

**MINISTRY OF HEALTH CARE OF UKRAINE
ZAPOROZHE STATE MEDICAL UNIVERSITY
DEPARTMENT OF HEALTHCARE, SOCIAL MEDICINE AND
MEDICAL LABOR EXPERTISE**

History of Medicine

**Methodical recommendations for the 1st-year English-speaking students
of the international faculty**

2016

EXPLANATORY NOTE

The history of medicine studies the growing and development of medical activity and medical knowledge in human society, helps to understand correctly the modern condition of medicine and to provide the perspectives of its development.

Studying of medicine, as any other branch of human activity and knowledge, certainly needs well-grounded acquaintance with its history. It is impossible to master a science perfectly without the knowledge of its history. Methodologically correct historical estimation of a phenomenon, fact, theory is its real essence. That's why history of medicine is one of the theoretical disciplines of the sphere of medicine on the whole. It gives concept about the origin of all modern complex of knowledge in this field, about their essence during the development.

History of medicine divides into general one and special one.

General history of medicine studies the development of medical knowledge in the human society on the whole. General questions, basic regularity of the historical development of medicine make up the subject of the history of medicine as a separate science, independent discipline.

The development of separate branches of medicine is lighted in the special history of medicine. It is the component of all medical disciplines and its teaching is realized by the conforming profile departments.

General history of medicine and special historical medical information make up the system of historical medical education of a doctor.

The course of the history of medicine is the directive and binding link in studying of the development of all the branches of medicine. Historical development is given as an integrated system, but not as a mechanical sum of separate facts on the history of different disciplines.

Special attention in this course is focused on that, how those or diverse medical ideas arose, how scientific-medical problems were solved during this or that medical epoch. The expounding of questions of the history of medicine rests on the concrete scientific facts and generalizations, which are examined through the prism of modern scientific and philosophical ideas.

LESSON 1.

The Introduction into the history of medicine. Medicine of the primitive system. Medicine of the Ancient World

Topic 1. The history of medicine as a science and a subject of teaching. Medicine of the primitive society.

Concrete aims:

To know the definition of the history of medicine as a science and a subject of teaching; general periodization and chronology of development of medicine; periodization and chronology of the primitive era; basic characteristics and peculiarities of treatment in the primitive society.

To understand the aims and tasks of the history of medicine.

To analyze the sources of the history of primitive culture and medicine.

During the preparation for the lesson students are proposed to answer the following questions in written form:

1. The definition of the history of medicine, its aims and tasks.
2. Periodization of the general history and the history of medicine.
3. Periodization of the primitive system.
4. The sources of studying the history of medicine.
5. Germinating of medicine. The hypothesis of “The Golden Age”, who is the author, its essence.
6. Germinating of the religious cults and beliefs. Meaning of the terms: totemism, fetishism, animism, magic. Arising of medical magic.
7. Rational methods of treatment of the primitive-communal system.

Literature:

Literature:

1. Verkhatskiy S. A., Zabludovskiy P. Y. The History of Medicine. – K., 1991. – p. 430.
2. O. Holyachenko, G. Konopelko, O. Lytvynova. History of medicine (translation of the Mykhailishyn Z.) - Ternopil Ukrmedknyha, 2004. - 125 p.
3. Sorokina T. S. The History of Medicine. – M., 2005 – p. 559.
4. Lecture.

Look at the sample of the task execution, page 2.

The sample of the task execution № 1.
(semantic module 1)

“The first doctors were the coevals of the first man”
I. P. Pavlov

**Periodization and chronology of the world history (according to
Sorokina T. S., 2005)**

Period of history	Chronological frames	Duration of the period
The Primitive Society	About 2 million years ago – 4-th millenary B.C.	About two million years (20 000 centuries)
The Ancient World	5-th millenary B. C. – middle of the 1-st millenary A. D.	About 4 thousand years (40 centuries)
The Middle Ages	476 – middle of the XVII century	About 1200 years (12 centuries)
The New Time	Middle of the XVII century – beginning of the XX century	About 300 years (3 centuries)
The Newest History	1918 – beginning of the XXI century	About 100 years (less than a century)

**Classification of the sources of studying the
history of medicine
(according to M. N. Tikhomirov, A. P. Prishtein).**

1. Written (epigraphic etc.)
2. Material (archeological, paleoantropological etc.)
3. Ethnographic
4. Oral (folklore etc.)
5. Linguistic
6. Film-, photodocuments.
7. Phonodocument

Periodization and chronology of the primitive era

Stages of Primitive	Historical epochs (development of the	Archeological epochs	Conditional chronological frames	Stages of human
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History	human society)					evolution	
Growing of the primitive society	Epoch of the pre-community (primitive human flock)			The lower (early) palaeolith	More than 2 million years ago – about 40 thousand years ago	More than 2 million years ago – 200 thousand years ago	The most ancient man (archanthrope)
				Mean palaeolith		200-40 thousand years ago	Ancient man (paleoanthrope)
Maturity of the primitive society	Epoch of the primitive community (tribal community, matrilineal family)	Early primitive community (assigning economy)		The upper palaeolith	About 40 thousand years ago – 12-th millenary B.C.		Modern man (neanthrope – Homo sapiens)
		Late primitive community (transition to producing economy)		Mesaeolith	12-7-th millenary B.C.		
Decomposing of the primitive society	Epoch of class-formation (patriarchy, late matriarchy)			Neolith	7-5-th millenary B.C.		
				Eneolith (copper century)	5-3-th millenary B.C.		
				Bronze (bronze century)	End of the 3-rd – beginning of the 1-st millenary B.C.		
				Early Iron	From the 1-st millenary B.C.		

The idea, that primitive man was absolutely healthy, and diseases appeared later as a result of civilization, had been occurring until the XIX century. Jean-Jacques Rousseau (1712-1778), who believed sincerely in the existence of the “Golden Age” at the beginning of mankind, adhered to the similar point of view. Some of human diseases, such as silicosis or radial illness, are unconditionally the product of the noosphere and connected with the

activity of human's reason (occasionally unreasonable). Nevertheless, the data of paleontology promoted in the definite degree its disproof.

The first religious ideas.

Totemism (from Anglonkins. ot-otem – his family) – man's faith in the existence of a close family tie between his family and a definite species of animal or plant (for example, kangaroo or messmate). It was considered “the father”, “the elder brother”, the protector from troubles and illnesses. Totemism was the ideological reflection of connection of a family with the environment. Zoomorphous totemism, that is animal honoring, was appropriate to the early tribal community.

Fetishism (from Portuguese fetico – mascot) – faith in the supernatural properties of inanimate subjects. At first this faith spread onto the work instruments (for example, especially successful spear, fruiting trees or household utensils), that is it had quite a material basis. Subsequently fetishes began to be produced specially as cult subjects and received the idealistic explanation. So mascots appeared (from a wound in fight, from illnesses etc.).

Animism (from Latin anima, animus – air, spirit) – faith in spirits and over-all spirituality of the nature. It is supposed, that these ideas are connected with the early forms of dead men cult. Rituals, dedicated to dead men, are met today on islands of Oceania, in Australia, America and Africa.

Magic (Greek magia – wizardry) – faith in men's capacities to affect other people, subjects, events or natural phenomena in a supernatural mode. Primitive man tried to receive the desirable result – change of the nature, good luck during hunting, convalescence from illnesses – with the help of special methods (magic actions), not understanding yet the real connection between an event and a nature phenomenon, interpreting arbitrary random coincidences.

The main terminological concepts of the topic.

Naturalistic philosophy – philosophy of the nature, philosophical teaching about the development of nature (XVI-XIX centuries) during the period of formation of modern natural sciences, when the naturalistic philosophy had been being changed by the experimental research of real connections and regularities with guesses and arbitrary logical constructions. Naturalistic philosophy had two directions: materialistic (Jordano Bruno) and idealistic one (Shelling). The development of scientific natural sciences made naturalistic philosophy redundant. Naturalistic philosophy was kept as a component of reactionary idealistic systems.

Empiricism – teaching which admits the experience (sensual perceptions) and detracts the significance of logical analysis and theoretical generalizations. Studying of separate facts without dissecting their deeper connections and laws of development.

Scholastics – medieval religious-idealistic philosophy of feudal society. It was grounded on church dogmas and was “a servant of divinity”; it was remarkable for abstract, pointless reasoning and bodiless logical shifts (abortive reasoning; formal knowledge, torn off from life and practice).

**Medicine in the countries of the Ancient World.
(4-th millenary B. C. – middle of the 5-th century A. D.)**

Concrete aims:

To establish features of natural-scientific and medical knowledge, characteristics of development of practical medicine in the countries of the Ancient World.

To analyze the sources of the history of primary culture and medicine.

During the preparation for the lesson students are proposed to prepare abstracts on the offered subjects:

1. Medicine in the countries of Ancient Mesopotamia (Shumer, Babylon, Assyria).
2. Medicine in Ancient Egypt.
3. Medicine of Ancient India.
4. Medicine in Ancient China.
5. Medicine in Ancient Greece.
6. Medicine in Ancient Rome.
7. Life and activity of Hippocrates from the Cos island.
8. The first medical schools in Greece, their representatives.
9. Life and activity of Galen from Pergam.
10. History of creation of "The Hippocrates' Code".

Writing the abstracts, it is necessary to light the following questions:

1. Chronology and periodization.
2. Sources of studying medicine.
3. Peculiarities of the development of medicine.
4. Outstanding representatives of medicine.

Literature:

1. Verkhatskiy S. A., Zabudovskiy P. Y. The History of Medicine. – K., 1991. – p. 430.
2. O. Holyachenko, G. Konopelko, O. Lytvynova. History of medicine (translation of the Mykhailishyn Z.) - Ternopil Ukrmedknyha, 2004. - 125 p.
3. Sorokina T. S. The History of Medicine. – M., 2005 – p. 559.
4. Lecture.

Lesson 2.

Medicine of early Middle Ages.

Concrete aims:

To establish features of natural-scientific and medical knowledge, characteristics of development of practical medicine in the Middle Ages.

To analyze the sources of the history of Medieval culture and medicine.

Chronology, periodization and characteristic of the epoch:

Early (V-X centuries), Developed (XI-XV centuries), Late (XVI-XVII centuries).

During the preparation for the lesson students are proposed to answer the following questions in written form:

Medicine in the Byzantine empire (395-1453 years):

Byzantine science and religion_____

Organization of medical business_____

Types of ascetic self-abdicating_____

Asylums for cripples and ill persons (pre-images of conventual hospitals) – nosokomies.

Asylums for aged people – gerontokomies.

Medicine of the peoples of Medieval East.

Spiritual life in Arabian-language khalifats_____

Features of development of medicine_____

Representatives: Abu Bakr ar-Razi, Abu Ali ibn Sina (Avicenna): their transactions and contribution to development of medicine:_____

Phenomenon of “the Ukrainian Middle Ages”. Medicine of Kiev Rus’.

It's necessary to answer the questions:

1. When was the Christianity in Rus' admitted?
2. Who and when wrote the collection of statutes in Rus'?
3. Features of development of medicine?
4. Conventual medicine, activity of doctors-friars?
5. Who are St. Anthony, St. Agapit?
6. The folk healers?

Literature:

1. O. Holyachenko, G. Konopelko, O. Lytvynova. History of medicine (translation of the Mykhailishyn Z.) - Ternopil Ukrmedknyha, 2004. - 125 p.
2. Sorokina T. S. The History of Medicine. – M., 2005 – p. 559.
3. Lecture.

Medicine of the epoch of Revival.

Growing of anatomy as a science.

Fine arts and medicine, name their representatives.

Where were the progressive centers of scientific idea in the epoch of Revival?_____

MAIN REPRESENTATIVES OF THE EPOCH:

Andreas Vesaliy (1514-1564) Short biographic data_____

Contribution to development of medicine_____ Transactions_____

Miguel Servett (1509-1553) Short biographic data_____

Contribution to development of medicine_____ Transactions_____

William Garvey (1578-1657) Short biographic data_____

Contribution to development of medicine_____ Transactions_____

Paracels (1493-1541) Contribution to development of medicine_____

Iatrochemical direction in medicine (What is it?)_____

Girolamo Fracchastoro (1478-1553) Short biographic data_____

Contribution to development of medicine, transactions_____

Ambroise Pare (1510-1590) Contribution to development of
medicine_____

Ukraine and problems of Revival

Main representatives of the epoch in Ukraine:

Georgy (Yuriy) Drogobych (1450-1495)

Konstantin Ostroz'kiy, Herasim Smotrytskiy.

Epiphany Slavinetskiy (1609-1675)

It's necessary to answer the questions:

Craft (shop) medicine, what shops were there in Ukraine?_____

When was opened the first chemist's shop in L'vov?_____

Military medicine in Zaporozhye Sech (1552-1775)

Features of organization, the first hospitals at monasteries:_____

Lesson 3

Medicine of the New Time

1. Scientific revolution of the XVII century, influence of the development of science and method of knowledge.
2. Mechanics of Newton as a program of scientific researches. Quantitative explanation of the nature.
3. Educational movement and its influence on the development of medicine. The idea of “social medicine”.
4. Medicine and politics in the Age of Enlightenment.
5. The idea of state health protection: I.P.Frank, I.L.Danilevskiy.
6. “Ukrainian medical enlightenment”
7. Great natural scientific discoveries of the end of the XVIII century and the first half of the XIX century and their influence on the formation of medical theories.
8. The introducing of clinical teaching in the progressive medical centers of Western Europe. Leyden University.
9. The discovery of the percussion and auscultation.

Literature:

5. Verkhatskiy S. A., Zabludovskiy P. Y. The History of Medicine. – K., 1991. – p. 430.
6. O. Holyachenko, G. Konopelko, O. Lytvynova. History of medicine (translation of the Mykhailishyn Z.) - Ternopil Ukrmedknyha, 2004. - 125 p.
7. Sorokina T. S. The History of Medicine. – M., 2005 – p. 559.
8. Lecture.

Lesson 4

Medicine of the Newest Time

Goals of the lesson:

1. Establish features of medical knowledge in the Newest time,
2. Analyze the sources of the history of primary culture and medicine.
3. Discoveries in the area of medicine and physiology, marked by the Nobel Prize
4. The World Health Organization (the WHO). The history of creation
5. The history of growing of national societies and international organizations of the Geneva Cross and the Red Crescent
6. The international project “The Genome of a man”

Lesson 5.

History of Ukrainian medicine.

During the realization of the lesson the preview of the videofilm: “The Museum of the History of Medicine in Kiev” is proposed to the students.

After the preview of the film it is necessary for students to answer the following questions (in written form in the minutes):

1. Who and when founded the museum of the history of medicine on Kiev?_____
2. When was Kievo-Mogilanskaya academy created?(year)_____
3. What else higher medical establishments in Ukraine do you know?
4. Outstanding Ukrainian scientists (their contribution to development of national medicine):

D.K.Zabolotniy_____

V.A.Bets_____

N.I.Pirogov_____

V.O.Karavaev_____

F.F.Erisman_____

V.P.Obraztsov_____

S.P.Botkin_____

N.D.Strazhesko_____

O.M.Marzeev_____

N.M.Maximovich-Ambodic_____

THE SAMPLE OF EXECUTION OF THE COURSE WORK

MINISTRY OF HEALTH CARE OF UKRAINE
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THE COURSE WORK

On the topic:

Executed by the first-year student
Of the Medical Faculty
_____ group

Zaporozhye, 2016

Recommendations for the execution of the course work:

1. It is necessary to give the information about the geographical situation of a country, history, religion, population.
2. Main ancient sources of studying medical science.
3. Main representatives of medical science.
4. Features of ancient medicine and modern ways of development of medical science.
5. List of used literature.

QUESTIONS FOR THE TOTAL CONTROL

10. The history of medicine as a science and a subject of teaching.
11. Features of historical medical researches and their significance in the preparation of the future doctor.
12. The main branches of historical medical researches.
13. Periodization and chronology of primitive era and primitive treatment.
Absolute and relative dating.
14. Sources of history of the primitive society and primitive medicine.
15. Problems of bioarcheology.
16. Growing of the primitive society and primitive treatment.
17. Diseases of ancient people.
18. Treatment in the period of prosperity of the primitive society.
19. Rational ways of collective treatment.
20. Germinating of the religious cults and beliefs.
21. Totemism, fetishism, animism, magic.
22. Salutary practice in the period of downgrade of the primitive society.
Intravital, postmortem and symbolical trepanations.
23. Ukrainian folk medicine.
24. General features of development of treatment in the countries of the Ancient World.
25. Medicine in the countries of Ancient Mesopotamia (Shumer, Babylon, Assyria).
26. Characteristics of culture and medicine of Ancient Egypt.
27. Diseases of the ancient Egyptians.
28. Kahun medical papyrus: structure and contents.
29. Development of medical knowledge in Ancient India.
30. Medical ethics of Ancient Indian doctors.
31. Ancient China: conceptual model of the world and medicine.
32. Philosophical fundamentals of Ancient Chinese medicine.
33. Methodology of Ancient Chinese science.
34. Sphygmus diagnostic in Ancient Chinese medicine.
35. Organization of medical business in Ancient China.
36. Anatomical knowledge in Ancient China.
37. Pharmaceuticals of Ancient Chinese medicine.
38. Organization of medical business in Ancient Greece.
39. Hippocrates, his life and activity.
40. "Hippocrates' collection", its structure and significance.
41. Medical ethics of Ancient Greek doctors.
42. Anatomical reconstructions of Herophilus from Halkedon.
43. Erasistratus and his contribution to development of anatomy and pharmaceuticals.

44. Organization of medical business in Ancient Rome.
45. Methodical direction in medicine: Asklepiad from Vifinia and fundamentals of “the solidary pathology”.
46. Galen and galenism in the history of medicine.
47. Features of Byzantine culture and medicine.
48. Conventual hospitals and organization of medical business in the Byzantine Empire.
49. Features of development of medicine in Arabian-language khalifats.
50. Islam (622) and development of hygienic traditions.
51. Abu-Bakr ar-Razi and his transactions.
52. Abu al-Kasim al-Zahravi and his “Tract about surgery and instruments”.
53. Abu Ali ibn-Sina and his transactions “Poem about medicine”.
54. Medicine in the hierarchy of professions in medieval West.
55. Universities and state power in the Middle Ages.
56. Medical knowledge and salutary practice in the medieval culture.
57. Revival of the XII century.
58. Paris university and medicine of the XIII century.
59. Benedict of Nur and conventual medicine.
60. Religious brotherhoods and their care about ill people.
61. Medical ethics in the Middle Ages.
62. Epidemy of leprosy in Europe (1000-1400).
63. “Black Death”.
64. Preventive direction in medieval medicine.
65. Alchemistry and medicine.
66. Scholastics and medicine.
67. Medicine of Kiev Rus’.
68. Medical ethics of Ancient Russian doctors.
69. Medicine of medieval China.
70. Canon of Tibetan medicine “Chjud-Shi”.
71. Medicine of the epoch of Revival.
72. Studios of art and medicine.
73. Anatomical studios of Leonardo da Vinci.
74. Medicine of the future in the tract of Francis Backon “About the worth and multiplying of sciences”.
75. Padua university in the XVI century.
76. Andreas Vesaliy and his transactions.
77. Magic in the epoch of Renaissance.
78. Development of clinical medicine of the epoch of Revival.
79. Medical system of Paracels.
80. Growing of physiology as a science in the epoch of Revival. Iatrophysics, iatromathematics, iatrochemistry.
81. W. Garvey and his transactions “Anatomical researches about motion of animals’ heart and blood”.

82. R. Descartes's tract "Description du corps humain" ("Description of a human body").
83. Development of surgery in the period of Late Middle Ages. Ambroise Pare.
84. Features of development of epidemics in the period of Late Middle Ages.
85. Medical ethics in the epoch of Revival.
86. Distribution of renaissance and humanistic ideas in Ukraine, their influence on the development of medicine.
87. Georgy Drogobych.
88. Hospital schools and preparation of doctors.
89. Medicine of the peoples of the American continent before and after the conquista.
90. Scientific revolution of the XVII century, influence of the development of science and method of knowledge.
91. Mechanics of Newton as a program of scientific researches. Quantitative explanation of the nature.
92. Educational movement and its influence on the development of medicine. The idea of "social medicine".
93. Medicine and politics in the Age of Enlightenment.
94. The idea of state health protection: I.P. Frank, I.L. Danilevskiy.
95. "Ukrainian medical enlightenment"
96. Great natural scientific discoveries of the end of the XVIII century and the first half of the XIX century and their influence on the formation of medical theories.
97. The introducing of clinical teaching in the progressive medical centers of Western Europe. Leyden University.
98. The discovery of the percussion and auscultation.
99. Application of the methods of physical diagnostic by the Ukrainian doctors.
100. History of the discovery of narcosis and its application in the clinical practice.
101. Ethical standards of behavior of doctors in the transactions of outstanding Ukrainian doctors of XVIII-XIX centuries.
102. Growing of the medical business in Ukraine/Russia in the XVIII century.
103. Development of normal anatomy. Introduction of the anatomical dissections into the teaching of the anatomy in Western Europe.
104. Beginning of the anatomical dissections in Russia. Anatomy teaching in Russia (K.I. Shcepin, A.P. Protasov)
105. P.A. Zagorskiy – the founder of the first Ukrainian/Russian anatomical school.
106. Contribution of I.V. Buyalskiy and N.I. Pirogov to development of normal anatomy.

107. Development of the pathological anatomy. The macroscopic period (J.Moprgagni, M.O.Bisha)
108. The microscopic period in the development of pathological anatomy (K.Rokitanskiy, R.Virkhov).
109. The cell theory of construction of organisms. Development of cytology as a separate science.
110. The main principles of the morphological method of R.Virkhov.
111. Cellular pathology of R.Virkhov. the critics of the basic statements of cellular pathology.
112. Empirical methods of struggle against epidemics of plague, smallpox, cholera.
113. D.S.Samoylovitch – the founder of national epidemyology.
114. The discovery of method of vaccination.
115. Empirical methods of the prevention of purulent processes in wounds (I.Zemmelweis, I.B.Buyalskiy).
116. Development of physiology and experimental medicine (F.Majandi, G.Gelmgolts, K.Ludwig, O.M. Filomafitskiy).
117. I.M.Sechenov and his transactions “Reflexes of a brain”.
118. Contribution of Ukrainian doctors to the realization of a reform of the higher medical education in the Russian state of the end of the XVIII century.
119. The orders of public trusteeship. Growing of regional medicine.
120. The preparation of doctors. Elisavethgrad medico-surgical school. Kievo-Mogilyanskaya academy.
121. Medical faculties of the universities of Ukraine (Kharkov, Kiev, Odessa).
122. Contribution of the Ukrainian doctors to the development of national and global medicine.
123. Discoveries in the area of medicine and physiology, marked by the Nobel Prize.
124. Development of the Ukrainian theoretical scientific schools in the XX century.
125. The World Health Organization (the WHO). The history of creation.
126. The history of growing of national societies and international organizations of the Geneva Cross and the Red Crescent.
127. The museums of Kiev, reflecting the development of medicine and pharmaceutical business in Ukraine.
128. The international project “The Genome of a man”
129. The history of creation of Zaporozhye State Medical University.
130. The history of medicine of Zaporozhye region, the first medical establishments.
131. Military medicine in Zaporozhye Sech.