

MINISTRY OF HEALTHCARE OF THE RUSSIAN FEDERATION
Federal State Budgetary Educational Institution of Higher Education
"NORTHERN STATE MEDICAL UNIVERSITY"
of the Ministry of Healthcare of the Russian Federation

APPROVED

Dean of the International Faculty
of General Practitioner



A.K. Sherstennikova

June 16th 2021

SYLLABUS OF THE DISCIPLINE

Discipline **Public health and health care, health economics**

Field of training **31.05.01 General Medicine**

Year (s) of study / term (s) **4,5/8,9**

Form of the interim assessment **Exam**

Department **of public health, health care and social work**

Discipline workload **216** (academic hours) / **6** (credits)

Approved at the department meeting

Minutes No.

June 15th 2021

Head of the department:



E. A. Mordovsky

Author and compiler:
Associated Professor Postoev V.A.

Arkhangelsk, 2021

1. Position of the discipline (module) within the structure of the educational program

The discipline is developed following the requirements of Federal State Education Standard (FSES) for higher education in the field of 31.05.01 «General medicine».

The discipline is related to the mandatory part of the curriculum

The discipline is related to prior subjects of the curriculum: basics of research in medicine, project management in health care.

The discipline is related to subsequent subjects of the curriculum: health promotion

The discipline is realized in the structure of the following types of professional activity tasks defined by the curriculum: organizational.

2. Goal and tasks of the mastering of the discipline

The goal of the discipline: to prepare students for the implementation of professional activities in the field of health care organization.

Objectives of the course:

- Formation of knowledge in implementation of professional activities in the field of population health for the purpose of its maintenance, strengthening and recovery, health economy, marketing, planning, and financing of management, innovative processes in public health services, legal and ethical aspects of medical activity
- Formation of the skills in organization of medical prevention
- Formation of ability to perform analysis about the population health and activity treatment-and-prevention and sanitary-and-prevention institutions for the offer of actions for improvement of quality and efficiency of the medical and prevention aid

3. List of the planned learning outcomes of the discipline (module) in connection to the planned outcomes of the mastering of the educational program

| Codes of the formed competences | Indicator of the competence achievement |
|---|---|
| UC-10 Able to make informed economic decisions in various areas of life | ID-10.1. Uses basic economic knowledge to solve problems in all areas of life ID-10.2. Justifies the adoption of economic decisions using factors of economic planning and analysis to achieve the goals |
| GPC-2. Able to conduct and monitor the effectiveness of preventive measures, the formation of a healthy lifestyle and sanitary and hygienic education of the population | ID-2.1. Able to conduct and monitor the effectiveness of preventive measures, the compliance to a healthy lifestyle and sanitary and hygienic education of the population ID-2.2. Implements the methods of group and individual prevention, develops and implements programs for the a healthy lifestyle formation, including programs aimed to reduce alcohol and tobacco consumption, prevent and combat the non-medical consumption of narcotic drugs and psychotropic substances. ID-2.3. Organizes and conducts immunoprophylaxis of infectious diseases in the adult population in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care. ID-2.4. Has the skills to assess the effectiveness of preventive work with patients. |
| GPC-9. Able to implement the principles of quality management in professional activities | ID-9.1. Knows the basic concepts of the quality management system of a medical organization; requirements for ensuring internal quality control and safety of medical activities. ID-9.2. Able to analyze the quality of medical care; ensure internal quality control and safety of medical activities; organize the work and monitor the performance of official duties of the medical personnel at their disposal. ID-9.3. Analyzes and critically evaluates the quality of professional activity according to the given indicators. |
| GPC-11. Able to prepare and apply scientific, research and production, design, organizational, managerial and regulatory documentation in the healthcare system | ID-11.1. Able to search and select scientific, legal, organizational and managerial documentation in accordance with the specified conditions, their analysis and application to solve professional problems. ID-11.2. Uses the methods of evidence-based medicine in professional decision making. |

| | |
|--|--|
| | ID-11.3. Prepares information and analytical materials, including for public presentation of the results of scientific work (report, theses, articles). |
| PC-1. Ability and willingness to conduct public health and hygiene education, educate patients and medical workers in order to prevent the occurrence (or) spread of diseases, their early diagnosis, identification of the causes and conditions for their occurrence and development | ID-1.1. Able to conduct sanitary and hygienic education among children and adults (their legal representatives) and medical workers in order to form a healthy lifestyle and prevent the most common diseases; to form in children and adults (their legal representatives) behavior aimed at maintaining and improving the level of somatic health. ID-1.2. He owns the methods and forms of organizing communication, techniques and methods of attracting the population to training in hygiene measures of a health-improving nature. ID-1.3. Carries out an analysis of the measures taken for sanitary and hygienic education among the population. ID-1.4. Possesses the skills to carry out sanitary and anti-epidemic measures in the event of a focus of infection. ID-1.5. Able to determine medical indications for the introduction of restrictive measures (quarantine) and indications for referral to a specialist doctor. |
| PC-9. Ability and readiness to maintain medical records and organize the activities of nursing staff at the disposal | ID-1. Able to analyze data from official statistical reporting, including forms of federal and sectoral statistical observation, draw up a work plan and report on their work ID-2. Works with personal data of patients and information constituting a medical secret ID-3. Conducts analysis of medical and statistical indicators of morbidity, disability and mortality to assess the health of the population ID-4. Fills out medical documentation, including in electronic form, controls the quality of its maintenance ID-5. Supervises the performance of duties by the district nurse and other medical workers at the disposal ID-6. Uses in his work information systems in the field of healthcare and the information and telecommunication network "Internet" |
| PC-10. Ability and willingness to participate in assessing the quality of medical care using basic medical and statistical indicators | ID-1. Able to calculate and analyze indicators characterizing the activities of a medical organization, and indicators of public health ID-2. Develops and evaluates indicators of internal quality control and safety of medical activities |

*The list of professional competencies is based on the requirements of the professional standard "General medicine (district physician)", approved by the order of the Ministry of Labor and Social Protection of the Russian Federation of March 21, 2017 No. 293n

4. Volume of the course and types of academic work:

Total workload of the course is 6 credits.

| Type of the academic work | Total hours | Term | |
|--|--------------|------------|-------------|
| | | 8 | 9 |
| Students' contact work with the teacher (total) | 92,3 | 52 | 40,3 |
| Including: | | | |
| Lectures (L) | 30 | 16 | 14 |
| Seminars (Sem.) | | | |
| Practical classes (PC) | 60 | 36 | 24 |
| Clinical practicals (CP) | | | |
| Laboratory-based practicals (LBP) | | | |
| Simulation-based practicals (SBP) | | | |
| Preparation for the examination (PE) | 0,3 | | 0,3 |
| Preparation for the credit (PC) | | | |
| Exam consultations (EC) | 2 | | 2 |
| Coursework (CW) | | | |
| Unsupervised work (UW) (total) | 90 | 56 | 34 |
| Examination control (EC) | 33,7 | | 33,7 |
| Total discipline workload | 216/6 | 108 | 108 |

5. Course content:

5.1. Content of the course sections

| No | Name of the course section | Content of the section |
|----|---|---|
| 1 | 2 | 3 |
| 1. | Bases of medical statistics and epidemiology for public health practice. Statistical method in public health | Methods of statistical analysis of public health. Graphic presentation of statistical values. Measures of central tendency. Methods of standardization. Assessment of the reliability of the research results. Non-parametric methods Types of study. Observational and experimental studies. Validity. Potential errors in epidemiological studies. Causation in epidemiology. Introduction to Evidence-based medicine. |
| 2 | Public health and its factors. Health promotion. Modern problems of the prevention. | Concept of health and disease. Population health and its indicators. Communicable diseases as a public health problem. Non-communicable diseases as a public health problem. Medical and demographic aspects of population statics and dynamics. Methods of evaluation and analysis of demographic indicators. Medical and demographic aspects of population reproduction. Measuring health and disease. Morbidity. Disease analysis methodology. Prevention of disease. Levels of prevention. Health promotion |
| 3 | Organization of health care. National health systems. | Organization of outpatient care to the population. Performance indicator. Organization of hospital care. Performance indicator. The system of maternity and child care. Organization of pediatric polyclinic work. Organization of the children's hospital work. Performance indicator. National Health care systems. Organization of public health systems. Family health. Organization of medical care on the principle of a General practitioner. Medical and social examination. Disability. Rehabilitation |
| 4 | Marketing, healthcare management, health economics. | Health care management. Health care marketing. Medical services market. Demand and supply. Leadership Health policy. Categories, goals, types, health policy objects. Implementation and evaluation. Health policy. Monitoring and evaluation of human resources for health. The basics of planning. Economics and health care financing. Types of health care efficiency (medical, social, economic). Management and Marketing of Health Care. Types of management. |

5.2. Course sections and types of studies

| No | Name of the course section | L | S | P | CP | LBP | SBP | UW | Total hours |
|----|--|----|----|---|----|-----|-----|-----|-------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 1 | Bases of medical statistics and epidemiology for public health practice. Statistical method in public health | 2 | 12 | | | | | 20 | 34 |
| 2 | Public health and its factors. Health promotion. Modern problems of the prevention | 14 | 20 | | | | | 46 | 80 |
| 3 | Organization of health care. National health systems. | 8 | 16 | | | | | 34 | 58 |
| 4 | Marketing, healthcare management, health economics. | 6 | 12 | | | | | 24 | 44 |
| | Total | 32 | 60 | | | | | 124 | 216 |

6. List of teaching materials for the course unsupervised work of students (including the use of e - learning opportunities, distance learning technologies (Moodle))

| No | Name of the course section | Types of the unsupervised work | Forms of control |
|----|--|--|---|
| 1 | Bases of medical statistics and epidemiology for public health practice. Statistical method in public health | A presentation MCQs in Moodle system Review of published paper | review of presentation pass/failed test oral conversation |
| 2 | Public health and its factors. Health promotion. Modern problems of the prevention | A presentation MCQs in Moodle system | review of presentation pass/failed test |
| 3 | Organization of health care. National health systems. | A presentation MCQs in Moodle system | review of presentation pass/failed test |
| 4 | Marketing, healthcare management, health economics. | A presentation MCQs in Moodle system | review of presentation pass/failed test |

7. Forms of control

7.1. Current forms of control

- oral (an interview, a report)
- written (tests, term, oral presentations, written assignments).

A theme list of abstracts, reports, essays, review papers, test collections and situational problems are shown at the Appendix No 4 of the syllabus of the course (module) 'Evaluation tools'.

7.2. Form of interim assessment: exam

Stages of the interim assessment

1. Stage – multiple choice questions test
2. Stage – written assignment

Questions for the pass are listed at the Appendix No 4 of the syllabus of the course (module) 'Set of the evaluation tools for the current control and interim assessment of students'.

8. Library and information materials of the course

8.1. Compulsory literature

1. Reshetnikov, A. V. Sociology of Medicine : textbook / A. V. Reshetnikov - Москва : GEOTAR-Media, 2020. - 368 p. - 368 с. - ISBN 978-5-9704-5447-3. - Текст : электронный // ЭБС "Консультант студента" : [сайт]. - URL : <https://www.studentlibrary.ru/book/ISBN9785970454473.html>
2. Health Promotion. Disciplines, diversity, and developments/ ed. R. Bunton, G. Macdonald. -2th. ed. -London; New York: Routledge, 2004. -325 p.
3. Tulchinsky T. H. The New Public Health: An Introduction For The 21st Century/ T. H. Tulchinsky, E. A. Varavikova. -San Diego; New York; Boston: Academic Press, 2000. -882 p.
4. Krukemeyer M. Introductory Guide to Medical Training. From Basic Sciences to Medical Specialties [Электронный ресурс] / M. Krukemeyer. - 1st ed. - [Б. м.] : Thieme, 2015. - URL: https://medone-education.thieme.com/ebooks/2093828?fromSearch=true#/ebook_2093828_SL80527499
5. History of Medicine and Public Health : training manual / A. G. Kalinin, V. A. Postoev ; Ministry of Healthcare of the Russian Federation, Northern state medical university. - Arkhangelsk : NSMU Publishing, 2021. - 120 p. - References: p. 113-115.

8.2. Supplementary literature

1. A new public health in an old country : an EU-China conference in Wuhan, China, October 24-29, 1998/ Nordic School of Publ. Health, Univ. of Turin, Hubei Medical Univ.; ed.: F. Cavallo, L. Kohler, S. Su. -Goteborg, 2000. -242 p.
2. Berntsson L. Health and well-being of children in the five Nordic countries in 1984 and 1996 : diss. from the Nordic School of Public Health/ L. Berntsson. -Uddevalla: MediaPrint, 2000. -200 p.
3. Brimhealth. Baltic Rim Partnership for Public Health 1993-2003 : an unusual evaluation of an unusual project/ ed. S. Bihari-Axelson, I. Borup, E. Wimmerstedt. -Goteborg: Nordic School of Public Health, 2004. -88 p.
4. Cabrera C. Socio-economic Status and Health in Women : population-based studies with emphasis on lifestyle and cardiovascular disease/ C. Cabrera; Nordic School of Publ. Health, Sahlgrenska Acad. at Goteborg Univ.. - Goteborg: NHV, 2005. -148 с.
5. Nutbeam D. Theory in a Nutshell: a practical guide to health promotion theories/ D. Nutbeam, E. Harris. - 2th. ed.. -Sydney: The McGraw-Hill , 2007. -81 p.
6. Planning health promotion programmes : An intervention Mapping Approach/ L. K. Bartholomew [et al.]. -2th. ed.. -San Francisco: A Wiley Imprint, 2006. -767 p.
7. Rothman K.J. Epidemiology an introduction/ K. J. Rothman. -Oxford: Oxford University Press, 2002. -223 p.
8. Медик, В. А. Общественное здоровье и здравоохранение : учебник / В. А. Медик. - 4-е изд. , перераб. - Москва : ГЭОТАР-Медиа, 2020. - 672 с. - ISBN 978-5-9704-5737-5. - Текст : электронный // ЭБС "Консультант студента" : [сайт]. - URL : <https://www.studentlibrary.ru/book/ISBN9785970457375.html>

8.3. List of the information and telecommunications Internet resources required for mastering of the course (module)*

| Resource name | Url | Resource annotation |
|---|---|--|
| Electronic library systems (electronic libraries) | | |
| Electronic library of SSMU | http://lib.nsmu.ru/lib/ | educational, educational-methodical and scientific literature |
| EBS "Student's Consultant": Medicine. Healthcare. Humanities and social sciences. Natural Sciences | http://www.studentlibrary.ru/ http://www.studmedlib.ru/ http://www.medcollegelib.ru/ | sets of educational and scientific literature on medicine, health care, natural, humanitarian and social sciences |
| EMB "Doctor's Consultant" | http://www.rosmedlib.ru | practical guides, reference books, monographs, recommendations and other publications |
| MedOneEducation -Электронная библиотека медицинских учебниковиздательства «Thieme» | http://medone-education.thieme.com/ | online books in English |
| Professional databases | | |
| Database of scientific journals. Scientific electronic library Medline | https://pubmed.ncbi.nlm.nih.gov/ | PubMed comprises more than 33 million citations for biomedical literature from MEDLINE, life science journals, and online books. Citations may include links |

| | | |
|---|---|--|
| | | to full text content from PubMed Central and publisher web sites. |
| WHO publications. Database "GlobalIndexMedicus". World health organization | https://www.who.int/ru | information materials, reports from WHO, etc. |
| База данных «Web of Science» (WOS) | https://www.webofscience.com | biomedical literature, life science journals, and online books |
| База данных «Scopus» | https://www.scopus.com/ | biomedical literature, life science journals, and online books |
| Электронные ресурсы издательства Wiley | https://onlinelibrary.wiley.com/ | biomedical literature, life science journals, and online books |
| Information reference systems | | |
| reference system Federal Electronic Medical Library (FEMB) | http://femb.ru/ | State Pharmacopoeia of the Russian Federation, clinical guidelines (treatment protocols), scientific and educational literature, dissertations and abstracts |
| Other resources | | |
| Russian scientific fund | https://rnf.rf | The purpose of the RSF is to provide financial and organizational support for fundamental research and exploratory research, training of scientific personnel, and the development of research teams holding leading positions in a particular field of science. |

8.4. Implementation of e-learning (EL), the use of distance learning technologies (DLT)

| № | Platform of EL DLT | Name of the e-course, authors, URL address | E-course implementation model |
|---|--------------------|---|-------------------------------|
| 1 | Moodle | https://edu.nsmu.ru/course/view.php?id=269 | +EC |

8.5. The list of the software and information & reference systems

In the implementation of the educational process, students and faculty use the following software: **operating system** - MSWindowsVistaStarter, MSWindowsProf 7 Upgr; **office suite** - MSOffice 2007; other **software** - 7-zip, AdobeReader, KasperskyEndpointSecurity

9. Material and technical facilities necessary for the educational process*

| № | Name of the study room | Location of the study room | List of the main equipment of the study room |
|---|--|--|--|
| 1 | Aud. No. 2453 <i>Office of Public Health and Health Care, Organization of Professional Activities</i> | Auditorium of the Department of Public Health, Health Care and Social Work: 163000, Arkhangelsk, prosp. Troitsky, 51 4th floor of the administrative building | 30 seats Multimedia projector - 1, computer - 1 pc. |
| 2 | Aud. No. 2441 <i>Cabinet of Economics and Management in Health Care, Economics and Management of Laboratory Services</i> | Auditorium of the Department of Public Health, Health Care and Social Work: 163000, Arkhangelsk, prosp. Troitsky, 51 4th floor of the administrative building | 24 seats Multimedia projector - 1. |
| 3 | Aud. No. 2451 <i>Classroom for seminar-type classes, group and individual consultations, monitoring and intermediate certification</i> | Auditorium of the Department of Public Health, Health Care and Social Work: 163000, Arkhangelsk, prosp. Troitsky, 51 4th floor of the administrative building | 42 seats Multimedia projector - 1, computer - 1 pc. |

| | | | |
|---|---|--|--|
| 4 | Aud. No. 2442 <i>Classroom for seminar-type classes, group and individual consultations, monitoring and intermediate certification</i> | Auditorium of the Department of Public Health, Health Care and Social Work: 163000, Arkhangelsk, prosp. Troitsky, 51 4th floor of the administrative building | 30 seats Multimedia projector - 1. |
| 5 | Audit No. 2440 <i>Classroom for seminar-type classes, group and individual consultations, monitoring and intermediate certification</i> | Auditorium of the Department of Public Health, Health Care and Social Work: 163000, Arkhangelsk, prosp. Troitsky, 51 4th floor of the administrative building | 11 seats. computer - 11 pcs., connected to the Internet, multimedia projector - 1 |
| 6 | Aud. No. 2445 <i>Classroom for seminar-type classes, group and individual consultations, monitoring and intermediate certification</i> | Auditorium of the Department of Public Health, Health Care and Social Work: 163000, Arkhangelsk, prosp. Troitsky, 51 4th floor of the administrative building | 28 seats, TV - 1 |

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A.K. Sherstennikova

June 16th 2021

SYLLABUS OF THE DISCIPLINE

Course: **Otorhinolaringology**

Field of training **31.05.01 General Medicine**

Year of study / term **5 / 9**

Form of the interim assessment **Pass/fail test**

Department **of family medicine and internal diseases**

Course workload **108 (hours) / 3 (credits)**

Approved at the department meeting

Minutes No. 12

June 11th 2021

Head of the department



V.V. Popov

Author and compiler:

Kalinin M.A., MD, Professor of the Department of family medicine and internal diseases;
Moiseeva A.A., assistant of the Department of family medicine and internal diseases.

Arkhangelsk, 2021

1. Position of the discipline (module) within the structure of the educational program

The discipline is developed following the requirements of Federal State Education Standard (FSSES) for higher education in the field of 31.05.01 «General medicine».

The discipline is related to the disciplines of the Basic part of the curriculum (or to the disciplines of the curriculum part formed by the participants of educational relations, including elective subjects and optional subjects)

The discipline is related to prior subjects of the curriculum: a cycle of humanitarian and socio-economic disciplines, including: philosophy, bioethics; psychology, history of medicine; jurisprudence; pedagogics; latin language; mathematical, natural science, medical and biological disciplines, including: physics and mathematics; medical informatics; chemistry; biology; biochemistry; human anatomy, head and neck anatomy, topographic anatomy; histology, embryology, cytology, histology of the oral cavity; normal physiology; pathophysiology; microbiology, virology; pharmacology; pathological anatomy, pathological anatomy of the head and neck;

The discipline is related to subsequent subjects of the curriculum: medical and preventive disciplines: medical rehabilitation; hygiene; public health and health care, health economics; internal diseases, military field therapy, propaedeutics of internal diseases; general surgery, surgical diseases; radiation diagnostics; extreme medicine, life safety; infectious diseases, phthisiology; epidemiology; dermatovenereology; neurology, medical genetics; ophthalmology; psychiatry, medical psychology; forensic Medicine; obstetrics; pediatrics.

The discipline is realized in the structure of the following types of professional activity tasks defined by the curriculum: preventive, diagnostic

2. Goal and tasks of the mastering of the discipline

The goal of the discipline is to prepare students to perform diagnostic, therapeutic and preventive activities for the most common diseases and pathological conditions of ENT organs in the conditions of primary health care and emergency care.

Tasks of the discipline:

- to acquaint students with the role of clinical otorhinolaryngology in the medical specialties, procedure of provision of otorhinolaryngological aid to the population, epidemiological data on the prevalence of chronic pathology of ENT-organs, possible complications and consequences, etiopathogenetic connection with diseases of other organs and systems;
- to provide students with the optimal amount of knowledge on etiology, pathogenesis, clinic, diagnostics, treatment strategy and prevention of the most common diseases and pathological conditions of the ear, nose and throat;
- to form professional competencies necessary for the implementation of medical and diagnostic process at the outpatient stage in the most common diseases of the ENT organs;
- to develop students' skills in emergency care at the pre-hospital stage in urgent pathology of the upper respiratory tract and ear (injuries, foreign bodies, bleeding).

3. List of the planned learning outcomes of the discipline (module) in connection to the planned outcomes of the mastering of the educational program

| Codes of the formed competences | Indicator of the competence achievement |
|--|--|
| Professional competencies *(PC)- № | |

| | |
|---|---|
| <p>PC -№ 5</p> <p>readiness to collect and analyze patient's complaints and medical history, examination results, laboratory, instrumental, forensic and other data to understand the patient's condition or recognize the presence or absence of disease</p> | <p>I-1 A student has knowledge about the clinical anatomy and physiology of ENT organs; the epidemiology, etiology, pathogenesis, clinical features, differential diagnosis of main diseases of the ear, nose and throat; the basics of prevention and treatment of ENT diseases; the medical tactics under exigent ENT conditions</p> <p>I-2 A student is able to collect anamnesis ENT patients to identify symptoms of ENT organs; to apply the methods of objective examination of ENT organs (external examination, palpation, rhinoscopy, pharyngoscopy, otoscopy); to establish the indications for paraclinical methods of investigation of ENT organs (laboratory, functional, radiation); to establish a preliminary clinical diagnosis of the most common diseases of ENT organs; to prescribe treatment for common diseases of ENT organ</p> <p>I-3 A student masters to carry out external and instrumental inspection of the nose, pharynx, larynx and ear; carry out washing the external auditory meatus at cerumen; carry out the capture of a smear from the nasal mucosa, oropharynx and skin of the external ear canal for research on flora and sensitivity to antibiotics; insufflations of drug into nose cavity and ear; placing turunda with drug into ear</p> |
| <p>PC-6:</p> <p>ability to recognize patient's major pathological conditions, symptoms, syndromes, nosological forms in accordance with the International Statistical Classification of Diseases and Related Health Problems, 10th revision</p> | <p>I-1 A student has knowledge about the major pathological conditions, symptoms, syndromes, nosological forms of main diseases of the ear, nose and throat; the International Statistical Classification of Diseases and Related Health Problems, 10th revision</p> <p>I-2 A student is able to prescribe and make use of medications of diseases of the ear, nose and throat</p> <p>I-3 A student masters to carry out external and instrumental inspection of the nose, pharynx, larynx and ear, to treat patients</p> |
| <p>PC-8:</p> <p>ability to decide on management of patients with various nosological forms</p> | <p>I-1 A student has knowledge about the various nosological forms of main diseases of the ear, nose and throat</p> <p>I-2 A student is able to establish a preliminary clinical diagnosis of the most common diseases of ENT organs; to prescribe treatment for common diseases of ENT organ</p> <p>I-3 A student masters to supervise patients with various nosological forms; to carry out a</p> |

| | |
|---|---|
| | differential diagnosis in the time/ |
| PC-9: readiness to manage and treat patients with various nosological forms in out-patient and day-care organizations | I-1 A student has knowledge about the main clinical symptoms of various nosological forms, methods of conservative treatment and indications for surgical treatment I-2 A student is able to establish a preliminary clinical diagnosis of the most common diseases of ENT organs; to prescribe treatment for common diseases of ENT organ I-3 A student masters to supervise patients with various nosological forms in out-patient and day-care organizations |
| PC-10: readiness to provide medical care for sudden acute diseases and conditions, exacerbation of chronic diseases that do not involve a threat to patient's life and do not require emergency medical care | I-1 A student has knowledge about the main clinical symptoms of acute diseases and conditions, exacerbation of chronic diseases of the ear, nose and throat I-2 A student is able to provide first medical aid in acute diseases of ENT organs I-3 A student masters to remove the foreign bodies from the oropharynx, nasal cavity, the external auditory canal; to make anterior tamponade of the nasal cavity with the nasal bleeding; to impose a sling bandage; to perform conicotomy, tracheostomy at fast and acute laryngeal stenosis |

*The list of professional competencies is based on the requirements of the professional standard "General medicine (district physician)", approved by the order of the Ministry of Labor and Social Protection of the Russian Federation of March 21, 2017 No. 293n

4. Volume of the discipline (module) and types of the academic classes:

Total workload of the course is 3 credits.

| Type of the academic work | Total hours | Term |
|---|-------------|-------------|
| Students'contact work with the teacher (total) | 54 | 7, 8 |
| Including: | | |
| Lectures (L) | 14 | 7, 8 |
| Seminars (Sem.) | | |
| Practical classes (PC) | | |

| | | |
|--------------------------------------|------------|-------------|
| Clinical practicals (CP) | 40 | 7, 8 |
| Laboratory-based practicals (LBP) | | |
| Simulation-based practicals (SBP) | | |
| Preparation for the examination (PE) | | |
| Preparation for the credit (PC) | | |
| Exam consultations (EC) | | |
| Coursework (CW) | | |
| Unsupervised work (UW) (total) | 54 | 7, 8 |
| Examination control (EC) | | |
| Total discipline workload | 108 | 7, 8 |

5. Course content:

5.1. Contents of the sections of the course

| No | Name of the course section | Content of the section |
|----|--|--|
| 1 | Introduction. Anatomy, physiology, methods of investigation of the nose. Diseases of the nose. | Introduction of Otorhinolaryngology. ENT aid organization. Clinical anatomy and physiology of the nose. Methods of examination of ENT organs. Etiology, pathogenesis, clinical manifestations, diagnosis and principles of treatment of diseases of the nose such as deviated septum, nasal furuncle, abscess and hematoma of the nasal septum, acute rhinitis, chronic rhinitis |
| 2 | Anatomy, physiology, methods of investigation of the paranasal sinuses. Diseases of the PNS. | Clinical anatomy and physiology of the nose. Etiology, pathogenesis, clinical manifestations, diagnosis and principles of treatment of diseases of the PNS such as acute and chronic sinusitis. Intraorbital and intracranial complications. |
| 3 | Anatomy, physiology, methods of investigation of the pharynx. Diseases of the pharynx | Clinical anatomy and physiology of the pharynx. Etiology, pathogenesis, clinical manifestations, diagnosis and principles of treatment of diseases of the pharynx: acute pharyngitis, hypertrophy of palatine and pharyngeal tonsils, retropharyngeal abscess, acute and chronic tonsillitis, paratonsillitis, peritonsillar abscess, parafaringit, parafaringial abscess |

| | | |
|---|---|--|
| 4 | Anatomy, physiology, methods of investigation of the larynx. Diseases of the larynx | Clinical anatomy and physiology of the larynx. Etiology, pathogenesis, clinical manifestations, diagnosis and principles of treatment of diseases of the larynx: acute laryngitis, chronic laryngitis. Conicotomy and a tracheotomy |
| 5 | Anatomy, physiology, methods of investigation of the external ear. Diseases of the external ear | Clinical anatomy and physiology of the external ear. Etiology, pathogenesis, clinical manifestations, diagnosis and principles of treatment of diseases of the external ear: sulfur plugs, acute local and diffuse external otitis, chronic external otitis, otomycosis of the external ear. |
| 6 | Anatomy, physiology, methods of investigation of the middle ear. Diseases of the middle ear | Clinical anatomy and physiology of the middle ear. Etiology, pathogenesis, clinical manifestations, diagnosis and principles of treatment of diseases of the middle ear: acute otitis media, chronic supportive otitis media, otitis media with effusion, acute mastoiditis. |
| 7 | Anatomy, physiology, methods of investigation of the internal ear. Hearing loss | Clinical anatomy and physiology of the internal ear. Etiology, pathogenesis, clinical manifestations, diagnosis and principles of treatment of the hearing loss |

5.2. Sections and types of studies

| No. | Name of the course section | L | S | P | CP | LBP | SB P | UW | Total hours |
|-----|---|---|---|---|----|-----|---------|----|----------------|
| 1 | Introduction. Anatomy and physiology of investigation of the nose, paranasal sinuses, pharynx, larynx | | | | 4 | | | 10 | 14 |
| 2 | Methods of examination of ENT organs | 4 | | | 4 | | | 9 | 17 |
| 3 | Diseases of the nose and paranasal sinuses | 2 | | | 4 | | | 5 | 11 |
| 4 | Diseases of the pharynx | 2 | | | 4 | | | 5 | 11 |
| 5 | Diseases of the larynx | | | | 4 | | | 10 | 14 |
| 6 | Anatomy, physiology, methods of investigation of the ear, auditory and vestibular analyzers | 2 | | | 4 | | | 5 | 11 |
| 7 | Diseases of the external ear | 2 | | | 4 | | | 5 | 11 |

| | | | | | | | | | |
|----|-------------------------------------|---|--|--|---|--|--|---|----|
| 8 | Diseases of the middle ear | 2 | | | 4 | | | 5 | 11 |
| 9 | Urgent ENT diseases. | | | | 4 | | | | 4 |
| 10 | Tumors of ENT organs. Final control | | | | 4 | | | | 4 |

6. List of teaching materials for the course unsupervised work of students (including the use of e - learning opportunities, distance learning technologies (Moodle))

| No. | Name of the course section | Types of the unsupervised work | Forms of control |
|-----|---|---------------------------------------|--------------------------------------|
| 1 | Introduction. Anatomy and physiology of investigation of the nose, paranasal sinuses, pharynx, larynx | Compiling summaries, tests, abstracts | Checking summaries, tests, abstracts |
| 2 | Methods of examination of ENT organs | Compiling summaries, tests, abstracts | Checking summaries, tests, abstracts |
| 3 | Diseases of the nose and paranasal sinuses | Compiling summaries, tests, abstracts | Checking summaries, tests, abstracts |
| 4 | Diseases of the pharynx | Compiling summaries, tests, abstracts | Checking summaries, tests, abstracts |
| 5 | Diseases of the larynx | Compiling summaries, tests, abstracts | Checking summaries, tests, abstracts |
| 6 | Anatomy, physiology, methods of investigation of the ear, auditory and vestibular analyzers | Compiling summaries, tests, abstracts | Checking summaries, tests, abstracts |
| 7 | Diseases of the external ear | Compiling summaries, tests, abstracts | Checking summaries, tests, abstracts |
| 8 | Diseases of the middle ear | Compiling summaries, tests, abstracts | Checking summaries, tests, abstracts |
| 9 | Urgent ENT diseases. | Compiling summaries, tests, abstracts | Checking summaries, tests, abstracts |
| 10 | Tumors of ENT organs. Final control | Compiling summaries, tests, abstracts | Checking summaries, tests, abstracts |

7. Forms of control

7.1. Current forms of control

- oral: an interview, colloquium
- written: checking of tests, solving of practical tasks

A theme list of reports, test collections and situational problems are shown at the Appendix No 4 of the syllabus of the course (module) 'Evaluation tools'.

7.2. Forms of the interim assessment (pass/fail test)

Stages of the interim assessment

1. Stage - Testing
2. Stage - The decision of situational problems (cases)
3. Stage- Colloquium

Questions for a pass/fail test and an examination, a theme list of test collections and situational problems are shown at the Appendix No 4 of the syllabus of the course (module) 'Set of the evaluation tools for the current control and interim assessment of students'.

8. Library and information materials of the course

8.1. Compulsory literature

1. Пальчун В.Т. Оториноларингология : учеб. для мед. вузов / В. Т. Пальчун, М. М. Магомедов, Л. А. Лучихин. - Москва : Медицина, 2007. - 571, [1] с.
2. Bhargava K.B. A Short Book of E.N.T. Diseases : for students and practitioners (Formerly A Short Textbook of E.N.T. Diseases)/ R. B. Bhargava, S. K. Bhargava, T. M. Shah. -8th. ed.: EIGHTH EDITION, 2009. -428 p.: il

8.2. Supplementary literature

1. Богомилский М. Р. Детская оториноларингология [Электронный ресурс]: учеб. для обучающихся мед. вузов/ М. Р. Богомилский, В. Р. Чистякова. -3-е изд., перераб. и доп.. - Москва: ГЭОТАР-Медиа, 2014. -624 с.: ил. Режим доступа: <http://www.studentlibrary.ru/book/ISBN9785970429648.htm>
1. Dhingra P.L. Diseases of Ear, Nose and Throat/ P. L. Dhingra, S. Dhingra. -5th. ed.: ELSEVIER, 2010. -486 p.: il.

8.3. List of the information and telecommunications Internet resources required for mastering of the course (module)*

| № | Наименование ресурса | URL адрес | Аннотация ресурса |
|---|---|--|--|
| | Банк документов. Министерство здравоохранения РФ | https://minzdrav.gov.ru/documents http://cr.rosminzdrav.ru/#/ | официальные документы, клинические рекомендации |
| | Рубрикатор клинических рекомендаций Федеральная электронная медицинская библиотека | https://cr.minzdrav.gov.ru/ http://femb.ru/?10819210 | клинические рекомендации (протоколы лечения) |
| | База данных научных журналов. Научная электронная библиотека eLIBRARY.RU | http://www.elibrary.ru | периодические издания |
| | PubMed Central (PMC) | https://www.ncbi.nlm.nih.gov/pmc/ | полнотекстовый архив биомедицинских журналов Национальной медицинской библиотеки США |
| | Публикации ВОЗ. База данных «Global Index Medicus». Всемирная организация здравоохранения | https://www.globalindexmedicus.net/ | информационные материалы, доклады ВОЗ и др. |

| | | | |
|--|--|--|---|
| | Государственный реестр лекарственных средств | https://grls.rosminzdrav.ru/default.aspx | справочник лекарственных средств |
| | Регистр лекарственных средств (РЛС) | https://www.rlsnet.ru/ | справочник лекарств и товаров аптечного ассортимента РЛС® |
| | VIDAL | https://www.vidal.ru/ | справочник лекарственных средств |
| | Открытый архив университета Тромсе (Норвегия) | http://munin.uit.no/ | коллекция научных и учебно-методических трудов университета Тромсе (Норвегия) |
| | Российский научно-клинический центр аудиологии и слухопротезирования | https://audiology.ru/ | Информация для специалистов |
| | Национальная медицинская ассоциация сурдологов | https://www.xn--80axcs.xn--plai/ | Русский речевой материал |
| | Российское общество ринологов | http://rhinology.ru/ | статьи, клинические рекомендации |
| | Профессиональные сайты по дисциплине «Оториноларингология» | http://www.audiology.ru http://www.lor.ru http://www.loronline.ru/library/3489 http://www.mediasphera.aha.ru/index.htm http://www.rhinology.ru http://www.vertigo.ru/ | статьи, клинические рекомендации, обзоры, рецензии, программы конференций, симпозиумов, общественных мероприятий по специальности |

8.4. Implementation of e-learning (EL), the use of distance learning technologies (DLT)

| № | Площадка ЭО и ДОТ | Наименование электронного курса, авторы, URL адрес | Модель реализации электронного курса |
|---|--|---|--------------------------------------|
| 1 | Информационно-правовой портал | http://www.garant.ru | официальные правовые акты |
| 2 | Справочная правовая система КонсультантПлюс | http://www.consultant.ru | официальные правовые акты |
| 3 | Федеральная государственная информационная система "Официальный интернет-портал правовой информации" | http://pravo.gov.ru/ | официальные правовые акты |

8.5. The list of the software and information & reference systems

При осуществлении образовательного процесса студентами и профессорско-преподавательским составом используются следующее программное обеспечение: **операционная система** - MS Windows Vista Starter, MS Windows Prof 7 Upgr; **офисный пакет** - MS Office 2007; **другое ПО** - 7-zip, AdobeReader, Kaspersky Endpoint Security. Номер лицензии 26FE-191125-134819-1-8403.

MS Office 2007. MS Win Starter 7. MS Windows Prof 7 Upgr. MS Windows Server CAL 2008 Device CAL. Номер лицензии 46850049, бессрочно
 Radmin Viewer 3. Radmin Server 3. Номер документа 11001793
 Traffic inspector. Лицензионное соглашение. №1051-08 от 10.04.2008. бессрочно

| Информационные справочные системы | |
|--|--|
| Справочная система Федеральная электронная медицинская библиотека (ФЭМБ) | http://femb.ru/ открытый ресурс |
| Федеральная государственная информационная система "Официальный интернет-портал правовой информации" | http://pravo.gov.ru/ открытый ресурс |
| Правовая система «КонсультантПлюс» | http://www.consultant.ru/ доступ предоставляется в зале электронной информации библиотеки (ауд. 2317) |

9. Material and technical facilities necessary for the educational process*

| No. | The name of the school's office | Location of the study room | List of the main equipment of the study room |
|-----|--|--|--|
| 1 | Statebudgetary institution of health care of Arkhangelsk region «Arkhangelskregional clinical hospital» | Classroom for group and individual consultations, monitoring and midterm certification. No. 79 | 1. Equeipped audiens (visual aid, 12 workplaces to work with the patient, blackboard) 2. Audiovisual, technical and computer-aid training tools (stationary PC, laptop, projector) |

MINISTRY OF HEALTHCARE OF THE RUSSIAN FEDERATION
Federal State Budgetary Educational Institution of Higher Education
"NORTHERN STATE MEDICAL UNIVERSITY"
of the Ministry of Healthcare of the Russian Federation

APPROVED

Dean of the International Faculty
of General Practitioner



A.K. Sherstennikova

June 16th 2021

SYLLABUS OF THE DISCIPLINE

Discipline **Ophthalmology**

Field of training **31.05.01 «General Medicine»**

Year (s) of study / term (s) **5 / A**

Form of the interim assessment **Pass/fail test**

Department **of family medicine and internal diseases**

Discipline workload **108** (academic hours) / **3** (credits)

Approved at the department meeting

Minutes No. 12

June 11th 2021

Head of the department



V.V. Popov

Author and compiler:

Zelentsov Roman Nikolaevich, MD

Arkhangelsk, 2021

1. Position of the discipline (module) within the structure of the educational program

The discipline is developed following the requirements of Federal State Education Standard (FSES) for higher education in the field of 31.05.01 «General medicine».

The discipline is related to the disciplines of the Basic part of the curriculum (or to the disciplines of the curriculum part formed by the participants of educational relations, including elective subjects and optional subjects)

The discipline is related to prior subjects of the curriculum: mathematics, physics, chemistry, biochemistry, biology, medical science, anatomy and topographic anatomy, microbiology, virusology, immunology, histology, cytology, normal physiology, pass pathological anatomy, pathophysiology, physiology, pharmacology, general hygiene, public health monitoring, clinical laboratory diagnostics, propaedeutics internal medicine, internal medicine, general physiotherapy, endocrinology, occupational diseases, general surgery, critical care medicine and anesthesiology, surgical diseases, urology, radiation diagnostic, disaster medicine, life safety, rehabilitation, medical genetics.

The discipline is related to subsequent subjects of the curriculum: infectious diseases, otorhinolaryngology, pediatrics, oncology, hospital therapy.

The discipline is realized in the structure of the following types of professional activity tasks defined by the curriculum: preventive, diagnostic, research

2. Goal and tasks of the mastering of the discipline

The purpose of discipline - formation of students' skills in the diagnosis, prevention and treatment of ophthalmic diseases, providing first medical aid in case of emergency pre-hospital level.

The objectives of the discipline are:

- Provide general professional training of a specialist, including basic on fundamental disciplines, etiology, pathogenesis, clinical manifestations, laboratory and functional investigations, diagnosis, identification of species and stages of treatment with the scientific modern advances in medicine and disease prevention

- To form professional knowledge, skills, possession, will present the doctor with the purpose of self-management of patients mainly in outpatient conditions.

Knowledge, skills, skills in clinical, laboratory and functional diagnostics, instrumentation and hardware research in order to create the ability to assess the results of studies in the diagnostics, differential diagnosis, prognosis, choice of appropriate treatment;

- Improve knowledge on pharmacotherapy, including pharmaco-dynamics, pharmacokinetics, indications, contraindications, warnings, and compatibility with the appointment of medical drugs;

3. List of the planned learning outcomes of the discipline (module) in connection to the planned outcomes of the mastering of the educational program

| Коды формируемых компетенций/формулировки компетенций | Индикатор достижения компетенции |
|--|---|
| ОПК-4. Способен применять медицинские изделия, предусмотренные порядком оказания медицинской помощи, а также проводить обследования пациента с целью установления диагноза | ИД-4.1. Владеет современными методами применения лекарственных препаратов, медицинских изделий и лечебного питания при заболеваниях и состояниях у пациента в соответствии с действующими порядками оказания медицинской помощи, клиническими рекомендациями (протоколами лечения) по |

| | |
|---|--|
| | <p>вопросам оказания медицинской помощи с учетом стандартов медицинской помощи.</p> <p>ИД-4.2. Умеет обосновать выбор лабораторных и инструментальных методов обследования пациента.</p> <p>ИД-4.3. Владеет навыками оценки результатов лабораторных и инструментальных методов обследования пациента с целью установления диагноза.</p> |
| ОПК-7. Способен назначать лечение и осуществлять контроль его эффективности и безопасности | <p>ИД-7.1. Умеет разрабатывать план лечения заболевания и состояния пациента в соответствии с порядками оказания медицинской помощи, клиническими рекомендациями, с учетом стандартов медицинской помощи.</p> <p>ИД-7.2. Умеет предотвращать или устранять осложнения, побочные действия, нежелательные реакции, в том числе непредвиденные, возникшие в результате диагностических или лечебных манипуляций, применения лекарственных препаратов и(или) медицинских изделий, немедикаментозного лечения.</p> <p>ИД-7.3. Владеет навыками по оценке эффективности и безопасности применения лекарственных препаратов, медицинских изделий и лечебного питания.</p> |
| ПК-2. Способность и готовность к проведению обследования пациента с целью установления диагноза | <p>ИД-2.1. Умеет осуществлять сбор жалоб, анамнеза жизни и заболевания пациента и анализировать полученную информацию, проводить полное физикальное обследование пациента (осмотр, пальпацию, перкуссию, аускультацию) и интерпретировать его результаты.</p> <p>ИД-2.2. Владеет навыками по определению у пациента основных патологических состояний, симптомов, синдромов заболеваний, нозологических форм в соответствии с действующей международной статистической классификацией болезней и проблем, связанных со здоровьем.</p> <p>ИД-2.3. Умеет обосновывать необходимость и объем лабораторного и инструментального обследования пациента в соответствии с действующими порядками оказания медицинской помощи, клиническими рекомендациями (протоколами лечения) по вопросам оказания медицинской помощи с учетом стандартов медицинской помощи и интерпретировать его результаты.</p> <p>ИД-2.4. Осуществляет раннюю диагностику заболеваний внутренних органов и проводит дифференциальную диагностику заболеваний внутренних органов от других заболеваний.</p> |

| | |
|--|---|
| <p>ПК-3. Способность и готовность к ведению и лечению пациентов с различными нозологическими формами</p> | <p>ИД-3.1. Умеет составлять план лечения заболевания и состояния пациента с учетом диагноза, возраста пациента, клинической картины заболевания в соответствии с действующими порядками оказания медицинской помощи, клиническими рекомендациями (протоколами лечения) по вопросам оказания медицинской помощи с учетом стандартов медицинской помощи.</p> <p>ИД-3.2. Назначает лекарственные препараты, медицинские изделия и лечебное питание с учетом диагноза, возраста и клинической картины болезни в соответствии с действующими порядками оказания медицинской помощи, клиническими рекомендациями (протоколами лечения) по вопросам оказания медицинской помощи с учетом стандартов медицинской помощи.</p> <p>ИД-3.3. Назначает немедикаментозное лечение с учетом диагноза, возраста и клинической картины болезни в соответствии с действующими порядками оказания медицинской помощи, клиническими рекомендациями (протоколами лечения) по вопросам оказания медицинской помощи с учетом стандартов медицинской помощи.</p> <p>ИД-3.4. Владеет алгоритмом оказания паллиативной медицинской помощи при взаимодействии с врачами-специалистами и иными медицинскими работниками.</p> <p>ИД-3.5. Умеет назначать персонализированное лечение пациента, в том числе беременных женщин, пациентов пожилого и старческого возраста; вести физиологическую беременность, принять роды.</p> <p>ИД-3.6. Применяет медицинские изделия в соответствии с действующими порядками оказания медицинской помощи, клиническими рекомендациями (протоколами лечения) по вопросам оказания медицинской помощи, помощи с учетом стандартов медицинской помощи.</p> |
|--|---|

| | |
|--|--|
| <p>ПК-5. Способность и готовность к оказанию медицинской помощи в неотложной и экстренной форме, констатации биологической смерти человека</p> | <p>ИД-5.1. Умеет выявлять клинические признаки состояний, требующих оказания медицинской помощи в неотложной форме.</p> <p>ИД-5.2. Выполняет мероприятия по оказанию медицинской помощи в неотложной форме в соответствии с порядками оказания медицинской помощи, клиническими рекомендациями, с учетом стандартов медицинской помощи.</p> <p>ИД-5.3. Выявляет состояния, требующие оказания медицинской помощи в экстренной форме, в том числе клинические признаки внезапного прекращения кровообращения и дыхания, требующие оказания медицинской помощи в экстренной форме</p> <p>ИД-5.4. Владеет алгоритмом оказания медицинской помощи в экстренной форме пациентам при состояниях, представляющих угрозу жизни пациентов, в том числе клинической смерти (остановка жизненно важных функций организма человека (кровообращения и (или) дыхания) в соответствии с порядками оказания медицинской помощи, клиническими рекомендациями, с учетом стандартов медицинской помощи.</p> <p>ИД-5.5. Выполняет мероприятия базовой сердечно-легочной реанимации в сочетании с электроимпульсной терапией (дефибрилляцией).</p> <p>ИД-5.6. Умеет проводить осмотр трупа на месте происшествия, выявлять признаки биологической смерти человека, оформлять протокол установления смерти человека и иной документации в связи со смертью человека.</p> |
|--|--|

*The list of professional competencies is based on the requirements of the professional standard "General medicine (district physician)", approved by the order of the Ministry of Labor and Social Protection of the Russian Federation of March 21, 2017 No. 293n

4. Volume of the discipline (module) and types of the academic classes:

Total workload of the course is 3 credits.

| Type of the academic work | Total hours | Term |
|--|-------------|-----------|
| | | A |
| Students' contact work with the teacher (total) | 54 | 54 |
| Including: | | |
| Lectures (L) | 14 | 14 |
| Seminars (Sem.) | | |
| Practical classes (PC) | | |
| Clinical practicals (CP) | 40 | 40 |
| Laboratory-based practicals (LBP) | | |
| Simulation-based practicals (SBP) | | |
| Preparation for the examination (PE) | | |
| Preparation for the credit (PC) | | |

| | | |
|----------------------------------|--------------|------------|
| Exam consultations (EC) | | |
| Coursework (CW) | | |
| Unsupervised work (UW) (total) | 54 | 54 |
| Examination control (EC) | | |
| Total discipline workload | 108/3 | 108 |

5. Course content:

5.1. Contents of the sections of the course

| No | Name of the course section | Content of the section |
|---------------|--|--|
| OD.I.01.01.1 | Anatomical and physiological age peculiarities of visual functions, methods of research and the body of the visual analyzer functions in people of different ages. | <p>The development of the visual organ</p> <p>Features postnatal different</p> <p>Development of the subsidiary bodies</p> <p>eye and orbit</p> <p>Normal anatomy and histology organ of vision</p> <p>Optical nerve</p> <p>The physiology of vision, visual functions and methods of their study</p> |
| OD.I.01.01.2. | Clinical refraction, accommodation, optic vision correction. Binocular vision, pathology of oculomotor apparatus. | <p>The optical system of the eye</p> <p>Astigmatism, companion emmetropia, hyperopia and myopia</p> <p>Methods for eliminating defects and treatment of refractive error</p> <p>Physiology and pathology of binocular polar view.</p> <p>General characteristics and clinical classification of the commonwealth strabismus</p> <p>Classification binocular functions fusional ability in the study on synoptophore</p> <p>The differential diagnosis of commonwealth strabismus</p> <p>Paralytic strabismus</p> <p>Optical correction ametropius commonwealth strabismus</p> <p>Modern methods and stages of treatment</p> <p>commonwealth strabismus and clinical assessment</p> <p>Prevention commonwealth strabismus</p> |
| OD.I.01.01.3. | Diseases of the protective apparatus of the eye (eyelids, conjunctiva, lacrimal | <p>Diseases of the eyelids</p> <p>Diseases of the conjunctiva</p> <p>Disorders of lacrimal organs</p> |

| | | |
|---------------|---|--|
| | organs, the orbit of the sclera) in individuals of different ages | Dacryocystitis of newborns Diseases of the orbit Secondary and metastatic tumor of the orbit ITU and rehabilitation in diseases of orbit and paranasal apparatus of the eye Diseases of the sclera |
| OD.I.01.01.4. | Diseases of the optical apparatus of the eye (cornea, lens, vitreous) in individuals of various ages | Inflammatory diseases of cornea - keratitis Classification keratitis Corneal Dystrophy Surgical treatment of cornea diseases ITU and rehabilitation in cornea diseases Malformations of the lens Cataracts Acquired cataracts Cataract Treatment ITU and rehabilitation in lens pathology The pathology of the vitreous Treatment of vitreous pathological changes ITU and rehabilitation in vitreous pathology |
| OD.I.01.01.5. | Diseases of the retina, optic nerve pathways, cortical areas of the visual analyzer in people of different ages | Vascular diseases of the retina Acute circulatory disorders of the retina Chronic disorders of blood Treatment of retinal ITU and rehabilitation in vascular retinal diseases Inflammatory retinal diseases Retinal disinsertion Toxic lesions of visual nerve Methil-alcoholic intoxication Tobacco-alcoholic intoxication Vascular lesions of optic nerve (ischemic optical neuropathy) Stagnant drive optic nerve Optic atrophy ITU and rehabilitation in pathology |
| OD.I.01.01.6. | Diseases of the vascular tract | Uveitis The general principles of therapy uveitis ITU and rehabilitation in uveitis Degeneration of the choroid |
| OD.I.01.01.7. | Neoplasm's organ of vision in children and adults | Tumors of the eyelid skin Tumors of the conjunctiva and cornea |

| | | |
|---------------|---|--|
| | | <p>Tumors of the lacrimal tract</p> <p>Tumors of the choroid</p> <p>Tumors of the iris and ciliary body</p> <p>The tumors of the retina</p> <p>Tumors of the orbit</p> <p>Principles tool research</p> <p>General principles of treatment in the ophthalmology</p> <p>The use of lasers in the treatment of neoplasms organ of vision</p> <p>ITU and rehabilitation in case of oncological ophthalmology</p> |
| OD.I.01.01.8. | Glaucoma | <p>The optic nerve in normal and in case of glaucoma</p> <p>Research methods of glaucoma</p> <p>The pathophysiological mechanisms of intraocular hypertension</p> <p>Congenital glaucoma and children</p> <p>Primary open-angle glaucoma (POAG)</p> <p>Primary closed-angle glaucoma (PCAG)</p> <p>Secondary glaucoma</p> <p>Early diagnosis of glaucoma.</p> <p>Clinical examination of patients glaucoma.</p> <p>Prophylactic examinations</p> <p>Glaucoma Treatment</p> <p>ITU and rehabilitation glaucoma</p> <p>Hypertension eyes</p> |
| OD.I.01.01.9. | Damage to the organ of vision, occupational injuries and diseases, ocular prosthetics | <p>Injuries of eye and orbit</p> <p>Contusion of the eyeball</p> <p>Burns eyes</p> <p>Medical tactic</p> <p>Other damage of the eyeball</p> <p>Clinical examination after damage organ of vision. Prevention production, domestic, children's and sports injuries of visual organ</p> <p>ITU and rehabilitation after injuries</p> <p>Suppress the organ of vision</p> <p>Ocular Prosthetics</p> <p>Indications for enucleation and approach</p> <p>Conjunctival cavity nutrition</p> <p>Prosthetics</p> <p>Reconstructive surgery in deformations conjunctiva, orbit and cavity</p> |

| | | |
|----------------|---|---|
| OD.I.01.01.10. | Ophthalmic symptoms of common diseases of the body's syndrome | Ophthalmic symptoms with overall organic diseases Malformations of the eyeball Changes in the visual organ: congenital and hereditary diseases General principles of the survey, medical examination and treatment |
|----------------|---|---|

5.2. Sections and types of studies

| No. | Name of the course section | L | S | P | CP | LBP | SBP | UW | Total hours |
|-----|--|---|---|---|----|-----|-----|----|-------------|
| 1. | Anatomical and physiological age peculiarities of visual functions, methods of research and the body of the visual analyzer functions in people of different ages. | 2 | | | 4 | | | 4 | 10 |
| 2. | Clinical refraction, accommodation, optic vision correction. Binocular vision, pathology of oculomotor apparatus | 2 | | | 4 | | | 4 | 10 |
| 3. | Diseases of the protective apparatus of the eye (eyelids, conjunctiva, lacrimal organs, the orbit of the sclera) in individuals of different ages | 2 | | | 4 | | | 4 | 10 |
| 4. | Diseases of the optical apparatus of the eye (cornea, lens, vitreous) in individuals of various ages. | 2 | | | 4 | | | 5 | 10 |
| 5. | Diseases of the retina, optic nerve pathways, cortical areas of the visual analyzer in people of different ages. | 2 | | | 4 | | | 5 | 11 |
| 6. | Diseases of the vascular tract. | | | | 4 | | | 7 | 11 |
| 7. | Neoplasm's organ of vision in children and adults. | | | | 4 | | | 7 | 11 |
| 8. | Glaucoma | 2 | | | 4 | | | 5 | 11 |
| 9. | Damage to the organ of vision, occupational | 2 | | | 4 | | | 5 | 11 |

| | | | | | | | | | |
|------------|--|----------|----------|----------|-----------|------------|------------|-----------|--------------------|
| | injuries and diseases, ocular prosthetics. | | | | | | | | |
| 10. | Ophthalmic symptoms of common diseases of the body's syndrome. | | | | 4 | | | 7 | 11 |
| No. | Name of the course section | L | S | P | CP | LBP | SBP | UW | Total hours |

6. List of teaching materials for the course unsupervised work of students (including the use of e - learning opportunities, distance learning technologies (Moodle))

| No | Name of the course section | Types of self-studies | Forms of control |
|-----------|--|------------------------------|-------------------------|
| 1 | Anatomical and physiological age peculiarities of visual functions, methods of research and the body of the visual analyzer functions in people of different ages. | Curation of the patient | Interview |
| 2 | Clinical refraction, accommodation, optic vision correction. Binocular vision, pathology of oculomotor apparatus | Curation of the patient | Interview |
| 3 | Diseases of the protective apparatus of the eye (eyelids, conjunctiva, lacrimal organs, the orbit of the sclera) in individuals of different ages | Curation of the patient | Interview |
| 4 | Diseases of the optical apparatus of the eye (cornea, lens, vitreous) in individuals of various ages. | Curation of the patient | Interview |
| 5 | Diseases of the retina, optic nerve pathways, cortical areas of the visual analyzer in people of different ages. | Curation of the patient | Interview |
| 6 | Diseases of the vascular tract. | Curation of the patient | Interview |
| 7 | Neoplasm's organ of vision in children and adults. | Curation of the patient | Interview |
| 8 | Glaucoma | Curation of the patient | Interview |
| 9 | Damage to the organ of vision, occupational injuries and diseases, ocular prosthetics. | Curation of the patient | Interview |
| 10 | Ophthalmic symptoms of common diseases of the body's syndrome. | Curation of the patient | Interview |

7. Forms of control

7.1. Current forms of control

- oral - an interview, a report
- written - Verification tests, essays, lecture notes, problem solving.

7.2. Forms of the interim assessment (pass/fail test)

Stages of the interim assessment

Stages of examination (pass/fail test)

Stages of pass/fail test

1. Stage - _____final testing_____
2. Stage - _____control of practical skills_____
3. Stage - _____interview_____

Questions for a pass/fail test are listed at the Appendix №4 to the syllabus «Assessment tools».

8. Library and information materials of the course

8.1. Compulsory literature

1. Comprehensive Ophthalmology [Text] / A. K. Khurana. - 4th. ed. - New Delhi : [s. n.], 2010. - 605 p. : il
2. Neuro-Ophthalmology Illustrated [Электронный ресурс] / V. Biousse, N. Newman. - [Б. м.] : Thieme, 2015. - Режим доступа: https://medone-education.thieme.com/ebooks/2135666?fromSearch=true#/ebook_2135666_SL8167445
3. Ophthalmology [Электронный ресурс] : a Pocket Textbook; Atlas / G. Lang. - 3rd ed. - [Б. м.] : Thieme, 2015. - Режим доступа: https://medone-education.thieme.com/ebooks/2093772?fromSearch=true#/ebook_2093772_SL80510111
4. Color Atlas of Ophthalmology. The Quick-Reference Manual for Diagnosis and Treatment [Электронный ресурс] / A. Agarwal, S. Jacob. - 2nd ed. - [Б. м.] : Thieme, 2009. - Режим доступа: https://medone-education.thieme.com/ebooks/2120125?fromSearch=true#/ebook_2120125_SL81122751

8.2. Supplementary literature

1. The Retina in Systemic Disease [Электронный ресурс] : a Color Manual of Ophthalmoscopy / H. Tabandeh, M. Goldberg. - [Б. м.] : Thieme, 2009. - Режим доступа: https://medone-education.thieme.com/ebooks/2147814?fromSearch=true#/ebook_2147814_SL81957290
2. Pocket Atlas of Ophthalmology [Электронный ресурс] / T. Schlote [и др.]. - [Б. м.] : Thieme, 2006. - Режим доступа: https://medone-education.thieme.com/ebooks/2152942?fromSearch=true#/ebook_2152942_SL82096122
3. Ophto Notes. The Essential Guide [Электронный ресурс] / R. Goodman. - [Б. м.] : Thieme, 2003. - Режим доступа: https://medone-education.thieme.com/ebooks/2151471?fromSearch=true#/ebook_2151471_SL82031706

8.3. List of the information and telecommunications Internet resources required for mastering of the course (module)*

| № | Resources | URL address | Resource Annotation |
|---|-----------|-------------|---------------------|
|---|-----------|-------------|---------------------|

| | | | |
|---|--|--|---|
| 1 | Электронная библиотека СГМУ | http://lib.nsmu.ru/lib/ доступ по паролю, предоставленному библиотекой | educational, methodical and scientific literature |
| 2 | ЭБС "Консультант студента" ВПО | http://www.studentlibrary.ru http://www.studmedlib.ru/ доступ активируется через личную регистрацию | sets of educational and scientific literature on medicine |
| 3 | База данных научных журналов. Научная электронная библиотека eLIBRARY.RU | http://www.elibrary.ru открытый ресурс и подписка университета | periodicals |
| 4 | Электронно-библиотечная система IPRbooks | http://www.iprbookshop.ru/ | educational, methodical and scientific literature |

8.4. Implementation of e-learning (EL), the use of distance learning technologies (DLT)

| № | Platform of EL DLT | Name of the e-course, authors, URL address | E-course implementation model |
|---|--------------------|---|-------------------------------|
| 1 | Moodle | 5 course general medicine ophtalmology, Zelentsov Roman Nikolaevich, MD https://edu.nsmu.ru/course/view.php?id=794 | Web-support |

8.5. The list of the software and information & reference systems

MS Windows Vista Starter, MS Windows Prof 7 Upgr; MS Office 2007; 7-zip, AdobeReader, Kaspersky Endpoint Security

9. Material and technical facilities necessary for the educational process*

| № | Name of the study room | Location of the study room | List of the main equipment of the study room |
|---|------------------------|--|---|
| 1 | Два учебных практикума | город Архангельск, пр. Обводный канал дом 9, 4 этаж, б/н | 1) осветители таблиц аппарат Рота -1 2) таблицы Головина - Сивцева -1 2) полихроматические таблицы Е.Б. Рабкина-1 3) настольные лампы-5 4) экзофтальмометр Гертеля-1 5) проекционный периметр-1 6) авторефкератометр-1 7) электроофтальмоскопы-1 |

| | | | |
|--|--|--|--|
| | | | 8) щелевая лампа-1 9) набор оптических стекол с универсальными оправками-1 10) ноутбук-1 11) проектор-1 |
|--|--|--|--|

MINISTRY OF HEALTHCARE OF THE RUSSIAN FEDERATION
Federal State Budgetary Educational Institution of Higher Education
"NORTHERN STATE MEDICAL UNIVERSITY"
of the Ministry of Healthcare of the Russian Federation

APPROVED

Dean of the International Faculty
of General Practitioner



A.K. Sherstennikova

June 16th 2021

SYLLABUS OF THE DISCIPLINE

Discipline **Infectious diseases**

Field of training **31.05.01 "General Medicine"**

Year of study / term(s) **4,5 / 8,9,A**

Form of the interim assessment **Exam**

Department **of infectious diseases**

Discipline workload: **324** (academic hours) / **9** (credits)

Approved at the department meeting

Minutes No. 1

June 15th 2021

Head of the department



O.V. Samodova

Author and compiler:

Krieger E.A., Cand. of Science., MPH

Associate Professor at the Department of infectious diseases

Arkhangelsk, 2021

1. Position of the discipline (module) within the structure of the educational program

The discipline is developed following the requirements of Federal State Education Standard (FSES) for higher education in the field of 31.05.01 «General medicine».

The discipline is related to the disciplines of the Basic part of the curriculum.

Disciplines of the curriculum based on the content of this: anatomy, physiology, biochemistry, microbiology, public health and health care, pharmacology, internal medicine.

The discipline is realized in the structure of the following types of professional activity tasks defined by the curriculum: diagnostic, management and prevention of infectious diseases.

2. Goal and tasks of the mastering of the discipline

Goal:

The goal of the discipline is to prepare students for the implementation of professional activities in the field of infectious diseases, which implies competencies in diagnostic, treatment and prevention of infectious diseases.

Objectives:

1. to develop the motivation and the skills of lifelong learning and the maintenance of competence in keeping with the needs of the healthcare system;
2. to obtain knowledge on diagnostic, treatment and prevention of infectious diseases;
3. to develop the clinical skills required to diagnose, treat and prevent infectious diseases;
4. to develop the ability to apply humanistic values in delivery of health care.

3. List of the planned learning outcomes of the discipline (module) in connection to the planned outcomes of the mastering of the educational program.

| Codes of the formed competences | Indicator of the competence achievement |
|--|--|
| GPC-5. Able to assess morphofunctional, physiological conditions and pathological processes in the human body to achieve professional goals | ID-2. Determines and evaluates morphofunctional, physiological conditions and pathological processes in the human body ID-3. Uses clinical, laboratory and functional diagnostic methods to achieve professional goals ID-4. Analyzes the results of clinical, laboratory and functional diagnostics to assess morphofunctional, physiological conditions and pathological processes in the human body |
| GPC-6. Able to organize care for patients, to provide primary health care, to organize work and professional decision making in critical conditions at the pre-hospital level, as well as emergency medical intervention during epidemics and in mass casualty situations | ID-3. Provides emergency medical care to patients in life-threatening conditions, including clinical death ID-4. Uses the algorithm of primary health care in case of emergency, epidemics and in mass casualty situations |
| GPC-7. Able to prescribe treatment and to monitor its effectiveness and safety | ID-1. Develops a management plan of a disease and a patient's condition in accordance with the rules of providing medical care, clinical recommendations, taking into account the standards of medical care ID-2. Prevents or eliminates complications, side effects, adverse reactions, including unforeseen ones, resulting from diagnostic or therapeutic interventions, use of medications and (or) medical devices, non-pharmaceutical treatment ID-3. Masters the skills of assessment of effectiveness and safety of medications, medical devices and therapeutic feeding |
| PC-1. Ability and willingness to implement awareness-raising activities, to educate patients and medical workers in order to prevent spread of diseases, to provide early diagnosis, identification of the causes and conditions led to its occurrence and development | ID-4. Masters the skills of implementation of anti-epidemic measures in infected areas ID-5. Identifies medical indications for the implementation of restrictive measures (quarantine) and indications for consulting with highly specialized doctors |

| | |
|--|---|
| PC-2. Ability and willingness to examine a patient to diagnose a disease | ID-1. Asks for patients' complaints, collects the details of anamnesis vitae, anamnesis morbi, analyzes the information received, performs physical examination of a patient (examination, palpation, percussion, auscultation) and interprets the results ID-2. Masters the skills of identification of the main pathological conditions, symptoms, syndromes of diseases, nosological forms in accordance with the current international statistical classification of diseases and health-related problems ID-3. Justifies the necessity and number of laboratory and instrumental tests in accordance with the current rules of providing medical care, clinical recommendations (treatment protocols), taking into account the standards of medical care and interprets the results |
| PC-3. Ability and willingness to manage and treat patients with various nosological forms of diseases | ID-1. Develops a treatment plan of a disease and a patient's condition, taking into account the diagnosis, the age of the patient, the clinical course of the disease in accordance with the rules of providing medical care, clinical recommendations (treatment protocols), taking into account the standards of medical care ID-2. Prescribes medications, medical devices and therapeutic feeding, taking into account the diagnosis, age and clinical course of the disease in accordance with the rules of providing medical care, clinical recommendations (treatment protocols), taking into account the standards of medical care ID-6. Uses medical devices in accordance with the rules of providing medical care, clinical recommendations (treatment protocols), taking into account the standards of medical care |

Professional competencies are established on the basis of the professional standard of a general practitioner (district therapist), approved by order of the Ministry of Labor and Social Protection of the Russian Federation of March 21, 2017 N 293n "On the approval of the professional standard" General practitioner (district therapist) ".

4. The scope of the discipline (module) and types of training:

The total workload of the course is 9.0 credit units.

| Type of the academic work | Total hours | Term | | |
|---|--------------|------------|-----------|-------------|
| | | 8 | 9 | A |
| Students'contact work with the teacher (total) | 146,3 | 44 | 44 | 58,3 |
| Including: | | | | |
| Lectures (L) | 48 | 16 | 16 | 16 |
| Seminars (Sem.) | | | | |
| Practical classes (PC) | | | | |
| Clinical practicals (CP) | 96 | 28 | 28 | 40 |
| Laboratory-based practicals (LBP) | | | | |
| Simulation-based practicals (SBP) | | | | |
| Preparation for the examination (PE) | 0,3 | | | 0,3 |
| Preparation for the credit (PC) | | | | |
| Exam consultations (EC) | 2 | | | 2 |
| Coursework (CW) | | | | |
| Unsupervised work (UW) (total) | 144 | 64 | 28 | 52 |
| Examination control (EC) | 33,7 | | | 33,7 |
| Total discipline workload | 324/9 | 108 | 72 | 144 |

5. Course content:

5.1. Contents of the sections of the course

| No. | The name of the course section | Content of the section |
|-----|--------------------------------|------------------------|
|-----|--------------------------------|------------------------|

| | | |
|---|------------------------------|---|
| 1 | Bacterial infections. | <p>Principles of diagnostic, treatment, prevention and control of bacterial infections.</p> <p>Diarrheal diseases. Typhoid fever. Salmonellosis. Shigellosis. E. coli infection. Food poisoning. Botulism. Cholera.</p> <p>Droplet infections. Meningococcal infections. Diphtheria. Scarlet fever. Pertussis.</p> <p>Zoonoses. Leptospirosis. Yersiniosis. Tetanus. Anthrax. Plague.</p> |
| 2 | Viral infections. | <p>Principles of diagnostic, treatment, prevention and control of viral infections.</p> <p>Acute viral diarrhea. Rotavirus infection. Viral hepatitis with fecal-oral transmission (hepatitis A and E).</p> <p>Enterovirus infection. Polyomyelitis.</p> <p>Parenteral and sexually transmitted diseases. Viral hepatitis B, C, D. HIV infection. AIDS-related diseases.</p> <p>Respiratory infections. Herpes infection (chicken pox, shingles, infectious mononucleosis). Influenza. Upper respiratory tract infections (parainfluenza, rhinovirus infection, RS-virus infection, adenovirus infection, coronavirus infection).</p> <p>Measles. Rubella. Mumps.</p> <p>Zoonoses. Rabies. Yellow Fever.</p> <p>Haemorrhagic fevers. Ebola hemorrhagic fever. Lassa hemorrhagic fever. Marburg hemorrhagic fever. Dengue fever.</p> |
| 3 | Parasitic infections. | <p>Principles of diagnostic, treatment, prevention and control of parasitic infections.</p> <p>Parasitic infections.</p> <p>Helminthosis. <i>Nematosis.</i> Ascariasis. Enterobiasis. Filariasis. <i>Cestodosis.</i> Diphyllbothriasis. Taeniasis. Echinococcosis. <i>Trematodoses.</i> Opisthorchiasis. Fascioliasis.</p> <p>Parasitosis. Malaria. Toxoplasmosis.</p> |

5.2. Sections and types of studies

| No. p / p | The name of the discipline section | L | S | P | CP | LBP | SBP | UW | Total hours |
|-----------|------------------------------------|----|---|---|----|-----|-----|----|-------------|
| 1 | Bacterial infections. | 21 | | | 42 | | | 40 | 103 |
| 2 | Viral infections. | 25 | | | 44 | | | 40 | 109 |
| 3 | Parasitic infections. | 2 | | | 10 | | | 64 | 76 |

5. List of teaching materials for the course unsupervised work of students (including the use of e - learning opportunities, distance learning technologies (Moodle))

| No | Name of the course section | Types of the unsupervised work | | Forms of control |
|----|----------------------------|--------------------------------|--|---|
| 1 | Bacterial infections | Cognitive level | <ul style="list-style-type: none"> ✓ mastering an online course on the COURSERA ✓ preparation of reports for presentation at CP(meetings in ZOOM, Teams, BigBlueButton) ✓ doing cases in Moodle | <p>Testing</p> <p>Presentation of the report and its assessment by the teacher</p> <p>Case assessment</p> |

| | | | | |
|---|----------------------|--------------------|--|--|
| | | | ✓ doing quizzes in Kahoot | Testing |
| | | Reproductive level | ✓ to develop a clinical case and present clinical issues in the context of a patient's situation for demonstrating clinical decision-making ✓ to develop a differential diagnosis (comparison) tables ✓ making an algorithm of a disease diagnostic & management | Presentation of the report and its assessment by a teacher Tables assessment by a teacher Presentation of an algorithm |
| | | Creative level | ✓ analysis of statistical and empirical data, drawing conclusions on the basis of the analysis | Presentation of the report at scientific meetings |
| 2 | Viral infections | Cognitive level | ✓ mastering an online course on the COURSERA ✓ preparation of reports for presentation at CP (meetings in ZOOM, Teams, BigBlueButton) ✓ doing cases in Moodle ✓ doing quizzes in Kahoot | Testing Presentation of the report and its assessment by the teacher Case assessment Testing |
| | | Reproductive level | ✓ to develop a clinical case and present clinical issues in the context of a patient's situation for demonstrating clinical decision-making ✓ to develop a differential diagnosis (comparison) tables ✓ making an algorithm of a disease diagnostic & management | Presentation of the report and its assessment by a teacher Tables assessment by a teacher Presentation of an algorithm |
| | | Creative level | ✓ analysis of statistical and empirical data, drawing conclusions on the basis of the analysis | Presentation of the report at scientific meetings |
| 3 | Parasitic infections | Cognitive level | ✓ mastering an online course on the COURSERA ✓ preparation of reports for presentation at CP(meetings in ZOOM, Teams, BigBlueButton) ✓ doing cases in Moodle ✓ doing quizzes in Kahoot | Testing Presentation of the report and its assessment by the teacher Case assessment Testing |
| | | Reproductive level | ✓ to develop a clinical case and present clinical issues in the context of a patient's situation for demonstrating clinical decision-making ✓ to develop a differential diagnosis (comparison) tables ✓ making an algorithm of a disease diagnostic & management | Presentation of the report and its assessment by a teacher Tables assessment by a teacher Presentation of an algorithm |
| | | Creative level | ✓ analysis of statistical and empirical data, drawing conclusions on the basis of the analysis | Presentation of the report at scientific meetings |

7. Forms of control

7.1. Current forms of control

- oral (an interview, a report, presentations of report)
- written (assignments, cases and testing in an electronic course in Moodle).

A theme list of abstracts, essays, projects, typical test tasks, typical situational tasks, etc. are given in Appendix No. 4 "Evaluation Tools" to the work program.

7.2. Forms of the interim assessment: examination

Stages of the interim assessment

1. Stage - multiple choice test (50 questions in accordance with MCI screening test)
2. Stage – discussion of theoretical questions
3. Stage – clinical cases in accordance with multidisciplinary approach

Questions for a pass/fail test, exam questions and topics of cases are shown at the Appendix No 4 "Evaluation Tools" to the work program.

The exam can be held with use of electronic cases in a face-to-face or remote format.

8. Library and information materials of the course

8.1. Compulsory literature

1. Ghai Essential Pediatrics / ed. V.K. Paul, A. Bagga. – 8d ed. - New Delhi: CBS Publishers and distributors, 2014. – 783 p.
2. Harrison's Principles of internal medicine. Vol. I: учебное пособие/ ed. D. L. Longo. -19th ed. -New York: Mc Graw Hill : Medical, 2015. - 1796 p.
3. Pediatric infectious diseases [Электронный ресурс] : учебное пособие / Е. А. Krieger, О. V. Samodova. - Архангельск : Изд-во Северного государственного медицинского университета, 2018. - 114 с.

8.2. Supplementary literature:

1. J. Crawley, C. Chu, G. Mtove, et al. Malaria in children. Lancet Infectious Diseases. 2010; 375: 1468–1481.
2. H. Feldmann, T.W. Geisbert. Ebola haemorrhagic fever. Lancet Infectious Diseases. 2011; 377: 849–862.
3. J.B. Harris, R.C. LaRocque, F. Qadri, et al. Cholera. Lancet Infectious Diseases. 2012; 379: 2466–2476.
4. S.A. Hughes, H. Wedemeyer, P.M. Harrison, et al. Hepatitis delta virus. Lancet Infectious Diseases. 2011; 378: 73-85.
5. N. Kamar, R. Bendall, F. Legrand-Abravanel, N. Xia, et al. Hepatitis E. Lancet Infectious Diseases. 2012; 379: 2477-2488.
6. W.J. Moss, D.E. Griffin. Measles. Lancet Infectious Diseases. 2012; 379: 153–164.
7. Netter's infectious diseases. / ed. E. C. Jong. - Philadelphia: Elsevier/Saunders, 2012. - 602 p.

8.3. List of the information and telecommunications Internet resources required for mastering of the course (module)*

| Resource name | Url | Resource annotation |
|---|---|---|
| Electronic library systems (electronic libraries) | | |
| Electronic library of NSMU | http://lib.nsmu.ru/lib/ | educational, educational-methodical and scientific literature |
| EBS "Student's Consultant": Medicine. Healthcare. Humanities and social sciences. Natural Sciences | http://www.studentlibrary.ru/ http://www.studmedlib.ru/ http://www.medcollegelib.ru/ | sets of educational and scientific literature on medicine, health care, natural, humanitarian and social sciences |
| EMB "Doctor's Consultant" | http://www.rosmedlib.ru | practical guides, reference books, monographs, recommendations and other publications |
| MedOneEducation -Электронная библиотека медицинских учебниковиздательства «Thieme» | http://medone- education.thieme.com/ | online books in English |
| Professional databases | | |
| Database of scientific journals. Scientific electronic library Medline | https://pubmed.ncbi.nlm.nih.gov/ | PubMed comprises more than 33 million citations for biomedical literature from MEDLINE, life science journals, and online books. Citations may include links to full text content from PubMed Central and publisher web sites. |
| WHO publications. Database "GlobalIndexMedicus". | https://www.who.int/ru | information materials, reports from WHO, etc. |

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| World health organization | | |
| Database «Web of Science» (WOS) | https://www.webofscience.com | biomedical literature, life science journals, and online books |
| Database «Scopus» | https://www.scopus.com/ | biomedical literature, life science journals, and online books |
| Wiley Online Library | https://onlinelibrary.wiley.com/ | biomedical literature, life science journals, and online books |
| Information reference systems | | |
| reference system Federal Electronic Medical Library (FEMB) | http://femb.ru/ | State Pharmacopoeia of the Russian Federation, clinical guidelines (treatment protocols), scientific and educational literature, dissertations and abstracts |
| Other resources | | |
| Rehydration project | http://rehydrate.org | Clear, practical advice on preventing and treating diarrhoeal diseases. Guidelines from medical authorities on diagnosis, treatment, symptoms, causes and risk factors, tests, training tips, feedback from the field, alternative medicine and much more for health professionals. |
| Medscape | http://www.medscape.org/ | Medscape is a web resource for physicians and health professionals. It features peer-reviewed original medical journal articles, CME (Continuing Medical Education), a customized version of the National Library of Medicine's MEDLINE database, daily medical news, major conference coverage, and drug information—including a drug database (Medscape Drug Reference, or MDR) and drug interaction checker. |
| UNICEF official website | http://www.unicef.org | UNICEF works with the United Nations and its agencies to make sure that children are on the global agenda. UNICEF strikes a balance between thorough research and practical solutions for children. |

8.4. Implementation of e-learning (EL), the use of distance learning technologies (DLT)

| No. | EO and bunker site | Name of the e-course, authors, URL address | E-course implementation model |
|-----|--------------------|---|-------------------------------|
| 1 | EOS MOODLE | https://edu.nsmu.ru/course/view.php?id=188 Krieger E.A. Samodova O.V. Agafonov V.M. Burmagina I.A. | + EC |

8.5. The list of the software and information & reference systems

In the implementation of the educational process, students and faculty use the following software: **operating system** – MS Windows Vista Starter, MS Windows Prof 7 Upgr; **office suite** - MSOffice 2007; other **software** - 7-zip, Adobe Reader, Kaspersky Endpoint Security.

9. Material and technical facilities necessary for the educational process

| № | Name of the study room | Location of the study room | List of the main equipment of the study room |
|----------|---|---|---|
| 1 | Aud. No. 111/112 <i>Classroom for seminar-type classes, group and individual consultations</i> | Auditorium of the Department of Infectious diseases, Center of infectious diseases: Arkhangelsk. Samoilo str. 17 | 12 seats Multimedia projector - 1, laptop - 1 pc. |
| 2 | Aud. No. 14 <i>Classroom for seminar-type classes, group and individual consultations</i> | Auditorium of the Department of Infectious diseases, Center of infectious diseases: Arkhangelsk. Samoilo str. 17 | 20 seats, TV - 1 |

MINISTRY OF HEALTHCARE OF THE RUSSIAN FEDERATION
Federal State Budgetary Educational Institution of Higher Education
‘NORTHERN STATE MEDICAL UNIVERSITY’
of the Ministry of Healthcare of the Russian Federation

APPROVED

Dean of the International Faculty
Of General Practitioner
A.K. Sherstennikova
June 16th 2021 year.

SYLLABUS OF THE DISCIPLINE

Discipline **Polyclinic therapy**

Field of training **31.05.01 General Medicine**

Year(s) of study / term(s) **5,6/ 9-12**

Form of the interim assessment - **Examination**

Department **Outpatient therapy**

Discipline workload **___432___** (academic hours) / **___12___** (credits)

Approved at the department meeting:

Minutes No 9

June 15th 2021

Head of the Outpatient therapy department

MD, Professor E.V.Serdechnaya

Author and compiler:

E.V. Serdechnaya, MD, Professor, head of the Department of polyclinic therapy and nursing; S.V.Yureva Ph. D., associate Professor of the Department of polyclinic therapy and nursing; N.V.Popova Ph. D., associate Professor of the Department of polyclinic therapy and nursing; I.N. Ryabaya assistant of the Department of polyclinic therapy and nursing; M.K.Kalayda assistant of the Department of polyclinic therapy and nursing; P.A.Tarasova assistant of the Department of polyclinic therapy and nursing;

Arkhangelsk, 2021

1. Position of the discipline (module) within the structure of the educational program

The discipline is developed following the requirements of Federal State Education Standard (FSSES) for higher education in the field of 31.05.01«General medicine».

The discipline is related to the disciplines of the Basic part of the curriculum
The discipline is related to prior subjects of the curriculum: medical ecology, normal physiology, hygiene; health economics; pharmacology; medical rehabilitation; neurology, medical genetics, psychiatry, medical psychology; basics of care for medical and surgical patients; PID, faculty therapy, occupational diseases; endocrinology; infectious diseases; intensive therapy; faculty surgery, urology.

The discipline is related to subsequent subjects of the curriculum:
Fundamentals of Gerontology

The discipline is realized in the structure of the following types of professional activity tasks defined by the curriculum: preventive, diagnostic, research

2. Goal and tasks of the mastering of the course

1. To teach the skills of organization and provision of skilled care at therapeutic outpatient setting, primary and secondary prevention, medical evaluation and sanatorium rehabilitation treatment.
2. Train the skills of medical care in emergency and life-threatening conditions at the prehospital stage.

Tasks of the discipline:

1. To master the basic principles of the organization of therapeutic and preventive care to the general population at the outpatient setting.
3. Train the organization and operating principles of the general practitioner`s work.
4. To familiarize with modern diagnostic facilities of the outpatient clinic and its rational use.
5. To develop the skills of clinical thinking in diagnostics of the most common diseases of the outpatient setting based on their characteristics, course, treatment, primary and secondary prevention, disability examination.
6. Training skills to work with the standards and protocols of treatment of internal diseases, pharmacology manuals, evaluation of temporary disability.
7. Learn to work with the orders, special instructions on emergency assistance to the population.
8. Learn evaluation of temporary and permanent disability.
9. Trained to respond to emergency at the prehospital stage.

3. List of the planned learning outcomes of the discipline (module) in connection to the planned outcomes of the mastering of the educational program

| Codes of the formed competences | Indicator of the competence achievement |
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| GPC-2. Able to carry out and monitor the effectiveness of prevention, health promotion and hygiene education measures | <p>ID-2.1. Is able to prescribe preventive measures for patients taking into account risk factors for the prevention and early detection of diseases, including socially significant diseases.</p> <p>ID-2.2.2. implements group and individual prevention methods, develops and implements healthy lifestyle programmes, including programmes to reduce alcohol and tobacco consumption and to prevent and combat the non-medical use of narcotic drugs and psychotropic substances.</p> <p>ID-2.3 Organises and conducts immunoprophylaxis of infectious diseases in the adult population in accordance with current medical care procedures, clinical guidelines (treatment protocols) for medical care, taking into account the standards of medical care.</p> <p>ED-2.4 Skills to assess the effectiveness of preventive work with patients.</p> |
| GPC-4. Able to use medical devices as stipulated in the medical care procedure and to carry out patient examinations in order to establish a diagnosis | <p>ID-4.1. is proficient in modern methods of administering medicines, medical devices and therapeutic nutrition to patients with diseases and conditions in accordance with current medical care procedures, clinical guidelines (treatment protocols) for medical care, taking into account the standards of medical care.</p> <p>ID-4.2 Is able to justify the choice of laboratory and instrumental methods of examination of a patient.</p> <p>ID-4.3 Skills in assessing the results of laboratory and instrumental methods of examination of a patient in order to establish a diagnosis.</p> |
| GPC-6. Can organise patient care, provide primary health care, organise work and make professional decisions in case of pre-hospital emergencies, emergencies, epidemics and mass casualty foci | <p>ED-6.1 Knows how to care for patients according to their age, the nature and severity of their illness</p> <p>ED-6.2 Knows the basic diagnostic and therapeutic measures for first aid in pre-hospital emergencies in accordance with medical care protocols.</p> |

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| | <p>ED-6.3 Is able to provide emergency medical care for patients with life-threatening conditions, including clinical death.</p> <p>ID-6.4 Is familiar with the algorithm of first aid in emergencies, epidemics and mass casualty areas.</p> <p>The competence to organise the work of medical personnel in emergencies, emergencies, epidemics and mass casualty areas.</p> <p>ID-6.6 Administer medicines and medical devices in pre-hospital emergency care.</p> |
| GPC-7. Able to prescribe treatment and monitor its effectiveness and safety | <p>ID-7.1 Is able to develop a treatment plan for a patient's illness and condition in accordance with medical care procedures, clinical guidelines, and medical care standards.</p> <p>ED-7.2 Is able to prevent or manage complications, adverse effects, adverse reactions, including unexpected ones, resulting from diagnostic or treatment procedures, the use of drugs and/or medical devices, non-medicinal treatments.</p> <p>ID-7.3 Skills in evaluating the efficacy and safety of medicines, medical devices and therapeutic nutrition.</p> |
| GPC-8. Able to implement and monitor the effectiveness of medical rehabilitation of a patient, including the implementation of individual rehabilitation and habilitation programmes for persons with disabilities, to assess the patient's ability to work | <p>ID-8.1. is able to identify medical indications for and implement medical rehabilitation measures, including the implementation of an individual rehabilitation or habilitation programme for persons with disabilities, in accordance with current medical care procedures, clinical guidelines (treatment protocols) for medical care, taking into account medical care standards.</p> <p>ID-8.2 Prescribes spa treatment for a patient in need of medical rehabilitation, including the implementation of an individual rehabilitation or habilitation programme for persons with disabilities, in accordance with current clinical guidelines (treatment protocols) for medical care, medical care orders and taking into account medical care standards.</p> <p>ID-8.3. monitors the implementation and evaluation of the effectiveness and safety of rehabilitation measures, including the</p> |

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| | <p>implementation of the individual rehabilitation or habilitation programme for persons with disabilities, taking into account the diagnosis in accordance with current medical care procedures, clinical guidelines (treatment protocols) for the provision of medical care, taking into account medical care standards.</p> |
| <p>PC-1. Ability and readiness to conduct hygiene education of the population, to educate patients and health workers in order to prevent the emergence (or) spread of diseases, their early diagnosis, identification of causes and conditions of their emergence and development</p> | <p>ID-1.1. Can provide health education to children and adults (their legal representatives) and health care professionals to promote healthy lifestyles and prevent common illnesses, and to encourage children and adults (their legal representatives) to adopt health-seeking behaviour to maintain and improve their physical health.</p> <p>ID-1.2. Have knowledge of methods and forms of communication, techniques and techniques for engaging the public in health and wellness education.</p> <p>The project will be implemented by the Ministry of Education and Science of the Republic of Moldova.</p> <p>Competent in the implementation of sanitary and anti-epidemic measures in the event of an outbreak of infection.</p> <p>ID-1.5. Is able to identify medical indications for restrictive measures (quarantine) and indications for referral to a medical specialist.</p> |
| <p>PC-2. Ability and readiness to examine a patient in order to establish a diagnosis</p> | <p>ID-2.1. Is able to collect complaints, history of life and illness of a patient and analyse the information obtained, conduct a complete physical examination of the patient (examination, palpation, percussion, auscultation) and interpret the results.</p> <p>ED-2.2 Is skilled in identifying the main pathological conditions, symptoms, disease syndromes, and nosological forms of a patient in accordance with the current International Statistical Classification of Diseases and Related Health Problems.</p> <p>ID-2.3 Is able to justify the necessity and scope of laboratory and instrumental examination of a patient in accordance with the current procedures of medical care, clinical guidelines (treatment protocols) for medical care, taking</p> |

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| | <p>into account the standards of medical care and interpret its results.</p> <p>ID-2.4 Performs early diagnosis of diseases of internal organs and makes differential diagnosis of internal diseases from other diseases.</p> |
| PC-3. Ability and readiness to manage and treat patients with different nosological forms | <p>ID-3.1 Is able to make a treatment plan for the disease and the patient's condition, taking into account the diagnosis, age of the patient, clinical picture of the disease in accordance with the current procedures of medical care, clinical guidelines (treatment protocols) for medical care, taking into account the standards of medical care.</p> <p>ID-3.2 Prescribes medicines, medical devices and therapeutic food taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures of medical care, clinical guidelines (treatment protocols) on medical care, taking into account the standards of medical care.</p> <p>ID-3.3 Prescribes non-pharmacological treatment taking into account the diagnosis, age and clinical picture of the disease in accordance with the current medical care procedures, clinical guidelines (treatment protocols) for medical care, taking into account the standards of medical care.</p> <p>ID-3.4. Has an algorithm for palliative care in collaboration with specialist doctors and other health care professionals.</p> <p>ID-3.5. Is able to prescribe personalised treatment for patients, including pregnant women, elderly and elderly patients; manage physiological pregnancy, deliver babies.</p> <p>ID-3.6. Applies medical devices in accordance with current medical care procedures, clinical guidelines (treatment protocols) for medical care, care taking into account the standards of medical care.</p> |
| PC-4. Ability and readiness to organise and carry out medical examinations, to carry out dispensary care and medical examinations of the adult | <p>ID-1. Is able to carry out age-, health- and occupation-specific medical examinations in accordance with current regulations and other documents.</p> |

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| <p>population in accordance with current regulations</p> | <p>ID-4.2 Organises and conducts screening of the adult population for the early detection of chronic noncommunicable diseases and their main risk factors.</p> <p>ID-4.3 Organises and manages the follow-up of patients with diagnosed chronic noncommunicable diseases, including patients with high and very high cardiovascular risk.</p> |
| <p>PC-5. Ability and readiness to provide medical care in emergency and urgent forms, to ascertain the biological death of a person</p> | <p>ID-5.1 Is able to identify the clinical signs of conditions that require emergency medical care.</p> <p>ID-5.2 Performs emergency medical care activities in accordance with medical care procedures, clinical guidelines, taking into account the standards of medical care.</p> <p>ID-5.3 Identifies conditions requiring emergency medical care, including clinical signs of sudden circulatory and respiratory collapse requiring emergency medical care</p> <p>ID-5.4. has an algorithm of emergency medical care for patients with life-threatening conditions, including clinical death (arrest of vital human functions (circulation and/or respiration), in accordance with medical care procedures, clinical guidelines, and medical care standards.</p> <p>ID-5.5. Performs basic cardiopulmonary resuscitation in combination with electro-pulse therapy (defibrillation).</p> <p>ID-5.6. is able to conduct the examination of a corpse at the scene, identify signs of the biological death of a person, execute the protocol of establishing human death and other documentation in connection with the death of a person.</p> |
| <p>PC-6. Ability and readiness to carry out medical examinations, medical rehabilitation measures in accordance with medical care procedures and clinical guidelines</p> | <p>ID-6.1 Is able to identify signs of temporary disability and signs of permanent impairment of bodily functions due to illness, injury or defect.</p> <p>ID-6.2. Prepares medical documentation for the examination of temporary disability, referring patients to the federal state medical and social expert assessment institutions.</p> <p>ID-6.3 Performs medical rehabilitation activities for the patient in accordance with</p> |

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| | current medical care procedures, clinical guidelines (treatment protocols) for medical care, taking into account the standards of medical care. |
| PC-9. Ability and readiness to keep medical records and organise the activities of the nursing staff on hand | <p>ID-9.1 Can analyse data from official statistical reporting, including federal and sectoral statistical observation forms, draw up a work plan and report on his/her work</p> <p>ID-9.2 Handles patient personal data and patient confidentiality</p> <p>ED-9.3 Analyse medical and statistical indicators of morbidity, disability and mortality to assess public health</p> <p>ID-9.4 Completes medical records, including electronically, and monitors the quality of the records</p> <p>Supervise the performance of duties by the district nurse and other available medical staff</p> <p>ID-9.6. Uses health information systems and the Internet in her/his work</p> |

4. Volume of the course (module) and types of the academic classes:

Total workload of the course is _12_ credits.

| Type of the academic work | Total hours | Term |
|--|-------------|-------------|
| Interaction between students and a professor (in total) | 200.3 | 9,10, 11,12 |
| Including: | | |
| Lectures (L) | 68 | 9,10, 11,12 |
| Seminars (S) | | |
| Practicals (P) | | |
| Clinical practicals (CP) | 130 | 9,10, 11,12 |
| Laboratory-based practicals (LBP) | | |
| Simulation-based practicals (SBP) | | |
| Unsupervised work (UW) (total) | 198 | 9,10, 11,12 |
| Control | 33.7 | 12 |
| Preparation for examination | | |

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| Consultations for the exam | 2 | 12 |
| Examination | 0,3 | 12 |
| Pass/fail test | | |
| Graded pass/fail test | | |
| Total discipline workload | 432 | |

5. Course content :

5.1. Contents of the sections of the course

The content of the discipline consists of the following sections:

1. Basics of organization of outpatient care and medical prevention:

* Fundamentals of organization of outpatient care for the population.

• Medical prevention.

* Assessment of the quality of medical care at the outpatient stage.

2. Emergency care at the pre-hospital stage:

* Emergency conditions at the pre-hospital stage.

* Emergency conditions in cardiology at the pre-hospital stage.

* Emergency care in pulmonology at the pre-hospital stage.

* Assistance in emergency conditions in gastroenterology at the pre-hospital stage.

* Emergency care in urology and Nephrology at the pre-hospital stage.

* Hyperthermic syndrome at the prehospital stage.

* Emergency care for allergic reactions at the pre-hospital stage.

• Emergency treatment of coma in the prehospital setting.

* Emergency care in neurology at the pre-hospital stage.

3. Internal diseases:

* Diseases of the cardiovascular system in outpatient practice.

* Diseases of the digestive system in outpatient practice.

* Diseases of the urinary system in outpatient practice.

* Blood diseases in outpatient practice.

• Disease of the respiratory system in ambulatory practice.

* Joint diseases in outpatient practice.

* Diseases of the endocrine system in outpatient practice.

* Somatic diseases in outpatient practice in certain groups of the population.

The system of classes is cyclical. Cycl7-11 days (last day-undifferentiated test, at the end of 12 semester – exam).

| No | Name of the course section | Content of the section |
|--|--|--|
| 1 | 2 | 3 |
| Fundamentals of outpatient care and medical prevention. | | |
| 1 | Fundamentals of outpatient care to the population. | Topic 1: Organization of outpatient medical care. The structure of the outpatient clinic. Organization of work its departments. The main directions of the |

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| | | <p>GP`s work. Organization of hospital substitute types of assistance. Medical and technological standards.</p> <p>Topic 2: The functional responsibilities of the doctor of primary health care. The qualifying characteristic specialty.</p> <p>Tasks, duties, performance criteria of the GP</p> <p>Topic 3: The main legislative instruments used in the medical work of primary health care.</p> <p>Documents regulating the provision of medical and preventive care at the outpatient stage.</p> <p>Topic 4: The primary district documentation</p> <p>Working with primary therapeutic district documents: outpatient records, stat. ticket, referral notes for examination and treatment</p> <p>Topic 5: The basic principles of providing medical outpatients. Preferential provision of medicines.</p> <p>The main legislative documents. Principles of the medical settings work in supplying the population with pharmaceuticals. Groups and categories of diseases giving right to preferential support. The role of pharmaceutical institutions in providing the population with medicines. Legal documents regulating the work to issue preferential recipes.</p> <p>Topic 6: Features of care for older people, medical and social problems of the elderly contingent with the program adaptation.</p> <p>The main legislative documents governing the provision of medical care for the elderly contingent according to the territorial program of compulsory health insurance (OMS). Principles of the organization of additional preferential support (DLO) in hospitals. The main legislative documents regulating the work of gerontological service in Russia. The organization of medical and social assistance to the elderly contingent. Targeted medical-social assistance to the patient geriatric age. Making someone integrated program of medical and social adaptation of an old man.</p> <p>Topic 7: Assessment of quality of medical care at the outpatient stage.</p> <p>Working with the acts and outpatients records to assess the quality of care at the outpatient stage.</p> <p>Analysis of typical doctor/s mistakes to assist</p> |
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| | | outpatients and paperwork. |
| 2. | Medical prevention | <p>Topic 1: The organization of preventive work in the outpatient clinic The concept of medical prevention. Implementation of preventive principles in hospitals. Types of prevention activities. UN Political Declaration on the Prevention and Control of NCDs (non-communicable diseases). The complex-valued global system for monitoring of non-communicable diseases in the Russian Federation (RF).</p> <p>Topic 2: Clinical examination of the population - the main method of disease prevention. Clinical examination of the working population. Examination of chronic patients on territorial basis. Clinical examination of invalids and participants of the World War II (WWII) and the other decreed contingents. Genet patients. Schemes of medical examination.</p> <p>Topic 3: Organization of the "Center for Healthy Lifestyles" and prevention department. The main risk factors of NCDs and their correction. healthy life style, the basics of good nutrition. Individual consultations.</p> <p>Topic 4: Primary prevention of NCDs. Effective prevention consultations of patients with chronic non-communicable diseases. Algorithm for individual counseling.</p> <p>Topic 5: Epidemiology of socially significant diseases, risk factors and their correction. Immunization for adult population of Russia Definition of social diseases. Diagnosis of tuberculosis. Categories of persons for mandatory testing for HIV, hepatitis B. Early diagnosis of malignant tumors, diabetes mellitus. Immunization, vaccination schedule, contraindications for vaccination.</p> <p>Topic 6: The role of health workers in the secondary prevention of disease. Secondary prevention of cardiovascular diseases. Organization of school work for patients with hypertension and atrial fibrillation (school attendance, functional-functional responsibilities of nursing instructors, acquaintance with primary documents outpatient). Secondary prevention of diabetes. Organization of school work for people</p> |

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| | | <p>with diabetes (drawing up individual training programs). Secondary prevention of asthma. school Organization of work for patients with bronchial asthma (goals, objectives)</p> <p>Secondary prevention School organization works for patients undergoing cerebrovascular accident.</p> |
| 3. | Fundamentals of disability expertise | <p>Topic 1: Organisation of temporary disability examination.</p> <p>The organizational structure and procedure of the examination of temporary disability, structure, steps, documentation, average duration of temporary disability in mass therapeutic pathology. The average period of temporary disability</p> <p>Topic 2: Examination permanent disability.</p> <p>The concept of legislative documents and medical and social expertise. MSE structure. Examination of permanent disability, the provisions of MSEK, the criteria of disability, rehabilitation prognosis, disabled rehabilitation program.</p> |
| 4. | Assessment of outpatient care quality | <p>Topic 1: Quality control of health care provision.</p> <p>Working with outpatients medical records , acts of expertise.</p> |
| Emergency care at the prehospital stage | | |
| 1. | Emergency care at the prehospital stage | <p>Topic 1. Emergency care at the prehospital stage</p> <p>The concept of "state of emergency", the classification of emergency conditions. Organization of emergency care in the prehospital phase. Normative-legal acts regulating the activities of health workers in providing assistance in the prehospital phase.</p> <p>Topic 2. Legal regulation and the principles of emergency care at prehospital stage.</p> <p>he basic principles and the amount of medical care in the prehospital phase. Interaction with the operational department (control room) medical aid station (SMP). Indications to call specialized teams. Infectious safety.</p> <p>Rules of transportation of patients and survivors.</p> <p>Tema Topic 3. Terminal states.</p> <p>The concept of "terminal condition."</p> <p>Physiological parameters of vital body functions. The types and clinical manifestations of terminal states.</p> |

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| | | <p>Topic 4. Sessation of the circulation and respiration.</p> <p>Sessation of circulation: definition, risk factors, causes, symptoms, diagnosis. Respiratory arrest: definition, risk factors, causes, symptoms, diagnosis. Criteria for evaluation of the severity of the patient. Signs of clinical, biological death.</p> <p>Topic 5. Universal algorithm providing specialized resuscitation in case of emergency</p> <p>he essence of the algorithm cardiopulmonary resuscitation (CPR). Recognition and treatment of defibrillation (pulseless ventricular tachycardia, ventricular fibrillation) and nedefibrillyatsionnyh (asystole, pulseless electrical activity) rhythms. Indications and methods of administering medication during sudden cardiac arrest. Restoration of the airway, mechanical ventilation (ALV), conducting supplemental oxygen, chest compressions, defibrillation, intubation. Criteria to stop resuscitation.</p> |
| 2. | Emergency conditions in cardiology in the prehospital phase. | <p>Topic 1. Acute coronary syndrome in prehospital phase.</p> <p>Current concepts of acute coronary Mr. syndrome (ACS): definition, etiology, complications, differential diagnosis.</p> <p>Features Survey prehospital: physical, instrumental, biochemical-cal (Express-study in acute in-infarction (troponin, myoglobin)). Tactics doctor in ACS without ST-segment elevation and ST-segment elevation. Medications for emergency care in the prehospital phase: methods of application, selection of doses and complications of therapy. Specifics of transportation and monitoring of the patient's condition.</p> <p>Topic 2. Acute heart failure before hospitalization.</p> <p>cute heart failure: definition, etiology, options differential diagno-stick. Cardiogenic shock, cardiogenic pulmonary edema, pulmonary embolism. Features of physical and instrumental examination of prehospital. The choice of tactics and algorithm of emergency assistance do6gospitalnom stage in acute heart failure. Medications for emergency care in the prehospital phase. Specifics of</p> |

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| | | <p>transportation and monitoring of the patient's condition.</p> <p>Theme 3. Hypertensive crisis, algorithm of prehospital managing</p> <p>Hypertensive crisis: causes, forms with modern amenities mennaya-classification, clinical manifestations and complications. Medications for emergency care in the prehospital phase: methods of application, selection of doses and complications of therapy. Algorithm for emergency care in the prehospital patients with complicated and uncomplicated hypertensive crisis. Indications for hospitalization. Specifics of transportation and monitoring of the patient's condition.</p> <p>Topic 4. Acute vascular insufficiency Syncope. Collapse. State of shock.</p> <p>Definitions: faint, collapse, shock. The pathogenesis of syncope, collapse, shock states. The clinical picture. Differential diagnosis. The choice of tactics and algorithm of emergency care in the prehospital phase. Indications for mechanical ventilation.</p> <p>Topic 5. Cardiac arrhythmias. Tachycardia with wide and narrow complexes QRS.</p> <p>Cardiac arrhythmias: identification of risk factors, classification, clinical manifestations. Differential diagnosis of cardiac arrhythmias.</p> <p>Tachycardia with wide and narrow complexes QRS: etiology, clinical features, diagnostic methods. Algorithm for emergency care in the prehospital phase. Cardioversion. Indications. performance technique. Equipment. Safety. Medications for emergency care in the prehospital phase: methods of application, selection of doses.</p> <p>Topic 6. Ventricular fibrillation, ventricular tachycardia without a pulse. Asystole.</p> <p>Ventricular fibrillation, ventricular tachycardia without pulse: diagnosis, emergency treatment algorithm prehospital. Defibrillation, readings, technics and equipment. Safety precautions during defibrillation.</p> <p>Asystole. The electrical activity of the heart without a heart. Causes, diagnosis, algorithm of emergency care in the prehospital phase.</p> <p>Topic 7. Bradycardia.</p> <p>Bradycardia: etiology, clinical features, diagnostic</p> |
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| | | <p>methods. Algorithm for emergency care in the prehospital phase. Pacing (ECS). Description. Equipment. Indications and contraindications for ECS (temporary and permanent). performance technique. Safety regulations. Application of ECS.</p> |
| 3. | <p>Assistance in urgent situations in pulmonology in the prehospital phase.</p> | <p>Theme 1. Acute respiratory failure (ARF). Bronchial asthma.</p> <p>ARF: definition, causes, clinical symptoms, severity, hypoxemic coma, differential diagnosis. Features of physical and instrumental examination at prehospital stage. Indications for mechanical ventilation. Medications for emergency care in the prehospital phase: methods of application, selection of doses and complications of therapy. The diagnostic criteria for asthma, the clinical picture. Differential diagnosis of conditions involving acute dyspnea occurred. Features of physical examination at an attack of asthma. Criteria for assessing the severity, symptoms of life-threatening asthma attack. Status asthmaticus. The choice of tactics and algorithm of emergency treatment of bronchial asthma in the prehospital phase. Indications for hospitalization. Specifics of transportation and monitoring of the patient's condition.</p> <p>Topic 2: PE, emergency prehospital algorithm.</p> <p>Modern understanding of pulmonary embolism (PE). Determining cause clinical symptoms. Differential diagnosis. Methods of diagnosis. Features of an electrocardiogram (ECG) and echocardiography (echocardiography) for pulmonary embolism. Algorithm for emergency assistance in PE. Medications for emergency care in the prehospital phase: methods of application, selection of doses and complications of therapy. Features of transport and monitoring the patient's condition.</p> |
| 4. | <p>Help in case of emergency in gastroenterology in the prehospital phase.</p> | <p>Topic 1. Acute poisoning.</p> <p>Poisoning by drugs, medicaments and biological substances. Ethanol poisoning. Mushrooms poisoning. Definition. Epidemiology. Clinic. Diagnostics. Urgent care.</p> <p>Topic 2: Diseases of the gastrointestinal tract (GIT), accompanied by severe pain.</p> <p>Etiology. Pathogenesis. Clinic. Differentials-tion diagnosis. Methods of emergency diagnostics.</p> |

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| | | Hepatic colic. Bleeding from the gastrointestinal tract. Principles of diagnosis. Emergency care. |
| 5. | Help with urgent conditions in urology and nephrology in the prehospital phase. | <p>opic 1: Acute kidney injury. Renal colic. Acute urinary retention.</p> <p>Criteria for diagnosis, classification and clinical picture of acute kidney damage Causes of ureteral colic. The clinical picture of renal colic. Diagnosis of renal colic in the prehospital phase. Differential diagnosis. Clinic of acute urinary retention. Differential diagnosis of acute urinary retention. First aid on pre-hospital stage. Tactics for the physician in the prehospital phase. First aid for bleeding from the kidneys and urinary tract.</p> |
| 6. | Hyperthermic syndrome at prehospital stage. | <p>Theme 1. Algorithm emergency at hyperthermal syndrome in prehospital phase</p> <p>Causes of fever. Acute fever: classification, clinical picture, complications. Indicative causes prolonged fever. Differential diagnosis of infectious and non-infectious fever hyperthermia. Infectious safety. Physical and medical methods of cooling. Physical and medical methods of cooling. Indications for hospitalization. Features of transport and monitoring the patient's condition.</p> |
| 7. | Emergency care for allergic reactions before hospitalization. | <p>Topic 1. The algorithm first aid for allergic reactions to the pre-hospital stage.</p> <p>Causes of acute allergies, the most common allergens. Classification, clinical manifestations of the acute allergies. Heavy (prognostically unfavorable) allergies. The choice of tactics and algorithm of emergency care in the prehospital (angioedema, generalized urticaria, anaphylactic shock). Anti-allergic and symptomatic therapy. Antishock measures.</p> <p>Indications for hospitalization Specifics of transportation and monitoring of the patient's condition</p> |
| 8. | Emergency treatment in coma | <p>Topic 1. The algorithm of diagnostics of coma (prehospital and emergency care).</p> <p>Coma: causes, classification, criteria for evaluation of the coma. The main clinical differences between the various types of com (hypoglycemic, hyperglycemic, alcoholic, uremic, hepatic, hypoxic coma). Plan physical and instrumental examination of the patient in the prehospital phase. Diagnostic tools for rapid assessment of biochemical</p> |

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| | | parameters in the patient. Directions therapy. The choice of tactics and algorithm of emergency care in the prehospital phase. Indications for hospitalization. Specifics of transportation and monitoring of the patient's condition |
| Internal diseases. | | |
| 1. | Diseases of the cardiovascular system in outpatient practice. | <p>Topic 1. Atherosclerosis at prehospital stage. The urgency of the problem. Epidemiology of cardiovascular diseases. Exchange of endogenous lipoprotein, atherogenesis. Physico-chemical characterization of cholesterol, triglycerides, lipoprotein, fatty acids, phospholipids, the main classes of lipoproteins. Classification of hyperlipidemia. Clinical and laboratory examination of patients with dyslipidemia. The algorithm of examination of patients with dyslipidemia. Treatment of dyslipidemia. Features of treatment of disorders of lipid metabolism in certain population groups.</p> <p>Topic 2: Diagnosis of cardiovascular disease at the outpatient stage. Diagnosis of coronary heart disease (CHD) - ECG stress test, the pharmacological tests, the stress magnetic resonance imaging (MRI) techniques rentgenoangiograficheskie - coronary angiography, ventriculography), isotopic methods.</p> <p>Topic 3. Hypertensive heart disease in the practice of the district general practitioner. Hypertensive heart disease: definition, risk factors, classification, clinical characteristics. Complications of hypertension, indications for hospitalization. Tactics of general practitioner clinics in newly diagnosed hypertension. Mandatory laboratory and instrumental methods. Possibilities of inspection in the clinic to identify the causes of hypertension, the role of modern non-invasive examination methods. Treatment on an outpatient basis depending on the risk. Principles of choice of drug therapy. disability examination. Spa treatment. clinical examination. Prevention.</p> <p>Criteria and refractory severe hypertension, treatment Topic 4. The syndrome of pain in the left side of the chest in ambulatory practice</p> |

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| | | <p>Differential diagnosis of chest pain and coronary noncoronary genesis. The main distinguishing criteria coronary pain. Noncardiac causes of chest pain: cervical-thoracic osteochondrosis, pleural disease, hiatal hernia, diseases of the abdominal cavity.</p> <p>Topic 5. Coronary heart disease in the practice of general practitioner.</p> <p>Determining risk factors classification. Indications for hospitalization of patients with coronary artery disease. Treatment of coronary heart disease in the outpatient setting. Indications for surgical treatment of coronary artery disease. disability examination. Spa treatment. Primary and secondary prevention. Clinical examination.</p> <p>Topic 6. Rehabilitation of patients after myocardial infarction at the outpatient stage.</p> <p>management of patients with myocardial infarction after discharge from hospital. The objectives of rehabilitation of patients with myocardial infarction at a polyclinic stage. Types of rehabilitation</p> <p>Psychological, social and occupational rehabilitation. Features of the rehabilitation of patients after surgery coronary artery bypass grafting (CABG). disability examination. Clinical examination. Secondary prevention. Spa treatment in rehabilitation of patients.</p> <p>Topic 7. Vegetative-vascular dystonia in the practice of the district general practitioner.</p> <p>Definition, etiology and predisposing factors, pathogenesis. Diagnostic criteria. Volume survey. Classification, formulation of diagnosis. Indications for hospitalization. Treatment in outpatient settings. Examination of temporary disability and its duration. An employment forecast. Spa treatment.</p> <p>Theme 8. Myocarditis and cardiomyopathy, management of patients in the outpatient setting.</p> <p>Determining risk factors, classification, clinical manifestations, examination methods for diagnosis. Indications hospitalization, management of patients in outpatient conditions. disability examination. Clinical examination. Secondary prevention. Spa treatment of these diseases.</p> <p>Topic 9. Chronic heart failure (CHF) - management of patients in an outpatient setting</p> |
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| | | <p>Determining risk factors, classification, clinical picture. Diagnosis, clinical signs. Echocardiography in the diagnosis of heart failure. CHF treatment at the outpatient stage. Indications for hospitalization, the role of day hospital at home treatment of this pathology. Supportive therapy, the tactics of its implementation. disability examination. Rehabilitation measures. Clinical examination.</p> <p>Topic 11. Antithrombotic therapy in outpatient practice in patients with stable manifestation of atherothrombosis.</p> <p>What is atherothrombosis and its clinical manifestations. Antithrombotic therapy as a component of pathogenetic treatment of atherothrombosis. Drugs that inhibit the function of platelets and the coagulation cascade.</p> <p>Antithrombotic therapy in patients with coronary artery disease and stable angina.</p> <p>Antithrombotic therapy in patients after acute coronary syndromes.</p> <p>Antithrombotic therapy in patients undergoing percutaneous coronary intervention (PCI).</p> <p>Antithrombotic therapy in patients undergoing coronary artery bypass surgery and coronary artery bypass grafting.</p> <p>Antithrombotic therapy in patients with CHF.</p> <p>Antithrombotic therapy in patients with essential hypertension (EH).</p> <p>Antithrombotic therapy in patients with atrial fibrillation (AF).</p> <p>Topic 12. Management of patients with heart valve defects in the outpatient.</p> <p>Determining risk factors, classification, clinical picture. Methods of diagnosis. Management of patients on outpatient. Indications for hospitalization. Indications for referral to surgical treatment of malformations. disability examination.</p> |
| 2 | Diseases of the digestive system in outpatient practice. | <p>Topic 1. Methods for diagnosing diseases of the gastrointestinal tract at the outpatient stage.</p> <p>Fibrogastroduodenoscopy (EGD), rentgenological, endoscopy, ultrasound, methods of diagnosing Helicobacter pylori.</p> <p>Topic 2. The syndrome of abdominal pain and dyspeptic syndrome.</p> |

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| | | <p>he causes of abdominal pain: inflammatory, functional, obstructive, hemodynamic instability, and their main features. The content of the concepts of gastric, pancreatic and intestinal dyspepsia. The role of the violations of the secretory and motor function of the stomach, intestines and pancreas in the occurrence of dyspeptic disorders. Diseases manifested by diarrhea or constipation. The differential diagnosis of the main diseases associated with abdominal pain, and dyspepsia. Management of patients at the outpatient stage.</p> <p>Topic 3. Helicobacter related diseases. Gastroesophageal reflux disease (GERD), chronic gastritis, gastric ulcer and duodenal ulcer. Determining risk factors, prevalence, clinical picture, Methods of Helicobacter diagnostics in an outpatient setting. The volume of laboratory and instrumental examination. Formulation of a diagnosis in accordance with the modern classification. Treatment of the patients in the outpatient setting. Differentiated treatment of various types of gastritis (diet, medication and non-pharmacological therapy in the exacerbation of the disease). Tactics of outpatient physician in the event of complications during gastric ulcer and duodenal ulcer (bleeding, pyloric stenosis, penetration, perforation). Indications for hospitalization. Anti-relapse treatment, including spa. disability examination. Clinical examination. Primary and secondary prevention</p> <p>Topic 4. Biliary dyskinesia and chronic calculous cholecystitis in outpatient practice. Determining risk factors classification. Clinic hyper hypokinetic and biliary dyskinesia, their diagnosis and differential treatment. disability examination. Symptoms of chronic calculous cholecystitis not varying degrees of severity; diagnosis and treatment of this pathology. disability examination. Prevention, health examinations and health resort treatment for diseases of data.</p> <p>Topic 5. Chronic hepatitis and cirrhosis of the liver in the practice of physician Definition. Risk factors. Classification hepatitis.. Diagnostic criteria for hepatitis. Hepatitis treatment</p> |
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| | | <p>on an outpatient basis. The clinic, diagnosis, classification of liver cirrhosis (LC), the wording of the diagnosis. CPU treatment on an outpatient basis. Treatment of exacerbations of the CPU, the indications for hospitalization. Examination of temporary and permanent disability Medical examination patients with CKD. Sanatorium stage of rehabilitation of patients with liver cirrhosis.</p> <p>Topic 6. Functional colonic disease in ambulatory practice</p> <p>Irritable bowel syndrome, etiology, differential diagnosis with chronic colitis. Treatment of these patients at the outpatient stage. Prevention. disability examination. Clinical examination. Spa treatment.</p> |
| 3 | Diseases of the urinary system in outpatient practice. | <p>Topic 1. Diagnosis of urinary pathology at outpatient settings.</p> <p>The definition of "urinary syndrome." Types of disorders of the urinary sediment. Differential diagnosis mo-chevogo syndrome in outpatient therapist. Methods of study of urinary sediment.</p> <p>Theme 2. Acute and chronic glomerulonephritis - treating patients on an outpatient basis</p> <p>Determining risk factors, classification. Clinical forms and variants of acute glomerulonephritis. Clinical and laboratory criteria. Management of patients on outpatient (diet, medical therapy after discharge from the hospital). disability examination. Clinical examination. The role of spa treatment and chronic disease prevention measures.</p> <p>Clinical classification of chronic glomerulonephritis. Options for the course and their clinical and laboratory characteristics, methods of instrumental examination. Indications for hospitalization. Principles of treatment in an outpatient setting. disability examination. Preventing exacerbations (diet, drug therapy, spa treatment). clinical examination .</p> <p>Topic 3. Chronic pyelonephritis in the practice of the district general practitioner.</p> <p>Clinical manifestations of chronic pyelonephritis. The volume of laboratory and instrumental examination, allowing to diagnose this pathology. Treatment during an exacerbation and remission (diet, medication and non-drug therapy). Indications</p> |

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| | | <p>for hospitalization. disability examination. Place spa treatment in the management of patients. Clinical examination.</p> <p>Topic 4: Management of patients with chronic kidney disease (CKD) in the outpatient setting. Determining risk factors, classification. Clinic of chronic kidney disease: complaints of the patient, medical history data, functional, and laboratory and instrumental studies. CKD progression factors. Complications of CKD. Treatment. The wording of the diagnosis. Indications for hospitalization in a specialized hospital. Indications for hemodialysis and peritoneal dialysis. Clinical examination. disability examination.</p> |
| 4 | Blood disorders in outpatient practice. | <p>Topic 1. Anemia in practice of the therapist. Definition. Clinical characteristics of anemia. Modern classification of anemias. Laboratory diagnosis of this syndrome. Plan of treatment of the patient with anemia.</p> <p>Iron-deficiency anemia. Risk factors.</p> <p>The diagnostic criteria of iron deficiency anemia. Clinical signs of iron deficiency. Causes of iron deficiency in the body. Laboratory findings. Treatment and control of the effectiveness of iron therapy on an outpatient basis. disability examination. Primary and secondary prevention. Clinical examination.</p> <p>B12 deficiency anemia. Causes of vitamin B12 deficiency. Clinical manifestations of lesions of the digestive and nervous system, changes in hematological parameters. Diagnostic criteria.</p> <p>Current pathology, treatment of community-acquired on stage. disability examination. Clinical examination.</p> |
| 5 | Respiratory disease in outpatient practice | <p>Topic 1: Diagnostic pathology of bronchopulmonary system in the outpatient practice</p> <p>Methods of diagnosing pathology of bronchopulmonary system in the practice of general practitioner. Indications, contraindications, results Interpretation (spirometry, bronchoscopy, computed tomography, sputum examination)</p> <p>Topic 2. Acute respiratory infections in outpatient practice</p> |

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| | | <p>Determining risk factors, classification. Clinical features of influenza and other respiratory infections (rhinovirus, adenovirus, respiratory syncytial infection, parainfluenza). Possibilities of differential-tsirovaniya on an outpatient basis. Treatment indications for hospitalization, examination of temporary disability and its duration. Criteria for recovery and vocational rehabilitation. Primary prevention. Patients subject to dispensary observation.</p> <p>Topic 3. Tonsillitis</p> <p>etermining risk factors, classification. The clinical course. Methods of diagnosis. Examination of the patient with angina. Leche-of medication and non-drug, general and local. The tactics of the local therapist in suspected diphtheria and positive culture from the throat. Complications of tonsillitis - early and late. Temporary disability in angina and its timing. Clinical examination.</p> <p>Topic 4: Community-acquired pneumonia - keeping patients on an outpatient basis</p> <p>Determining risk factors, classification. Early symptoms of pneumonia. Physical findings, the volume of laboratory and instrumental examination. Indications for treatment at home, in day care and hospitalization. Organization of hospital at home. The choice of antibiotic therapy and assessment of its effectiveness. Anti-inflammatory therapy and non-drug therapies. Examination of disability, the criteria for recovery and rehabilitation. Clinical examination - the volume of activities, depending on the outcome of treatment. Prevention.</p> <p>Topic 5. Chronic diseases of the respiratory system - keeping patients on an outpatient basis</p> <p>Determining risk factors, classification. Chronic obstructive pulmonary disease (COPD), bronchial asthma (BA) examination as an outpatient procedure for diagnosis and forms of the disease. Treatment of asthma in the interictal period and cupping in the outpatient setting. Treatment of COPD in an outpatient setting. Indications for hospitalization. disability examination. The tactics of the local therapist in cases of suspected professional nature of the disease. Clinical examination of the patient. Primary and secondary prevention. Spa treatment.</p> |
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| | | Early manifestations of respiratory failure and pulmonary hypertension, the methods of detecting them .. |
| 6 | Diseases of the joints in the outpatient practice. | <p>Topic1. The joint syndrome in outpatient practice</p> <p>Inflammatory and non-inflammatory joint lesions. Acute, subacute and chronic arthritis, laboratory and instrumental data confirming the diagnosis of arthritis.</p> <p>Rheumatoid arthritis. Its most typical clinical manifestations. Diagnostic criteria for pathology and the degree of activity of the process. Indications for hospitalization. Management of patients at the out-of-hospital stage, the place and role of Spa treatment. Examination of working capacity. Prophylactic medical examination.</p> <p>Deforming osteoarthritis. Factors predisposing to the development of deforming primary and secondary osteoarthritis. Diagnostic criteria for pathology (clinical symptoms, laboratory and instrumental examination data). The course of pathology. Treatment on an outpatient basis. Examination of working capacity. Secondary prevention. Prophylactic medical examination.</p> <p>Gout. Articular lesions. Scope of examination to confirm the diagnosis. Treatment. Examination of working capacity. Prevention.</p> |
| 7 | The most important syndromes in the clinic of internal diseases. | <p>Topic 1. Subfebrility and febrile syndrome in the practice of a district General practitioner</p> <p>Possible reasons for the prolonged rise in body temperature so-: focal infection and generalizing-bathrooms, connective tissue disease, paraneo-plastic processes, systemic blood diseases, lymphoproliferative processes, Aller-ronmental reaction. The most common practice in GP infectious diseases: typhoid, paratyphoid group, brucellosis, "children's" infection in adults; their diagnosis. Tactics local therapist to identify them.</p> <p>Infective endocarditis, its diagnosis.</p> <p>Clinic connective tissue diseases, co-accompanied by fever and methods of diagnosis.</p> <p>Low-grade fever and fever with paraneoplastic processes. Scope survey for diagnosis. Tactics GP in establishing these pathologies.</p> <p>Lymphoproliferative disorders as a cause of fever, their diagnosis. physician tactics.</p> |

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| | | Fever, lymphadenopathy, weight loss and other symptoms suggestive of HIV - infection. Survey methods for diagnosis |
| 8 | Endocrine diseases in outpatient practice | <p>Theme 1. Type 2 diabetes in the practice of the district therapist.</p> <p>early symptoms of diabetes. Physical findings, the volume of laboratory and instrumental examination. Drug-free treatment of diabetes. Diet therapy. Oral hypoglycemic agents: classification, mechanism of action, indications, contraindications, complications. Insulin: Insulin types of drugs, mechanism of action, indications, counter-indications, complications. Indications for hospitalization. Organization of hospital at home. Complications. disability examination. Clinical examination. Prevention.</p> |
| 9 | Somatic illness in outpatient practice in certain groups of the population. | <p>Topic 1. Features of geriatric patients with medical conditions in the outpatient setting. The use of drugs in the elderly. Geriatric Rehabilitation.</p> <p>Age grading. Disease, the most common of these ages. The course of systemic diseases, treatment differs from treatment at a younger age. The social aspects of disability in these age groups. Questions of ethics and deontology.</p> <p>The use of drugs. Risk factors for complications of medication.</p> <p>Geriatric Rehabilitation. Its types (medical, geriatric care, social, educational, economic, professional)</p> <p>Topic 2. Oncological vigilance in GP work.</p> <p>Questions of diagnosis of cancer in the analysis of syndromes and clinical entities in terms of differential diagnosis, the dynamic of follow-up and implementation of preventive examinations. Possible symptoms and reliable, allowing suspected oncological causes lung, stomach, intestine, thyroid gland, mammary gland. The examination program. The role of biochemical, enzyme immunoassay, endoscopy, ultrasound, O-ray (X-ray, tomography, magnetic resonance imaging) examination methods in establishing the diagnosis.</p> <p>Topic 3. Management of patients with somatic diseases during pregnancy.</p> <p>Women's Health. Medical (therapeutic profile) indications for abortion. Principles of pregnant women suffering from rheumatism, acquired heart</p> |

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| | | diseases, hyper-pertonicheskoy disease, kidney disease, diabetes, anemia (especially examination and treatment in various stages of pregnancy) |
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5.2. Sections and types of studies

| № | Name of discipline | | L | S | P | lbp | CP | uw | sbp | Total hours |
|----|---|--|---|---|---|-----|----|----|-----|------------------------------|
| 1 | Fundamentals of outpatient care and public health prevention. | Fundamentals of outpatient medical care. | 2 | - | - | - | 12 | 10 | | Л - 14 ПЗ – 24 СР – 34 |
| | | Medical prevention. | 4 | - | - | - | 8 | 10 | | Итого - 72 |
| | | Fundamentals of expertise disability | 6 | - | - | - | 4 | 10 | | |
| | | Evaluation of the quality of care at the outpatient stage. | 2 | - | - | - | - | 4 | | |
| 2. | Emergency care in the prehospital phase. | Urgent states in the prehospital phase. | 4 | - | - | - | 12 | 10 | | Л – 22 ПЗ – 40 СР – 50 |
| | | Emergency conditions in cardiology in the prehospital phase. | 4 | - | - | - | 16 | 14 | | Итого - 112 |
| | | Assistance in urgent situations in pulmonology in the prehospital phase. | - | - | - | - | 8 | 8 | | |
| | | Help in case of emergency in gastroenterology in the prehospital phase. | 4 | - | - | - | - | 4 | | |

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| | | Help with urgent conditions in urology and nephrology in the prehospital phase. | 2 | - | - | - | - | 2 | | |
| | | Hyperthermic syndrome prehospital. | 2 | - | - | - | - | - | | |
| | | Emergency care for acute allergoses prehospital. | - | - | - | - | 4 | - | | |
| | | First aid at komah prehospital. | 2 | - | - | - | - | 2 | | |
| | | The damaging effect of physical factors (burns, hypothermia, electrical accident, drowning) | - | - | - | - | - | 10 | | |
| 3 | Internal illnesses. | Diseases of the cardiovascular system in outpatient practice. | 10 | - | - | - | 24 | 20 | | Л – 34 ПЗ – 68 СР – 104 |
| | | Diseases of the digestive system in outpatient practice. | 6 | - | - | - | 8 | 14 | | Итого - 206 |
| | | Diseases of the urinary system in outpatient practice. | 4 | - | - | - | 12 | 10 | | |
| | | Blood disorders in outpatient practice. | 2 | - | - | - | 4 | 10 | | |

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| | | Respiratory disease in ambulatory practice. | 4 | - | - | - | 12 | 10 | | |
| | | Diseases of the joints in the outpatient practice. | 2 | - | - | - | 4 | 10 | | |
| | | The most important syndromes in internal medicine at the outpatient stage. | 2 | - | - | - | - | 10 | | |
| | | Endocrine diseases in outpatient practice. | - | - | - | - | 4 | 10 | | |
| | | Somatic illness in outpatient practice in geriatric patients and pregnant women. | 4 | - | - | - | - | 10 | | |
| | | | - | - | - | - | - | - | | |

6. List of teaching materials for the course unsupervised work of students (including the use of e - learning opportunities, distance learning technologies (Moodle))

in accordance with the requirements of the GEF VPO towards preparing the implementation of competence-based approach involves the widespread use in the educational process of active and interactive forms of employment.

In clinical practical classes module "polyclinic therapy" is widely used curation of patients with primary nosology topics according to clinical practice sessions. Conducted clinical reviews of supervised patients, during which the students are involved in the discussion on disassemble patient actively discussed history and identified physical signs of the patient are assessed lab tests, identifies risk factors for the disease, clinical diagnosis, as well as the students explain the principles of treatment of the underlying disease in particular patient. Discussions of the clinical situations on the proposed situational problems.

| № п/п | Name of the course section | Types of the unsupervised work | Forms of control |
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| 1 | Medical prevention | The game "Custom Game" on "Immunization of adult population of Russia." | discussion |
| 2 | Medical prevention. | Round table on the topic: "Nine healthy lifestyle drugs" "Lifestyle - seven good habits" | discussion |
| 3 | Medical prevention | The game "Telephone Health" | discussion |
| 4 | Medical prevention. | The game "FAQ" The epidemiology of NCDs, risk factors and their correction. | discussion |
| 5 | Diseases of the internal organs. | The game "FAQ" on "Diabetes" | discussion |
| 6 | Diseases of the internal organs. | "Custom Game" on "Hypertension" | discussion |
| 7 | Diseases of the internal organs. | Analysis of the clinical situation of the diagnosis on the topic: "CHD" | discussion |
| 8 | Diseases of the internal organs. | Analysis of the clinical situation with the statement relating to the diagnosis of "COPD, bronchial asthma" | discussion |
| 9 | Diseases of the internal organs. | The decision of situational problems on "hypertensive crisis". | problem solving |
| 10 | Diseases of the internal organs. | The decision of situational problems on "Atrial fibrillation". | problem solving |
| 11 | Diseases of the internal organs. | The decision of situational problems on the theme "On the outpatient clinic patients with chronic heart failure." | problem solving |
| 12 | Diseases of the internal organs. | The game "calculate the dose statin" | discussion |
| 13 | Diseases of the internal organs. | Problem Solving "Assign an anticoagulant?" | problem solving |
| 14 | Diseases of the internal organs. | The game "FAQ" on "community-acquired pneumonia" | problem solving |
| 15 | Diseases of the internal organs. | The game "FAQ" on "Evaluation of disability CRF and CGN" | discussion |
| 16 | Emergency care at the prehospital stage | The decision of situational problems on "Gasometer arterial blood and pulse oximetry" | discussion |

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| 17 | Emergency care in the prehospital setting | Production of case scenarios on "defibrillation rhythms" | problem solving |
| 18 | Emergency care in the prehospital setting | Production of case scenarios on "Tachycardia" | problem solving |
| 19 | Emergency care in the prehospital setting | Production of case scenarios on "Bradycardia" | problem solving |
| 20 | Emergency care in the prehospital setting | Production of case scenarios on the theme "Do not defibrillation rhythms" | problem solving |
| 21 | Emergency care in the prehospital setting | Its game on "Potentially reversible causes FOC" | discussion |
| 22 | Emergency care in the prehospital setting | The game "question-answer" on the theme "Monitoring the cardiac ECG" | discussion |
| 23 | Emergency care in the prehospital setting | The game "to determine the rhythm of" | discussion |
| 24 | Emergency care in the prehospital setting | The game "question-answer" on "airway" | discussion |
| Total (hours) | | | 67ч. |
| Total (% of in-class learning) | | | 36% |

7. Forms of control

7.1. Current forms of control

- oral (an interview, a report, a colloquium, defense of a project)
- written (tests, term papers, essays, abstracts, checking of lecture notes, solving of practical tasks, preparation of a case histories).

A subject list of abstracts, reports, essays, tests, term papers, test collections and cases are shown at the Appendix №4 to syllabus «Assessment tools».

7.2. Forms of the interim assessment

Stages of the exam

1. Stage - final testing
2. Stage - Control of practical skills (design recipes, sick leave)
3. Stage - practical skills at the center of pre-clinical training.

Questions for a pass/fail test and examination are listed at the Appendix №4 to the syllabus «Assessment tools».

Independent work - to teach a student to meaningfully and independently work with educational material, to lay the foundations of self-organization and self-education in order to continuously improve their skills in the future.

Complies with all sections of the discipline:

- Basics of the organization of outpatient care for the population and medical prevention.
- Internal diseases
- Emergency care at the prehospital stage.

Types of independent work:

- Analysis of the literature, preparation of abstracts
- Work with legislative documents.
- Work with primary medical records of a territorial district .
- Work with patient of a territorial district.

Independent work control methods:

- *Review of written abstracts*
- Review of medical records
- Testing.
- Situational tasks
- Checking diaries (work as an assistant general practitioner).
- Checking ECG interpretation

Extracurricular independent work is carried out on the platform «**MOODLE**».

| № п/п | Name of the module | Types of independent work | Hours | Forms of control |
|----------------------|--|---|-------|--|
| 9-10 semester | | | | |
| 1 | Basics of the organization of outpatient care for the population and medical prevention. | Students should study the legal documents of the Ministry of Health of RF Students should study the primary medical documentation of the territorial district. | 50 | Testing Checking the filling out of the documentation of the general practitioner (sick leave |

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| | | Filling out a sick-leave form, prescription forms, referrals for hospitalization, referrals for sanatorium treatment; referrals to specialists. | 44 | papers, referrals for hospitalization, referrals for sanatorium treatment; referrals to specialists) |
| | | Total | 94 | |
| 11 – 12 semester | | | | |
| 2 | Internal diseases | Work along with GP at the outpatient setting | 20 | Checking an individual diary (work with GP) |
| | | Filling out an individual diary | 10 | Task evaluation |
| | | ECG reading | 4 | Testing |
| | | Independent solution of situational tasks (internal medicine) | 5 | Review of the interpreted ECG |
| | | Preparation for test control of internal diseases | 5 | Related topic reports |
| | | Self-study of medical literature followed by writing an abstract on the topic of your choice (topics are given below) | 10 | |
| | | Total | 54 | |
| 12 semester | | | | |
| 3 | Emergency care at the prehospital | ECG reading | 30 | |

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| | stage | | | Проверка расшифрованных ЭКГ Test control |
| | | Preparation for test control of emergency care at the prehospital stage | 20 | |
| | | Total | 50 | |

8. Library and information materials of the course

8.1. Compulsory literature

- 1.Ivashkin V.T. Internal diseases propedeutics [Электронный ресурс]/ V. T. Ivashkin , A. V. Okhlobystin. -Москва: ГЭОТАР-Медиа, 2020. -176 p.- URL: <https://www.studentlibrary.ru/ru/book/ISBN9785970455555.html>
- 2.Oslopov V. N. General Care of a Patient [Электронный ресурс] : tutorial/ V. N. Oslopov, O. V. Bogoyavlenskaya. -Москва: ГЭОТАР-Медиа, 2021. -208 с.- URL: <https://www.studentlibrary.ru/book/ISBN9785970460429.html>
- 3.Levchuk, I. P. First Aid in Case of Accidents and Emergency Situations : course book / I. P. Levchuk, M. V. Kostyuchenko, A. P. Nazarov - Москва : ГЭОТАР-Медиа, 2017. - 120 с. - URL : <https://www.studentlibrary.ru/book/ISBN9785970442302.html>
- 4.Oslopov, V. N. Case history of therapeutic patient : manual / V. N. Oslopov, O. V. Bogoyavlenskaya, Yu. V. Osloпова et al. - Москва : ГЭОТАР-Медиа, 2014. - 176 с. - URL : <https://www.studentlibrary.ru/book/ISBN9785970433836.html>

8.2. Supplementary literature

- 1.Oslopov V. N. Case history of therapeutic patient: manual [Электронный ресурс]/ V. N. Oslopov, O. V. Bogoyavlenskaya, Yu. V. Osloпова. -MOSCOW: GEOTAR-Media, 2014. -176 p.- URL: <http://www.studentlibrary.ru/book/ISBN9785970433836.html>
- 2.Diagnostics and treatment of internal diseases in outpatient department = Диагностика и лечение терапевтических заболеваний на амбулаторном этапе : пособие для студентов учреждений высшего образования, обучающихся по специальности «Лечебное дело» : manual for students of higher education institutions studying in the specialty / Е. Н. Кежун, Н. С. Слободская, Д. В. Пицко, К. В. Гончар. - Гродно : ГрГМУ, 2020. - 200 с. - Текст : электронный // ЭБС "Букап" : [сайт]. - URL : <https://www.books-up.ru/ru/book/diagnostics-and-treatment-of-internal-diseases-in-outpatient-department-11950033/> (дата обращения: 19.04.2022). - Режим доступа : по подписке.
- 3.Basics of medical care = Основы медицинского ухода : пособие для студентов учреждений высшего образования, обучающихся по специальности «Лечебное дело» : manual for students of higher education institutions studying in the specialty «General Medicine» / Т. П. Пронько, Э. Э. Поплавская, Е. М. Сурмач и др. - Гродно : ГрГМУ, 2019. - 208 с. - Текст : электронный // ЭБС

"Букап" : [сайт]. - URL : <https://www.books-up.ru/ru/book/basics-of-medical-care-12061289/> (дата обращения: 19.04.2022). - Режим доступа : по подписке.

4.The organization and carrying out of examination of temporary disability = Организация и проведение экспертизы временной нетрудоспособности : an educational manual for English-speaking students / А. Г. Сердюков, И. Б. Набережная, Ж. Б. Набережная, А. С. Нимгирова. - Астрахань : Астраханский ГМУ, 2020. - 103 с. - ISBN 9785442405583. - Текст : электронный // ЭБС "Букап" : [сайт]. - URL : <https://www.books-up.ru/ru/book/the-organization-and-carrying-out-of-examination-of-temporary-disability-10835934/> (дата обращения: 19.04.2022). - Режим доступа : по подписке.

8.3. List of the information and telecommunications Internet resources required for mastering of the course (module)*

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

8.4. Implementation of e-learning (EL), the use of distance learning technologies (DLT)

| № | Platform of EL DLT | Name of the e-course, authors, URL address | E-course implementation model |
|---|--------------------|--|---|
| 1 | Moodle | 5,6 course English medium Polyclinical therapy Cardiology, pulmonology | https://edu.nsmu.ru/course/view.php?id=599 |
| 2 | Moodle | 5 course English medium Polyclinical therapy Outpatient therapy | https://edu.nsmu.ru/course/view.php?id=196 |

8.5 The list of the software and information & reference systems
Telegram, Veeva Engage, Zoom, Skype, Moodle

9. Material and technical facilities necessary for the educational process

| No. | The name of the school's office | Location of the study room | List of the main equipment of the study room |
|-----|--|---|---|
| 1 | Training audience for conducting classes | Пр.Троицкий,99 4этаж, каб.№ 91 | Seats – 30 Tables for classes - 7 Laptop – 2 View Sonic – 1 Projector Wall screen – 1 Chalk Board-1 |
| 2 | Training audience for conducting classes | Пр. Троицкий,99 4 этаж, каб. № 91а | Seats – 14 Tables for classes – 5 Compag – 1 Laptop Multimedia projector BenQ – 1 Akron wall – 1 System block-1 |
| 3 | Training audience for conducting classes | Пр. Троицкий,99 4 этаж, каб. № 92 | Of seats – 13 Tables for classes – 5 Supra – 1 TV Laptop – 1 |
| 4 | Training audience for conducting classes | Пр. Троицкий, 99 Поликлиника № 1 Конференц зал | Seats-74 Projector Computer |
| 5 | Training audience for conducting classes | ул. Тимме, 5 ЖД поликлиника Конференц зал | Of seats – 50 Projector-1 Computer-1 |

Patients who applied to the clinic.

2. Specially equipped classrooms, equipped with everything necessary for the educational process in the framework of industrial practice. Multimedia complex (laptop, projector, screen), TV, PC, video and DVD players, monitors. Sets of slides, tables/multimedia visual materials.

3. Audiovisual, technical and computer-based learning tools: a laptop and a multimedia projector, Board, markers.

4. Visual AIDS: visual AIDS, tables, electrocardiograms, laboratory data sets, outpatient maps, legislative documents, primary documents of the territorial area, disability sheets, directions to the msec, situational tasks on the subject of the discipline.

Slides:

1. Cardiology
2. Pulmonology
3. Nephrology
4. Endocrinology
5. Endocrine pathology
6. CPR

Sets:

1. A set of ECG on the topic "Emergency cardiology", "Arrhythmias".
2. Clinical tasks.
3. Tests (intermediate knowledge control tests and final knowledge control tests).
4. Farmaceutica.
5. Albums "Spa treatment" - 2 PCs.

Simulation dummies.

Zoll-M defibrillator with heart monitor

Airway patency equipment (Ambu bag, oxygen mask, oropharyngeal tubes, laryngeal masks, endotracheal tubes, laryngoscope)

Syringes, intravenous catheters, a system for setting up drip administration of drugs

5. Scientific and educational simulation center equipped with certified phantoms, models and tools (Arkhangelsk, 180 Troitsky Ave.).

6. Structural divisions of the ambulance station(substation, Department), equipment, equipment, medicines, materials of ambulances; models for cardiopulmonary resuscitation; visual AIDS: ambulance call cards with a signal sheet f. 110/Y accompanying sheet with a ticket f. 114/Y; other equipment used.

MINISTRY OF HEALTHCARE OF THE RUSSIAN FEDERATION
Federal State Budgetary Educational Institution of Higher Education
"NORTHERN STATE MEDICAL UNIVERSITY"
of the Ministry of Healthcare of the Russian Federation

APPROVED

Dean of the International Faculty
of General Practitioner

A.K. Sherstennikova

June 16th 2021

SYLLABUS OF THE DISCIPLINE

Discipline "Surgical diseases, urology"

Field of training **31.05.01 General Medicine**

Year (s) of study 4,5,6

Form of the interim assessment exam (11 semester)

Department Institute of Surgery

Discipline workload 540 academic hours / 15 credits

Approved at the department meeting

Institute of Surgery

Protocol No. _____

June 15th 2021

Head of the department Duberman B.L.

Author and compiler: Mizgirev D.V., Doct of Med.Sci., Ass. Prof., Assistant
Rybakova E.V., Assistant Schegoleva O.S.

Arkhangelsk, 2021

1. The place of discipline in the structure of the educational program

The program was compiled in accordance with the requirements of the Federal State Educational Standard in the direction of preparation 31.05.01 "General Medicine".

The discipline "Surgical diseases, urology" refers to the basic part of the professional cycle of disciplines, is studied in the eighth, ninth, tenth and eleventh semesters.

Curriculum disciplines preceding the study of this one:

- in the cycle of humanitarian and socio-economic disciplines (philosophy, bioethics; psychology and pedagogy; jurisprudence, history of medicine; Latin; foreign language);
- in the cycle of mathematical, natural sciences, biomedical disciplines (physics, mathematics; medical informatics; chemistry; biology; biochemistry, human anatomy; histology, embryology, cytology, normal physiology; pathological anatomy, pathophysiology; microbiology, virology; immunology, clinical immunology, pharmacology);
- in the cycle of medical professional and clinical disciplines (medical rehabilitation; hygiene; public health, health care, health economics; propaedeutics of internal diseases, general surgery, operative surgery and topographic anatomy, emergency medicine.

Curriculum disciplines based on the content of this one: "Minimally invasive and endoscopic surgery."

The discipline is implemented within the framework of the following types of tasks of professional activity, defined by the curriculum:

- preventive
- diagnostic
- research

2. Goal and tasks of the mastering of the discipline

The purpose of mastering the discipline: preparing students for the implementation of professional activities in the field of surgical diseases and urology

Discipline tasks:

1. Formation of knowledge about the etiology, pathogenesis, clinical signs, methods of treatment and prevention of surgical and urological diseases;
2. Formation of skills for the correct formulation of a preliminary diagnosis, differential diagnosis, referral of a patient for examination and substantiation of the final clinical diagnosis, treatment prescription;
3. Formation of skills to provide first aid in patients with acute surgical and urological pathology, as well as with injuries and wounds in peacetime

3. List of the planned learning outcomes of the discipline in connection to the planned outcomes of the mastering of the educational program

| Codes of the formed competences | Indicator of the competence achievement |
|--|--|
| General Professional Competence (GPC) - 4. Able to use medical devices provided for by the order of medical care, as well as conduct examinations of the patient in order to establish a diagnosis | Achievement Indicator (AI) - 1. Owns modern methods of using medicines, medical devices and clinical nutrition for diseases and conditions in a patient in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment |

| | |
|---|--|
| | <p>protocols) on the provision of medical care, taking into account the standards of medical care</p> <p>AI-2. Knows how to justify the choice of laboratory and instrumental methods for examining a patient</p> <p>AI-3. Has the skills to evaluate the results of laboratory and instrumental methods of examining a patient in order to establish a diagnosis</p> |
| GPC-7. Able to prescribe treatment and monitor its effectiveness and safety | <p>AI-1. Able to develop a treatment plan for the disease and the patient's condition in accordance with the procedures for providing medical care, clinical recommendations, taking into account the standards of medical care</p> <p>AI-2. Able to prevent or eliminate complications, side effects, adverse reactions, including unforeseen ones, resulting from diagnostic or therapeutic manipulations, the use of drugs and (or) medical devices, non-drug treatment</p> <p>AI-3. Has the skills to assess the effectiveness and safety of the use of medicines, medical devices and clinical nutrition</p> |
| PC-2. Ability and willingness to conduct a patient examination to establish a diagnosis | <p>AI-1. Able to collect complaints, anamnesis of life and disease of the patient and analyze the information received, conduct a complete physical examination of the patient (examination, palpation, percussion, auscultation) and interpret its results</p> <p>AI-2. Has the skills to determine the patient's main pathological conditions, symptoms, disease syndromes, nosological forms in accordance with the current international statistical classification of diseases and health-related problems</p> <p>AI-3. Able to justify the need and scope of laboratory and instrumental examination of the patient in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care and interpret its results</p> <p>AI-4. Carries out early diagnosis of diseases of internal organs and conducts differential diagnosis of diseases of internal organs from other diseases</p> |
| PC-3. Ability and willingness to manage and treat patients with various nosological forms | <p>AI-1. Able to draw up a treatment plan for the disease and the patient's condition, taking into account the diagnosis, age of the patient, the clinical picture of the disease in accordance</p> |

| | |
|--|---|
| | <p>with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p> <p>AI-2. Prescribes medicines, medical products and medical nutrition, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p> <p>AI-3. Prescribes non-drug treatment taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p> <p>AI-6. Uses medical devices in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, assistance taking into account the standards of medical care</p> |
| PC-5. The ability and readiness to provide medical care in an urgent and emergency form, ascertaining the biological death of a person | <p>AI-1. Able to identify clinical signs of conditions requiring medical attention in an emergency form</p> <p>AI-2. Performs emergency medical care in accordance with the procedures for providing medical care, clinical recommendations, taking into account the standards of medical care</p> <p>AI-3. Identifies conditions requiring emergency medical care, including clinical signs of sudden cessation of blood circulation and breathing, requiring emergency medical care</p> |
| PC-9. Ability and readiness to maintain medical records and organize the activities of nursing staff at the disposal | <p>AI-2. Works with personal data of patients and information constituting a medical secret</p> <p>AI-4. Fills out medical documentation, including in electronic form, controls the quality of its maintenance</p> <p>AI-6. Uses in his work information systems in the field of healthcare and the information and telecommunication network "Internet"</p> |

*The list of professional competencies is based on the requirements of the professional standard "General medicine (district physician)", approved by the order of the Ministry of Labor and Social Protection of the Russian Federation of March 21, 2017 No. 293n

4. Volume of the discipline (module) and types of the academic classes:

Total workload of the course is 15 credits.

| Type of study work | Total hours | Semester |
|--|-------------|--------------|
| Contact work of students with the teacher (total) | | |
| Including: | | |
| Lectures (L) | 96 | 8, 9, 10, 11 |
| Seminars (Sem) | | |
| Practical exercises (PE) | | |
| Clinical Practice (CP) | 190 | 8, 9, 10, 11 |
| Laboratory studies (LS) | | |
| Simulation practical exercises (SPE) | 20 | 9, 10, 11 |
| Contact work during the exam (CWDE) | 0,3 | 11 |
| Contact work during the test (PE) | | 9 |
| Exam consultations (Cons) | 2 | |
| Coursework (Kont KR) | | |
| Independent work (total) (IW) | 198 | 8, 9, 10, 11 |
| Control | 33,7 | |
| Total labor intensity (hours) | 540 | |
| | | |

5. The content of the discipline:**5.1. The content of the sections of the discipline**

| No. | Name of the discipline section | Section content |
|-----|--------------------------------|--|
| 1. | Abdominal surgery | 1. Introduction. Methodology of diagnostics in surgery 2. The most important syndromes in surgery 3. Operation, postoperative period, its complications 4. Acute surgical diseases of the abdominal organs 5. Diseases of the stomach and intestines 6. Herniology 7. Coloproctology 8. Injury to the abdomen 9. Liver disease 10. Diseases of the spleen |
| 2. | Urology | 1. Semiotics of urological diseases. Methods of examination of urological patients. 2. Non-specific inflammatory diseases of the urinary system and male genital organs. 3. Urolithiasis. 4. Neoplasms of the urinary system and male genital organs. 5. Anomalies in the development of the urinary system and male genital organs. 6. Injuries of the urinary system and male genital organs. |

| | | |
|----|------------------------|--|
| 3. | Cardiovascular Surgery | 1. Surgical treatment of heart diseases (CAD, congenital and acquired defects, arrhythmias) 2. Diseases and injuries of the main and peripheral arteries 3. Diseases and injuries of the main and peripheral veins |
| 4. | Thoracic Surgery | 1. Purulent diseases of the lungs, pleura and mediastinum 2. Diseases of the diaphragm 3. Chest injury 4. Surgical diseases and injuries of the esophagus |
| 5. | Surgical endocrinology | 1. Diseases of the thyroid gland 2. Diseases of the adrenal glands 3. Diseases of the thymus |

5.2. The number of hours allotted for the study of individual sections of the discipline and types of classes

| No. p/n | Name of the discipline section | L | Sem | PE | CP | LS | SPE | IW | Total hours |
|---------|--------------------------------|----|-----|----|----|----|-----|----|-------------|
| 1. | Abdominal surgery | 52 | - | - | 95 | - | 5 | 86 | 238 |
| 2. | Urology | 10 | - | - | 30 | - | - | 15 | 55 |
| 3. | Cardiovascular Surgery | 10 | - | - | 20 | - | 5 | 18 | 53 |
| 4. | Thoracic Surgery | 20 | - | - | 40 | - | 10 | 74 | 144 |
| 5. | Surgical endocrinology | 4 | | | 5 | | | 5 | 14 |

6. The list of educational and methodological support for independent work of students in the discipline, including using the possibilities of e-learning, distance learning technologies (LMS Moodle)

| No. p/n | Name of the discipline section | Types of independent work | Forms of control |
|---------|--------------------------------|--|--|
| 1 | Abdominal surgery | - Registration of the medical history of the supervised patient - testing in the moodle system - solving situational problems in the moodle system - creating presentations | - Medical history check - checking test results - checking situational tasks - evaluation of the report on the presentation |
| 2. | Urology | - Registration of the medical history of the supervised patient - testing in the moodle system - solving situational problems in the moodle system | - Medical history check - checking test results - checking situational tasks - assessment of the presentation |

| | | | |
|----|------------------------|--|---|
| | | - creating a presentation | report |
| 3. | Cardiovascular Surgery | - Registration of the medical history of the supervised patient - testing in the moodle system - solving situational problems in the moodle system - creating presentations | - Medical history check - checking test results - checking situational tasks - assessment of the presentation report |
| 4. | Thoracic Surgery | - Registration of the medical history of the supervised patient - testing in the moodle system - solving situational problems in the moodle system - creating presentations | - Medical history check - checking test results - checking situational tasks - assessment of the presentation report |
| 5. | Surgical endocrinology | - testing in the moodle system - solving situational problems in the moodle system - essay writing | - checking test results - checking situational tasks - Checking the abstract |

7. Forms of control

7.1. Forms of current control

oral: interview, report, medical history protection, clinical analysis of the patient, analysis of multimedia presentations and slideshows;

written: checking tests, abstracts, abstracts, solutions to clinical situational problems, case histories.

An approximate list of topics for abstracts, reports, essays, tests, typical test tasks, typical situational tasks, etc. are given in Appendix No. 4 "Evaluation Tools" to the work program.

7.2. Forms of intermediate control (test, exam, term paper / course project, etc.)

Stages of interim certification

1 Stage - knowledge control - testing

2 Stage - certification of practical skills, control of clinical thinking - test with the participation of the patient

3 Stage - control of knowledge and practical skills

- solution of a clinical situational problem;

- description of the radiograph, ultrasonogram, computed tomography of a patient with a surgical or disease

Typical questions for the test and exam, an approximate list of topics for term papers / course projects, typical test tasks, typical situational tasks are given in Appendix No. 4 "Evaluation Tools" to the work program.

9. Maintenance of the course

9.1. The basic literature.

1. Manipal Manual of Surgery. 4th edition. K. Rajgopal Shenoy, Anitha Shenoy (Nileshwar). CBC Publishers & Distributors, 2014. – 1224 p., ill.
2. Bailey and Love's Short Practice of Surgery. 27th edition. CRC Press Taylor & Francis Group, 2018. – 1633 p.: ill.
3. A manual on Clinical Surgery. S. Das. 10th edition, Calcutta, 2008. – 650 p., ill.

8.2. Additional literature

1. Основы неотложной хирургической помощи [Электронный ресурс] : рук. для врачей общ. практики : в 2 т., Т.2 : Специальная часть/ под ред.: Р. Н. Калашникова, Э. В. Недашковского. -Архангельск: Изд-во СГМУ, 2014. -256 с- URL: http://nb.nsmu.ru/cgi-bin/irbis64r_11/cgiirbis_64.exe?LNG=&C21COM=F&I21DBN=ELIB_READER&P21DBN=ELIB&Z21ID=103437543067097489-73330&Image_file_name=%5C-RES%5C%5Ccosnovt2.pdf&mfn=510
- 2.Рехачев В. П. Острый живот [Электронный ресурс] : монография/ В. П. Рехачев. -3-е изд., доп. и перераб. - Архангельск: Изд-во Северного государственного медицинского университета, 2017. -240 с.- URL: http://nb.nsmu.ru/cgi-bin/irbis64r_11/cgiirbis_64.exe?LNG=&Z21ID=&I21DBN=ELIB&P21DBN=ELIB&S21STN=1&S21REF=3&S21FMT=fullwebr&C21COM=S&S21CNR=20&S21P01=0&S21P02=1&S21P03=I=&S21STR=elb/P%2045-190319
- 3.Рехачев В. П. Острый аппендицит [Электронный ресурс] : монография/ В. П. Рехачев. -Архангельск: Изд-во Северного государственного медицинского университета, 2010. -194 с.- URL: http://nb.nsmu.ru/cgi-bin/irbis64r_11/cgiirbis_64.exe?LNG=&Z21ID=&I21DBN=ELIB&P21DBN=ELIB&S21STN=1&S21REF=3&S21FMT=fullwebr&C21COM=S&S21CNR=20&S21P01=0&S21P02=1&S21P03=I=&S21STR=elb/P%2045-927656
4. Эндохирургия при неотложных заболеваниях и травме [Электронный ресурс] : руководство/ под ред.: М. Ш. Хубутия, П. А. Ярцева. -Москва: ГЭОТАР-Медиа, 2014. -240 с.: ил.- URL: <http://www.rosmedlib.ru/book/ISBN9785970427484.html>, <http://www.studentlibrary.ru/book/ISBN9785970427484.html>
- 5.Предоперационный период: предоперационная оценка: подготовка к плановым хирургическим вмешательствам [Электронный ресурс] : практическое руководство/ М. В. Бунина, Головенко Е.Н., Ю. О. Лабутина ; ред. В. В. Самойленко. -Москва: ГЭОТАР-Медиа, 2009. -128 с.- URL: <http://www.studentlibrary.ru/book/ISBN9785970413234.html>
- 6.Кулезнёва Ю.В. Ультразвуковое исследование в диагностике и лечении острого аппендицита [Электронный ресурс]/ Ю. В. Кулезнёва, Р. Е. Израйлов, З. А. Лемешко. -Москва: ГЭОТАР-Медиа, 2014. -72 с.- URL: <http://www.studentlibrary.ru/book/ISBN9785970427033.html>
- 7.Лагун М.А. Курс факультетской хирургии в рисунках, таблицах и схемах [Электронный ресурс] : учеб. пособие/ М. А. Лагун, Б. С. Харитонов ; ред. С. В. Вертянкин. -Москва: ГЭОТАР-Медиа, 2016- URL: <http://www.studentlibrary.ru/book/ISBN9785970437834.html>
- 8.Черепанин А.И. Атлас осложнений хирургии грыж передней брюшной стенки [Электронный ресурс] : атлас/ А. И. Черепанин. -Москва: ГЭОТАР-Медиа, 2017. -208 с.: ил.- URL: <http://www.studentlibrary.ru/book/ISBN9785970440759.html>
- 9.Панкреатит [Электронный ресурс] : монография/ Н. В. Мерзликин [и др.] ; под ред. Н. В. Мерзликина. -Москва: ГЭОТАР-Медиа, 2014. -528 с.: ил.- URL: <http://www.rosmedlib.ru/book/ISBN9785970428474.html>, <http://www.studentlibrary.ru/book/ISBN9785970428474.html>
- 10.Панкреонекроз. Диагностика и лечение [Электронный ресурс]/ А. В. Шабунин [и др.]. -Москва: ГЭОТАР-Медиа, 2014. -96 с.: ил.- URL:

<http://www.rosmedlib.ru/book/ISBN9785970428252.html>

11. Кузнецов Н.А. Прогнозирование в плановой хирургии [Электронный ресурс] / Н. А. Кузнецов. - Москва: ГЭОТАР-Медиа, 2017. - 336 с. - URL: <http://www.studentlibrary.ru/book/ISBN9785970440056.html>

12. Калинин Р.Е. Клиническая анатомия системы воротной вены печени [Электронный ресурс] : практическое руководство / Р. Е. Калинин. - Москва: ГЭОТАР-Медиа, 2017. - 160 с. - URL: <http://www.studentlibrary.ru/book/ISBN9785970438060.html>

13. Семионкин Е.И. Атлас колопроктологических заболеваний [Электронный ресурс] : учебное пособие / Е. И. Семионкин, А. Ю. Огорельцев. - Москва: ГЭОТАР-Медиа, 2016. - 80 с. - URL: <http://www.rosmedlib.ru/book/ISBN9785970439906.html>, <http://www.studentlibrary.ru/book/ISBN9785970439906.html>

14. Альперович Б. И. Хирургия печени [Электронный ресурс] : Руководство для врачей / Б. И. Альперович. - Москва: ГЭОТАР-Медиа, 2013. - 352 с. - URL: <http://www.rosmedlib.ru/book/ISBN9785970425732.html>, <http://www.studentlibrary.ru/book/ISBN9785970425732.html>

15. Учебные материалы для подготовки к итоговому контролю по дисциплинам "Факультетская хирургия" и "Урология" [Электронный ресурс] : учебное пособие / С. М. Дыньков [и др.]. - 2-е изд., испр.. - Архангельск: Изд-во Северного государственного медицинского университета, 2019. - 175 с. - URL: http://nb.nsmu.ru/cgi-bin/irbis64r_11/cgiirbis_64.exe?LNG=&Z21ID=&I21DBN=ELIB&P21DBN=ELIB&S21STN=1&S21REF=3&S21FMT=fullweb&C21COM=S&S21CNR=20&S21P01=0&S21P02=1&S21P03=I=&S21STR=elb/Y%2091-062668

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8.3.The list of resources of the information and telecommunication environment "Internet" necessary for the development of the discipline (module) *

| No. | Resource name | URL address | Resource annotation |
|-----|----------------------------|-------------|---------------------|
| | Surgical diseases, urology | | |

Electronic educational resources*

| | |
|--|--|
| Electronic library of NSMU | http://nsmu.ru/lib/ Access with a password provided by the library |
| EBS "Student's Consultant" HPE, SPO.Sets: Medicine. Healthcare. Humanities and social sciences. Natural Sciences | http://www.studentlibrary.ru/ http://www.studmedlib.ru/ http://www.medcollegelib.ru/ Access is activated through registration on any computer of the university. |
| EBS "Doctor's Consultant" | http://www.rosmedlib.ru Access with a password provided by the library. |
| NEL- National electronic library | http://neb.rf There are open access resources |
| Scientific electronic library eLIBRARY.RU | http://www.elibrary.ru Open resource |
| Federal Electronic Medical Library (FEMB) | http://feml.scsml.rssi.ru Open resource. Clinical guidelines (treatment protocols) are available. |

| | |
|--|---|
| University Information System "Russia"(UIS Russia). | uisrussia.msu.ru Access from university computers |
| Ministry of Health of the Russian Federation.Bank of documents | https://www.rosminzdrav.ru/ Open resource |
| World Health Organization | https://www.who.int/ru Open resource |
| Information system "Single window of access to information resources" | http://window.edu.ru/ Open resource |
| VIDAL drug guide | https://www.vidal.ru/ Open resource |
| Great Russian Encyclopedia | https://bigenc.ru/ Open resource |
| Garant.ruInformation and legal portal | http://www.garant.ru/ Limited access |
| Legal system "ConsultantPlus" | http://www.consultant.ru/ Access is provided in the electronic information room of the library (room 2317) |
| Official Internet portal of legal information | http://pravo.gov.ru/ Open resource |
| Electronic collection of medical textbooks of the Thieme publishing house. | http://medone-education.thieme.com/ Access from university computers by password |
| Database «Web of Science» | https://www.webofscience.com Access from university computers. Remote access - through personal registration under the IP address of the university |
| Elsevier Publishing | https://www.sciencedirect.com/ Open access journals |
| SpringerNature Publishing | https://link.springer.com/ Access from university computers |
| Scopus database | https://www.scopus.com/ Access from university computers |
| Publisher Royal Society of Chemistry | www.rsc.org/ There are open resources |

| | |
|--|--|
| PubMedCentral(PMC) - full-text archive of biomedical journals of the US National Library of Medicine | www.pubmedcentral.nih.gov Open resource |
| Open Archive of the University of Tromsø (Norway) | http://munin.uit.no/ Open resource |
| Magazines published by DeGruyterOpen | https://content.sciendo.com/ Open resource |
| Directory of Open Access Books (DOAB) | https://www.doabooks.org/ Open resource |
| Directory of Open Access Journals (DOAJ) | https://doaj.org/ Open resource |
| DatabaseEBSCO Open Dissertations | biblioboard.com/opendissertations Open resource |
| PLOS ONE— a collection of scientific journals in open access | https://journals.plos.org/plosone/ Open resource |
| Polpred.com. Media review. | Polpred.com Media Review Access from university computers. Remote access - through personal registration on the computers of the university |

8.4. Implementation of e-learning (EL), use of distance learning technologies (DET)*

| No. | EA and bunker site | Name of the e-course, authors, URL address | E-course implementation model |
|-----|--------------------|---|-------------------------------|
| | Moodle | Surgical diseases, urology https://edu.nsmu.ru/course/view.php?id=1249 | blended learning + EC |

**In the EL and DOT platform column, indicate the name of the learning platform (Moodle, Medunet, Obrnet, a specific MOOC platform), in the column "Name of the e-course, authors, URL address" place a link to the resource, the exact name of the course, in the column "E-course implementation model" indicate information about the model being implemented - web support, blended learning + EC, blended learning EC +, exclusively online education.*

8.5. List of software and information reference systems.

In the implementation of the educational process, students and faculty use the following software: operating system - MSWindowsVistaStarter, MSWindowsProf 7 Upgr; office suite - MSOffice 2007; other software - 7-zip, AdobeReader, KasperskyEndpointSecurity

9. Logistics support of discipline

| No. | Name of the study room | Location of the study room | List of the main equipment of the study room |
|-----|--|--|---|
| 1 | Classroom for conducting lecture-type classes No. 2511, administrative | 163000, Arkhangelsk, ave. Troitsky, 51 | a) list of main equipment: A set of educational furniture (tables, chairs, a screen, a |

| | | | |
|---|---|--|--|
| | educational building, 5th floor | | board) a teacher's workplace, workplaces for students for 190 seats b) sets of demonstration equipment monoblock, projector, screen c) a list of teaching and visual aids: schemes, tables |
| 2 | Classroom for seminar-type classes, group and individual consultations, current control and intermediate certification No. 99, 3rd floor Agreement No. 710 dated September 26, 2017 on the organization of practical training for students between the Federal State Budgetary Educational Institution of Higher Education of the NSMU (Arkhangelsk) of the Ministry of Health of Russia and the State Budgetary Institution of Health of the Arkhangelsk Region "First City Clinical Hospital named after I.I. HER. Volosevich. The term of the Agreement is 5 years. Equipment in accordance with Appendix No. 3 to the Agreement. | 163001, Arkhangelsk region, Arkhangelsk, Troitsky Ave., 143 | a) list of main equipment: A set of educational furniture (tables, chairs, a screen, a board) a teacher's workplace, workplaces for students for 14 places. b) sets of demonstration equipment laptop, projector c) a list of teaching and visual aids: Visual aids, handouts for practical exercises on all topics of the discipline, diagrams on the topics of classes, dummies |
| 3 | Training room for seminar-type classes, group and individual consultations, current control and intermediate certification No. 3, 3rd floor Agreement No. 710 dated September 26, 2017 on the organization of practical training for students between the Federal State Budgetary Educational Institution of Higher Education of the NSMU | 163001, Arkhangelsk region, Arkhangelsk, Troitsky avenue, 143, bldg. 1 | a) list of main equipment: A set of educational furniture (tables, chairs, a screen, a board) a teacher's workplace, workplaces for students for 14 places. b) sets of demonstration equipment laptop, projector c) a list of teaching and visual aids: Visual aids, handouts for practical exercises on all topics of the discipline, |

| | | | |
|---|---|---|--|
| | (Arkhangelsk) of the Ministry of Health of Russia and the State Budgetary Institution of Health of the Arkhangelsk Region "First City Clinical Hospital named after I.I. HER. Volosevich. The term of the Agreement is 5 years. Equipment in accordance with Appendix No. 3 to the Agreement. | | diagrams on the topics of classes, dummies |
| 4 | <p>Training room for seminar-type classes, group and individual consultations, current control and intermediate certification</p> <p>No. 78, 5th floor</p> <p>Agreement No. 710 dated September 26, 2017 on the organization of practical training for students between the Federal State Budgetary Educational Institution of Higher Education of the NSMU (Arkhangelsk) of the Ministry of Health of Russia and the State Budgetary Institution of Health of the Arkhangelsk Region "First City Clinical Hospital named after I.I. HER. Volosevich. The term of the Agreement is 5 years. Equipment in accordance with Appendix No. 3 to the Agreement.</p> | 163001 Arkhangelsk region, Arkhangelsk, embankment of the Northern Dvina, 125 | <p>a) list of main equipment: A set of educational furniture (tables, chairs, a screen, a board) a teacher's workplace, workplaces for students for 14 places.</p> <p>b) sets of demonstration equipment laptop, projector</p> <p>c) a list of teaching and visual aids: Visual aids, handouts for practical exercises on all topics of the discipline, diagrams on the topics of classes, dummies</p> |
| 5 | Simulation class No. 414, educational building, 4th floor: Room for the treatment of surgical patients for skills development. | 163001, Arkhangelsk, ave. Troitsky, 180 | <p>List of teaching and visual aids: Visual aids, handouts for practical exercises on all topics of the discipline manipulation table msk-549-02-msk", laparoscopic simulator mounted on a mobile stand, virtual augmented reality simulator for basic endosurgical</p> |

| | | | |
|---|---|--|--|
| | | | simulation training, hybrid virtual simulation complex for practical skills in endosurgery "ensim-lpr.01, screen, medical cabinet MD 2 1670/ss , table, chair |
| 6 | Classroom for seminar-type classes, group and individual consultations, current control and intermediate certification No. 413, academic building, 4th floor (debriefing room) | 163001, Arkhangelsk, ave. Troitsky, 180 | <p>a) list of main equipment: A set of educational furniture (tables, chairs, a screen, a board) a teacher's workplace, workplaces for students for 18 seats.</p> <p>b) sets of demonstration equipment laptop, projector, whiteboard</p> <p>c) a list of teaching and visual aids: Visual aids, handouts for practical exercises on all topics of the discipline, a mannequin that imitates the torso of a child of 5 (five) years old, for teaching auscultation in various pathologies</p> |
| 7 | <p>Training room for seminar-type classes, group and individual consultations, current control and intermediate certification No. 3, 5th floor</p> <p>Agreement No. 710 dated September 26, 2017 on the organization of practical training for students between the Federal State Budgetary Educational Institution of Higher Education of the NSMU (Arkhangelsk) of the Ministry of Health of Russia and the State Budgetary Institution of Health of the Arkhangelsk Region "First City Clinical Hospital named after I.I. HER. Volosevich. The term of the Agreement is 5 years. Equipment in accordance with Appendix No. 3 to the Agreement.</p> | 163001, Arkhangelsk region, Arkhangelsk, Troitsky Ave., 143, building 6. | <p>a) list of main equipment: A set of educational furniture (tables, chairs, a screen, a board) a teacher's workplace, workplaces for students for 16 places.</p> <p>b) sets of demonstration equipment laptop, projector, negatoscope</p> <p>c) a list of teaching and visual aids: Visual aids, handouts for practical classes on all topics of the discipline, diagrams on the topics of classes, cystoscopes, catheters, a set for trocar cystostomy, a collection of urinary stones.</p> |

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In the wards of surgical departments are carried out:

- examinations of patients during clinical rounds of the department by the staff of the department
- curation of patients by students is carried out
- demonstrations of patients are held in the wards

Dressing and procedural rooms in surgical departments are used for classes, demonstration of patients, manipulations, dressings

MINISTRY OF HEALTHCARE OF THE RUSSIAN FEDERATION
Federal State Budgetary Educational Institution of Higher Education
"NORTHERN STATE MEDICAL UNIVERSITY"
of the Ministry of Healthcare of the Russian Federation

APPROVED

Dean of the International Faculty
of General Practitioner

A.K. Sherstennikova

June 16th 2021

SYLLABUS OF THE DISCIPLINE

Discipline

Field of training **31.05.01 General Medicine**

Year (s) of study / term (s) 4, 5

Form of the interim assessment exam

Department Obstetrics and Gynecology

Discipline workload **504** (academic hours) / **14** (credits)

Approved at the department
meeting:

Minutes № 11

«11» June 2021

Head of the department

_____/Professor A. Baranov

Author and compiler:

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Arkhangelsk, 2021

1. Position of the discipline (module) within the structure of the educational program

The discipline is developed following the requirements of Federal State Education Standard (FSSES) for higher education in the field of 31.05.01 «General medicine».

The discipline is related to the disciplines of the Basic part of the curriculum

The discipline is related to prior subjects of the curriculum:

C.1 - human, social and economic cycle (the Latin language, foreign language, pedagogy and psychology, public health, health-care organization, health economics);

C.2 - Mathematics and Natural sciences cycle (Biology, Anatomy, Biochemistry, Anatomy, Normal physiology, Microbiology, Immunology, Pathological physiology, Pathological anatomy, Hygiene and ecology, Introduction to the internal diseases, General surgery and Topographical Anatomy, Radiology, Medical rehabilitation, Infectious diseases, Perinatology and Neonatology, Genetics, Intensive care, Phthisiatry, Clinical pharmacology).

The discipline is related to subsequent subjects of the curriculum:

The discipline is realized in the structure of the following types of professional activity tasks defined by the curriculum: preventive/diagnostic/organizational and administrative /research

2. Goal and tasks of the mastering of the discipline

The goal is the mastering the discipline “Obstetrics and Gynecology”: get knowledge about the processes of physiological pregnancy and childbirth; possible complications of gestational process and labor; learn how to put a preliminary diagnosis, provide emergency care in obstetrics. Get basic knowledge of female reproductive health physiology in different age periods and main gynecological diseases in order to be able provide diagnosis and primary emergency care for gynecological patient

The tasks are:

- to learn the obstetric and gynecological care organization principles;
- to study general principles of obstetric and gynecological examination;
- to get and to analyze the data of patient medical history and specific functions of the female organism;
- to master clinical examination principles of pregnant women with physiological/pathological pregnancy, somatic co-morbidity;
- to train in history-taking, examination of pregnant and gynecological patients on the basis of ethics and deontology, depending on the diagnosed pathology and special features of patients;
- to provide the communication skills in the students;
- to study the physiology and pathology of menstrual function;
- to study the physiology of pregnancy and childbirth, to get knowledge of pregnancy symptoms, characteristics of the fetus as an object of labor;
- to organize proper epidemiological environment;
- to get knowledge of the most dangerous pregnancy complications and childbirth, their risk factors, early symptoms, effects on the fetal condition, prevention methods; management, indications and methods of delivery;
- to master the principles and methods of primary emergency care in severe obstetric and gynecological cases;
- to study methods of contraception and family planning;
- to master the principles of treatment and rehabilitation of gynecological patient;
- to train the students in medical documentation filling-in (case history (stationary or outpatient), disability certificate, statistical chart, etc.);
- to provide regular medical check-up of children of different ages in order to prevent severe diseases and their complications;
- to support healthy lifestyle in the family;
- to assess the efficiency of medical service.

3. List of the planned learning outcomes of the discipline (module) in connection to the planned outcomes of the mastering of the educational program

| Codes of the formed competences | Indicator of the competence achievement |
|--|--|
| General professional competencies (GPC) -№ 4,5 | |
| GPC4 - Able to use medical devices provided for by the procedure for the provision of medical care, as well as conduct examinations of a patient in order to establish a diagnosis | <p>IC-4.1 Proficient in modern methods of using drugs, medical devices and medical nutrition for diseases and conditions in a patient in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care.</p> <p>IC-4.2. Knows how to justify the choice of laboratory and instrumental methods of examining a patient.</p> <p>IC-4.3. Possesses the skills of evaluating the results of laboratory and instrumental methods of examining a patient in order to establish a diagnosis.</p> |
| GPC5 - Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems | <p>IC-5.1. Knows anatomy, histology, topographic anatomy, physiology, pathological anatomy and physiology of human organs and systems.</p> <p>IC-5.2. Knows how to determine and evaluate morphofunctional, physiological states and pathological processes in the human body</p> <p>IC-5.3. He is proficient in the methods of conducting clinical, laboratory and functional diagnostics for solving professional problems.</p> <p>IC-5.4. Knows how to analyze the results of clinical, laboratory and functional diagnostics to assess morphofunctional, physiological conditions and pathological processes in the human body.</p> |
| Professional competencies *(PC) - № 3 | |
| Ability and willingness to manage and treat patients with various nosological forms | <p>IC-3.1. Is able to draw up a plan for the treatment of the disease and the patient's condition, taking into account the diagnosis, the patient's age, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care.</p> <p>IC-3.2. Prescribes drugs, medical devices and medical nutrition, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care.</p> <p>IC-3.3. Prescribes non-drug treatment taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care.</p> <p>IC-3.4. Owns the algorithm for providing palliative care when interacting with specialist doctors and other medical professionals.</p> |

| | |
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| | <p>IC-3.5. Knows how to prescribe personalized treatment for a patient, including pregnant women, elderly and senile patients; to lead a physiological pregnancy, to take childbirth.</p> <p>IC-3.6. Applies medical devices in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, care, taking into account the standards of medical care</p> |
|--|--|

*The list of professional competencies is based on the requirements of the professional standard "General medicine (district physician)", approved by the order of the Ministry of Labor and Social Protection of the Russian Federation of March 21, 2017 No. 293n

4. Volume of the discipline (module) and types of the academic classes:

Total workload of the course is _14_ credits.

| Type of the academic work | Total hours | Term | | | |
|--|---------------|------------|------------|------------|-------------|
| | | 7 | 8 | 9 | A (10) |
| Students' contact work with the teacher (total) | 236,3 | 68 | 60 | 60 | 48,3 |
| Including: | | | | | |
| Lectures (L) | 78 | 20 | 20 | 20 | 18 |
| Seminars (Sem.) | | | | | |
| Practical classes (PC) | | | | | |
| Clinical practicals (CP) | 156 | 48 | 40 | 40 | 28 |
| Laboratory-based practicals (LBP) | | | | | |
| Simulation-based practicals (SBP) | | | | | |
| Preparation for the examination (PE) | 0,3 | | | | 0,3 |
| Preparation for the credit (PC) | | | | | |
| Exam consultations (EC) | 2 | | | | 2 |
| Coursework (CW) | | | | | |
| Unsupervised work (UW) (total) | 234 | 40 | 48 | 74 | 72 |
| Examination control (EC) | 33,7 | | | | 33,7 |
| Total discipline workload | 504/14 | 108 | 108 | 134 | 154 |

5. Course content:

5.1. Contents of the sections of the course

| No | Name of the course section | Content of the section |
|--|--|---|
| 1 | 2 | 3 |
| Obstetrics Section 1. Physiological Obstetrics (term 7) | | |
| 1 | The structure and organization of the maternity hospital. The structure and organization of outpatient obstetric care setting. Sanitary-epidemiological system in Maternity Hospital | The structure and organization of the maternity hospital. The structure and organization of the welfare clinic. Sanitary-Epidemiological system in Maternity Hospital. The structure of the maternity hospital. The organization of in-patient transfer. The structure of the welfare clinic, antenatal screening aim, prophylactic measures, family planning, social assistance for pregnant women, Obstetric care indices |

| | | |
|--|---|---|
| 2 | Female reproductive system. Development stages and physiology. Fertilization and pregnancy development. Fetal physiology. Placental functions. Physiologic alterations during pregnancy | Stages of the female reproductive system development, malformations of the external and internal genitalia, regulation in the reproductive system. Histology of the ovum and sperm. Fertilization. Implantation. Placentation. Embryonic and fetal development periods. Physiological alterations during pregnancy. |
| 3 | Methods of obstetric examination. Diagnosis of early pregnancy. Methods to evaluate fetal well-being | Specific features of history-taking in obstetrics. Obstetric examination. Pelvimetry. Soloviev's Index. Leopold manoeuvres. Auscultation of fetal heartbeats. Vaginal examination of pregnant patient. Diagnosis of pregnancy (presumably, probable and valid symptoms, laboratory tests). Determination of gestational age and expected date of delivery. The concept of obstetric and perinatal risk groups. The concept of obstetric screening. Booking visit in antenatal screening program. Obstetric records. Methods to evaluate fetal well-being. Biochemical screening, ultrasound obstetric examination, CTG, Doppler. Additional methods - amnioscopy, amniocentesis, chorionic villus sampling, cordocentesis, biopsy of the fetal tissues. |
| 4 | Fetus as the object of delivery. Female pelvis from obstetric point of view. Labor mechanism in occipital presentation. | Fetal head anatomy and sizes. Female pelvis anatomy, pelvic planes, sizes, axis. Pelvic floor muscles, blood supply and innervation of the pelvic muscles. Definition of labor mechanism. Labor mechanism moments in occiput presentation |
| 5 | Preparatory phase of the labor onset. Physiology and management of labor | The reasons for the labor onset. Clinical features of the preliminary phase. Bishop's score. Labor stages (dilatation, the expulsion of the fetus, placental). Labor management specificity in I, II and III stage of labor. The position of the fetal head with respect to the pelvic planes. Coping with pain during labor. Perineum safeguard technique. Primary care for the newborn. Apgar score. Signs of placental separation. Methods to remove the placenta. Examination of the placenta. |
| 6. | Puerperium. | The early puerperium management. Physiology of the puerperium. Mammary glands changes in puerperium. Lactation. Late puerperium management. Postpartum Contraception |
| Section 2: Pathology of pregnancy, childbirth and the puerperium (term 8) | | |
| 7. | Pregnancy complications at early stages. Preeclampsia. Eclampsia. | Nausea and vomiting in pregnancy. Salivation. Rare forms - dermatosis, tetany, osteomyelitis, acute yellow atrophy of the liver, asthma of pregnant. Hypertension during pregnancy - classification, etiology and pathogenesis, Preeclampsia. |

| | | |
|-----|---|---|
| | | Eclampsia. Indication for pregnancy termination. Management of labor and the postpartum period. Postpartum therapy of severe preeclampsia. |
| 8. | Pregnancy with somatic co-morbidity | Antenatal management of pregnant women with cardiovascular diseases (heart disease, hypertension, rheumatism), kidney disease (pyelonephritis, glomerulonephritis, kidney insufficiency), chronic anemia, diabetes mellitus, liver disease. Medical complications of pregnancy. |
| 9 | Miscarriage. Preterm delivery. Post-term delivery. | Spontaneous abortion - definition, causes, clinical features, differential diagnosis, therapy. Preterm birth (definition, obstetric care, prevention). Primary care and resuscitation of a premature baby. Post term delivery - definition, causes. Signs of postterm child. Labor induction indications, management specificity. |
| 10. | Abnormal labor contractions. Placental insufficiency. | Placental function. Etiology and pathogenesis of the placental insufficiency; diagnosis, principles of therapy. Primary and secondary uterine hypotonic contractions. Precipitate delivery. Uterine dystocia. Main principles of management. |
| 11. | Contracted pelvis. Multiple pregnancy. Fetal macrosomia | Contracted pelvis-definition, classification. Labor mechanism specificity in various forms of pelvic contraction. Clinical features of labor in case of contracted pelvis. Feto-pelvic disproportion. Fetal macrosomia. Delivery planning. Etiology of multiple pregnancy. Diagnosis, possible complications, management of multiple pregnancy. |
| 12. | Fetal malpositions. Breech presentation. Fetal cephalic malpresentation | Classification, risk factors and diagnosis of fetal malposition. Breech presentation - definition, classification. Labor mechanism in breech presentation. Management of pregnancy and childbirth. Manoeuvres by Tsovyanov, Mauriceau–Smellie–Veit to assist natural birth. Oblique and transverse position of the fetus. Management of pregnancy and delivery. Fetal cephalic malpresentations, diagnosis, risk factors, management. |
| 13. | Placenta previa. Placental abruption. Placental anomalies. Atonic uterine bleeding in the early and late postpartum period. | The classification of placenta previa. The etiology and pathogenesis, pregnancy and delivery management. Placental abruption etiology and pathogenesis, clinical features, diagnosis, management of pregnancy and childbirth. Placenta |

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| | | accreta - classification, diagnosis, obstetrical tactic. The concept of the uterine atony. Risk factors, symptoms and management. Late postpartum hemorrhage. Emergency care. Prevention of postpartum hemorrhage |
| 14. | Puerperium infections. | Puerperium infections classification, etiology, pathogenesis. Puerperium wound infection, endometritis, thrombophlebitis. Obstetric peritonitis. Sepsis. Postpartum lactation mastitis. |
| Section 3: Obstetric surgery (term 8) | | |
| 15. | Obstetric trauma. Operative vaginal delivery techniques. Caesarean section. | Birth canal lacerations. Perineal tears. Vaginal and cervical ruptures. Uterine rupture. Classification, etiology, pathogenesis, treatment measures. Threatening, the beginning and the accomplished uterine rupture. Obstetric forceps, vacuum extraction of the fetus. Cesarean section indications and technique. Management of the postoperative period. Complications and long-term consequences. Prevention of postpartum infections. |
| Gynecology. | | |
| Section 1: General gynecology (term 9) | | |
| 1. | Diagnostics in Gynecology. | Features of the gynecological examination: general, pelvic examination, hormonal, instrumental, x-ray, ultrasound, immunological, etc. Case history of gynecologic patient. |
| 2. | Menstrual Cycle. Menstrual Function Disorders. | Physiology of menstrual cycle in women. Normal characteristics of menstrual cycle. Terminology of disorders of menstrual cycle. Main disorders of menstrual cycle. Methods of diagnosis. Treatment. Prevention. Rehabilitation of reproductive function. |
| 3. | Abnormal Uterine Bleeding. Dysfunctional Uterine Bleeding (DUB, or AUB-O). Dysmenorrhea. | Etiology, pathogenesis, classification, symptoms. Methods of diagnosis. Treatment. Prevention. Rehabilitation of reproductive function. |
| 4. | Vaginal Infections. Pelvic Inflammatory Disease (PID). | Etiology, pathogenesis, classification. Symptoms. Methods of diagnosis. Treatment. Prevention. Rehabilitation of reproductive function. |
| 5. | Sexually transmitted infections (STD). Genital Tuberculosis. Viral | Most common sexually transmitted infections. Genital tuberculosis. Methods of diagnosis. Treatment. Prevention. Re-habilitation of |

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| | Infections in Gynecology. Herpes Simplex. Papillomavirus Infection. | reproductive function. |
| 6. | Uterine Fibroid. | Etiology, pathogenesis, classification. Symptoms. Methods of diagnosis. Treatment. Prevention. Rehabilitation of reproductive function. |
| 7. | Endometriosis. Adenomyosis. | Etiology, pathogenesis, classification. Symptoms. Methods of diagnosis. Treatment. Prevention. Rehabilitation of reproductive function. |
| 8. | Neuro-Endocrine Disorders in Gynecology: Polycystic Ovary Syndrome (PCOS), Premenstrual Syndrome (PMS), Premature Ovarian Insufficiency (POI), Hyperprolactinemia. | Etiology, pathogenesis, classification. Symptoms. Methods of diagnosis. Treatment. Prevention. Rehabilitation of reproductive function. |
| 9. | Family Planning. Methods of Contraception. | Family Planning. Methods of Contraception. Definitions. Characteristics. Advantages and disadvantages. Non-contraceptive benefits. |
| 10. | Hormonal Contraception. | History. Classifications. Principles of contraceptive action. Therapeutic effects of hormonal contraceptives. Pearl index. Investigations. Contraindications. Non-contraceptive benefits. Features of hormonal contraception in different age-groups. |
| Section 2: General gynecology (term A (10)) | | |
| 11. | Ovarian Cysts and Tumors. Ovarian Cancer. | Etiology, pathogenesis, classification. Symptoms. Methods of diagnosis. Treatment. Prevention. Rehabilitation of reproductive function. |
| 12. | Cervical Pathology. Cervical Cancer. | Etiology, pathogenesis, classification. Symptoms. Methods of diagnosis. Treatment. Prevention. Rehabilitation of reproductive function. |
| 13. | Endometrial Hyperplasia and Cancer. | Etiology, pathogenesis, classification. Symptoms. Methods of diagnosis. Treatment. Prevention. Rehabilitation of reproductive function. |
| 14. | Amenorrhea. | Etiology, pathogenesis, classification. Symptoms. Methods of diagnosis. Treatment. Prevention. Rehabilitation of reproductive function. |
| 15. | Organization of Gynecological Care for Children and Adolescents. Gynecological Pathology in These Age Groups. | Organization of gynecological care for children and adolescents in Russian Federation. Main gynecological pathology in these age groups: vulvovaginal infections, juvenile abnormal uterine bleeding (AUB), dysmenorrhea, disorders of puberty. |
| 16. | Genital System Development. Genital Malformations. | Genital system development in different ages of gestation. Genital malformations: classification, |

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| | | main types, diagnostics, management. Rehabilitation of reproductive function. |
| 17. | Menopausal and Senile Period in Women (including Pelvic Floor Disorders in Women). | General characteristics of menopausal and senile period in women. Symptoms of perimenopause and senile period. Etiopathogenesis of climacteric disorders. Investigations. Benefits and disadvantages of menopausal replacement therapy (MRT), classifications of medications, and regimens of administration, contraindications and complications. Non-hormonal alternatives to MRT. Pelvic Floor Disorders in Women: Genital Prolapse and Urinary Incontinence. Etiology, pathogenesis, classifications. Symptoms. Methods of diagnostics. Conservative and non-surgical treatment. Prevention. |
| 18. | Infertility. Assisted Reproductive Techniques. | Definitions. Female and male infertility. Diagnostics, management and prevention. |
| Section 3: Emergency gynecology (term A (10)) | | |
| 19. | Gynecological Emergencies ("Acute abdomen" in Gynecology). | Gynecological Emergencies: ectopic pregnancy, ovarian apoplexy, ovarian cyst (tumor) rupture and torsion, acute pelvic inflammatory disease (PID), uterine fibroid's necrosis. Etiology, pathogenesis, classification. Symptoms. Methods of diagnostics. Treatment. Prevention. Rehabilitation of reproductive function. |
| 20. | Gynecological Surgery. Preparation, Post-operative care. | Gynecological surgery: most common surgical interventions, indications and contraindications. Preparation, post-operative care. Prevention and management of complications. |
| 21. | Case-History Record. Final Class. Simulation Centre. | Gynecological outpatient clinics: methods of investigations and treatment, training in manipulations. Summing up for the course of Gynecology. Final test. Case-history records discussion. |

5.2. Sections and types of studies

| No. | Name of the course section | L | S | P | CP | LBP | SBP | UW | Total hours |
|-----|---|---|---|---|----|-----|-----|----|-------------|
| 1. | The subject of an obstetrics. Obstetric care organisation. Main indices | 2 | | | | | | | 2 |
| 2. | The structure and organization of the maternity hospital. Prophylaxy of nosocomial infections | | | | | | | 2 | 2 |
| 3 | Physiology of a menstrual function | 2 | | | | | | 2 | 4 |

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|-----|---|---|--|---|--|--|---|----|
| 4 | Fertilisation. Early stages of embryo development | 2 | | | | | 2 | 4 |
| 5 | Placental physiology | 2 | | | | | 2 | 4 |
| 6 | Physiology alterations during pregnancy | 2 | | | | | 2 | 4 |
| 7. | Fetus as the object of delivery. Female pelvis from an obstetric point of view. | | | 4 | | | 4 | 8 |
| 8. | Pregnancy diagnosis. Obstetric examination. Additional methods of obstetrical examination. | | | 4 | | | 2 | 6 |
| 9. | Outpatient obstetric setting. Antenatal screening. | | | 4 | | | 4 | 8 |
| 10. | Labor mechanism in occipital presentation. | | | 4 | | | 4 | 8 |
| 11 | Labor physiology | 2 | | | | | 2 | 4 |
| 12 | Labor pain relief | 2 | | | | | 2 | 4 |
| 13 | Labor management in 1st and 2nd stages. | | | 4 | | | 2 | 6 |
| 14 | Labor management specificity in 3rd stage of labor. Early postpartum period. | | | 4 | | | 2 | 6 |
| 15 | Puerperium. Anatomy and physiology of the newborn. Primary care for the newborn, principles of resuscitation. Breastfeeding | 2 | | 4 | | | 2 | 8 |
| 16 | Antenatal screening. Methods to evaluate fetal well-being. | 2 | | 4 | | | 2 | 8 |
| 17 | Abnormal uterine contractions | 2 | | 4 | | | 2 | 8 |
| 18 | Contracted pelvis. Feto-pelvic disproportion. | 2 | | 4 | | | 2 | 8 |
| 20 | Abnormal cephalic presentation. Fetal malposition. | | | 4 | | | 2 | 6 |
| 21 | Pregnancy and delivery in breech presentation. Fetal small parts presentation and prolaps. | | | 4 | | | 2 | 6 |
| 22 | Miscarriage. | 2 | | 4 | | | 2 | 8 |
| 23 | Preterm birth. Prematurity. Post-term delivery. | 2 | | 4 | | | 2 | 8 |
| 24 | Multiple pregnancy. | 2 | | 4 | | | 2 | 8 |
| 25 | Maternal labor trauma. Delivery techniques. | 2 | | 4 | | | 4 | 10 |
| 26 | Antenatal bleeding: placenta praevia, placenta accreta. Haemorrhagic shock | 2 | | 4 | | | 2 | 8 |
| 27 | Postpartum bleeding. DIC-syndrome. | 2 | | 4 | | | 2 | 8 |
| 28 | Puerperium infections. | 2 | | 4 | | | 2 | 8 |
| 29 | Complications of early pregnancy. Hypertension during pregnancy Diagnosis. Management. | 2 | | 4 | | | 2 | 8 |

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|----|--|----|--|--|----|--|----|-----|
| 30 | Rhesus conflict during pregnancy | | | | | | 2 | 2 |
| 31 | Cardiac pathology in pregnancy (heart disease, arrhythmia, anemia and kidney pathology) | | | | 4 | | 4 | 8 |
| 32 | Endocrine pathology Gastro-intestinal pathology during pregnancy. Acute surgical diseases in pregnant women. | | | | 4 | | 4 | 8 |
| 33 | Fetal pathology (malformations, IUGR, fetal hypoxia, neonatal asphyxia). | 2 | | | | | 4 | 6 |
| 34 | Perinatal infections | | | | | | 4 | 4 |
| 35 | Case history record | | | | | | 8 | 8 |
| | Subtotal for Obstetrics | 40 | | | 88 | | 88 | 216 |

Gynecology Module

| No. | Name of the course section | L | S | P | CP | LBP | SBP | UW | Total hours |
|-----|--|---|---|---|----|-----|-----|----|-------------|
| 1. | Diagnostics in Gynecology. | | | | 4 | | | 4 | 8 |
| 2. | Menstrual Cycle. Menstrual Function Disorders. | 2 | | | 4 | | | 6 | 12 |
| 3. | Abnormal Uterine Bleeding. Dysfunctional Uterine Bleeding (DUB, or AUB-O). Dysmenorrhea. | 2 | | | 4 | | | 8 | 14 |
| 4. | Vaginal Infections. Pelvic Inflammatory Disease (PID). | 2 | | | 4 | | | 8 | 14 |
| 5. | Sexually transmitted infections (STD). Genital Tuberculosis. Viral Infections in Gynecology. Herpes Simplex. Papillomavirus Infection. | 4 | | | 4 | | | 12 | 20 |
| 6. | Uterine Fibroid. | 2 | | | 4 | | | 8 | 14 |
| 7. | Endometriosis. Adenomyosis. | 2 | | | 4 | | | 6 | 12 |
| 8. | Neuro-Endocrine Disorders in Gynecology: Polycystic Ovary Syndrome (PCOS), Premenstrual Syndrome (PMS), Premature Ovarian Insufficiency (POI), Hyperprolactinemia. | 4 | | | 4 | | | 8 | 16 |
| 9. | Family Planning. Methods of Contraception. | 2 | | | 4 | | | 6 | 12 |
| 10. | Hormonal Contraception. | | | | 4 | | | 8 | 12 |
| 11. | Ovarian Cysts and Tumors. Ovarian Cancer. | 2 | | | 4 | | | 6 | 12 |
| 12. | Cervical Pathology. Cervical Cancer. | 2 | | | 4 | | | 8 | 14 |
| 13. | Endometrial Hyperplasia and Cancer. | 2 | | | 4 | | | 8 | 14 |
| 14. | Amenorrhea. | 2 | | | 4 | | | 4 | 10 |

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|-----|---|-----------|--|--|-----------|--|--|------------|------------|
| 15. | Organization of Gynecological Care for Children and Adolescents. Gynecological Pathology in These Age Groups. | 2 | | | | | | 6 | 8 |
| 16. | Genital system development. Genital malformations. | 2 | | | | | | 8 | 10 |
| 17. | Menopausal and Senile Period in Women (including Pelvic Floor Disorders in Women). | 2 | | | 4 | | | 6 | 12 |
| 18. | Infertility. Assisted Reproductive Techniques. | 2 | | | 4 | | | 8 | 14 |
| 19. | Gynecological Emergencies ("Acute abdomen" in Gynecology). | 2 | | | 4 | | | 6 | 12 |
| 20. | Gynecological Surgery. Preparation, Post-operative care. | | | | | | | 6 | 6 |
| 21. | Case-History Record. Final Class. Simulation Centre. | | | | | | | 6 | 6 |
| | Subtotal for Gynecology | 38 | | | 68 | | | 146 | 252 |

6. List of teaching materials for the course unsupervised work of students (including the use of e - learning opportunities, distance learning technologies (Moodle))

| No. | Name of the course section | Types of the unsupervised work | Forms of control |
|-----|--|--|------------------------|
| 1 | Overview of Obstetrics | Self-work with lecture in Moodle course | 1.MCQ 2.Oral survey |
| 2 | Complications of early pregnancy | Self-work with lecture in Moodle course | 1.MCQ 2.Oral survey |
| 3 | Antenatal screening. Methods to evaluate fetal well-being. | Self-work with lecture in Moodle course Viewing educational videos. | 1.MCQ 2.Oral survey |
| 4 | Labor mechanism in occipital presentation. | Working off on models and phantoms. Viewing educational videos. | 1.MCQ 2.Oral survey |
| 5 | Maternal labor trauma | Preparation of a report and presentation, an independent development of control questions for discussion in the group. | 1.MCQ 2.Oral survey |
| 6 | Anatomy and physiology of the newborn | Preparation of a report and presentation | 1.Case study |

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| 7 | Miscarriage. | Preparation of a report and presentation, an independent development of control questions for discussion in the group. | 1.MCQ 2.Oral survey 3. Case study |
| 8 | Multiple pregnancy. | Preparation of a report and presentation, an independent development of control questions for discussion in the group. | 1.MCQ 2.Oral survey 3. Case study |
| 9 | Post-term delivery. | Preparation of a report and presentation, an independent development of control questions for discussion in the group. | 1.MCQ 2.Oral survey 3. Case study |
| 10 | Haemorrhagic shock. DIC-syndrome | Preparation of a report and presentation, an independent development of control questions for discussion in the group. | 1 Case study |
| 11 | Cardiac pathology in pregnancy Anemia during pregnancy Epilepsy during pregnancy | Preparation of a report and presentation, an independent development of control questions for discussion in the group. 1 Case study | 1.MCQ 2. Case study |
| 12 | Diagnostics in Gynecology. | Working off on models and phantoms.. Viewing educational videos. | 1.MCQ 2.Oral survey |
| 13 | Menstrual Cycle. Menstrual Function Disorders. | Preparation of a report and presentation, an independent development of control questions for discussion in the group. | 1.MCQ 2.Oral survey 3. Case study |
| 14 | Abnormal Uterine Bleeding. Dys-functional Uterine Bleeding (DUB, or AUB-O). Dysmenorrhea. | Preparation of a report and presentation, an independent development of control questions for discussion in the group. | 1.MCQ 2.Oral survey 3. Case study |
| 15 | Vaginal Infections. Pelvic Inflammatory Disease (PID). | Preparation of a report and presentation, an independent development of control questions for discussion in the group. | 1.MCQ 2.Oral survey 3. Case study |
| 16 | Sexually transmitted | Preparation of a report and | 1.MCQ |

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| | infections (STD). Genital Tuberculosis. Viral Infections in Gynecology. Herpes Simplex. Papillomavirus Infection. | presentation, an independent development of control questions for discussion in the group. | 2.Oral survey 3. Case study |
| 17 | Uterine Fibroid. | Preparation of a report and presentation, an independent development of control questions for discussion in the group. | 1.MCQ 2.Oral survey 3. Case study |
| 18 | Endometriosis. Adenomyosis. | Preparation of a report and presentation, an independent development of control questions for discussion in the group. | 1.MCQ 2.Oral survey 3. Case study |
| 19 | Neuro-Endocrine Disorders in Gynecology: Polycystic Ovary Syndrome (PCOS), Premenstrual Syndrome (PMS), Premature Ovarian Insufficiency (POI), Hyperprolactinemia. | Preparation of a report and presentation, an independent development of control questions for discussion in the group. | 1.MCQ 2.Oral survey 3. Case study |
| 20 | Family Planning. Methods of Contraception. | Self-work with manual. Viewing educational videos. | 1.MCQ 2.Oral survey 3.Case study |
| 21 | Hormonal Contraception. | Self-work with manual. | 1.MCQ 2.Oral survey |
| 22 | Ovarian Cysts and Tumors. Ovarian Cancer. | Preparation of a report and presentation, an independent development of control questions for discussion in the group. | 1.MCQ 2.Oral survey 3. Case study |
| 23 | Cervical Pathology. Cervical Cancer. | Preparation of a report and presentation, an independent development of control questions for discussion in the group. | 1.MCQ 2.Oral survey 3. Case study |
| 24 | Endometrial Hyperplasia and Cancer. | Preparation of a report and presentation, an independent development of control questions for discussion in the group. | 1.MCQ 2.Oral survey 3. Case study |

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| 25 | Amenorrhea. | Preparation of a report and presentation, an independent development of control questions for discussion in the group. | 1.MCQ 2.Oral survey 3. Case study |
| 26 | Organization of Gynecological Care for Children and Adolescents. Gynecological Pathology in These Age Groups. | Preparation of a report and presentation, an independent development of control questions for discussion in the group. | 1.MCQ 2.Oral survey 3. Case study |
| 27 | Genital system development. Genital malformations. | Preparation of a report and presentation, an independent development of control questions for discussion in the group. | 1.MCQ 2.Oral survey 3. Case study |
| 28 | Menopausal and Senile Period in Women (including Pelvic Floor Disorders in Women). | Preparation of a report and presentation, an independent development of control questions for discussion in the group. | 1.MCQ 2.Oral survey 3. Case study |
| 29 | Infertility. Assisted Reproductive Techniques. | Preparation of a report and presentation, an independent development of control questions for discussion in the group. | 1.MCQ 2.Oral survey 3. Case study |
| 30 | Gynecological Emergencies ("Acute abdomen" in Gynecology). | Preparation of a report and presentation, an independent development of control questions for discussion in the group. | 1.MCQ 2.Oral survey 3. Case study |
| 31 | Gynecological Surgery. Preparation, Post-operative care. | Preparation of a report and presentation, an independent development of control questions for discussion in the group. | 1.MCQ 2.Oral survey 3. Case study |
| 32 | Case-History Record. Final Class. Simulation Centre. | Preparation of a report and presentation, an independent development of control questions for discussion in the group. | 1.MCQ 2.Oral survey 3. Case study |

7. Forms of control

7.1. Current forms of control

- oral (an interview, a credit)
- technical means (training tests, certification tests)
- written (tests, essays, abstracts, practice report).

A theme list of abstracts, reports, essays, review papers, test collections and situational problems are shown at the Appendix No 4 of the syllabus of the course (module) 'Evaluation tools'.

7.2. Forms of the interim assessment

Intermediate control - credit

Final control - examination

Questions for a pass/fail test and an examination, a theme list of test collections and situational problems are shown at the Appendix No 4 of the syllabus of the course (module) 'Set of the evaluation tools for the current control and interim assessment of students'.

8. Library and information materials of the course

8.1. Compulsory literature

1. CDC Dutta's textbook of Obstetrics including Perinatology and Contraception/ Dutta D.C. - 7th ed. - 2013. - 692 p.
2. Obstetrics by Ten Teachers/ ed. Philip N. Baker. -18 th. ed.. -London: Edward Arnold (Publishers) Ltd, 2006. -340 p.
3. Gynaecology by Ten Teachers/ ed. Ash Monga. -18 th. ed.. -London: Edward Arnold (Publishers) Ltd, 2006. -245 p.
4. Williams Obstetrics 25th edition - <https://medstudentscorner.com/download-williams-obstetrics-pdf-24th-edition-review/>
5. Williams Gynecology 4th Edition - <https://medstudentscorner.com/williams-gynecology-3rd-edition-pdf-download-freepreview/>

8.2. Supplementary literature

1. Obstetrics Triage And Emergency Care Protocols 2nd Edition - <https://medstudentscorner.com/category/obstetrics/>
2. Multiple Choice Questions in Gynaecology and Obstetrics 3rd Edition - <https://medstudentscorner.com/multiple-choice-questions-in-gynaecology-and-obstetrics-3rd-edition-pdf-free-download>

8.3. List of the information and telecommunications Internet resources required for mastering of the course (module)*

| № | Resources | URL address | Resource Annotation |
|---|--|---|---------------------|
| | WHO official site for maternal and perinatal health | http://www.who.int/reproductivehealth/publications/maternal_perinatal_health/en/ | |
| | Cochrane Summaries | http://www.cochrane.org/evidence | |
| | The Royal College of Obstetricians and Gynaecologists (RCOG) | https://www.rcog.org.uk/guidelines | |
| | Society of Obstetricians and Gynaecologists of Canada (SOGC) | http://sogc.org/clinical-practice-guidelines/ | |
| | American Congress of Obstetricians and Gynecologists (ACOG) | http://www.acog.org/ | |

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| | The International Federation of Gynecology and Obstetrics (FIGO) | http://www.figo.org/publications-resources | |
| | Centers for disease control and prevention (CDC) | http://www.cdc.gov/ | |
| | База данных «Scopus» | http://www.scopus.com/ | |
| | Электронный архив журналов издательства SAGE PUBLICATIONS | www.sagepub.com | |
| | Электронный архив журналов издательства IOP Publishing | http://iopscience.iop.org/journals?type=archive | |
| | Электронный архив журналов издательства OXFORD UNIVERSITY PRESS | www.oxfordjournals.org/ | |
| | Электронный архив журнала SCIENCE издательства AAAS | www.sciencemag.org. | |
| | Электронный архив журналов издательства ROYAL SOCIETY OF CHEMISTRY | www.rsc.org/ | |

8.4. Implementation of e-learning (EL), the use of distance learning technologies (DLT)

| № | Platform of EL DLT | Name of the e-course, authors, URL address | E-course implementation model |
|---|--------------------|---|-------------------------------|
| 1 | Moodle | 4 course Obstetrics and gynecology Obstetrics, Istomina N.G., https://edu.nsmu.ru/course/view.php?id=118 | +EC |
| 2 | Moodle | 4 course English medium Obstetrics and gynecology Pathological Obstetrics, Istomina N.G., https://edu.nsmu.ru/course/view.php?id=453 | +EC |
| 3 | Moodle | 4 course Obstetrics and gynecology Clinical practice, Doctor assistant, Istomina N.G., https://edu.nsmu.ru/course/view.php?id=1693 | +EC |
| 4 | Moodle | 5 course General medicine Obstetrics and gynecology Gynecology, Usynin M.V., https://edu.nsmu.ru/course/view.php?id=623 | +EC |
| 5 | Moodle | 5 course Elective classes Gynaecology, Usynin M.V., https://edu.nsmu.ru/course/view.php?id=1545 | +EC |
| 6 | Moodle | 6 course Elective classes Obstetrics and Gynaecology, Istomina N.G. https://edu.nsmu.ru/course/view.php?id=1546 | +EC |

8.5. The list of the software and information & reference systems

9. Material and technical facilities necessary for the educational process*

| № | Name of the study room | Location of the study room | List of the main equipment of the study room |
|---|--|-----------------------------------|--|
| 1 | Classroom for lecture-type classes No. 2403 of Marine Medicine, administrative building, 4th floor | 163000, Arkhangelsk, Troitsky, 51 | a) list of main equipment: A set of educational furniture (tables, chairs, screen, blackboard) teacher's workplace, workplaces for students for 300 places. |

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| | | | b) sets of demonstration equipment speakers, monoblock, projector, screen c) a list of teaching aids: schemas, tables |
| 2 | Classroom for seminar-type classes, group and individual consultations, monitoring and intermediate certification No. 20, 1st floor obstetric and gynecological building Agreement No. 550 of 07/05/2017 on the organization of practical training for students between the NSMU (Arkhangelsk) of the Ministry of Health of Russia and the Arkhangelsk Regional Clinical Hospital. The term of the Agreement is 5 years. Equipment in accordance with Appendix No. 3 to the Agreement. | 163045, Arkhangelsk region, Arkhangelsk, Lomonosov Ave., 292 | a) list of main equipment: A set of educational furniture (tables, chairs, screen, blackboard) teacher's workplace, workplaces for students for 300 places. b) sets of demonstration equipment speakers, PC, projector, screen c) a list of teaching aids: schemas, tables, handouts for practical exercises on all topics of the discipline, dummies, tabular and reference materials, Gamma G7 tonometer, stethoscope, phonendoscope, thermometers, electronic scales, stadiometer, gynecological dummy, bank of cases of various neonatal diseases, systematized by nosological forms |
| 3 | Classroom for seminar-type classes, group and individual consultations, monitoring and intermediate certification No. 26, 1st floor obstetric and gynecological building Agreement No. 550 of 07/05/2017 on the organization of practical training for students between the NSMU (Arkhangelsk) of the Ministry of Health of Russia and the Arkhangelsk Regional Clinical Hospital. The term of the Agreement is 5 years. Equipment in accordance with Appendix No. 3 to the Agreement. | 163045, Arkhangelsk region, Arkhangelsk, Lomonosov Ave., 292 | a) list of main equipment: A set of educational furniture (tables, chairs, screen, blackboard) teacher's workplace, workplaces for students for 300 places. b) sets of demonstration equipment speakers, PC, projector, screen c) a list of teaching aids: schemas, tables, handouts for practical exercises on all topics of the discipline, dummies, tabular and reference materials, Gamma G7 tonometer, stethoscope, phonendoscope, thermometers, electronic scales, stadiometer, gynecological dummy, bank of cases of various neonatal diseases, systematized by nosological forms |
| 4 | Classroom for seminar-type classes, group and individual consultations, monitoring and intermediate certification No. 27, 1st floor obstetric and gynecological building Agreement No. 550 of 07/05/2017 on the organization of practical training for students between the NSMU (Arkhangelsk) of the Ministry of Health of Russia and the Arkhangelsk | 163045, Arkhangelsk region, Arkhangelsk, Lomonosov Ave., 292 | a) list of main equipment: A set of educational furniture (tables, chairs, screen, blackboard) teacher's workplace, workplaces for students for 300 places. b) sets of demonstration equipment speakers, PC, projector, screen c) a list of teaching aids: schemas, tables, handouts for practical exercises on all topics of the discipline, dummies, |

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|---|--|---|--|
| | Regional Clinical Hospital. The term of the Agreement is 5 years. Equipment in accordance with Appendix No. 3 to the Agreement. | | tabular and reference materials, Gamma G7 tonometer, stethoscope, phonendoscope, thermometers, electronic scales, stadiometer, gynecological dummy, bank of cases of various neonatal diseases, systematized by nosological forms |
| 5 | Simulation class № 426, educational building, 4th floor: maternity room for skills training. | 163001, Arkhangelsk, Troitsky Ave., 180 | list of teaching aids: Visual aids, handouts for practical exercises on all topics of the discipline. Manipulation table MSK-549-02-MSK, delivery bed with mattress, screen, wardrobe, open resuscitation system for caring for newborns Ampla 2085, model of a woman's pelvis to demonstrate fetal movement on a support, extended version of the gynecological phantom of labor, robot simulator for practicing obstetric skills for a woman "Lyusina", fetal monitor Overton 6900, system "VirtuEL" for practicing obstetric skills and providing emergency care in obstetric practice, model of demonstration of a woman's birth canal on a support, a hybrid simulator for teaching bimanual gynecological research, a gynecological phantom, a VirtBORN dummy for a newborn for practicing extended treatment and resuscitation actions in neonatology, complete set with an ECG |
| 6 | Simulation class № 426, educational building, 4th floor: maternity room for skills training. | 163001, Arkhangelsk, Troitsky Ave., 180 | a) list of main equipment: A set of educational furniture (tables, chairs, screen, blackboard) teacher's workplace, working places for students for 12 places. b) sets of demonstration equipment laptop, projector, TV, whiteboard c) a list of teaching aids: Visual aids, handouts for practical exercises on all topics of the discipline |
| | | | |

MINISTRY OF HEALTHCARE OF THE RUSSIAN FEDERATION
Federal State Budgetary Educational Institution of Higher Education
"NORTHERN STATE MEDICAL UNIVERSITY"
of the Ministry of Healthcare of the Russian Federation

APPROVED

Dean of the International Faculty
of General Practitioner



A.K. Sherstennikova

June 16th 2021

SYLLABUS OF THE DISCIPLINE

Discipline **Pediatrics**

Field of training **31.05.01 General Medicine**

Year (s) of study / term (s) **4,5/8,9**

Form of the interim assessment **Exam**

Department **of Neonatology and Perinatology**

Discipline workload **360** (academic hours) / **10** (credits)

Approved at the department meeting

Minutes No.

June 15th 2021

Head of the department:

Assoc. Prof. Anna A. Usynina

Author and compiler:

Anna A Usynina, MD, MPH, PhD, Doc. of med. science, Department of Neonatology
and Perinatology, Associate Professor

Arkhangelsk, 2021

1. Position of the discipline (module) within the structure of the educational program

The discipline is developed following the requirements of Federal State Education Standard (FSES) for higher education in the field of 31.05.01 «General medicine».

The discipline is related to the disciplines of the Basic part of the curriculum.

The discipline is related to prior subjects of the curriculum: Biology, Anatomy, Normal physiology, Microbiology, Immunology, Pathological physiology, Pathological anatomy, General surgery, Radiology, Infectious diseases, Genetics, Clinical pharmacology.

The discipline is related to subsequent subjects of the curriculum: Intensive care.

The discipline is realized in the structure of the following types of professional activity tasks defined by the curriculum: preventive, diagnostic and administrative.

2. Goal and tasks of the mastering of the discipline

Discipline is aimed to give knowledge in children normal growth and development and to introduce to diagnostic algorithms, treatment and prevention of the most common diseases in childhood.

The tasks are:

- to provide the communication skills in the students; to teach them to communicate with healthy and sick child, with children's parents; to follow the principles of ethics and deontology;
- to get and to analyze the data of patient medical history and development of the child;
- to provide a physical examination of the child (palpation, percussion, auscultation) and to interpret the obtained data, taking into account anatomical and physiological features;
- to analyze the causes, diagnosis, and interpretation of the most common diseases;
- to organize therapeutic and preventive activity for the main groups of diseases, to provide emergency care for life threatening conditions in children;
- to provide regular medical check-up of children of different ages in order to prevent severe diseases and their complications;
- to support healthy lifestyle in the family;
- to organize and to promote proper healthy nutrition of children by different ages;
- to organize proper epidemiological environment.

3. List of the planned learning outcomes of the discipline (module) in connection to the planned outcomes of the mastering of the educational program

| Codes of the formed competences | Indicator of the competence achievement |
|--|---|
| ОПК-4. Способен применять медицинские изделия, предусмотренные порядком оказания медицинской помощи, а также проводить обследования пациента с целью установления диагноза | ИД-4.1. Владеет современными методами применения лекарственных препаратов, медицинских изделий и лечебного питания при заболеваниях и состояниях у пациента в соответствии с действующими порядками оказания медицинской помощи, клиническими рекомендациями (протоколами лечения) по вопросам оказания медицинской помощи с учетом стандартов медицинской помощи. ИД-4.2. Умеет обосновать выбор лабораторных и инструментальных методов обследования пациента. ИД-4.3. Владеет навыками оценки результатов лабораторных и инструментальных методов обследования пациента с целью установления диагноза. |

| | |
|--|---|
| <p>ОПК-6. Способен организовывать уход за больными, оказывать первичную медико-санитарную помощь, обеспечивать организацию работы и принятие профессиональных решений при неотложных состояниях на догоспитальном этапе, в условиях чрезвычайных ситуаций, эпидемий и в очагах массового поражения</p> | <p>ИД-6.1. Владеет навыками ухода за больными с учетом их возраста, характера и тяжести заболевания ИД-6.2. Владеет основными врачебными диагностическими и лечебными мероприятиями по оказанию первой врачебной помощи при неотложных состояниях на догоспитальном этапе в соответствии с порядками оказания медицинской помощи. ИД-6.3. Умеет оказывать медицинскую помощь в экстренной форме пациентам при состояниях, представляющих угрозу жизни пациентов, в том числе клинической смерти. ИД-6.4. Владеет алгоритмом оказания первой врачебной помощи в условиях чрезвычайных ситуаций, эпидемий и в очагах массового поражения. ИД-6.5. Умеет организовывать работу медицинского персонала при неотложных состояниях, в условиях чрезвычайных ситуаций, эпидемий и в очагах массового поражения. ИД-6.6. Применяет лекарственные препараты и изделия медицинского назначения при оказании медицинской помощи при неотложных состояниях на догоспитальном этапе.</p> |
| <p>ОПК-7. Способен назначать лечение и осуществлять контроль его эффективности и безопасности</p> | <p>ИД-7.1. Умеет разрабатывать план лечения заболевания и состояния пациента в соответствии с порядками оказания медицинской помощи, клиническими рекомендациями, с учетом стандартов медицинской помощи. ИД-7.2. Умеет предотвращать или устранять осложнения, побочные действия, нежелательные реакции, в том числе непредвиденные, возникшие в результате диагностических или лечебных манипуляций, применения лекарственных препаратов и(или) медицинских изделий, немедикаментозного лечения. ИД-7.3. Владеет навыками по оценке эффективности и безопасности применения лекарственных препаратов, медицинских изделий и лечебного питания.</p> |
| <p>ПК-9.* Способность и готовность к ведению медицинской документации и организации деятельности находящегося в распоряжении среднего медицинского персонала</p> | <p>ИД-9.1. Умеет анализировать данные официальной статистической отчетности, включая формы федерального и отраслевого статистического наблюдения, составлять план работы и отчет о своей работе ИД-9.2. Работает с персональными данными пациентов и сведениями, составляющими врачебную тайну ИД-9.3. Проводит анализ медико-статистических показателей заболеваемости, инвалидности и смертности для оценки здоровья населения ИД-9.4. Заполняет медицинскую документацию, в том числе в электронном виде, контролирует качество ее ведения ИД-9.5. Контролирует выполнение должностных обязанностей медицинской сестрой участковой и иными</p> |

| | |
|--|---|
| | находящимися в распоряжении медицинскими работниками ИД-9.6. Использует в своей работе информационные системы в сфере здравоохранения и информационно-телекоммуникационную сеть «Интернет» |
|--|---|

*The list of professional competencies is based on the requirements of the professional standard "General medicine (district physician)", approved by the order of the Ministry of Labor and Social Protection of the Russian Federation of March 21, 2017 No. 293n

4. Volume of the discipline (module) and types of the academic classes:

Total workload of the course is _____ credits.

| Type of the academic work | Total hours | Term | |
|--|---------------|------------|-------------|
| | | 8 | 9 |
| Students' contact work with the teacher (total) | 164,3 | | |
| Including: | | | |
| Lectures (L) | 54 | 28 | 26 |
| Seminars (Sem.) | | | |
| Practical classes (PC) | | | |
| Clinical practicals (CP) | 108 | 54 | 54 |
| Laboratory-based practicals (LBP) | | | |
| Simulation-based practicals (SBP) | | | |
| Preparation for the examination (PE) | 0,3 | | 0,3 |
| Preparation for the credit (PC) | | | |
| Exam consultations (EC) | 2 | | 2 |
| Coursework (CW) | | | |
| Unsupervised work (UW) (total) | 162 | 98 | 64 |
| Examination control (EC) | 33,7 | | 33,7 |
| Total discipline workload | 360/10 | 180 | 180 |

5. Course content:

5.1. Contents of the sections of the course

| No | Name of the course section | Content of the section |
|----|---------------------------------|--|
| 1 | 2 | 3 |
| 1 | General questions of Pediatrics | <p>Periods of childhood. Studying of periods of childhood. Anamnesis. Methods of examination of the child at different ages.</p> <p>Physical and neuropsychological development. Regularities of physical and neuropsychological development of the child. Methodology and evaluation criteria.</p> <p>Dietetics of healthy child. Basic principles of rational nutrition for infants and young children. Methods of calculation of nutrition.</p> |

| | | |
|---|------------------------|---|
| | | Anatomical and physiological features of organs and systems. APF (anatomical and physiological features) of nervous system and sensory organs in children, skin and subcutaneous fat, lymphatic system in children, bone and muscle systems in children, respiratory system, circulatory system in children, urinary tract in children, the endocrine system. |
| 2 | Disorders in infancy | |
| | | <p>Chronic digestion disorders. Etiology and pathogenesis of chronic digestion disorders. Hypotrophy, paratrophy, gipostatura. Diagnosis, principles of treatment and observation. Pylorospasm and pylorostenosis.</p> <p>Anomalies of the constitution. Types of anomalies in the constitution. Diagnosis, clinical manifestations, treatment and supervision of children.</p> <p>Rickets. The etiology and pathogenesis. Diagnosis, principles of prevention and treatment of rickets, regular medical check-up. Differential diagnosis of rickets with similar to rickets diseases. Hypervitaminosis D. Spasmophilia, emergency care for convulsive syndrome.</p> <p>Anemia. Anemia in children. Deficiency anemia - iron, protein deficiency, B12 and folic acid-deficiency anemia. Causes, clinical features, diagnosis, principles of treatment and prevention.</p> <p>Diseases of the respiratory system. Bronchitis and pneumonia in children.</p> <p>Diseases of the cardiovascular system. Congenital heart disease. Classification. Algorithm of the diagnosis congenital heart disease.</p> <p>Healthy newborn. Breastfeeding. Physiological adaptation. TORCH infections. SGA babies. Prematurity, preterm newborns. Rh incompatibility. Acute asphyxia. Resuscitation in delivery unit. Birth trauma.</p> |
| 3 | Disorders in childhood | |

| | | |
|---|--|--|
| | | <p>Diseases of the respiratory system. Chronic respiratory disease. Bronchial asthma.</p> <p>Diseases of the cardiovascular system and rheumatic diseases. Inflammatory diseases. Rheumatism. Diffuse connective tissue diseases. Heart failure</p> <p>Diseases of urinary System. Pyelonephritis, cystitis. Enuresis. Nephritis and nephropathy. Tubulointerstitial nephritis. Acute and chronic renal failure.</p> <p>Arthritis. Classifications. Types of disorders.</p> <p>Diseases of gastrointestinal tract. Chronic esophagitis, chronic gastritis, gastroduodenitis, peptic ulcer of the stomach and duodenal ulcer. Pathology of the pancreas, gallbladder and bile ducts. Diagnostics, principles of treatment, rehabilitation and observation.</p> <p>Diseases of the blood system. The etiology, pathogenesis and clinical manifestations of certain forms of hemorrhagic diathesis and hemorrhagic diseases. Variants of leukemia in childhood.</p> <p>Diseases of endocrine system. Diabetes mellitus. Thyroid gland diseases.</p> <p>Immunodeficiency syndrome.</p> |
| 4 | Infectious diseases in children, selected issues; Immunization | |
| | | <p>Organization of vaccination.</p> <p>Intestinal diseases, selected issues</p> <p>Acute respiratory diseases, selected issues.</p> |

5.2. Sections and types of studies

| No. | Name of the course section | L | S | P | CP | LBP | SBP | UW | Total hours |
|-----|---------------------------------|----|---|---|----|-----|-----|----|-------------|
| 1 | General questions of Pediatrics | 8 | | | 18 | | | 32 | 58 |
| 2 | Disorders in infancy | 14 | | | 40 | | | 35 | 89 |
| 3 | Disorders in childhood | 28 | | | 50 | | | 75 | 153 |

| | | | | | | | | | |
|---|--|-----------|--|--|------------|--|--|------------|------------|
| 4 | Infectious diseases in children, selected issues; Immunization | 4 | | | | | | 20 | 24 |
| | Total | 54 | | | 108 | | | 162 | 324 |

6. List of teaching materials for the course unsupervised work of students (including the use of e - learning opportunities, distance learning technologies (Moodle))

| No. | Name of the course section | Types of the unsupervised work | Forms of control |
|-----|--|--|---|
| 1 | General questions of Pediatrics | Literature review. Multimedia presentations | Oral presentation. Written material checking. |
| 2 | Disorders in infancy | Literature review. Multimedia presentations | Oral presentation. Written material checking. |
| 3 | Disorders in childhood | Literature review. Multimedia presentations | Oral presentation. Written material checking. |
| 4 | Infectious diseases in children, selected issues; Immunization | Literature review. Multimedia presentations | Oral presentation. Written material checking. |

7. Forms of control

7.1. Current forms of control

- Oral: recitation on topic sessions, interview, assessment of the report, the defense of the medical history, clinical examination of the patient, analysis of multimedia presentations and slideshows;
- Written: test control on paper, essays, summaries, writing abstracts on the topics of missed practical lessons, solving clinical case studies, verification of educational histories.

A theme list of abstracts, reports, essays, review papers, test collections and situational problems are shown at the Appendix No 4 of the syllabus of the course (module) 'Evaluation tools'.

7.2. Forms of the interim assessment (examination)

Stages of the interim assessment

Stages of examination

Stage - exam test (in Moodle)

8. Library and information materials of the course

8.1. Compulsory literature

1. Ghai O.P. Essential Pediatrics [Текст]/ O. P. Ghai ; ed.: O. P. Ghai, V. K. Paul, A. Bagga. -7th. ed.: CBS Publishers & Distributors, 2010. -768 p.: il.

8.2. Supplementary literature

1. Londhe VA. Blueprints. Clinical Cases in Pediatrics: 2nd (second) Edition. Lippincott Williams & Wilkins. 2006.
2. Toy E, Briscoe D. Case Files Pediatrics, Fourth Edition (LANGE Case Files). The McGraw-Hill Companies, Inc. 2012.
3. Ewer A, Barrett T, Diwakar V. Core Clinical Cases in Paediatrics: a problem-solving approach. Издательство Oxford University Press Inc. 2005.

8.3. List of the information and telecommunications Internet resources required for mastering of the course (module)*

| № | Resources | URL address | Resource Annotation |
|---|--|---|--|
| 1 | Database «Scopus» | http://www.scopus.com/ | Papers collection |
| 2 | Database “Pubmed” | http://www.pubmed.com/ | Papers collection |
| 3 | Electronic archive of AAP publications | www.aap.com | Papers collection, educational literature |
| 4 | Cochrane library | http://www.cochrane.org | Study results, papers collection, educational literature |
| 5 | Electronic library NSMU | http://lib.nsmu.ru/lib/ | Papers collection, educational literature |

8.4. Implementation of e-learning (EL), the use of distance learning technologies (DLT)

| № | Platform of EL DLT | Name of the e-course, authors, URL address | E-course implementation model |
|---|--------------------|---|-------------------------------|
| | Moodle | https://edu.nsmu.ru | Mixed education +e-course |

8.5. The list of the software and information & reference systems

Program - MSWindowsServerCAL 2008 DeviceCAL. licence 46850049, unlimit;

Office - MSOffice 2007;

Other - RadminViewer 3. RadminServer 3. Doc # 11001793; TrafficInspector. Licence №1051-08от 10.04.2008, unlimit, Kaspersky Endpoint Security

9. Material and technical facilities necessary for the educational process*

| № | Name of the study room | Location of the study room | List of the main equipment of the study room |
|---|---|--|---|
| 1 | Учебные аудитории для практических занятий, групповых и индивидуальных консультаций, текущего контроля и промежуточной аттестации | 163045, Архангельская область, г. Архангельск, пр. Ломоносова, 292, 1 этаж Перинатальный центр | Учебные аудитории для практических занятий, групповых и индивидуальных консультаций, текущего контроля и промежуточной аттестации. Договор № 550 от 05.07.2017 года об организации практической подготовки обучающихся, заключаемого между образовательной и медицинской организацией, осуществляющей деятельность в сфере охраны здоровья Комплект учебной мебели на 14 мест, основное оборудование, наборы демонстрационного оборудования и учебно-наглядных пособий, ноутбук, проектор. |
| 2 | Центр аккредитации и симуляционного образования | Проспект Троицкий 180, аудитория 414 | Реанимационный стол, фантом новорожденного для первичной реанимации, мешок Амбу, |

| | | | |
|--|--|--|--|
| | | | электроотсос, ларингоскоп, интубационные трубки, катетер пупочный и желудочный |
|--|--|--|--|