases in close connection with the surrounding world, actively developed the doctrine of the four bodily juices and body types, approved the foundations of medical ethics, developed the principles of observation and treatment in the sick bed.

Which of the outstanding doctors was a representative of this medical school?

- A. Euryphon from Cnidus
- B. Alcmaeon of Croton
- C. Hippocrates
- D. Empedocles of Accragantus
- E. Herophilus

Test 4

In the Roman army, there were military institutions for the wounded and sick, located in military camps or in the cities closest to the battlefield.

What were they called?

- A. Asclepion
- B. Valetudinary
- C. Thermal baths
- D. Museion
- E. Dharmashala

Answers to tests: 1 - D; 2 - B; 3 - C; 4 - V

Independent work of students

The students' independent work consists in determining the stages of formation and development of treatment in the Mediterranean countries, the contribution of doctors and materialistic medical schools to the development of medicine in their countries, other civilizations, and subsequent eras. Each student receives 2 tasks and prepares the work in the form of tables, samples of which are given below.

Task 1

A. To describe the treatment in different periods of the history of ancient Greece:

№	Characteristic	Periods				
		Creto-Mycenaean	Pre-forest	Polisny	Classes-official	Hellenistic
1	Scientific and cultural achievements					
2	Spiritual world (ideology, philosophy)					
2.1	existence of beliefs, cults					
2.2	religion and its use					
2.3	features of philosophical					

	worldviews					
3	Use of medicines					
3.1	of plant origin					
3.2	of animal origin					
3.3	of mineral origin					
4	Development of medical affairs					
5	Knowledge about the structure of the human body					
6	Ideas about diseases and their treatment					
7	The art of diagnosis					
8	Characteristic features of medicine					
9	Operative treatment					
10	Disease prevention					
11	Medical specialty					
12	Assistance during childbirth					
13	Sanitary matter					
14	Medical ethics					
15	Transfer of medical knowledge					
16	Availability of medical schools					
17	Outstanding doctors					

B. Give a general conclusion about the possibilities of treatment in ancient Greece.

Task 2

A. To describe the treatment in different periods of the history of Ancient Rome:

№	Characteristic	Periods		
		Tsarist	Republic	Empire
1	Scientific and cultural achievements			
2	Spiritual world (ideology, philosophy)			
2.1	religion and its use			
2.2	natural and scientific views			
2.3	features of philosophical worldviews			
3	Use of medicines			
3.1	of plant origin			
3.2	of animal origin			
3.3	of mineral origin			
4	Development of medical affairs			
5	Formation of military medicine			
6	Knowledge about the structure of the human body			
7	Ideas about diseases and their treatment			
8	Characteristic features of medicine			
9	Operative treatment			
10	Disease prevention			
11	Medical specialty			
12	Assistance during childbirth			
13	Sanitary matter			
14	Transfer of medical knowledge			
15	Availability of medical schools			
16	Outstanding doctors			

B. Give a general conclusion about the possibilities of treatment in ancient Rome.

4.3. TOPIC 3. HEALTH CARE AND MEDICINE OF THE MIDDLE AGES AND THE RENAISSANCE

Relevance of the topic

The Middle Ages is a period of world history, the main socio-economic characteristic of which is the feudal method of production. The chronological framework of the Middle Ages begins in the V and ends in the XVIII century.

Medicine in the Middle Ages developed in close relationship with the socio-economic and cultural development of the people. It was greatly influenced by: the development of related sciences (mathematics and mechanics, physics, chemistry, etc.), the formation of philosophical systems and teachings, world and national religions, numerous wars and crusades, epidemics and pandemics of widespread diseases, and others.

In the history of medicine of the Middle Ages, there were dark ages and bright pages, the negative influence of scholasticism and the life-giving air of humanism, there was national and regional limitation, but there was also a truly international interaction of scientists, great epoch-making discoveries and the triumph of the Renaissance.

The Renaissance, although it lasted a little more than a century, made the most significant contribution to the development of science and culture.

Purpose: To be able to interpret the levels of development of medicine in the states of the Middle Ages and to show its influence on the development of world medicine in subsequent eras.

Be able to:

1. Trace the periodization and chronology of the history of the states of the Middle Ages and highlight the features of the early, developed and late Middle Ages in Western Europe.
2. To determine the influence of scholastic and humanistic directions, which prevailed in the philosophical ideology of Western Europe in different periods of the Middle Ages, on the development of medical science, practical medicine and medical education.
3. To highlight the characteristic features of the development of theoretical medical knowledge and practical medicine in the Byzantine Empire and in the countries of the medieval East.
4. Trace the development of the hospital case in the considered era.
5. To characterize the formation and development of medical education.
6. Determine the contribution of outstanding doctors of the Middle Ages to the development of medicine.

Content of training

Theoretical questions:

1. Periodization and chronology of the history of states of the Middle Ages.
2. Characteristics of the periods of the early, advanced and late (Renaissance) Middle

- Ages in Western Europe. The epidemic situation in Western Europe in the Middle Ages and the organization of quarantine measures.
3. Development of theoretical medical knowledge, practical medicine in the states of the Middle Ages (Byzantine Empire, Arabic-speaking Caliphates, India, China).
 4. Features of the development of medicine in Western Europe:
 - the influence of the prevailing religious philosophy (scholasticism) on the development of medical science, practical medicine and medical education;
 - peculiarities of the development of surgery;
 - the birth of the humanistic direction and the differentiation of medicine (the establishment of anatomy and physiology as a science, the influence of iatrophysics and iatrochemistry on the development of medicine).
 5. Development of hospital affairs.
 6. Formation and development of medical education:
 - medical schools and medical education centers of the medieval East;
 - medieval universities.
 7. Outstanding doctors of the Middle Ages, their contribution to the development of medicine.
 8. Significance of medicine of the Middle Ages for the development of subsequent eras.

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Test tasks to test knowledge

Test 1

The beginning of the medieval period in Western Europe is conventionally considered to be the year when the last emperor of the Western Roman Empire was overthrown, and the end is the year of the beginning of the English bourgeois revolution.

What chronological framework does the specified period correspond to?

- A. 450-1640
- B. 476-1640
- C. 480-1750
- D. 425-1650
- E. 430-1670

Test 2

In the Middle Ages, a type of religious philosophy based on church dogmas (the so-called "school philosophy") was formed, which determined the nature of science and education in Western Europe.

What is this type of philosophy called?

- A. Humanism
- B. Vitalism
- C. Dialectics
- D. Materialism
- E. Scholasticism

Test 3

The medicine of the Arabic-speaking caliphates was characterized by: perfection in the preparation of medicines, the opening of the first pharmacies, the brilliant development of the hospital business, the doctrine of the four bodily juices in the field of disease theory.

What other feature was a characteristic feature of the development of medicine in the Caliphate at that time?

- A. State organization to combat epidemics
- B. Development of monastic medicine
- C. High level of development of anatomy
- D. A significant contribution to the development of ophthalmology
- E. Distribution of sanitary and technical constructions

Test 4

The history of the establishment of monasteries, the development of monastic hospitals and hospital business is connected with the history of the medieval state.

In which state did the mentioned events take place?

- A. In Byzantium
- B. In the Arab Caliphates
- C. In China
- D. In India
- E. In the Samanid state

Test 5

The birth of physiology as a science is associated with the name of this outstanding English doctor. He is credited with creating a coherent theory of blood circulation, which he mathematically calculated and experimentally substantiated.

To which scientist do these achievements belong?

- A. To Miguel Servet
- B. to Andreas Vesalius
- C. to William Harvey

- D. Paracelsus
- E. Galileo Galilei

Test 6

Medicine was part of the education program and was taught in close connection with the four subjects of the higher late antique school - mathematics, geometry, astrology and music. Despite its practical nature, it continued to be considered a theoretical discipline, studied based on the works of great figures of antiquity. Special attention was paid to methods of treatment developed in previous centuries and to the study of medicinal products.

For which of the medieval states were these features of medical education characteristic?

- A. States of Western Europe
- B. Byzantium
- C. Arab Caliphates
- D. China
- E. India

Answers to tests: 1 - B; 2 - E; 3 - D; 4 - A; 5 - C; 6 - B.

Independent work of students

Independent work of students consists in determining the contribution of scientists of different states of the Middle Ages to the development of medicine. The work is drawn up in the form of a table, which indicates the region, historical period, lists the names of scientists, their achievements and contributions to medicine. When performing the work, it is recommended to use a textbook and lecture material.

Contribution to the development of medicine by outstanding doctors of the Middle Ages and the Renaissance

Region	Historical period	Outstanding doctors	Years of life	Contribution to the development of medicine
Western Europe	Early and advanced Middle Ages (V-XIV centuries)	Roger Bacon	1215-1294	
		Arnold from Villanova	1235-1311	
		Mondino de Luzzi	1275-1326	
		Guy de Choliac	1300-1368	
	Renaissance era (XV-XVIII centuries)	Leonardo da Vinci	1452-1519	
		Andreas Vesalius	1514-1564	
		Miguel Servet	1509-1553	
		Bartholomew Eustachy	1510-1574	
	Gabriel Fallopius	1523-1562		

		Hieronymus Fabricius	1533-1619	
		William Harvey	1578-1657	
		Marcello Malpighi	1628-1694	
		Francis Bacon	1561-1626	
		René Descartes	1596-1650	
		Galileo Galilei	1564-1642	
		S. Santorio	1561-1636	
		Paracelsus	1493-1541	
		Agricola	1494-1555	
		Nicholas Copernicus	1473-1543	
		Girolamo Fracastoro	1478-1553	
		Johannes de Vigo	1450-1545	
		Ambroise Pare	1510-1590	
Byzantine Empire	395-1453	Oribasius of Pergamum	325-403	
		Aetius of Amida	502-572	
		Alexander of Thrall	525-605	
		Pavlo from Fr. Aegina	625-690	
Arabic-speaking Caliphates	VII-XII	Hunayn ibn Ishaq	809-873	
		Ibn al-Talmit	XII th C.	
		Abu ibn Zakariya	850-923	
		Ar-Razy	965-1039	
		Ibn al-Haytham	X th C.	
		Ammar ibn Ali	1st sex. X century	
		al-Mausili	1210-1288	
		Ali ibn Isa	936-1013	
		Jibraeel ibn Bakhtish	IX th C.	
		Abu Ali Ibn Sina	980-1037	

MEDICINE OF MEDIEVAL KYIV RUSSIA

Relevance of the topic

A great positive influence on the development of culture, education, science and medicine during the period of Kievan Rus was made by: feudal relations, the separation of crafts from agriculture, the growth and prosperity of Slavic cities, trade and economic interstate ties, and most importantly, the adoption of Christianity as the state religion, which contributed to the centralization and strengthening of the state, its rapprochement with European Christian countries, in particular with Byzantium. This period saw the flourishing of folk medicine, the formation of monastic medicine

and the emergence of secular medicine.

On the contrary, the long-term oppression and destruction of Kievan Rus is connected with the Mongol-Tatar invasion (1240-1480). During this period, there was a decline in medicine and its concentration in monasteries that escaped the invasion. At the end of the 15th century the foundations for the development of state medicine were laid.

Purpose: To be able to interpret the level of development of treatment and medicine in Kyivan Rus and to determine the importance of medicine in medieval Rus for the further development of domestic medicine.

Be able to:

1. Trace the periodization and chronology of medieval Kyivan Rus.
2. To describe the historical periods of medieval Kyivan Rus.
3. To highlight the characteristic features of the development of treatment and medicine in Kievan Rus, the feudal principalities of the period of the Tatar-Mongol invasion. To characterize monuments of Russian writing containing medical information.

Content of training

Theoretical questions:

1. Periodization and chronology of the history of medieval Russia.
2. Characteristic features of the history of Kyivan Rus, the feudal principalities of the period of the Mongol-Tatar invasion.
3. Monuments of Russian written medical content.
4. Features of the development of treatment in Kyivan Rus:
 - 4.1. The development of traditional medicine (specialization of doctors, wide use of herbal, animal, and mineral medicinals specific to Russia).
 - 4.2. Formation of monastic medicine. Famous monks-doctors. The birth of medical ethics.
 - 4.3. Representatives of secular medicine of Kyivan Rus.
5. Peculiarities of medicine during the period of the Tatar-Mongol yoke.
6. The importance of medieval Russian medicine for the further development of domestic medicine.

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Test tasks to test knowledge

Test 1

Specify the chronological framework of the Old Russian state:

- A. IX-XIV centuries.
- B. XI-XV centuries.
- C. X-XV centuries.
- D. IX-XIII centuries.
- E. X-XVI centuries.

Test 2

Until the middle of the 17th century in medieval Russia, folk medicine held a leading position, medical assistance was provided by doctors of various specializations.

What were they called?

- A. "Long-haired", "short-haired", hairdressers, bathers
- B. Bone cutters, cutters, greengrocers, tooth pullers
- C. Wizards, wizards, witches
- D. Ophthalmologists, traumatologists, obstetricians
- E. Enchantresses, magicians

Test 3

In the Old Russian state, folk medicine was the main form of medicine, and monastic medicine developed alongside it.

What other type of medicine existed in Kyivan Rus?

- A. State
- B. Secular
- C. Khramova
- D. Priestess
- E. Traditional

Test 4

In the oldest collection of Russian laws that has come down to us, there is information on the regulation of the activities of doctors, in particular, the payment of their work.

Which historical monument of writing contains the specified information?

- A. "Kyiv-Pechersk paterik"
- B. "Elector of Svyatoslav"
- C. "Vertograd"
- D. "The Tale of Peter and Fevronia of Murom"
- E. "Russian Truth"

Answers to tests: 1 - D; 2 - B; 3 - B; 4 - E.

Independent work of students

The students' independent work consists in identifying the first doctors of medicine and biographical information about them, characteristics of monuments of Russian writing containing medical information. The work is drawn up in the form of tables. When performing the work, it is recommended to use textbooks and lecture material.

The first doctors of medicine

Name	Years of life	Biographical information
Yuriy Drohobychskyi	1450-1494	
Francisk Skoryna	people. between 1485 and 1490	
Ivan Almazenov	no data available	
(John Elmston)	1676-1716	

Monuments of writing that contain medical information

Historical period of medieval Russia	Written source	Author and (or) translator	Basic content
Period of Kyivan Rus	Herbalists, healers		
	"Russian Truth"		
	"Kyiv-Pechersk paterik"		
	"Vector of Svyatoslav"		
The period of the Tatar-Mongol yoke	"Halinovo on Hippocrates"		
The period of the Russian state	Doctor's tales		
	"Aristotle's Gate" ("Secret of Secrets")		
	"The Tale of Peter and Fevronia of Murom"		
	"Vertograd"		
	("Garden of Health")		

4.4. TOPIC 4: HEALTH CARE AND MODERN MEDICINE

Relevance of the topic

In modern historical science, New Time (or "New History") is identified with the period of establishment and development of capitalist relations and is limited to the conventional chronological framework of 1640-1918. The transition from feudalism to capitalism took a long time. Beginning with the bourgeois revolutions at the end of the XVIII century. in many countries of Western Europe, it continued in subsequent periods.

Scientific and technical progress led to the transition to the capitalist mode of production, and was the impetus for the rapid development of all spheres of scientific and economic activity, including medicine.

During this period, all scientific medical directions actively developed, new disciplines appeared. This period is full of important scientific discoveries in the field of medical science and technology. Therefore, it will be interesting for students to trace the development of medicine in the specified historical period.

Purpose: To be able to interpret the level of development of modern world medicine and show its influence on the next era.

Be able to:

1. Trace the periodization and chronology of New History and highlight the features of different periods.
2. To determine the influence of French materialism and natural and scientific discoveries of the beginning of the era of capitalism on the development of modern medicine.
3. To highlight the characteristic features of the development of medicine in different periods of New History.
4. To determine the contribution of outstanding medical scientists to the development of certain medical sciences.

Content of training

Theoretical questions:

1. Periodization and chronology of the New Age.
2. Characteristics of the periods of young and mature capitalism.
3. Characteristics of French materialism as a philosophical foundation for the development of medicine. French materialist doctors (Henri Leroy, Julien Lametre, Pierre Cabanis).
4. Great natural and scientific discoveries of the XVIII-XIX centuries. and their significance for the development of further views on nature.
5. Further differentiation of medical disciplines.
6. Medical scientists who contributed to the development of certain medical sciences.
7. Assessment of the level of development of medicine in the era of New History.

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Test tasks to test knowledge

Test 1

The historical period is characterized by: the rapid development of scientific and technical progress, the growth of the material and technical base of capitalism, the formation of monopoly capitalism, the exacerbation of social contradictions, the brewing crisis of capitalism as a colonial system.

What is the name of the specified period of development of capitalist society?

- A. Manufacturing stage
- B. Mature capitalism
- C. Young capitalism
- D. The stage of industrial capitalism
- E. Monopolistic capitalism

Test 2

In the modern era, three main natural and scientific discoveries of the XVIII-XIX centuries. were of decisive importance for the development of dialectical views and the development of medicine as a whole.

What other natural-scientific discovery, apart from the theory of the cellular structure of living organisms and the law of conservation and transformation of energy, belongs to their number?

- A. Periodic law of chemical elements
- B. Theory of galvanic "animal" electricity
- C. Evolutionary teaching
- D. Discovery of natural radioactivity of uranium salts
- E. Discovery of X-ray radiation

Test 3

For a qualitative leap in the development of surgery in the new era, it was necessary to solve the following most important problems: analgesia, improvement of the technique of surgical interventions, stopping bleeding.

Name another problem, the solution of which created the prerequisites for the development of surgery as a science.

- A. Prevention of wound infection and sepsis
- B. Absence of teaching surgery in universities
- C. Lack of textbooks on surgery in an accessible language
- D. Creation of domestic anatomical schools
- E. Differentiation of anatomy, physiology, pathology and surgery, which were united before the beginning of the 19th century.

Test 4

For the first time, the idea of a state organization of medical affairs was scientifically substantiated and developed by an Austrian doctor - a clinician and hygienist, the author of the 9-volume work "System of General Medical Police".

Name this doctor.

- A. Max Pettenkofer
- B. John Simon
- C. John Graunt
- D. Johann Peter Frank
- E. William Petty

Test 5

In the middle of the 19th century the principles of the morphological method in pathology were established and the theory of cellular (cellular) pathology was created.

Name the author of this theory.

- A. Giovanni Battista Morgani
- B. Marie Francois Xavier Bisha
- C. Karl Rokitansky
- D. Rudolf Virchow
- E. Louis Pasteur

Answers to tests: 1 - E; 2 - C; 3 - A; 4 - D; 5 - D.

Independent work of students

The students' independent work consists in determining the stages and features of the development of certain medical disciplines in the modern era, as well as scientists whose names are associated with the formation and development of specific medical sciences. The work is drawn up in the form of tables. When performing the work, it is recommended to use textbooks and lecture material.

1. DEVELOPMENT OF ANATOMY AND PATHOLOGICAL ANATOMY

	The name of the scientist	Years of life	Contribution
Anatomy	Nicholas Tulip	1593-1674	
	Frederick Ruesch	1638-1731	
Pathological anatomy	Macroscopic period		
	Giovanni Battista Morgani	1682-1771	
	Marie Francois Xavier Bisha	1771-1802	
	Microscopic period		
	Karl Rokitansky	1804-1878	
	Rudolf Virchow	1821-1902	

2. DEVELOPMENT OF PHYSIOLOGY AND EXPERIMENTAL MEDICINE

No	The name of the scientist	Years of life	Contribution
Experimental period			
1	René Descartes	1596-1650	
2	Albrecht Haller	1708-1777	
3	Luigi Galvani	1737-1798	
4	Francois Majandy	1783-1855	
5	Johannes Müller	1801-1858	
6	Carl Ludwig	1816-1895	
7	Emile Dubois-Raymond	1818-1896	
8	Hermann Helmholtz	1821-1894	
9	Claude Bernard	1813-1878	

3. DEVELOPMENT OF HISTOLOGY AND EMBRYOLOGY

No	The name of the scientist	Years of life	Contribution
Domiscopic period			
1	Robert Hooke	1635-1703	
2	Anthony Van Leeuwenhoek	1632-1723	
3	Marie Francois Xavier Bisha	1771-1801	
Microscopic period			
4	Mathias Schleiden	1804-1881	
5	Theodore Schwann	1810-1882	

6	John the Evangelist Purkinje	1787-1869	
7	Rainier de Graaf	1641-1673	
8	Caspar Friedrich Wolff	1733-1794	

4. DEVELOPMENT OF INTERNAL DISEASES

№	Features of development therapy	The name of the scientist	Years life	Contribution		
1	Emergence of objective research methods	percussion	Leopold Auenbrugger	1722-1809		
			Jean Nicolas Corvyzar de Marie	1755-1821		
			Joseph Škoda	1805-1881		
			Adolphe Pierri	1794-1879		
		auscultation	René Théophile Hyacinth Laennec	1782-1826		
			palpation	Vasyl Parmenovich Obraztsov	1851-1920	
		thermometry		Daniel Gabriel Fahrenheit	1686-1736	
				Rene Antoine Reaumur	1683-1757	
				Anders Celsius	1701-1744	
		2	Затвердження клінічного методу	Hermann Burhaave	1683-1757	
L. Traube	1701-1744					
3	Терапевтичний нігілізм	Joseph Škoda	1668-1738			
		I. Dietl	1805-1881			

5. DEVELOPMENT OF MICROBIOLOGY

№	The name of the scientist	Years of life	Contribution
Empirical period			
1	Edward Jenner	1749-1823	
2	Ignats Semmelweis	1818-1865	
3	Joseph Lister	1827-1912	
Experimental period			
4	Louis Pasteur	1822-1895	
5	Paul Ehrlich	1854-1915	
6	Robert Koch	1843-1910	

6. DEVELOPMENT OF SURGERY

№	Features of the development of surgery		The name of the scientist	Years life	Contribution
1	Decision basic problems	Combating wound infection and sepsis (antiseptics and aseptics)	Ignats Semmelweis	1818-1865	
			Joseph Lister	1827-1912	
			Ernest Bergman	1836-1907	
			Kurt Schimmelbusch	1860-1895	
		Fight against bleeding	F. Esmarch		
			T. Kocher		
			Y. Mykulich		
			J. Pean		
		Analgesia (anesthesia)	Horace Wells	1815-1848	
			William Morton	1819-1868	
			Charles Jackson	1805-1880	
			James Simpson	1811-1870	
		Improving the technique of operative interventions, cavity operations	Lavrenty Heister	1683-1758	
			John Gunter	1728-1793	
			Bernhard von Lagenbeck	1810-1887	
Theodore Billroth	1929-1894				
Theodore Kocher	1841-1917				
2	The emergence of military field surgery		Домінік Жан Ларрей	Dominique Jean Larray	
3	Development of transplantology				

7. DEVELOPMENT OF HYGIENE AND PUBLIC MEDICINE

№	The name of the scientist	Years of life	Contribution
1	John Graunt	1620-1674	
2	William Petty	1623-1687	
3	Bernardino Ramazzini	1633-1714	
4	John Simon	1816-1904	
5	Johann Peter Frank	1745-1821	
6	Max Pettenkofer	1818-1901	

NATIVE MEDICINE IN THE 18th - 19th CENTURIES

Relevance of the topic

Fundamental discoveries in the leading branches of natural science in the new era in the conditions of capitalist production were of decisive importance for the

development of science and technology. On their basis, the medical sciences of that time received an impetus for rapid development.

Domestic medical scientists made a huge contribution to the development of various areas of world medical science. Domestic medicine in the XVIII-XIX centuries. developed in close connection with the achievements of world science, supplementing and enriching it. The ability to interpret the development of domestic medicine during this period contributes to the formation of the scientific outlook and moral position of students - future teachers.

Purpose: To be able to interpret the level of development of domestic medicine in the XVIII-XIX centuries.

Be able to:

1. Give the socio-economic characteristics of this historical period.
2. To reveal the main features of the development of domestic medicine in the 18th century.
3. Describe the stages of development of medicine in the 19th century.
4. To determine the contribution of outstanding domestic scientists to the development of medicine.

Content of training

Theoretical questions:

1. Socio-economic characteristics of the 18th - 19th (first and second half) centuries.
2. The development of medical affairs in the Russian Empire in connection with the reforms of Peter I in the 18th century.
3. Development of medicine in the 18th century. in the Russian Empire:
 - 3.1. Reorganization of the civil service regarding the management of medical affairs.
 - 3.2. Formation of higher medical education.
 - 3.3. Development of medical science.
4. The development of medicine in the Russian Empire in the 19th century:
 - 4.1. Peculiarities of the development of medical science and practice in connection with the war of 1812.
 - 4.2. The emergence and development of zemstvo medicine in the second half of the 19th century.
 - 4.3. Development of medical education.
 - 4.4. Further differentiation of medical sciences.
5. Contribution of domestic scientists to the development of medicine.

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Test tasks to test knowledge

Test 1

What socio-economic features were characteristic of the Russian Empire in the second half of the 19th century?

- A. The opening of universities to meet the need for specialists with a liberal charter that provided for the autonomy of institutions
- B. The introduction of reforms by Peter I against the background of feudal relations in the country
- C. A long streak of reaction in the second half of the reign of Alexander I after the war.
- D. A significant turning point in social life – the transition from feudal-serfdom to bourgeois-capitalist relations
- E. Influence of ideas of revolutionary democrats.

Test 2

Which of the innovations listed below in the field of medicine are not among those made by Peter I?

- A. Issuance of the Decree on the opening of free pharmacies
- B. Formation of the Medical Office instead of the Pharmacy Order
- C. Issue of the Decree on the establishment of the Academy of Sciences in the Russian Empire
- D. Opening of military hospitals and hospital schools attached to them
- E. The emergence of zemstvo medicine after the introduction of zemstvo self-

government in the Russian Empire

Test 3

What features were characteristic exclusively for the medicine of the 18th century in the Russian Empire?

- A. Materialistic orientation
- B. Study of the essence of the disease, the unity and integrity of the organism
- C. The emergence of medical education in connection with the urgent need for personnel to provide medical assistance during military operations
- D. Approval of the clinical method
- E. Development of the experimental direction in medicine

Test 4

A 15-bed hospital with a maternity ward and an outpatient clinic was built in the central district of the county as part of the regional medicine. Every day, at a certain time, the doctor was seen in the zemstvo precinct, and he went out to see patients if necessary or on call.

What system of Zemstvo medical care is described in this case?

- A. Stationary
- B. Different
- C. Paramedics
- D. Private
- E. State

Test 5

An outstanding domestic biologist, pathologist, immunologist, bacteriologist, creator of the phagocytic theory of immunity, one of the founders of evolutionary embryology, creator of the largest school of microbiologists, immunologists, and pathologists in the Russian Empire.

To whom do the listed achievements belong?

- A. I.M. Sechenov
- B. I.I. Mechnikova
- C. I.P. Pavlov
- D. I.V. Buyalsky
- E. H.M. Gabrychevskyi

Answers to tests: 1 - D; 2 - E; 3 - C; 4 - A; 5 - V.

Independent work of students

Students' independent work consists in filling in the blanks in the table "Contribution of domestic scientists to the development of medicine and health care". When performing the work, it is recommended to use textbooks and lecture material.

CONTRIBUTION OF DOMESTIC SCIENTISTS TO THE DEVELOPMENT OF MEDICINE AND HEALTH CARE

Surname, first name, patronymic	Years of life	The most significant achievements in medicine
<i>Anatomy</i>		
Lyabl D.F.	1824-1939	The famous Czech scientist, who founded the first department of pathological anatomy in Kharkiv, discovered in 1859 the causative agents of a parasitic liver disease called Giardia. The disease caused by giardia entered world practice under the name giardiasis.
Shein M.I.	1712-1762	
Shchepin K.I.	1728-1770	
A.P. Protasov	1724-1796	
Zahorsky P.A.	1764-1846	
Zybelin S.H.	1735-1802	
Buyalskyi I.V.	1798-1866	
Lesgaft P.F.	1838-1909	
<i>Histology and embryology</i>		
Betz V.A.	1834-1894	Kyiv histologist, professor, who laid the foundations of the study of cytoarchitectonics of the brain.
K. Ber	1792-1876	
A.O. Kovalevskyi	1840-1901	
<i>General pathology</i>		
Polunin A.I.	1820-1888	
Pashutin V.V.	1845-1901	
<i>Microbiology</i>		
Mechnikov I.I.	1845-1916	
Ivanovsky D.I.	1864-1920	
<i>Epidemiology</i>		
Samoilovych D.S.	1744-1805	A graduate of the KMA, a member of 12 foreign academies, a participant in the fight against 9 plague epidemics in the Russian Empire, the developer of the first theoretical ideas about the spread and prevention of the plague, gave a detailed description of the clinical manifestations of the plague, put forward assumptions about the specificity and living nature of the causative agent of the plague.
<i>Physiology and experimental medicine</i>		
Borsuk-Moiseev F.I.	1768-1811	He began his medical education at the Kyiv-Mohyla Academy (KMA). He was the first in Moscow University to be recognized

		as worthy of the academic degree of Doctor of Medical Sciences. Since 1794, he was a professor at Moscow University, taught physiology, pathology, therapy, and dietetics. Studied the problem of breathing and the influence of the external environment on the human body.
Filomafitskyi A.M.	1807-1849	
I.M. Sechenov	1829-1905	
Pavlov I.P.	1849-1936	
<i>Internal medicine</i>		
Bidloo M.L.	1670-1735	
Kondoidi P.Z.	1710-1760	
Lomonosov M.V.	1711-1765	
Dyadkovskiy I.E.	1784-1841	
Mudrov M.Ya.	1776-1831	
Botkin S.P.	1832-1889	
Zakhar'in G.A.		
Obraztsov U.P	1821-1920	In 1886, he developed a method of deep methodical sliding palpation of abdominal organs. In 1909, together with his student N.D. Strazhesco gave a classic description of the clinical picture of thrombosis of coronary arteries, starting the prenatal diagnosis of myocardial infarction.
<i>Pediatrics</i>		
Khotovytskyi S.F.	1796-1885	The founder of pediatrics as an independent science. He was the first in the Russian Empire to give an independent full course of lectures on children's diseases, which served as the basis for the creation of his famous book "Pediatrics" (1847)
Filatov M.F.	1847-1902	
<i>Obstetrics and gynecology</i>		
Maksymovich-Ambodik M.M.	1744-1812	A native of Poltava region, a student of M.V. Lomonosov. The first professor of nursing art in the Russian Empire, one of the founders of scientific midwifery, pediatrics and pharmacognosy in the Russian Empire. The author of the work "The Art of Swaddling or the Science of Motherhood", which became the first original manual on obstetrics and pediatrics.
<i>Psychiatry</i>		

Korsakiv S.S.	1854-1900	
<i>Surgery</i>		
Pirogov M.I.	1810-1881	
Mukhin E.O.	1766-1859	
Sklifosofskyi M.V.	1836-1904	
Korovaev V.A.		Student M.I. Pirogov, general surgeon, famous ophthalmic surgeon, laryngologist. He had no equal in the speed and virtuosity of many operations. One of the first in the Russian Empire after Pirogov in Kyiv began to use ether anesthesia. For many years, twice a week, he received free of charge patients who came to him not only from Kyiv, but also from other provinces. He enjoyed enviable fame among the people, legends circulated about him.
S.P. Kolomnin	1842-1886	Representative of the Kyiv School of Surgeons. For the first time, he transfused blood to a wounded person in the theater of war during the Russo-Turkish war. A wonderful teacher, an innovative surgeon, a wonderful humanitarian doctor.
<i>Hygiene and public medicine</i>		
Dobroslavin A.P.	1842-1889	
Erisman F.F.	1842-1915	

4.5. TOPIC 5. LATEST MEDICINE AND HEALTH CARE

Relevance of the topic

The most recent period in history is the period covering the 20th century and the beginning of the 21st century. This is the shortest period in human history. Its duration is not much more than 100 years. However, achievements in all spheres of social activity (including in the field of medicine) are in many ways superior to those created by the human mind during many previous centuries.

In the class, students study not only the characteristic features of world medicine in the mentioned period of history, but also learn the main directions and trends of the development of domestic medicine and the medicine of the region in which they live and (or) study.

Purpose: To be able to interpret the achievements of medicine in the modern period of history.

Be able to:

1. To characterize the scientific and technical achievements of modern times and the achievements based on them in the field of biology and medicine.

2. To interpret the forms of international cooperation in the field of medicine and health care at the current stage.

3. To determine the contribution of Nobel laureates of the 20th century to the development of medical science.

4. To highlight the peculiarities of the development of medicine in Ukraine and Kirovohrad Oblast in different periods of modern history.

Content of training

Theoretical questions:

1. Characteristics of the era of Modern history:

1.1. Scientific and technical achievements.

1.2. Achievements in the field of biology and medicine.

1.3. International cooperation in the field of medicine and health care.

2. Nobel laureates of the 20th century in the field of medicine and physiology.

3. Peculiarities of the development of medicine in Ukraine and Kirovohrad Oblast in different periods of modern history:

3.1. During the period of formation of health care (1918-1940).

3.2. During the Second World War (1939-1945).

3.3. In the post-war period (1945-1965).

3.4. During the period of socialism (1966-1990).

3.5. During the period of Ukraine's independence (from 1991 to the present).

Sources of information

1. [Mark Jackson](#). The History of Medicine. 2014, 256 p.

2. Tim Hall. History of Medicine: All That Matters. [McGraw-Hill Education](#).

3. Steve Parker. A Short History of Medicine. Dorling Kindersley. 2019 год, 400 p.

4. Dr. Hero van Urk. A History Of Medicine. Global-HELP Organization, 2016, 258

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 12. Медицина в Україні, видатні лікарі: Бібліографічний словник. – Вип. 1. Кінець XVI - перша половина XIX століть / За ред. С. М. Старченка. – К.: Медицина України, 1997.
 13. Пиріг Л. Медицина і українське суспільство. Збірник медико-публіцистичних праць. – К.: Б., 1998.
 14. Посібник до вивчення курсу «Історія медицини» [Електроний текст] / П. М. Полушкін. – Д.: ДНУ, 2016. – 242 с
 15. Ступак Ф.Я. Нарис історії Національного медичного університету ім. О.О.Богомольця.– К.: НМУ, 2002.
 16. Шегедин М. Б. Історія медицини та медсестринства. – Т.: Укрмедкнига, 2003.

Test tasks to test knowledge

Test 1

The modern period of history is characterized by automation and robotics in various spheres of activity, exploration of space and ocean depths, electrification, development of nuclear energy, the appearance of television, radio, etc.

What other scientific and technical achievements are characteristic of this period?

- A. Development of machine production
- B. Emergence of portable media, artificial intelligence
- C. Creation of writing
- D. Creation of printing
- E. Creation of electricity

Test 2

This historical period is characterized by the following achievements in the field of medicine and biology: the discovery of DNA and the genetic code, genetic

engineering, the discovery of antibiotics, cloning, transplantation of organs and tissues, the creation of high-tech diagnostic equipment, etc.

Name this historical period.

- A. The original story
- B. Ancient World
- C. Middle Ages
- D. New time
- E. Modern times

Test 3

The main goal of the international federation is to inspire, support, and develop humanitarian activities of national Societies with the aim of preventing and alleviating human suffering.

Name the specified international organization.

- A. World Health Organization
- B. United Nations
- C. League of Red Cross and Red Crescent Societies
- D. World Trade Organization
- E. Movement "Doctors of the World for the Prevention of Nuclear War"

Test 4

The first domestic scientist was recognized as worthy of the Nobel Prize in 1904 in recognition of his works on the physiology of digestion.

Name this scientist.

- A. Ivan Mykhailovych Sechenov
- B. Mykola Ivanovich Pirogov
- C. Mykola Vasyliovych Sklifosofskyi
- D. Ivan Petrovich Pavlov
- E. Mykola Evgenovich Vvedenskyi

Test 5

During the period of development of health care in the Kirovohrad region (1918-1940), the tasks of reducing the morbidity of the population were solved through the introduction of dispensation, reconstruction of technological processes in production and improvement of working conditions, reduction of environmental pollution.

What other measures in Kirovohrad Oblast contributed to strengthening the health of the region's population during this period?

- A. Strengthening of preventive and current sanitary supervision at enterprises
- B. Organization of preferential medical care for workers at industrial enterprises
- C. Development of specialized medical care
- D. Development of the surgical service
- E. Improvement of industrial and domestic life of working people

Answers to tests: 1 - B; 2 - E; 3 - C; 4 - D; 5 - V.

5. LIST OF QUESTIONS FOR PREPARATION TO THE FINAL CONTROL

History of medicine as a science and subject of teaching

1. History of medicine as a science and subject of teaching. Its purpose, tasks, study methods.
2. Sources of studying the history of medicine at different stages of the development of human society, their characteristics and significance.
3. Periodization and chronology of world history.

Treatment in primitive society

4. Periodization and chronology of primitive history.
5. Historical sources used for the study and reconstruction of primitive society.
6. The main content of different periods of primitive history, their achievements.
7. Formation of primitive society and primitive treatment.
8. Diseases of the oldest people.
9. Treatment during the heyday of primitive society.
10. Religious beliefs of primitive people (fetishism, totemism, animism, magic).
11. Healing practices during the period of the disintegration of primitive society. Lifetime, postmortem and ritual trepanations.
12. The beginnings of hygienic skills.

Medicine of the Ancient World

13. General features of the development of treatment in the countries of the Ancient World.
14. Periodization and chronology of the history of slave-owning countries of the Ancient World.
15. Sources of information about the treatment of the era of slavery.
16. Medicine in the countries of Mesopotamia (Sumer, Babylonia, Assyria).
17. Characteristic features of ancient Egyptian culture and medicine.
18. Contents of the main medical papyri.
19. Development of theoretical medical knowledge in ancient India.
20. Successes of surgery in ancient India.
21. Medical ethics in ancient India.
22. Ancient China: a conceptual model of the World and medicine.
23. Traditional Zhen-Ju therapy.
24. Pulse diagnostics in ancient Chinese medicine.
25. Medicinal products of ancient Chinese medicine.
26. Temple medicine of ancient Greece.
27. Medical schools of ancient Greece.
28. Hippocrates, his life and activities.
29. "Hippocrates collection", its structure and content.
30. Medical ethics of ancient Greek doctors.
31. Medicine of the Hellenistic period. Herophilus and Erasistratus, their contribution to the development of anatomy and pharmacy.

32. Organization of medical affairs in ancient Rome. Formation of military medicine.
33. Asklepiades of Bethany and the foundations of "solidarity pathology".
34. Galen and Galenism in the history of medicine.
35. Sanitary and technical constructions of the Ancient World.

Medicine of the Middle Ages

36. Periodization and chronology of the history of states of the Middle Ages.
37. Peculiarities of Byzantine culture and medicine.
38. Monastic hospitals and the organization of medical affairs in the Byzantine Empire.
39. Peculiarities of the development of medicine in the Arabic-speaking Caliphates.
40. Ar-Razi and his works.
41. Abu-l-Qasim al-Zahrawi and his "Treatise on surgery and instruments".
42. Abu Ali Ibn Sina and his works.
43. Characteristics of the periods of the early, advanced and late (Renaissance) Middle Ages in Western Europe.
44. Epidemic situation in Western Europe. Its causes and consequences. The first quarantine measures.
45. The influence of the prevailing religious philosophy (scholasticism) on the development of medical science, practical medicine and medical education. Inquisition.
46. Universities in the Middle Ages.
47. Peculiarities of the development of surgery in the period of the early and advanced Middle Ages.
48. Medicine of the Renaissance. The birth of the humanistic direction. Differentiation of medicine (the establishment of anatomy and physiology as a science, the influence of iatrophysics and iatrochemistry on the development of medicine).
49. Anatomical studies of Leonardo da Vinci.
50. Andreas Vesalius and his works on anatomy.
51. Medical system of Paracelsus.
52. U. Harvey and his work "Anatomical studies on the movement of the heart and blood in animals."
53. Miguel Servetus and his research on the small circle of blood circulation.
54. J. Fracastoro and his doctrine of "contagion".
55. Development of surgery in the late Middle Ages. Ambroise Pare.
56. Medicine of the medieval states of Transcaucasia.
57. Formation of Tibetan medicine.
58. Medicine of the peoples of the American continent before and after the conquest.

Medicine of medieval Kyivan Rus

59. Periodization and chronology of the history of medieval Kievan Rus.
60. Characteristic features of the history of Kyivan Rus, the feudal principalities of the period of the Mongol-Tatar invasion.
61. Monuments of Russian written medical content.

62. Development of folk medicine in Kyivan Rus (specialization of doctors, wide use of herbal, animal, and mineral medicinals specific to Kyivan Rus).
63. Formation of monastic medicine. Famous monks-doctors. The birth of medical ethics.
64. Representatives of secular medicine of Kyivan Rus.
65. Peculiarities of medicine during the period of the Tatar-Mongol yoke.
66. The beginnings of state medicine - preventive state anti-epidemic measures.
67. Development of the pharmacy business (appearance of the first pharmacies, collection of medicinal raw materials).
68. Pharmacy order, its functions.
69. Training of national medical personnel. Medical School at the Pharmacy Order.
70. Creation of a medical service in the army.
71. The first civilian hospitals.
72. The first doctors of medicine.

Modern medicine

73. Periodization and chronology of the New Age.
74. Characteristics of the periods of young and mature capitalism.
75. Characteristics of French materialism as a philosophical foundation for the development of medicine. French materialist doctors (Henri Leroy, Julien Lametre, Pierre Cabanis).
76. Great natural and scientific discoveries of the end of the XVIII - the first half of the XIX centuries. and their significance for the development of further views on nature.
77. Further differentiation of medical disciplines.
78. Implementation of clinical teaching in advanced medical centers of Western Europe. Leiden University.
79. Emergence of objective research methods. Discovery of percussion and auscultation.
80. Therapeutic nihilism.
81. Development of normal anatomy in Western Europe.
82. Development of pathological anatomy. Macroscopic period (J. Morganhi, M.F. Bisha) and microscopic period in the development of pathological anatomy (K. Rokytanskyi, R. Virkhov).
83. Cellular theory of the structure of organisms. Development of histology as a separate science.
84. Development of physiology and experimental medicine (F. Mazhandi, G. Helmholtz, K. Ludwig, O.N. Filomafitskyi).
85. Development of microbiology (Louis Pasteur, Robert Koch).
86. Solutions to the main problems of surgery (combating wound infection and sepsis, combating bleeding, analgesia, improving the technique of surgical interventions). The beginning of cavity operations.
87. Development of hygiene and public medicine (Bernardino Ramazzini, John Simon, Max Pettenkofer).

Domestic medicine in the XVIII - XIX centuries

88. Socio-economic characteristics of the XVIII - XIX (I and II half) centuries.
89. The formation of medical affairs in the Russian Empire in connection with the reforms of Peter I in the 18th century.
90. Reorganization of the state service regarding the management of medical affairs.
91. Peculiarities of the development of medical science and practice in connection with the war of 1812.
92. The emergence and development of Zemstvo medicine in the second half of the XIX century.
93. Formation and development of higher medical education.
94. The contribution of Ukrainian doctors to the reform of higher medical education in the Russian Empire at the end of the 18th century. Yelysavetgrad medical and surgical school. Kyiv-Mohyla Academy. Medical faculties of universities of Ukraine.
95. Development of physiology. I.M. Sechenov and his work "Reflexes of the brain". I.P. Pavlov.
96. P.A. Zahorskyi is the founder of the first anatomical school.
97. Contribution of I.V. Buyalskyi and M.I. Pirogov in the development of normal anatomy.
98. D.S. Samoylovych is the founder of domestic epidemiology.
99. I.I. Mechnikov, his role in the development of microbiology, epidemiology.
100. M.I. Pirogov - the founder of military field surgery. His contribution to the development of topographical anatomy and surgery.
101. Development of domestic therapy (M. Ya. Mudrov, G. A. Zakhar'in, V. P. Obratsov, S. P. Botkin).
102. Development of hygiene and public medicine.

Medicine of the 20th century and the modern period in the world and Ukraine

103. Scientific and technical achievements of the 20th century. Achievements in the field of biology and medicine.
104. Discoveries in the field of medicine and physiology, awarded the Nobel Prize.
105. World Health Organization (WHO). History of creation.
106. The history of the formation of international organizations of the Red Cross and the Red Crescent.
107. Peculiarities of the development of medicine in Ukraine and Kirovohrad Oblast in different periods of modern history.

6. LIST OF TOPICS OF ABSTRACTS AND PRESENTATIONS

Topic 1. Health care and medicine of the Ancient World.

1. The origin of man in the light of the latest achievements of science.
2. Scythian medicine.
3. Concepts of health and diseases in the countries of the Ancient East.
4. Sanitary and technical constructions of the Ancient World.
5. The Chinese traditional system of Zhen-Ju. Her past and present.
6. Achievements of ancient Indian medicine in the field of surgery.
7. Medical ethics of ancient India.

Topic 2. Health care and medicine of the Antiquity era

8. Greek mythology about doctors and treatment.
9. Temple and folk medicine in ancient Greece.
10. Doctors of ancient Greece and ancient Rome.
11. Hippocrates is an outstanding doctor in ancient Greece.
12. Galen: his teaching and Galenism.

Topic 3. Health care and medicine of the Middle Ages and the Renaissance

13. Ali Ibn Sina is an outstanding physician-encyclopedist of the medieval East.
14. Ar-Razi is an encyclopedist of the medieval East.
15. Formation and development of Tibetan medicine.
16. Medicine of the medieval states of Transcaucasia.
17. Medicine of the peoples of the American continent before and after the conquest.
18. The epidemic situation in medieval Europe, its causes and consequences.
19. Medieval universities.
20. A. Vesalius is the founder of scientific anatomy.
21. N. Copernicus - doctor and astronomer.
22. D. Fracastoro and the development of the doctrine of infectious diseases.
23. A. Pare, his contribution to the development of obstetrics and surgery.
24. V. Harvey, his contribution to the development of physiology and embryology.
25. Miguel Servetus - Renaissance anatomist and physiologist.
26. Paracelsus, his role in medicine.
27. Medicine of Kyiv Rus.
28. Monastery medicine.
29. Medicine of the Scythians.
30. Eupraxia and her treatise "Ointments"

Topic 4. Health care and modern medicine

31. History of discovery and introduction of percussion and indirect auscultation methods.
32. The history of the discovery of antiseptics and aseptic methods.
33. History of anesthesiology.
34. L. Pasteur, his life and activity.
35. Edward Jenner. History of inoculation.

36. Zemsky medicine.
37. D.S. Samoilovych is an outstanding epidemiologist of the 18th century.
38. I.I. Mechnikov, his role in the development of microbiology, epidemiology.
39. I.M. Sechenov, his role in the development of physiology and advanced scientific thought.
40. I.P. Pavlov is an outstanding domestic physiologist.
41. Contribution of Ukrainian scientists to the development of medicine and health care.
42. Contribution of V.P. Obratsova in the development of the Ukrainian therapeutic school.
43. S.P. Botkin and his medical school.
44. P.A. Zahorsky and the first anatomical school.
45. M.I. Pirogov is the founder of military field surgery. His contribution to the development of topographical anatomy and surgery.
46. History of higher medical education and scientific medical schools of Ukraine.
47. Development of hygiene and public medicine in Ukraine.

Topic 5. Latest medicine and Health care

48. Military medicine and health care during World War II.
49. Achievements of surgery of the 20th century and scientific and technical progress.
50. Periods of development of emergency medical care in the country.
51. Nobel prizes in medicine and physiology.
52. From the history of the development of antibiotics.
53. History of the development of iridodiagnostics.
54. History of medical cosmetics.
55. From the history of the development of therapeutic massage.
56. V. Voyno-Yasenetskyi and his contribution to medicine.
57. Ophthalmology school V.P. Filatova.
58. Ethics and deontology in medicine.
59. Medical errors and the doctor's conscience.
60. Medical secret.
61. Symbols of medicine.

7. CRITERIA FOR EVALUATING INDEPENDENT WORK

Independent work of students is an integral part of the educational process in the training of qualified specialists who are able to solve tasks independently and creatively.

When monitoring the performance of tasks for independent study, the following is subject to assessment: independent study of topics as a whole or individual issues of individual works with elements of scientific research; preparation and defense of abstract works.

The grade for the independent work module is issued to the student after the course is completed.

The student completes the tasks of the independent module according to the given topics. The quality of independent work is assessed for the following types of work:

- review of questions by topic and presentation at a practical session;
- preparation of essays, presentations, reports and performance at a practical session.

The results of the independent module are entered in the logbook of students' success and are taken into account when issuing the final grade for mastering the discipline.

Distribution of points for the block of independent work (when distributing points, the quality of performance of the components of independent work is taken into account):

National system and ECTS system	National system and ECTS system	100-point system	A list of completed components of independent work
Excellent A	Perfectly A	100–90	A written review of all issues of independent work provided for by the program, presentations at practical classes with reports on issues of independent work, preparation of an abstract work and speech at a practical class, preparation of a presentation
Good B	Good B	89–82	Completion of the indicated tasks of independent work, however, not in full, but in such a way that it is 80-90% of the proposed tasks

Good C	Good C	81–74	Preparation of written works in full and preparation of an abstract work (without speaking at practical classes)
Satisfactorily D	Satisfactorily D	73–64	Preparation of written works and presentations at practical classes in the amount of 50% preparation of an abstract work (without a presentation at a practical class)
Satisfactorily E	Satisfactorily E	63–60	Preparation of written works in the amount of 50% and preparation of an abstract work (without speaking at a practical session)

Evaluation criteria of abstract work

The presented understanding of the essay as a complete author's text determines the criteria for its evaluation: novelty of the content; reasonableness of the choice of sources; degree of disclosure of the essence of the issue; compliance with registration requirements.

New content:

- a) substantiation of the relevance of the research topic;
- b) novelty and independence in problem formulation, formulating a new aspect of a known problem in establishing new connections (intersubject, intrasubject, integration);
- c) the ability to work with research related to the topic of the essay, analytical literature, the ability to systematize and structure the material;
- d) availability of the author's position, independence of assessments and judgments;
- e) stylistic unity of the text.

The degree of disclosure of the essence of the question:

- a) compliance of the plan with the topic of the essay;
- b) correspondence of the content and plan of the essay;
- c) completeness and depth of knowledge on the topic;
- d) reasonableness of methods and methods of working with the material;
- e) the ability to generalize, draw conclusions, compare different points of view on the issue.

Justification of the choice of sources:

- a) evaluation of the used literary sources: consideration of the most famous works on the research topic (including publications in periodicals, articles, dissertations and abstracts, etc.).

Compliance with registration requirements:

- a) correct design of references to the used literary sources;
- b) assessment of literacy and culture of presentation of the provided material (including spelling, punctuation, stylistic culture), mastery of terminology;
- c) compliance with the requirements for the scope of abstract work.

<p>Excellent(A) 100–90</p>	<p>All requirements for writing and defending an essay have been met: the problem has been identified and its relevance substantiated, an analysis of different points of view on the problem has been made and one's own position has been logically presented, conclusions have been formulated, the topic has been fully disclosed, the scope has been met, the requirements for external design have been met, the correct answers to additional questions have been given questions of the teacher and those present in the audience</p>
<p>Good (B) 89–82</p>	<p>All formal requirements for writing and defending an abstract have been met: the volume has been met, the requirements for external design have been met. The problem is marked, but its relevance is not sufficiently substantiated, a brief analysis of different points of view on the problem is made and one's own position is stated, conclusions are formulated, the topic is disclosed sufficiently fully, correct answers are given to additional questions of the teacher and those present in the audience</p>
<p>Good (C) 81–74</p>	<p>The main requirements for the essay and its defense have been met, but at the same time some shortcomings have been admitted. The urgency of the problem is not substantiated, the conclusions are not clear. There are certain inaccuracies in the presentation of the material. Registration requirements are met at the appropriate level</p>
<p>Satisfactorily (D) 73–64</p>	<p>The main requirements for the essay and its defense have been met, but at the same time, shortcomings have been admitted. In particular, there are inaccuracies in the presentation of the material; there is no logical sequence in judgments; the volume of the essay is not sufficient; there are flaws in the design; incomplete answers were given to additional questions of the teacher and those present in the audience during the defense</p>
<p>Satisfactorily (E) 63–60</p>	<p>There are significant shortcomings regarding the requirements for writing an essay. In particular: the</p>

	topic is only partially disclosed; made factual errors in the content of the essay or when answering additional questions of the teacher and those present in the audience; no conclusion during defense
Unsatisfactorily (FX) 59–35 (F) 34–1	The topic of the essay is not disclosed, there is a significant misunderstanding of the problem, the design does not meet the established requirements, there is no logic in the presentation of the presented material

Presentation evaluation criteria

During the evaluation of the presentation, the following components are taken into account:

content

- all aspects of the given topic of the presentation are revealed;
- the material is disposed of in an accessible form;
- slides are placed in a logical sequence;
- final slide with generalized conclusions;
- bibliography indicating all used resources;

design elements

- changing slides;
- design;
- animation: standard, or setting effects when changing slides;
- graphics, diagrams, drawings;
- elements of creativity
- originality and inventive examples.

Excellent (A) 100–90	The presentation reflects a deep understanding and awareness of the material, a creative approach to the tasks. During the analysis-interpretation, independent conclusions, arguments, and personal attitude to the problem were expressed. Pictures, sounds, photos, animations - in the amount justified by the content of the presentation. The work was done creatively and independently. The presentation is characterized by originality
Good (B) 89–82	The presentation must satisfy all of the lower-level criteria and one or two of the following: reflect deep inquiry in research and the application of higher-order thinking skills; shows a clear deepening and understanding of the topic; attracts the attention of the audience
Good (C) 81–74	The project has clear goals corresponding to the topic. The information included is obtained from a variety of sources. The project is useful not only for the students who created it
Satisfactorily (D)	The project presents information structured in the form of a

73–64	reference synopsis, understandable for the audience. Emphasis is placed on important issues
Satisfactorily (E) 63–60	The project is focused on the topic, but does not highlight it. There is a certain organizational structure, but it is not obvious from the display. There may be factual errors or inaccuracies, but they are not material
Unsatisfactorily (FX) 59–35 (F) 34–1	The project seems haphazard, rushed, or unfinished. There are significant factual errors, ambiguities and misunderstandings of the topic

Evaluation criteria for reports (reports) on topics of independent work

When evaluating the answer, attention is paid to the following components:

- the relevance of the described problem and the reality of the proposed mechanism for solving this problem;
- disclosure of the problem at the theoretical level (in comparison with the justifications);
- presentation of one's own point of view (position, attitude) when revealing the problem;
- logic in arguing one's point of view, taking into account the real circumstances of social life and one's own life experience, practical experience;
- originality of approach to solving problems;
- coherence in the text of key theses and arguments, terminological concepts.

Excellent (A) 100–90	The worldview position of the student is reflected, his view on the essence of the problem. The problem is revealed at the theoretical level, in connections and with justifications, with accurate and complete use of professional terms and concepts in the context of the answer. The work is logical, consistent, compositionally clear. Argumentation of one's opinion based on the facts of public life or personal experience, practical experience is given.
Good (B) 89–82	One's own point of view (position, attitude) when solving the problem is presented. The problem is revealed at the theoretical level, with justifications, with sufficient use of professional terms and concepts in the context of the answer. Own opinion is substantiated by facts of public life or personal experience, practical experience
Good (C) 81–74	Presented own point of view when revealing the problem. The problem is explained using the main terms and concepts in the context of the answer (theoretical connections and justifications are not present or clearly not traceable). Argumentation of one's opinion based on facts is given
Satisfactorily (D)	The problem is revealed in the formal use of professional

73–64	terms. One's own opinion is not sufficiently substantiated by the facts of public life or one's own experience, practical experience
Satisfactorily (E) 63–60	Presented own position on this issue at the household level without argumentation.
Unsatisfactorily (FX) 59–35 (F) 34–1	The problem is not revealed or the given information (facts of public life or personal experience, practical experience) is not in the context of the task.

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