

1. **Department:** «Pediatrics-2»
2. **Level of Training:** Residency
3. **Specialty:** 7R01130 «Pediatrics»
4. **Year of Study:** 2
5. **Title of the Elective Discipline:** «Research Management»
6. **Number of Credits:** 2

7. Course Objectives:

To develop a system of scientific and practical knowledge, skills, and competencies in research methodology and methods in pediatrics, as well as their subsequent application in professional and research activities.

8. Course Tasks:

- Teach the mastery of research methods and methodology in the field of pediatrics.
- Develop skills in identifying and analyzing relevant scientific issues for in-depth study within the framework of modern scientific paradigms.
- Train students in designing research programs and planning the stages of their implementation.
- Equip students with the ability to select and apply research tools (methods for data collection and processing, information analysis and systematization, and research design selection) to enhance the objectivity of research and practical scientific results.
- Teach the development of organizational and managerial models of scientific processes, phenomena, and objects, as well as the evaluation and interpretation of research results.
- Provide skills in searching, collecting, processing, analyzing, and systematizing information from scientific sources related to research topics.
- Develop skills in preparing reports, scientific-analytical reviews, presentations, and scientific publications in accordance with official public health documentation standards.

9. Rationale for Choosing This Course:

This elective aims to provide high-quality postgraduate education, ensuring the training of highly qualified pediatric specialists. The course supports this goal by maintaining an optimal level of educational quality, fostering creative activity among students, creating favorable learning conditions, and integrating innovative technologies into the educational process. Students will gain proficiency in selecting appropriate research methodologies, various research methods, identifying research objects, determining sample sizes and measurement scales, recognizing research errors, and preparing scientific papers, presentations, and publications. These skills will enable them to successfully participate in scientific seminars and conferences relevant to their specialty.

10. Learning Outcomes (Competencies):

Knowledge (Cognitive Domain):	Skills and Abilities (Psychomotor Domain):	Personal and Professional Competencies (Attitudes):
Application: - Can apply knowledge in biomedical, clinical, social, and behavioral sciences in specialized practice. - Demonstrates the ability to perform a wide range of	• Accuracy: Demonstrates the ability to perform medical procedures on mannequins during OSCE (Objective Structured Clinical Examination).	Medical Documentation: • Maintains and completes medical documentation relevant to the specialty in accordance with healthcare

medical procedures according to the residency profile. - Is proficient in applying the principles of evidence-based medicine in clinical practice. - Shows a commitment to lifelong professional development. - Demonstrates the ability to work in a multidisciplinary team and teach others. Analysis: - Discusses and categorizes knowledge in biomedical, clinical, social, and behavioral sciences within specialized practice. - Conducts a comprehensive assessment of laboratory and instrumental studies. Evaluation: - Assesses the results of clinical and biochemical blood tests, bacteriological studies, coprology, and acid-base balance (ABB). - Evaluates indicators of peak flowmetry, ultrasound (US), radiography, computed tomography (CT), and magnetic resonance imaging (MRI).	• Articulation: Performs medical procedures accurately on real or standardized patients. • Affective Domain (Attitudes/Behavior): • Values Relationships: Establishes and maintains professional relationships with patients and medical staff during medical procedures. • Organization: Independently organizes and carries out medical procedures according to the internship profile requirements.	regulations and legal requirements.
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11. Prerequisites: Elective courses in the internship program.

12. Postrequisites: Specialized doctoral disciplines.

13. References: Primary Sources:

1. Code of the Republic of Kazakhstan «On Public Health and the Healthcare System.»
2. Kulzhanov M.K., Mustafyev S.U., Kashafutdinova G.T., Emberdiyeva Zh.A. Healthcare Management, Almaty, 2007.
3. Glukhov V.V. Fundamentals of Management, St. Petersburg, «Special Literature», 2006.
4. Lisitsin Yu.P. Public Health and Healthcare: A Textbook, Moscow, 2002, 48 copies.
5. Seleznev V.D., Polyakov I.V. Economic Foundations of Population Health Reproduction in a Transitional Economy, St. Petersburg, 1996.
6. Luchkevich V.S. Fundamentals of Social Medicine and Healthcare Management, St. Petersburg, 1997.
7. Luchkevich V.S., Polyakov I.V. Fundamentals of Medical Insurance, St. Petersburg, 1998.
8. Medik V.A., Yuryev V.K. Lecture Course on Public Health and Healthcare (in 3 parts), Moscow, «Medicine», 2003, 1 copy.
9. Polyakov I.V., Zelenskaya T.M., Romashov P.G., Pivovarova N.A. Healthcare Economics in the Market System: A Textbook, St. Petersburg.
10. Kuzmenko V.G., Baranov V.V., Shilenko Yu.V. Healthcare in a Market Economy, Moscow.

11. Zaitseva O.A., Radugin A.A., Radugin K.A., Rogacheva N.I. Fundamentals of Management: A Textbook for Universities, Moscow: Center, 2003.
12. Mordvin S.K. Human Resource Management: Research, Assessment, Training, Moscow, Business School "Intel-Sintez," 2000, 285 pages.
13. Aliev V.G. Textbook for Medical Universities: Organization Theory, Moscow, «Economics», 2005, 425 pages, 1 copy.
14. Resolution of the Government of the Republic of Kazakhstan No. 1050 dated October 13, 2004, «On Approval of the Action Plan for the Implementation of the State Program for the Reform and Development of Healthcare in the Republic of Kazakhstan for 2005-2010».

Additional Sources:

1. Jack Duncan U. Fundamental Ideas in Management, Moscow, «Delo», reissued and revised in 2008.
2. Utkin E.A., Burov T.B. Management, Moscow, 2002.
3. Brass A.A. Management: Basic Concepts, Types, Functions, Minsk, 2007.
4. Richard L. Daft. Management, 6th edition, translated from English, St. Petersburg: Piter, 2004, 864 pages, illustrated (MBA Classics Series).
5. Medik V.A., Yuryev V.K. Lecture Course on Public Health and Healthcare (in 3 parts), Moscow, "Medicine," 2003, 1 copy.
6. Vesnin V.R. Fundamentals of Management, Moscow: CINO, 2003.
7. Zaitseva O.A., Radugin A.A., Radugin K.A., Rogacheva N.I. Fundamentals of Management: A Textbook for Universities, Moscow: Center, 2003.
8. Baigenzhin A.K., Zhuzghanov O.T. Investments in Human Health – The Basis of Societal Development, Astana, 2006, 263 pages, 5 copies.
9. Akanov A.A. Population Health Policy in Kazakhstan: Experience in Developing and Implementing National Healthcare Programs and Prospects for 2010-2015, Astana, 2005, 244 pages.
10. Treshutin V.A., Egorov I.A. Socio-Hygienic Aspects of Monitoring and Evaluating the Efficiency of Healthcare Institutions // Problems of Social Hygiene, Healthcare, and Medical History. – Moscow, 2000. – No. 2. – Pp. 36–38.
11. Ibraev S.E., Vorontsova N.N., et al. Evaluation of the Performance of Medical and Preventive Organizations Based on Program-Target Planning Indicators // Methodological Recommendations. – Astana, 2000. – 26 pages.
12. Ibraev S.E. Issues of Comprehensive Monitoring and Evaluation of Medical Organizations and Their Management // Materials of the II Republican Scientific and Practical Conference Experience, Problems, and Prospects of Healthcare System Reform in the Republic of Kazakhstan. – Almaty, 2002. – Pp. 118–122.
13. Vardosanidze S.L. Quality Management of the Diagnostic and Treatment Process in a Multidisciplinary Healthcare Institution // Healthcare Economics. – 2002. – No. 11. – Pp. 5–6.

Electronic Resources (e.g., Video, Audio, Digests):

1. Kovalev, A.I. Prolegomena to Research Methods: A Textbook / A.I. Kovalev. – 3rd ed., revised and expanded. – Moscow: FLINTA, 2022. – 291 pages: illustrations, tables, graphs. – Subscription access. – URL: <https://biblioclub.ru/index.php?page=book&id=607469> – Bibliography included. – ISBN 978-5-9765-4297-6. – Electronic text.
2. International Scientometric Tools (Citation Databases):
3. Web of Science: <http://science.thomsonreuters.com/mjl/>
4. Humanities: http://science.thomsonreuters.com/mjl/publist_ah.pdf
5. Social Sciences: http://science.thomsonreuters.com/mjl/publist_ssci.pdf
6. Exact and Natural Sciences: http://science.thomsonreuters.com/mjl/publist_sciex.pdf
7. Scopus: <http://www.info.sciverse.com/scopus/...n-detail/facts>
8. http://www.info.sciverse.com/documen...itle_list.xlsx
9. Web of Knowledge: http://science.thomsonreuters.com/mjl/#journal_lists
10. PubMed: <http://www.ncbi.nlm.nih.gov/nlmcatalog/journals>
11. Springer Journals: <http://www.springerlink.com/journals/>

12. Agris (Food and Agriculture Organization): <http://agris.fao.org/>
13. GeoRef (Geological and Earth Sciences Database): <http://www.agiweb.org/georef/about/serials.html>

Electronic Textbooks and Study Guides:

14. Rodionova N.V. Research Methods in Management. Organization of Research Activities. Module 1 [Electronic Resource]: A Textbook for University Students in Management / N.V. Rodionova. – Electronic text. – Moscow: UNITY-DANA, 2015. – 415 pages. – ISBN 978-5-238-02275-8. – Access: <http://www.iprbookshop.ru/52061.html>
15. Glebova O.V. Methodological Guidelines and Assignments for Laboratory Work in the Course “Research Methods in Management” [Electronic Resource] / O.V. Glebova. – Electronic text. – Saratov: University Education, 2016. – 21 pages. – ISSN 2227-8397. – Access: <http://www.iprbookshop.ru/55523.html>
16. Kuzheva S.N. Research Methods in Management [Electronic Resource]: A Study Guide / S.N. Kuzheva. – Electronic text. – Omsk: Omsk State University named after F.M. Dostoevsky, 2014. – 188 pages. – ISBN 978-5-7779-1760-7. – Access: <http://www.iprbookshop.ru/59621.html>

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4. www.rusmedserv.com/topsites/
5. www.doktor.ru.
6. medinfo.net
7. www.spasmex.ru
8. www.webmedinfo.ru
9. www.medicum.nnov.ru
10. medcompany.ru
11. meduniver.com
12. badis.narod.ru
13. studentdoctorprofessor.com.ua
14. www.med39.ru
15. www.kovostok.ru
16. www.drugme.ru
17. lepila.tyurem.net
18. top.medlinks.ru
19. doctor-doctor.ru
20. mepmed.ru

- 1. Department:** «Pediatrics-2»
2. Level of preparation: Residency
3. Specialty: 7R01106 «Children's oncology and hematology»
4. Course: 1
5. The name of the elective discipline «Pathomorphological diagnostics in pediatric oncology»
6. Number of credits: 2

7. Purpose of the discipline: Training of highly qualified, competitive pediatric oncologists and hematologists who are able to meet the needs of society in providing medical care to oncological and hematological sick children, apply and develop advanced innovative technologies in medicine, science and practice.

Pathomorphology of hemoblastoses in children. Lymphomas. Pathomorphological diagnosis of lymphoid tumors. Pathomorphology of tumors of the central nervous system. Acute lymphoblastic leukemia. Solid tumors. Clinical and pathoanatomic approaches to the lifetime diagnosis of tumors. Methodology of research in pathomorphology of malignant tumors.

8. Objectives:

- to form clinical thinking and the ability to independently work with scientific literature on the discipline;
- develop the ability to analyze socio-biological, medico-social and epidemiological conditions and factors of the occurrence of diseases;
- to teach the resident the principles of diagnosis of diseases, reasonably prescribe laboratory, functional and instrumental methods of examination;
- совершенствовать improve the skill of manual examination of the patient, palpation, percussion and auscultation;
- to develop the skill of interpreting the results of a paraclinical examination of the patient;
- обуч to teach the compilation of an algorithm for the differential diagnosis of diseases;
- to develop the skill of an informed choice of etiopathogenetic treatment;
- научить teach the basic principles of prevention;
- разъяс explain the application of legal documents regulating the activities of a pediatric hematologist, a pediatric oncologist;
- improve interpersonal communication skills with colleagues, patients and their parents;
- to stimulate the resident's desire for self-development and self-improvement, the choice of a professional trajectory;
- to develop the skill of working with medical literature, the ability to analyze literary and Internet sources.

9. Justification of the choice of discipline: In the elective discipline "Pathomorphological diagnostics in pediatric oncology", a deeper and more complete mastering of the work of future pediatric oncogematologists is expected.

Knowledge of medical and social measures of medical rehabilitation is a set of measures aimed at restoring socially significant skills that have been disrupted due to the underlying disease and/or ongoing treatment, by reducing the severity of social insufficiency as much as possible and training in performing socially significant functions, taking into account the nature of life limitations, including using technical means of social rehabilitation.

Knowledge of medical and psychological measures of medical rehabilitation is a set of measures aimed at diagnosing and correcting the psychological problems of the rehabilitator, directly related or caused by the manifestations or consequences of the underlying and concomitant diseases.

Knowledge of indications for medical rehabilitation is the need for a complex of medical services aimed at restoring the normal functioning of the patient's body, disrupted as a result of the disease.

10. Result of training (competence):

Knowledge (cognitive sphere)	Skills and abilities (psychomotor sphere)	Personal and professional competencies (relationships)
Application: Evaluation of studies, materials from professional literature on pediatric oncology and hematology. Use international databases in your daily activities. Participate in the work of the research team; - readiness for abstract thinking, analysis, synthesis; - assign a plan of laboratory and instrumental methods of examination; - interpret the results of laboratory and instrumental methods of examination; - provide assistance in case of complications. Analysis: discusses and categorizes the knowledge of biomedical, clinical, social and behavioral sciences in specialized practice - conducts a comprehensive assessment of laboratory and instrumental studies. Rating: - evaluate the results of UAC, OAM, biochemical blood tests, BAC. research, coprology, CBS. - appreciate the indicators of peak flowmetry, ultrasound, radiography, computed tomography, NMRI	Accuracy: demonstrates the ability to perform medical procedures on dummies during an objective structured clinical examination. Articulation: accurately performs medical procedures on real or standardized patients. Affective Domain (Attitude/Behavior) Gives value: relationships with patients and medical staff during medical procedures. Organization: -independent organizes medical procedures according to the list of the residency profile; -willingness to manage a team, to tolerate social, ethnic, religious and cultural differences.	Medical documentation: - readiness to identify pathological conditions, symptoms, disease syndromes, and nosological forms in newborns in accordance with the International Statistical Classification of Diseases and Health-related Problems; - medical documentation: registration of medical documentation for the specialty profile in accordance with the legislation in healthcare.

11. Prerequisites: Children's diseases in General medical practice.

12. Postrequisites: profile disciplines

13. References

Main literature:

1. Pathological anatomy : national guidelines / G. N. Berchenko [et al.] ; gl. ed.: M. A. Fingers, L. V. Kaktursky, O. V. Zairatyants ; Russian Society of Pathologists, Assoc. med. - M. : GEOTAR-Media, 2013. - 1259 p. : ill. - (National Guidelines).

2. Oncology [Electronic resource] : national hands / [T. A. Fedorova et al.] ; edited by V. I. Chissov, M. I. Davydov. - Moscow : GEOTAR-Media, 2013. - 572 p.
3. Radiation therapy [Electronic resource] : [study. for higher Prof. education] / [G. E. Trufanov, M. A. Asaturyan, G. M. Zharikov, V. N. Malakhovsky] ; edited by G. E. Trufanov. - Moscow : GEOTAR-Media, 2013. - 208 p.
4. Zaprudnov, A.M. Children's diseases: [study. for higher Prof. education] : in 2 t. t. 1 / A.M. Zaprudnov, K. I. Grigoriev, L. A. Kharitonova— - 2nd ed., reprint. and additional – Moscow : GEOTAR-Media, 2013— - 768 p.
5. Zaprudnov, A.M. Children's diseases: [study. for higher Prof. education] : in 2 t. t. 2 / A.M. Zaprudnov, K. I. Grigoriev, L. A. Kharitonova— - 2nd ed., reprint. and additional – Moscow : GEOTAR-Media, 2013. - 752 p.
6. History of pediatric oncology / edited by M.Y. Rykov, V.G. Polyakov - St. Petersburg : Mikhail Fursov Printing House, 2015. - 208 p.
7. Pediatric oncology: clinical recommendations for the treatment of patients with solid tumors / edited by M.Y. Rykov, V.G. Polyakov. - M. : GEOTAR-Media, 2017. - 368 p.
8. Clinical manifestations of oncological diseases in children / edited by V.G. Polyakov, M.Yu. Rykov - St. Petersburg : Mikhail Fursov Printing House, 2017. - 52 p.
9. Clinical protocols of the Ministry of Health of the Republic of Kazakhstan.

Additional literature:

1. Outpatient oncology: hands. for doctors / Sh. Kh. Gantsev, V. V. Starinsky, I. R. Rakhmatullina et al— - 2nd ed., reprint. and additional – Moscow : GEOTAR-Media, 2012— - 448 p.
2. Abisatov H.A. Clinical oncology: textbook. - Almaty: publishing house "Arys", 2007. - T. I. - 608 s
3. Sirota V.B., Bukenov A.M. Pediatric oncology: textbook. stipend. - Karaganda, 2015. - 128 p.
4. Pediatric oncology: clinical recommendations for the treatment of patients with solid tumors / edited by M.Y. Rykov, V.G. Polyakov. - M. : GEOTAR-Media, 2017. - 368 p.
5. Clinical manifestations of oncological diseases in children / edited by V.G. Polyakov, M.Yu. Rykov - St. Petersburg : Mikhail Fursov Printing House, 2017. - 52 p.
6. Abisatov H.A. Clinical oncology: textbook. - Almaty: Arys Publishing House, 2007. - Vol. II— - 640 p.
7. Monakhov B.V., Kaidarova D.R., Afonin G.A. Modern cancer prevention. - Almaty, 2009— - 196 p.

Electronic resources (for example: video, audio, digests):

1. Higgins, K. Decoding of clinical laboratory analyses [Electronic resource] : monograph / K. Higgins ; translated from English by E. K. Vishnevskaya. - 7th ed. -Moscow : Knowledge Lab, 2016. - 587 p. <http://elibrary.kaznu.kz/>
2. Welsher, L. Z. Clinical oncology : selected lectures : [studies. manual for medical universities] / L. Z. Welsher, B. I. Polyakov, S. B. Peterson. - M. : GEOTAR-Media, 2019.

Medical sites:

1. med-site.narod.ru
2. www.medicusamicus.com
3. www.medprof.ru
4. www.rusmedserv.com/topsites/
5. www.doktor.ru.
6. medinfo.net
7. www.spasmex.ru
8. www.webmedinfo.ru
9. www.medicum.nnov.ru
10. medcompany.ru
11. meduniver.com
12. badis.narod.ru
13. studentdoctorprofessor.com.ua
14. www.med39.ru
15. www.kovostok.ru
16. www.drugme.ru
17. lepila.tyurem.net
18. top.medlinks.ru
19. doctor-doctor.ru
20. mepmed.ru

1. Department: «Pediatrics-2»

2. Level of preparation: Residency

3. Specialty: 7R01106 «Children's oncology and hematology»

4. Course: 1

5. The name of the elective discipline «Modern aspects of rehabilitation in pediatric hematology oncology»

6. Number of credits: 2

7. Purpose of the discipline: Training of highly qualified, competitive pediatric oncologists and hematologists who are able to meet the needs of society in providing medical care to oncological and hematological sick children, apply and develop advanced innovative technologies in medicine, science and practice.

8. Objectives:

- to form clinical thinking and the ability to independently work with scientific literature on the discipline;
- develop the ability to analyze socio-biological, medico-social and epidemiological conditions and factors of the occurrence of diseases;
- to teach the resident the principles of diagnosis of diseases, reasonably prescribe laboratory, functional and instrumental methods of examination;
- improve the skill of manual examination of the patient, palpation, percussion and auscultation;
- to develop the skill of interpreting the results of a paraclinical examination of a patient;
- to teach the compilation of an algorithm for the differential diagnosis of diseases;
- to develop the skill of an informed choice of etiopathogenetic treatment;
- teach the basic principles of prevention;
- explain the application of legal documents regulating the activities of a pediatric hematologist, a pediatric oncologist;
- improve interpersonal communication skills with colleagues, patients and their parents;
- to stimulate the resident's desire for self-development and self-improvement, the choice of a professional trajectory;

- to develop the skill of working with medical literature, the ability to analyze literary and Internet sources.

9. Justification of the choice of discipline: In the elective discipline "Modern aspects of rehabilitation in pediatric oncohematology", a deeper and more complete mastering of the work of future pediatric oncohematologists is expected.

Pediatric rehabilitation is a form of treatment that results from the coordinated and complementary work of various medical and non-medical specialties used to identify and develop children's abilities, rehabilitate identified diseases and ensure the independence of the child at the highest level.

High-intensity treatment in pediatric hematology-oncology requires the organization of active medical and psychological and social rehabilitation of patients who have undergone treatment. Timely comprehensive rehabilitation can improve the results of therapy.

10. Result of training (competence):

Knowledge (cognitive sphere)	Skills and abilities (psychomotor sphere)	Personal and professional competencies (relationships)
Application: Evaluation of studies, materials from professional literature on pediatric oncology and hematology. Use international databases in your daily activities. Participate in the work of the research team; - readiness for abstract thinking, analysis, synthesis; - assign a plan of laboratory and instrumental methods of examination; - interpret the results of laboratory and instrumental methods of examination; - provide assistance in case of complications. Analysis: discusses and categorizes the knowledge of biomedical, clinical, social and behavioral sciences in specialized practice - conducts a comprehensive assessment of laboratory and instrumental studies. Rating: - evaluate the results of UAC, OAM, biochemical blood tests, BAC. research, coprology, CBS. - appreciate the indicators of peak flowmetry, ultrasound, radiography, computed tomography, NMRI	Accuracy: demonstrates the ability to perform medical procedures on dummies during an objective structured clinical examination. Articulation: accurately performs medical procedures on real or standardized patients. Affective Domain (Attitude/Behavior) Gives value: relationships with patients and medical staff during medical procedures. Organization: -independent organizes medical procedures according to the list of the residency profile; -willingness to manage a team, to tolerate social, ethnic, religious and cultural differences.	Medical documentation: - readiness to identify pathological conditions, symptoms, disease syndromes, and nosological forms in newborns in accordance with the International Statistical Classification of Diseases and Health-related Problems; - medical documentation: registration of medical documentation for the specialty profile in accordance with the legislation in healthcare.

11. Prerequisites: Children's diseases in General medical practice.

12. Postrequisites: profile disciplines

13. References

Main literature:

1. Pediatric oncology : national guidelines / FSBI "N. N. Blokhin Russian Research Center of the Russian Academy of Medical Sciences", Research Institute of Pediatric Oncology and Hematology / M. D. Aliyev [et al.] ; edited by M. D. Aliyev. Moscow : RSC "Practical Medicine", 2012. pp. 377-399.
2. Savva, N. N. Malignant neoplasms in children of the Republic of Belarus / N. N. Savva, A. A. Zborovskaya, O. V. Aleynikova. Minsk, 2008. 182 p.
3. Romashevskaya, I. P. Second malignant tumors in children and adolescents of the Republic of Belarus / I. P. Romashevskaya, N. N. Savva, A. A. Zborovskaya; edited by O. V. Aleynikova. Minsk, 2015. 120 p.
4. Lantskovsky, F. Pediatric hematology and oncology : translated from English / F. Lantskovsky. Moscow : Lori, 2005. 784 p.
5. Dispensary observation of children and adolescents with oncohematological diseases by a pediatrician of general practice / S. R. Varfolomeeva [et al.] // Oncohematology. 2008. No. 1-2. pp. 63-69.
6. Clinical protocols of the Ministry of Health of the Republic of Kazakhstan.

Additional literature:

1. Rudneva, A. E. Observation of patients with hemoblastosis after the end of antitumor therapy / A. E. Rudneva, E. E. Ilyina // Oncohematology. 2014. No. 4. pp. 46-53.
2. Rehabilitation/habilitation of infants and young children in a specialized medical center for patients with blood diseases and malignant neoplasms / E. V. Zhukovskaya [et al.] // Russian Journal of Pediatric Hematology and Oncology. 2017. Vol. 4, No. 3. pp. 80-84.
3. Strategy of medical, psychological and social rehabilitation of children with hematological and oncological diseases / N. N. Volodin [et al.] // Oncohematology. 2015. No. 1. pp. 7-15.
4. Clinical protocol "Medical rehabilitation of children with oncological and oncohematological diseases" : approved by the resolution of the Ministry of Health. Rep. Belarus No. 52 dated 01.06.2017. Access mode : <http://www.pravo.by> . Access date : 20.05.2019.
5. Abisatov H.A. Clinical oncology: textbook. – Almaty: publishing house "Arys", 2007. – T. I. – 608 p
6. Sirota V.B., Bukenov A.M. Pediatric oncology: textbook. stipend. –Karaganda, 2015. – 128p.
7. Pediatric oncology: clinical recommendations for the treatment of patients with solid tumors / edited by M.Y. Rykov, V.G. Polyakov. — M. : GEOTAR-Media, 2017. — 368 p.
8. Clinical manifestations of oncological diseases in children / edited by V.G.Polyakov, M.Yu. Rykov — St. Petersburg : Mikhail Fursov Printing House, 2017. — 52 p.
9. Abisatov H.A. Clinical oncology: textbook. – Almaty: Arys Publishing House, 2007. – Vol. II. – 640 p.

Electronic resources (for example: video, audio, digests):

1. Higgins, K. Decoding of clinical laboratory analyses [Electronic resource] : monograph / K. Higgins ; translated from English by E. K. Vishnevskaya. - 7th ed. -Moscow : Knowledge Lab, 2016. - 587 p. <http://elib.kaznu.kz/>
2. Welsher, L. Z. Clinical oncology : selected lectures : [studies. manual for medical universities] / L. Z. Welsher, B. I. Polyakov, S. B. Peterson. - M. : GEOTAR-Media, 2019.

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6. medinfo.net
7. www.spasmex.ru
8. www.webmedinfo.ru
9. www.medicum.nnov.ru
10. medcompany.ru
11. meduniver.com
12. badis.narod.ru
13. studentdoctorprofessor.com.ua
14. www.med39.ru
15. www.kovostok.ru
16. www.drugme.ru
17. lepila.tyurem.net
18. top.medlinks.ru
19. doctor-doctor.ru
20. mepmed.ru

1. Department: «Pediatrics-2»

2. Level of preparation: Residency

3. Specialty: 7R01130 «Pediatrics»

4. Course: 2

5. The name of the elective discipline «Modern aspects of a dietaprofilaktika and dietotherapy in pediatrics»

6. Number of credits: 2

7. Purpose of the discipline: to train specialists in nutrition, trained in the methods of diet therapy for various diseases and able to conduct a differentiated diet therapy.

8. Objectives:

- development by residents of theoretical knowledge on the basics of rational and therapeutic nutrition in children;
- study of special target diets for patients with cardiological, pulmonological, gastroenterological, nephrological, endocrinological pathologies, food allergies and some surgical diseases;
- pathogenetic substantiation of diet therapy in case of malabsorption syndrome and food allergy;
- study of the principles of enteral and parenteral nutrition of patients;
- study of the principles of therapeutic nutrition in alimentary-dependent conditions in young children;
- to teach to make professional decisions based on the principles of evidence-based medicine;
- to instill appropriate communication skills when communicating with patients, interacting with colleagues;
- to instill the skills of moral, ethical and legal culture necessary for servicing patients in the conditions of functional diagnostics;
- develop a commitment to professional values such as altruism, compassion, empathy, responsibility, honesty, and confidentiality;
- Strengthen teamwork and leadership skills.

9. Justification of the choice of discipline: Acquisition of knowledge on the conduct of diet therapy for various diseases and the implementation of dynamic monitoring of the patient.

Mastering skills for the preparation of special therapeutic diets for the nutrition of patients with non-communicable diseases.

10. Result of training (competence):

Knowledge (cognitive sphere)	Skills and abilities (psychomotor sphere)	Personal and professional competencies (relationships)
Application: Evaluation of studies, materials from professional literature on "Modern aspects of dietary prevention and diet therapy in pediatrics". Use international databases in your daily activities. Participate in the work of the research team; - readiness for abstract thinking, analysis, synthesis; - assign a plan of laboratory and instrumental methods of examination; - interpret the results of laboratory and instrumental methods of examination; - provide assistance in case of complications. Analysis: discusses and categorizes the knowledge of biomedical, clinical, social and behavioral sciences in specialized practice - conducts a comprehensive assessment of laboratory and instrumental studies. Rating: - evaluate the results of UAC, OAM, biochemical blood tests, BAC. research, coprology, CBS. - appreciate the indicators of peak flowmetry, ultrasound, radiography, computed tomography, NMRI	Accuracy: demonstrates the ability to perform medical procedures on dummies during an objective structured clinical examination. Articulation: accurately performs medical procedures on real or standardized patients. Affective Domain (Attitude/Behavior) Gives value: relationships with patients and medical staff during medical procedures. Organization: -independent organizes medical procedures according to the list of the residency profile; -willingness to manage a team, to tolerate social, ethnic, religious and cultural differences.	Medical documentation: - readiness to identify pathological conditions, symptoms, disease syndromes, and nosological forms in newborns in accordance with the International Statistical Classification of Diseases and Health-related Problems; - medical documentation: registration of medical documentation for the specialty profile in accordance with the legislation in healthcare; - Knows the basics of rational and therapeutic nutrition in pediatrics. - Knows the principles of enteral and parenteral nutrition of sick children. - Knows how to make a diet for alimentary-dependent conditions in young children.

11. Prerequisites: Children's diseases in the hospital.

12. Postrequisites: profile disciplines

13. References

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- 1.Kildiyarova, R.R. Visual pediatric gastroenterology and hepatology (+ CD-ROM) / R.R. Kildiyarova, Yu.F. Lobanov. - M.: GEOTAR-Media, 2021. - 124 p.
2. Kildiyarova, R. R. Fundamentals of the formation of children's health. Textbook / R.R. Kildiyarova, V.I. Makarova, Yu.F. Lobanov. - M.: GEOTAR-Media, 2021. - 328 p.

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8. Kishkun A.A. Clinical laboratory diagnostics: textbook. - M., 2008. 720s
10. Gankovskaya L.V. Clinical immunology and allergology: workshop for 5-6 course. - M., 2009.
11. Baranovsky A.Yu. Dietology 5th edition, revised and supplemented: - Peter, 2018. - 1024 p.
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13. Scientific foundations of healthy nutrition / ed. V.A. Tutelyan: - M.: Publishing house "Panorama", 2010. - 816 p.
14. Medical nutrition: modern approaches to the standardization of diet therapy / ed. V.A. Tutelyan [i dr.]. - Moscow: Dynasty, 2010. - 301 p.

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1. Sorvacheva T.N., Martinchik A.N., Pyrieva E.A. Comprehensive assessment of actual nutrition and nutritional status of children and adolescents: textbook - M.: GBOU DPO RMAPO, 2014. - 73 p.
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3. www.medprof.ru
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5. www.doktor.ru.
6. medinfo.net
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13. studentdoctorprofessor.com.ua
14. www.med39.ru
15. www.kovostok.ru
16. www.drugme.ru
17. lepila.tyurem.net
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19. doctor-doctor.ru
20. mepmed.ru

1. Department: «Pediatrics-2»

2. Level of preparation: Residency

3. Specialty: 7R01130 «Pediatrics»

4. Course: 2

5. The name of the elective discipline «Functional diagnostics in Pediatrics»

6. Number of credits: 2

7. Purpose of the discipline: Formation and consolidation of deep knowledge, skills and abilities of residents in industrial, scientific and pedagogical practice for conducting research work of residents in the specialty «Pediatrics».

8. Objectives:

- Consolidation of practical skills and theoretical foundations of functional diagnostics in cases often encountered in pediatric cardiology, pulmonology, neurology;
- adoption of specialized decisions based on the principles of evidence-based medicine;
- mastering communication skills in relationships with patients and colleagues;
- formation of a moral and ethical culture, which is supported during the observation and examination of patients;
- development of practical values, principles of altruism, mercy, responsibility, honesty and confidentiality;
- formation of leadership qualities and ability to work in a group;
- ability to independently work with scientific literature on the topic and form clinical thinking;
- formation of the ability to analyze socio-biological, medico-social and epidemiological conditions and factors of diseases;
- appointment of laboratory, functional and instrumental methods of examination;
- develop the ability to work with medical literature, the ability to analyze literary and Internet sources;
- ability to independently work with scientific literature on the topic and form clinical thinking;
- development of the ability to analyze socio-biological, medical-social and epidemiological conditions and factors of diseases;
- teaching the intern the principles of diagnosing diseases, prescribing methods of laboratory, functional and instrumental examination;

- Improving the skills of manual examination of the patient, palpation, percussion and auscultation;
- development of the ability to interpret the results of paraclinical examination of the patient;
- to teach how to draw up an algorithm for the differential diagnosis of diseases;
- development of the ability to choose the right etiopathogenetic treatment;
- teach the basic principles of prevention;
- explain the application of legal acts regulating the activities of a pediatrician;
- Improving communication skills with colleagues, patients and their parents;
- to stimulate the desire of the resident for self-development and self-improvement, for the choice of a professional trajectory;

9. Justification of the choice of discipline: In the elective discipline «Functional diagnostics in Pediatrics», a deeper and more complete mastering of the work of future pediatric oncohematologists is expected.

The work program of the topic included the main sections of topical problems of functional diagnostics in pediatrics: indications, contraindications for functional diagnostics in children of different ages, functional diagnostics and interpretation of research results, functional diagnostics in congenital heart defects. Daily blood pressure monitoring. The method of spirographic research in children. Diagnosis of hyperactivity of the lungs in children and adolescents. Theoretical foundations of clinical physiology of the cardiovascular system. The structure of the conduction system of the heart. ECG parameters for rhythm disturbances in children. Normal ECG parameters. The mechanism of development of rhythm disturbances. Ultrasound of the heart. Physical and technical bases of echocardiogram, echocardiogram method. Echocardiography in various pathologies of the heart. Ultrasound diagnosis of diseases of the thyroid gland, diseases of the abdominal cavity. Electroencephalography. echoencephalography. Electromyography.

10. Result of training (competence):

Knowledge (cognitive sphere)	Skills and abilities (psychomotor sphere)	Personal and professional competencies (relationships)
Application: Evaluation of studies, materials from professional literature on functional diagnostics in pediatrics. Participate in the work of the research team; - readiness for abstract thinking, analysis, synthesis; - assign a plan of laboratory and instrumental methods of examination; - interpret the results of laboratory and instrumental methods of examination; - provide assistance in case of complications. Analysis: discusses and categorizes the knowledge of biomedical, clinical, social and behavioral sciences in specialized practice	Accuracy: demonstrates the ability to perform medical procedures on dummies during an objective structured clinical examination. Articulation: accurately performs medical procedures on real or standardized patients. Affective Domain (Attitude/Behavior) Gives value: relationships with patients and medical staff during medical procedures. Organization: -independent organizes medical procedures according to the list of the residency profile; -willingness to manage a team, to tolerate social, ethnic,	Medical documentation: - readiness to identify pathological conditions, symptoms, disease syndromes, and nosological forms in newborns in accordance with the International Statistical Classification of Diseases and Health-related Problems; - medical documentation: registration of medical documentation for the specialty profile in accordance with the legislation in healthcare.

- conducts a comprehensive assessment of laboratory and instrumental studies. Rating: - evaluate the results of UAC, OAM, biochemical blood tests, BAC. research, coprology, CBS. - appreciate the indicators of peak flowmetry, ultrasound, radiography, computed tomography, NMRI	religious and cultural differences.	
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11. Prerequisites: Children's diseases in the hospital.

12. Postrequisites: profile disciplines

13. References

Main literature:

1. Functional diagnostics in cardiology [Electronic resource]: in two volumes / under ed. L.A. Bokeria [i dr.]. - M.: Publishing house of the NCSSH them. Bakuleva RAMS, 2005. - G. 1. - 296 p. - Access from EBS "Physician's Consultant. EMB".
2. Naumenko E.I. Features of electrocardiography in children: guidelines for students of the pediatric department - Saransk, LLC "Referent", 2007. - 44 p.
3. Oskolkova M.K., O.O. Kupriyanov. Electrocardiography in children, - M.: Medicine, 2004. - 350 p.
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2. Simple ECG Analysis: Interpretation. Differential diagnosis / Hans Holger Ebert. - Per. from English. - M: Logosphere, 2010. - 280s.
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7. ABC of ECG and Pain in the heart / Yu.I. Zudbinov. - Ed. 13th. - Rostov-on-Don: Phoenix, 2011. - 235 p. - (Medicine) Access from the EBS "Doctor's Consultant. EMB".
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9. Clinical epileptology (with elements of neurophysiology): a guide for physicians /L.R. Zenkov. - Ed. 2nd, rev. and additional - Moscow: MIA, 2010.- 408 p.
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11. O.L. Bokeria. Electrical stimulation of the heart in children / - M .: Medpraktika-M, 2005. - 137 p.
12. Kushakovsky M.S., Zhuravleva N.B. Arrhythmias and heart blocks: an atlas of electrocardiograms. - L. Medicine, 2007.
13. Oskolkova M.K., Kupryanova O.O. Electrocardiography in children - M.: Medicine, 2006.
14. Schiller Yu. Practical echocardiography. M.-2006

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1. Scopus / Elsevier Inc., Reed Elsevier. - Philadelphia: Elsevier B.V., PA. - URL: <http://www.sciencedirect.com/> (National project)
2. Doctor's consultant. Electronic medical library: EBS. - Moscow: LLC GK "GEOTAR". - URL: <http://www.rosmedlib.ru>
3. Web of Science / Clarivate Analytics. - URL: <http://apps.webofknowledge.com> (Naitoekt).
5. Scientific electronic library - URL: elibrary.ru

Medical sites:

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4. www.rusmedserv.com/topsites/
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13. studentdoctorprofessor.com.ua
14. www.med39.ru
15. www.kovostok.ru
16. www.drugme.ru
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18. top.medlinks.ru
19. doctor-doctor.ru
20. mepmed.ru

- 1. Department:** «Pediatrics-2»
2. Level of preparation: Residency
3. Specialty: 7R01130 «Pediatrics»
4. Course: 2
5. The name of the elective discipline «Functional diagnostics in Pediatrics»
6. Number of credits: 2
7. Purpose of the discipline: Formation and consolidation of deep knowledge, skills and abilities of residents in industrial, scientific and pedagogical practice for conducting research work of residents in the specialty «Pediatrics».

8. Objectives:

- Consolidation of practical skills and theoretical foundations of functional diagnostics in cases often encountered in pediatric cardiology, pulmonology, neurology;
- adoption of specialized decisions based on the principles of evidence-based medicine;
- mastering communication skills in relationships with patients and colleagues;
- formation of a moral and ethical culture, which is supported during the observation and examination of patients;
- development of practical values, principles of altruism, mercy, responsibility, honesty and confidentiality;
- formation of leadership qualities and ability to work in a group;
- ability to independently work with scientific literature on the topic and form clinical thinking;
- formation of the ability to analyze socio-biological, medico-social and epidemiological conditions and factors of diseases;
- appointment of laboratory, functional and instrumental methods of examination;
- develop the ability to work with medical literature, the ability to analyze literary and Internet sources;
- ability to independently work with scientific literature on the topic and form clinical thinking;
- development of the ability to analyze socio-biological, medical-social and epidemiological conditions and factors of diseases;
- teaching the intern the principles of diagnosing diseases, prescribing methods of laboratory, functional and instrumental examination;
- Improving the skills of manual examination of the patient, palpation, percussion and auscultation;
- development of the ability to interpret the results of paraclinical examination of the patient;
- to teach how to draw up an algorithm for the differential diagnosis of diseases;
- development of the ability to choose the right etiopathogenetic treatment;
- teach the basic principles of prevention;
- explain the application of legal acts regulating the activities of a pediatrician;
- Improving communication skills with colleagues, patients and their parents;
- to stimulate the desire of the resident for self-development and self-improvement, for the choice of a professional trajectory;

9. Justification of the choice of discipline: In the elective discipline «Functional diagnostics in Pediatrics», a deeper and more complete mastering of the work of future pediatric oncohematologists is expected.

The work program of the topic included the main sections of topical problems of functional diagnostics in pediatrics: indications, contraindications for functional diagnostics in children of different ages, functional diagnostics and interpretation of research results, functional diagnostics in congenital heart defects. Daily blood pressure monitoring. The method of spirographic research in children. Diagnosis of hyperactivity of the lungs in children and adolescents. Theoretical foundations of clinical physiology of the cardiovascular system. The structure of the conduction system of the heart. ECG parameters for rhythm disturbances in children. Normal ECG parameters.

The mechanism of development of rhythm disturbances. Ultrasound of the heart. Physical and technical bases of echocardiogram, echocardiogram method. Echocardiography in various pathologies of the heart. Ultrasound diagnosis of diseases of the thyroid gland, diseases of the abdominal cavity. Electroencephalography. echoencephalography. Electromyography.

10. Result of training (competence):

Knowledge (cognitive sphere)	Skills and abilities (psychomotor sphere)	Personal and professional competencies (relationships)
Application: Evaluation of studies, materials from professional literature on functional diagnostics in pediatrics. Participate in the work of the research team; - readiness for abstract thinking, analysis, synthesis; - assign a plan of laboratory and instrumental methods of examination; - interpret the results of laboratory and instrumental methods of examination; - provide assistance in case of complications. Analysis: discusses and categorizes the knowledge of biomedical, clinical, social and behavioral sciences in specialized practice - conducts a comprehensive assessment of laboratory and instrumental studies. Rating: - evaluate the results of UAC, OAM, biochemical blood tests, BAC. research, coprology, CBS. - appreciate the indicators of peak flowmetry, ultrasound, radiography, computed tomography, NMRI	Accuracy: demonstrates the ability to perform medical procedures on dummies during an objective structured clinical examination. Articulation: accurately performs medical procedures on real or standardized patients. Affective Domain (Attitude/Behavior) Gives value: relationships with patients and medical staff during medical procedures. Organization: -independent organizes medical procedures according to the list of the residency profile; -willingness to manage a team, to tolerate social, ethnic, religious and cultural differences.	Medical documentation: - readiness to identify pathological conditions, symptoms, disease syndromes, and nosological forms in newborns in accordance with the International Statistical Classification of Diseases and Health-related Problems; - medical documentation: registration of medical documentation for the specialty profile in accordance with the legislation in healthcare.

11. Prerequisites: Children's diseases in the hospital.

12. Postrequisites: profile disciplines

13. References

Main literature:

1. Functional diagnostics in cardiology [Electronic resource]: in two volumes / under ed. L.A. Bokeria [i dr.]. - M.: Publishing house of the NCSSH them. Bakuleva RAMS, 2005. - G. 1. - 296 p. - Access from EBS "Physician's Consultant. EMB".

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5. Ruksin V.V. A short guide to emergency cardiology. SPb Inform honey, 2009
6. Mindubaeva, F. A. Fundamentals of functional diagnostics: study guide / F. A. Mindubaeva, E. Yu. Salikhova; Ministry of Health of the Republic of Kazakhstan; KargMU. - Almaty: Evero, 2014. - 164 p.

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2. Simple ECG Analysis: Interpretation. Differential diagnosis / Hans Holger Ebert. - Per. from English. - M: Logosphere, 2010. - 280s.
3. Zenkov L. R., Clinical electroencephalography (with elements of epileptology) - 2nd ed. - Moscow: Publishing house MEDprss-inform, 2002. - 360 p. 1
4. Akselrod A.S., Chomakhidze P.Sh., Syrkin A.L. Stress ECG Tests: 10 Steps to practice / ed. A.L. Syrkin - Moscow: Publishing House MEDprssinform, 2008. - 200p.
5. Makarov L.M., ECG' in Pediatrics - 3rd ed. - Moscow: Publishing House MEDPRAKTIKA-M, 2013. - 694s.
6. Akselrod A.S., Chomakhidze P.Sh., Syrkin A.L. Holter ECG monitoring: Opportunities, Difficulties, Mistakes / ed. A.L. Syrkin - Moscow: Publishing House MEDprss-inform, 2008. - 186s.
7. ABC of ECG and Pain in the heart / Yu.I. Zudbinov. - Ed. 13th. - Rostov-on-Don: Phoenix, 2011. - 235 p. - (Medicine) Access from the EBS "Doctor's Consultant. EMB".
8. Physiological bases of electroencephalography: (Educational and methodical manual) / G.Sh. Gafiyatullina; RostGMU. - Rostov n / a: Publishing house of RostGMU, 2007. - 70s.
9. Clinical epileptology (with elements of neurophysiology): a guide for physicians /L.R. Zenkov. - Ed. 2nd, rev. and additional - Moscow: MIA, 2010.- 408 p.
10. Yu.M. Belozarov. Children's cardiology / - M.: "MED press-inform", 2004. - 590 p.
11. O.L. Bokeria. Electrical stimulation of the heart in children / - M.: Medpraktika-M, 2005. - 137 p.
12. Kushakovsky M.S., Zhuravleva N.B. Arrhythmias and heart blocks: an atlas of electrocardiograms. - L. Medicine, 2007.
13. Oskolkova M.K., Kupryanova O.O. Electrocardiography in children - M.: Medicine, 2006.
14. Schiller Yu. Practical echocardiography. M.-2006

Electronic resources (for example: video, audio, digests):

1. Scopus / Elsevier Inc., Reed Elsevier. - Philadelphia: Elsevier B.V., PA. - URL: <http://www.scoDus.com/> (National project)
2. Doctor's consultant. Electronic medical library: EBS. - Moscow: LLC GK "GEOTAR". - URL: <http://www.rosmedlib.ru>
3. Web of Science / Clarivate Analytics. - URL: <http://apps.webofknowledge.com> (Naitoekt).
5. Scientific electronic library - URL: elibrary.ru

Medical sites:

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| 1. med-site.narod.ru | 7. www.spasmex.ru |
| 2. www.medicusamicus.com | 8. www.webmedinfo.ru |
| 3. www.medprof.ru | 9. www.medicum.nnov.ru |
| 4. www.rusmedserv.com/topsites/ | 10. medcompany.ru |
| 5. www.doktor.ru | 11. meduniver.com |
| 6. medinfo.net | 12. badis.narod.ru |

13. studentdoctorprofessor.com.ua
14. www.med39.ru
15. www.kovostok.ru
16. www.drugme.ru
17. lepila.tyurem.net
18. top.medlinks.ru
19. doctor-doctor.ru
20. mepmed.ru

1. Department: «Pediatrics-2»

2. Level of preparation: Residency

3. Specialty: 7R01130 «Pediatrics»

4. Course: 2

5. The name of the elective discipline «Clinical immunology and Allergology in hospital»

6. Number of credits: 2

7. Purpose of the discipline: Training of highly qualified, competitive pediatricians who are able to meet the needs of society in providing medical care to sick children, apply and develop advanced innovative technologies in medicine, science and practice.

8. Objectives:

- to form clinical thinking and the ability to independently work with scientific literature on the discipline;
- develop the ability to analyze socio-biological, medico-social and epidemiological conditions and factors of the occurrence of diseases;
- to teach the resident the principles of diagnosis of diseases, reasonably prescribe laboratory, functional and instrumental methods of examination;
- совершенствовать improve the skill of manual examination of the patient, palpation, percussion and auscultation;
- to develop the skill of interpreting the results of a paraclinical examination of the patient;
- обуч to teach the compilation of an algorithm for the differential diagnosis of diseases;
- to develop the skill of an informed choice of etiopathogenetic treatment;
- научить teach the basic principles of prevention;
- ☐ explain the application of legal documents regulating the activities of a pediatrician;
- improve interpersonal communication skills with colleagues, patients and their parents;
- to stimulate the resident's desire for self-development and self-improvement, the choice of a professional trajectory;
- to develop the skill of working with medical literature, the ability to analyze literary and Internet sources.

9. Justification of the choice of discipline:

In the elective discipline "Clinical immunology and Allergology in hospital", a deeper and more complete mastery of the work of future pediatricians is expected.

Clinical immunology in pediatric oncology studies the principles of immunotherapy of immunodeficiency states, modern methods of immunodiagnostics, modern aspects of stem cell transplantation.

Immunology is an artificial stimulation of the immune system for the treatment of cancer, helping the immune system to fight the disease in a natural way. This is a program of fundamental research in the field of cancer immunology and the developing specialization of oncology. Cancer immunotherapy consists in the fact that antibodies of proteins of the immune system can detect and bind to molecules located on the surface of tumor antigens of cancer cells.

The complex therapy started in a timely manner makes it possible to improve the further prognosis of childhood oncological diseases.

10. Result of training (competence):

Knowledge (cognitive sphere)	Skills and abilities (psychomotor sphere)	Personal and professional competencies (relationships)
Application: Evaluation of studies, materials from professional literature on Clinical immunology and Allergology in hospital. Use international databases in your daily activities. Participate in the work of the research team; - readiness for abstract thinking, analysis, synthesis; - assign a plan of laboratory and instrumental methods of examination; - interpret the results of laboratory and instrumental methods of examination; - provide assistance in case of complications. Analysis: discusses and categorizes the knowledge of biomedical, clinical, social and behavioral sciences in specialized practice - conducts a comprehensive assessment of laboratory and instrumental studies. Rating: - evaluate the results of UAC, OAM, biochemical blood tests, BAC. research, coprology, CBS. - appreciate the indicators of peak flowmetry, ultrasound, radiography, computed tomography, NMRI	Accuracy: demonstrates the ability to perform medical procedures on dummies during an objective structured clinical examination. Articulation: accurately performs medical procedures on real or standardized patients. Affective Domain (Attitude/Behavior) Gives value: relationships with patients and medical staff during medical procedures. Organization: -independent organizes medical procedures according to the list of the residency profile; -willingness to manage a team, to tolerate social, ethnic, religious and cultural differences.	Medical documentation: - readiness to identify pathological conditions, symptoms, disease syndromes, and nosological forms in newborns in accordance with the International Statistical Classification of Diseases and Health-related Problems; - medical documentation: registration of medical documentation for the specialty profile in accordance with the legislation in healthcare.

11. Prerequisites: Children's diseases in the hospital.

12. Postrequisites: profile disciplines

13. References

Main literature:

1. Clinical immunology and allergology with the basics of general immunology [Electronic resource]: textbook / Kovalchuk L.V., Gankovskaya L.V., Meshkova R.Ya. - M. : GEOTAR-Media, 2012. - 640 p.: ill. Chapter 12

<http://www.studmedlib.ru/book/ISBN9785970422410.html>

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<http://www.studmedlib.ru/book/ISBN9785970433454.html>

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2. Welsher, L. Z. Clinical oncology: fav. lectures: [proc. manual for medical universities] / L. Z. Velsher, B. I. Polyakov, S. B. Peterson. - M. : GEOTAR-Media, 2019.
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4. <http://esid.org> – reference web page of the European Society of Immunodeficiencies.

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|---------------------------------|------------------------|
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| 3. www.medprof.ru | 8. www.webmedinfo.ru |
| 4. www.rusmedserv.com/topsites/ | 9. www.medicum.nnov.ru |
| 5. www.doktor.ru. | 10. medcompany.ru |

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13. studentdoctorprofessor.com.ua
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18. top.medlinks.ru
19. doctor-doctor.ru
20. mepmed.ru

1. **Department:** «Pediatrics-2»
2. **Level of preparation:** Residency
3. **Specialty:** 7R01130 «Pediatrics»
4. **Course:** 2
5. **The name of the elective discipline** «Clinical and laboratory diagnostics in Pediatrics»
6. **Number of credits:** 2
7. **Purpose of the discipline:** Training of a pediatrician who has a volume of knowledge, skills and practical skills that meets modern requirements for independent interpretation of laboratory diagnostic methods of research.
8. **Objectives:**
 - consolidate skills in interpreting the results of modern laboratory and instrumental methods of examination and diagnosis in various diseases in children;
 - increase knowledge on modern methods of examination of diseases in children;
 - to teach the maintenance of current medical medical and accounting and reporting documentation in accordance with modern standards in pediatrics;
 - to teach the conduct of sanitary and educational work among the population, the formation of a healthy lifestyle in modern conditions;
 - the need for continuous professional training and improvement of their knowledge and skills throughout their professional activities.

9. Justification of the choice of discipline:

In the elective discipline "Clinical and laboratory diagnostics in pediatrics", a deeper and more complete mastery of the work of pediatricians is expected. The ability to interpret the results of laboratory functional research methods is necessary for a young specialist to make an accurate diagnosis and conduct a differential diagnosis.

10. Result of training (competence):

Knowledge (cognitive sphere)	Skills and abilities (psychomotor sphere)	Personal and professional competencies (relationships)
Application: can apply his knowledge to problem solving in a new or unfamiliar environment related to his field of study; - appoint a plan of laboratory and instrumental methods of examination; - interpret the results of laboratory and instrumental methods of examination; - to provide assistance in case of complications. Analysis: discusses, categorizes knowledge of biomedical, clinical, social and behavioral sciences in specialized practice - Conduct a comprehensive assessment of the conducted	Accuracy: demonstrates the ability to perform medical procedures on dummies during OSKE. Articulation: accurately performs medical procedures on real or standardized patients. Gives value: relationships with patients and medical staff during medical procedures. Organization: independently organizes medical procedures according to the list of the internship profile.	Medical documentation: registration of medical documentation on the profile of the specialty in accordance with the legislation in health care.

laboratory and instrumental studies. Rating: Assess the results of the CBC, OAM, biochemical blood tests, tank. research, scatology, CBS. Evaluate the indicators of peak flowmetry, ultrasound, radiography, computed tomography, MRI		
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11. Prerequisites: biochemistry, biophysics, physiology.

12. Postrequisites: profile disciplines

13. References

Main literature:

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2. Kamyshnikov V.S. "Clinical laboratory tests from A to Z and their diagnostic profiles". Moscow. Medpress-Inform. 2005
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Electronic resources (for example: video, audio, digests):

1. Higgins, K. Decoding of clinical laboratory analyses [Electronic resource] : monograph / K. Higgins ; translated from English by E. K. Vishnevskaya. - 7th ed. -Moscow : Knowledge Lab, 2016. - 587 p. <http://elib.kaznu.kz/>
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| 2. www.medicusamicus.com | 10. medcompany.ru |
| 3. www.medprof.ru | 11. meduniver.com |
| 4. www.rusmedserv.com/topsites/ | 12. badis.narod.ru |
| 5. www.doktor.ru. | 13. studentdoctorprofessor.com.ua |
| 6. medinfa.net | 14. www.med39.ru |
| 7. www.spasmex.ru | 15. www.kovostok.ru |
| 8. www.webmedinfo.ru | 16. www.drugme.ru |

17. lepila.tyurem.net
18. top.medlinks.ru
19. doctor-doctor.ru
20. mepmed.ru

1. **Department:** «Pediatrics-2»
2. **Level of preparation:** Residency
3. **Specialty:** 7R01130 «Pediatrics»
4. **Course:** 2
5. **The name of the elective discipline** «Modern aspects of a diyetaprofilaktika and dietotherapy in pediatrics»
6. **Number of credits:** 2
7. **Purpose of the discipline:** to train specialists in nutrition, trained in the methods of diet therapy for various diseases and able to conduct a differentiated diet therapy.
8. **Objectives:**
 - development by residents of theoretical knowledge on the basics of rational and therapeutic nutrition in children;
 - study of special target diets for patients with cardiological, pulmonological, gastroenterological, nephrological, endocrinological pathologies, food allergies and some surgical diseases;
 - pathogenetic substantiation of diet therapy in case of malabsorption syndrome and food allergy;
 - study of the principles of enteral and parenteral nutrition of patients;
 - study of the principles of therapeutic nutrition in alimentary-dependent conditions in young children;
 - to teach to make professional decisions based on the principles of evidence-based medicine;
 - to instill appropriate communication skills when communicating with patients, interacting with colleagues;
 - to instill the skills of moral, ethical and legal culture necessary for servicing patients in the conditions of functional diagnostics;
 - develop a commitment to professional values such as altruism, compassion, empathy, responsibility, honesty, and confidentiality;
 - Strengthen teamwork and leadership skills.
9. **Justification of the choice of discipline:** Acquisition of knowledge on the conduct of diet therapy for various diseases and the implementation of dynamic monitoring of the patient. Mastering skills for the preparation of special therapeutic diets for the nutrition of patients with non-communicable diseases.
10. **Result of training (competence):**

Knowledge (cognitive sphere)	Skills and abilities (psychomotor sphere)	Personal and professional competencies (relationships)
Application: Evaluation of studies, materials from professional literature on "Modern aspects of dietary prevention and diet therapy in pediatrics". Use international databases in your daily activities. Participate in the work of the research team; - readiness for abstract thinking, analysis, synthesis;	Accuracy: demonstrates the ability to perform medical procedures on dummies during an objective structured clinical examination. Articulation: accurately performs medical procedures on real or standardized patients. Affective Domain (Attitude/Behavior)	Medical documentation: - readiness to identify pathological conditions, symptoms, disease syndromes, and nosological forms in newborns in accordance with the International Statistical Classification of Diseases and Health-related Problems;

- assign a plan of laboratory and instrumental methods of examination; - interpret the results of laboratory and instrumental methods of examination; - provide assistance in case of complications. Analysis: discusses and categorizes the knowledge of biomedical, clinical, social and behavioral sciences in specialized practice - conducts a comprehensive assessment of laboratory and instrumental studies. Rating: - evaluate the results of UAC, OAM, biochemical blood tests, BAC. research, coprology, CBS. - appreciate the indicators of peak flowmetry, ultrasound, radiography, computed tomography, NMRI	Gives value: relationships with patients and medical staff during medical procedures. Organization: -independent organizes medical procedures according to the list of the residency profile; -willingness to manage a team, to tolerate social, ethnic, religious and cultural differences.	- medical documentation: registration of medical documentation for the specialty profile in accordance with the legislation in healthcare; - Knows the basics of rational and therapeutic nutrition in pediatrics. - Knows the principles of enteral and parenteral nutrition of sick children. - Knows how to make a diet for alimentary-dependent conditions in young children.
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11. Prerequisites: Children's diseases in the hospital.

12. Postrequisites: profile disciplines

13. References

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2. Kildiyarova, R. R. Fundamentals of the formation of children's health. Textbook / R.R. Kildiyarova, V.I. Makarova, Yu.F. Lobanov. - M.: GEOTAR-Media, 2021. - 328 p.
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<http://irbis.rmapo.ru/UploadsFilesForIrbis/8b4ba38a506a0008d1d0b92c42ed9df5.pdf>
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18. top.medlinks.ru
19. doctor-doctor.ru
20. mepmed.ru

- 1. Department:** «Pediatrics-2»
2. Level of preparation: Residency
3. Specialty: 7R01130 «Pediatrics»
4. Course: 2
5. The name of the elective discipline «Functional diagnostics in Pediatrics»
6. Number of credits: 2
7. Purpose of the discipline: Formation and consolidation of deep knowledge, skills and abilities of residents in industrial, scientific and pedagogical practice for conducting research work of residents in the specialty «Pediatrics».

8. Objectives:

- Consolidation of practical skills and theoretical foundations of functional diagnostics in cases often encountered in pediatric cardiology, pulmonology, neurology;
- adoption of specialized decisions based on the principles of evidence-based medicine;
- mastering communication skills in relationships with patients and colleagues;
- formation of a moral and ethical culture, which is supported during the observation and examination of patients;
- development of practical values, principles of altruism, mercy, responsibility, honesty and confidentiality;
- formation of leadership qualities and ability to work in a group;
- ability to independently work with scientific literature on the topic and form clinical thinking;
- formation of the ability to analyze socio-biological, medico-social and epidemiological conditions and factors of diseases;
- appointment of laboratory, functional and instrumental methods of examination;
- develop the ability to work with medical literature, the ability to analyze literary and Internet sources;
- ability to independently work with scientific literature on the topic and form clinical thinking;
- development of the ability to analyze socio-biological, medical-social and epidemiological conditions and factors of diseases;
- teaching the intern the principles of diagnosing diseases, prescribing methods of laboratory, functional and instrumental examination;
- Improving the skills of manual examination of the patient, palpation, percussion and auscultation;
- development of the ability to interpret the results of paraclinical examination of the patient;
- to teach how to draw up an algorithm for the differential diagnosis of diseases;
- development of the ability to choose the right etiopathogenetic treatment;
- teach the basic principles of prevention;
- explain the application of legal acts regulating the activities of a pediatrician;
- Improving communication skills with colleagues, patients and their parents;
- to stimulate the desire of the resident for self-development and self-improvement, for the choice of a professional trajectory;

9. Justification of the choice of discipline: In the elective discipline «Functional diagnostics in Pediatrics», a deeper and more complete mastering of the work of future pediatric oncohematologists is expected.

The work program of the topic included the main sections of topical problems of functional diagnostics in pediatrics: indications, contraindications for functional diagnostics in children of different ages, functional diagnostics and interpretation of research results, functional diagnostics in congenital heart defects. Daily blood pressure monitoring. The method of spirographic research in children. Diagnosis of hyperactivity of the lungs in children and adolescents. Theoretical foundations of clinical physiology of the cardiovascular system. The structure of the conduction system of the heart. ECG parameters for rhythm disturbances in children. Normal ECG parameters.

The mechanism of development of rhythm disturbances. Ultrasound of the heart. Physical and technical bases of echocardiogram, echocardiogram method. Echocardiography in various pathologies of the heart. Ultrasound diagnosis of diseases of the thyroid gland, diseases of the abdominal cavity. Electroencephalography. echoencephalography. Electromyography.

10. Result of training (competence):

Knowledge (cognitive sphere)	Skills and abilities (psychomotor sphere)	Personal and professional competencies (relationships)
Application: Evaluation of studies, materials from professional literature on functional diagnostics in pediatrics. Participate in the work of the research team; - readiness for abstract thinking, analysis, synthesis; - assign a plan of laboratory and instrumental methods of examination; - interpret the results of laboratory and instrumental methods of examination; - provide assistance in case of complications. Analysis: discusses and categorizes the knowledge of biomedical, clinical, social and behavioral sciences in specialized practice - conducts a comprehensive assessment of laboratory and instrumental studies. Rating: - evaluate the results of UAC, OAM, biochemical blood tests, BAC. research, coprology, CBS. - appreciate the indicators of peak flowmetry, ultrasound, radiography, computed tomography, NMRI	Accuracy: demonstrates the ability to perform medical procedures on dummies during an objective structured clinical examination. Articulation: accurately performs medical procedures on real or standardized patients. Affective Domain (Attitude/Behavior) Gives value: relationships with patients and medical staff during medical procedures. Organization: -independent organizes medical procedures according to the list of the residency profile; -willingness to manage a team, to tolerate social, ethnic, religious and cultural differences.	Medical documentation: - readiness to identify pathological conditions, symptoms, disease syndromes, and nosological forms in newborns in accordance with the International Statistical Classification of Diseases and Health-related Problems; - medical documentation: registration of medical documentation for the specialty profile in accordance with the legislation in healthcare.

11. Prerequisites: Children's diseases in the hospital.

12. Postrequisites: profile disciplines

13. References

Main literature:

1. Functional diagnostics in cardiology [Electronic resource]: in two volumes / under ed. L.A. Bokeria [i dr.]. - M.: Publishing house of the NCSSH them. Bakuleva RAMS, 2005. - G. 1. - 296 p. - Access from EBS "Physician's Consultant. EMB".

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Additional literature:

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3. Web of Science / Clarivate Analytics. - URL: <http://apps.webofknowledge.com> (Naitoekt).
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| 3. www.medprof.ru | 9. www.medicum.nnov.ru |
| 4. www.rusmedserv.com/topsites/ | 10. medcompany.ru |
| 5. www.doktor.ru | 11. meduniver.com |
| 6. medinfo.net | 12. badis.narod.ru |

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16. www.drugme.ru
17. lepila.tyurem.net
18. top.medlinks.ru
19. doctor-doctor.ru
20. mepmed.ru

- 1. Department:** «Pediatrics-2»
- 2. Level of preparation:** Residency
- 3. Specialty:** 7R01130 «Pediatrics»
- 4. Course:** 2
- 5. The name of the elective discipline:** «Functional diagnostics in Pediatrics»
- 6. Number of credits:** 2
- 7. Purpose of the discipline:** Formation and consolidation of deep knowledge, skills and abilities of residents in industrial, scientific and pedagogical practice for conducting research work of residents in the specialty «Pediatrics».

8. Objectives:

- Consolidation of practical skills and theoretical foundations of functional diagnostics in cases often encountered in pediatric cardiology, pulmonology, neurology;
- adoption of specialized decisions based on the principles of evidence-based medicine;
- mastering communication skills in relationships with patients and colleagues;
- formation of a moral and ethical culture, which is supported during the observation and examination of patients;
- development of practical values, principles of altruism, mercy, responsibility, honesty and confidentiality;
- formation of leadership qualities and ability to work in a group;
- ability to independently work with scientific literature on the topic and form clinical thinking;
- formation of the ability to analyze socio-biological, medico-social and epidemiological conditions and factors of diseases;
- appointment of laboratory, functional and instrumental methods of examination;
- develop the ability to work with medical literature, the ability to analyze literary and Internet sources;
- ability to independently work with scientific literature on the topic and form clinical thinking;
- development of the ability to analyze socio-biological, medical-social and epidemiological conditions and factors of diseases;
- teaching the intern the principles of diagnosing diseases, prescribing methods of laboratory, functional and instrumental examination;
- Improving the skills of manual examination of the patient, palpation, percussion and auscultation;
- development of the ability to interpret the results of paraclinical examination of the patient;
- to teach how to draw up an algorithm for the differential diagnosis of diseases;
- development of the ability to choose the right etiopathogenetic treatment;
- teach the basic principles of prevention;
- explain the application of legal acts regulating the activities of a pediatrician;
- Improving communication skills with colleagues, patients and their parents;
- to stimulate the desire of the resident for self-development and self-improvement, for the choice of a professional trajectory;

9. Justification of the choice of discipline: In the elective discipline «Functional diagnostics in Pediatrics», a deeper and more complete mastering of the work of future pediatric oncohematologists is expected.

The work program of the topic included the main sections of topical problems of functional diagnostics in pediatrics: indications, contraindications for functional diagnostics in children of different ages, functional diagnostics and interpretation of research results, functional diagnostics in congenital heart defects. Daily blood pressure monitoring. The method of spirographic research in children. Diagnosis of hyperactivity of the lungs in children and adolescents. Theoretical foundations of clinical physiology of the cardiovascular system. The structure of the conduction system of the heart. ECG parameters for rhythm disturbances in children. Normal ECG parameters. The mechanism of development of rhythm disturbances. Ultrasound of the heart. Physical and

technical bases of echocardiogram, echocardiogram method. Echocardiography in various pathologies of the heart. Ultrasound diagnosis of diseases of the thyroid gland, diseases of the abdominal cavity. Electroencephalography. echoencephalography. Electromyography.

10. Result of training (competence):

Knowledge (cognitive sphere)	Skills and abilities (psychomotor sphere)	Personal and professional competencies (relationships)
Application: Evaluation of studies, materials from professional literature on functional diagnostics in pediatrics. Participate in the work of the research team; - readiness for abstract thinking, analysis, synthesis; - assign a plan of laboratory and instrumental methods of examination; - interpret the results of laboratory and instrumental methods of examination; - provide assistance in case of complications. Analysis: discusses and categorizes the knowledge of biomedical, clinical, social and behavioral sciences in specialized practice - conducts a comprehensive assessment of laboratory and instrumental studies. Rating: - evaluate the results of UAC, OAM, biochemical blood tests, BAC. research, coprology, CBS. - appreciate the indicators of peak flowmetry, ultrasound, radiography, computed tomography, NMRI	Accuracy: demonstrates the ability to perform medical procedures on dummies during an objective structured clinical examination. Articulation: accurately performs medical procedures on real or standardized patients. Affective Domain (Attitude/Behavior) Gives value: relationships with patients and medical staff during medical procedures. Organization: -independent organizes medical procedures according to the list of the residency profile; -willingness to manage a team, to tolerate social, ethnic, religious and cultural differences.	Medical documentation: - readiness to identify pathological conditions, symptoms, disease syndromes, and nosological forms in newborns in accordance with the International Statistical Classification of Diseases and Health-related Problems; - medical documentation: registration of medical documentation for the specialty profile in accordance with the legislation in healthcare.

11. Prerequisites: Children's diseases in the hospital.

12. Postrequisites: profile disciplines

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| 5. www.doktor.ru. | 13. studentdoctorprofessor.com.ua |
| 6. medinfo.net | 14. www.med39.ru |
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| 8. www.webmedinfo.ru | 16. www.drugme.ru |

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19. doctor-doctor.ru
20. mepmed.ru

1. **Department:** «Pediatrics-2»
2. **Level of preparation:** Residency
3. **Specialty:** 7R01130 «Pediatrics»
4. **Course:** 2
5. **The name of the elective discipline** «Clinical immunology and Allergology in hospital»
6. **Number of credits:** 2
7. **Purpose of the discipline:** Training of highly qualified, competitive pediatricians who are able to meet the needs of society in providing medical care to sick children, apply and develop advanced innovative technologies in medicine, science and practice.

8. Objectives:

- to form clinical thinking and the ability to independently work with scientific literature on the discipline;
- develop the ability to analyze socio-biological, medico-social and epidemiological conditions and factors of the occurrence of diseases;
- to teach the resident the principles of diagnosis of diseases, reasonably prescribe laboratory, functional and instrumental methods of examination;
- совершенствовать improve the skill of manual examination of the patient, palpation, percussion and auscultation;
- to develop the skill of interpreting the results of a paraclinical examination of the patient;
- обуч to teach the compilation of an algorithm for the differential diagnosis of diseases;
- to develop the skill of an informed choice of etiopathogenetic treatment;
- научить teach the basic principles of prevention;
- □ explain the application of legal documents regulating the activities of a pediatrician;
- improve interpersonal communication skills with colleagues, patients and their parents;
- to stimulate the resident's desire for self-development and self-improvement, the choice of a professional trajectory;
- to develop the skill of working with medical literature, the ability to analyze literary and Internet sources.

9. Justification of the choice of discipline:

In the elective discipline "Clinical immunology and Allergology in hospital", a deeper and more complete mastery of the work of future pediatricians is expected.

Clinical immunology in pediatric oncology studies the principles of immunotherapy of immunodeficiency states, modern methods of immunodiagnostics, modern aspects of stem cell transplantation.

Immunology is an artificial stimulation of the immune system for the treatment of cancer, helping the immune system to fight the disease in a natural way. This is a program of fundamental research in the field of cancer immunology and the developing specialization of oncology. Cancer immunotherapy consists in the fact that antibodies of proteins of the immune system can detect and bind to molecules located on the surface of tumor antigens of cancer cells.

The complex therapy started in a timely manner makes it possible to improve the further prognosis of childhood oncological diseases.

10. Result of training (competence):

Knowledge (cognitive sphere)	Skills and abilities (psychomotor sphere)	Personal and professional competencies (relationships)
Application:	Accuracy: demonstrates the ability to perform medical procedures on dummies during	Medical documentation: - readiness to identify pathological conditions,

Evaluation of studies, materials from professional literature on Clinical immunology and Allergology in hospital. Use international databases in your daily activities. Participate in the work of the research team; - readiness for abstract thinking, analysis, synthesis; - assign a plan of laboratory and instrumental methods of examination; - interpret the results of laboratory and instrumental methods of examination; - provide assistance in case of complications. Analysis: discusses and categorizes the knowledge of biomedical, clinical, social and behavioral sciences in specialized practice - conducts a comprehensive assessment of laboratory and instrumental studies. Rating: - evaluate the results of UAC, OAM, biochemical blood tests, BAC. research, coprology, CBS. - appreciate the indicators of peak flowmetry, ultrasound, radiography, computed tomography, NMRI	an objective structured clinical examination. Articulation: accurately performs medical procedures on real or standardized patients. Affective Domain (Attitude/Behavior) Gives value: relationships with patients and medical staff during medical procedures. Organization: -independent organizes medical procedures according to the list of the residency profile; -willingness to manage a team, to tolerate social, ethnic, religious and cultural differences.	symptoms, disease syndromes, and nosological forms in newborns in accordance with the International Statistical Classification of Diseases and Health-related Problems; - medical documentation: registration of medical documentation for the specialty profile in accordance with the legislation in healthcare.
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11. Prerequisites: Children's diseases in the hospital.

12. Postrequisites: profile disciplines

13. References

Main literature:

1. Clinical immunology and allergology with the basics of general immunology [Electronic resource]: textbook / Kovalchuk L.V., Gankovskaya L.V., Meshkova R.Ya. - M. : GEOTAR-Media, 2012. - 640 p.: ill. Chapter 12
<http://www.studmedlib.ru/book/ISBN9785970422410.html>
2. Immunology [Electronic resource]: textbook / R. M. Khaitov. - 2nd ed., revised. and additional - M. : GEOTAR-Media, 2015. - 528 p. : ill. Chapters 10, 13.
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8. Novikov D.K. Clinical immunology and allergology: textbook /D. K. Novikov, P. D. Novikov, N. D. Titova. - Minsk: Higher School, 2019. - 495 p.
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10. Khaitov R.M., Elisyutina O.G., Danilycheva I.V. Allergology and clinical immunology. Clinical guidelines. GEOTAR-Media, 2019. 352 p.

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2. Welsher, L. Z. Clinical oncology: fav. lectures: [proc. manual for medical universities] / L. Z. Velsher, B. I. Polyakov, S. B. Peterson. - M. : GEOTAR-Media, 2019.
3. <http://allergology.ru> - online medical journal for allergologists and immunologists;
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| 6. medinfo.net | 16. www.drugme.ru |
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«Approved»
at the meeting of the Department of Pediatrics -2
Professor Bektenova G. E.
Protocol number 7 dated «29» March 2024

Catalog of elective disciplines for the 2024-2025 academic year

- 1. Department:** «Pediatrics-2»
- 2. Level of preparation:** Residency
- 3. Specialty:** 7R01130 «Pediatrics»
- 4. Course:** 2
- 5. The name of the elective discipline** «Clinical and laboratory diagnostics in Pediatrics»
- 6. Number of credits:** 2
- 7. Purpose of the discipline:** Training of a pediatrician who has a volume of knowledge, skills and practical skills that meets modern requirements for independent interpretation of laboratory diagnostic methods of research.
- 8. Objectives:**
 - consolidate skills in interpreting the results of modern laboratory and instrumental methods of examination and diagnosis in various diseases in children;
 - increase knowledge on modern methods of examination of diseases in children;
 - to teach the maintenance of current medical medical and accounting and reporting documentation in accordance with modern standards in pediatrics;
 - to teach the conduct of sanitary and educational work among the population, the formation of a healthy lifestyle in modern conditions;
 - the need for continuous professional training and improvement of their knowledge and skills throughout their professional activities.
- 9. Justification of the choice of discipline:**

In the elective discipline "Clinical and laboratory diagnostics in pediatrics", a deeper and more complete mastery of the work of pediatricians is expected. The ability to interpret the results of laboratory functional research methods is necessary for a young specialist to make an accurate diagnosis and conduct a differential diagnosis.
- 10. Result of training (competence):**

Knowledge (cognitive sphere)	Skills and abilities (psychomotor sphere)	Personal and professional competencies (relationships)
Application: can apply his knowledge to problem solving in a new or unfamiliar environment related to his field of study;	Accuracy: demonstrates the ability to perform medical procedures on dummies during OSKE.	Medical documentation: registration of medical documentation on the profile of the specialty in

- appoint a plan of laboratory and instrumental methods of examination; - interpret the results of laboratory and instrumental methods of examination; - to provide assistance in case of complications. Analysis: discusses, categorizes knowledge of biomedical, clinical, social and behavioral sciences in specialized practice - Conduct a comprehensive assessment of the conducted laboratory and instrumental studies. Rating: Assess the results of the CBC, OAM, biochemical blood tests, tank. research, scatology, CBS. Evaluate the indicators of peak flowmetry, ultrasound, radiography, computed tomography, MRI	Articulation: accurately performs medical procedures on real or standardized patients. Gives value: relationships with patients and medical staff during medical procedures. Organization: independently organizes medical procedures according to the list of the internship profile.	accordance with the legislation in health care.
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11. Prerequisites: biochemistry, biophysics, physiology.

12. Postrequisites: profile disciplines

13. References

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1. Hittins K. - Deciphering clinical laboratory tests. Moscow. Bykom. Knowledge Lab. 2004, p.376 b.
2. Kamyshnikov V.S. "Clinical laboratory tests from A to Z and their diagnostic profiles". Moscow. Medpress-Inform. 2005
3. A.Yu. Vasiliev, E.B. Olkhov. Ultrasound diagnostics in emergency pediatric practice. Guide for doctors. GEOTAR. Media. 2010
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5. M.I. Lykov. Ultrasound diagnostics in pediatrics. VIDAR 2007.
6. Clinical protocols of the Ministry of Health of the Republic of Kazakhstan.

Additional literature:

1. I.V. Dvoryakovsky, G.V. Yatsyk. Ultrasonic diagnostics in neonatology. Publishing house "Atmosfera". 2009
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1. Higgins, K. Decoding of clinical laboratory analyses [Electronic resource] : monograph / K. Higgins ; translated from English by E. K. Vishnevskaya. - 7th ed. -Moscow : Knowledge Lab, 2016. - 587 p. <http://elib.kaznu.kz/>

2. Clinical guidelines for the pharmacotherapy of persistent pain in children and adolescents / Association of professional participants in hospice care, Russian Society of Pediatric Oncologists, Association of Pediatric Anesthesiologists and Resuscitators, National Society of Pediatric Oncologists of Russia - Moscow, 2016. - 33 p.

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15. www.kovostok.ru
16. www.drugme.ru
17. lepila.tyurem.net
18. top.medlinks.ru
19. doctor-doctor.ru
20. mepmed.ru

- 1. Department:** «Pediatrics-2»
- 2. Level of preparation:** Residency
- 3. Specialty:** 7R01130 «Pediatrics»
- 4. Course:** 2
- 5. The name of the elective discipline** «Integrated management of childhood diseases»
- 6. Number of credits:** 2
- 7. Purpose of the discipline:** Training of a pediatrician with a body of knowledge, skills and practical skills that meets the requirements of the IVBDV program for independent diagnostic, therapeutic, rehabilitative and preventive measures in children, in accordance with the principles of evidence-based medicine, using advanced innovative technologies in pediatrics, ready for continuous professional development.

8. Objectives:

- to train a targeted assessment of the patient's condition, which means a strictly defined sequence of actions of a medical professional (algorithm of examination and decision-making);
- to teach the sequence of steps in an integrated approach to managing a sick child: assessment of general signs of danger (GPO); assessment of 5 main symptoms (cough, diarrhea, fever, throat, ear) (these are 75% of the causes of death in children under 5 years of age); assessment of anemia and low weight (background condition); assessment of vaccination status; assessment of the child's feeding; assessment of other problems of the child (these are 25% of the causes of death of children under 5 years of age); classify the condition according to the identified symptoms;
- to determine the tactics of treating the child in accordance with the IVBDV program (not only to issue a prescription, but also to teach the mother how to carry out treatment);
- Learn how to consult a mother (how to feed, how to water, when to return if the child's condition worsens).

9. Justification of the choice of discipline:

In the elective discipline "Clinical and laboratory diagnostics in pediatrics", a deeper and more complete mastery of the work of pediatricians is expected. The ability to interpret the results of laboratory functional research methods is necessary for a young specialist to make an accurate diagnosis and conduct a differential diagnosis.

10. Result of training (competence): The elective discipline "IVBDV Program" assumes deeper and more complete mastery of the work of pediatricians. Integrated management of childhood diseases is a strategy developed by WHO, based on evidence-based medicine, which, if applied correctly, reduces the incidence of morbidity, mortality and disability in children under 5 years of age.

Knowledge (cognitive sphere)	Skills and abilities (psychomotor sphere)	Personal and professional competencies (relationships)
Application: can apply his knowledge in biomedical, clinical, social and behavioral sciences in specialized practice; demonstrates the ability to perform a wide range of medical procedures according to the list of the residency profile;	Accuracy: demonstrates the ability to perform medical procedures on dummies during OSKE. Articulation: accurately performs medical procedures on real or standardized patients.	Medical documentation: registration of medical documentation on the profile of the specialty in accordance with the legislation in health care.

knows how to apply the principles of evidence-based medicine in clinical practice; demonstrates the ability to continuous professional development throughout life; demonstrates the ability to work in a multidisciplinary team and teach others. Rating: Assess the results of the CBC, OAM, biochemical blood tests, tank. research, scatology, CBS. Evaluate the indicators of peak flowmetry, ultrasound, radiography, computed tomography, MRI	Gives value: relationships with patients and medical staff during medical procedures. Organization: independently organizes medical procedures according to the list of the internship profile.	
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11. Prerequisites: Children's illnesses in the hospital.

12. Postrequisites: profile disciplines.

13. References

Main literature:

1. Pocket Guide: Providing inpatient care for children: a guide to managing the most common childhood diseases. – Second edition. - WHO UNICEF, 2013 – 438 pages.
2. The model chapter of the IVBDV textbooks for teaching in universities is the integration of the management of childhood diseases. WHO, UNICEF, 2001
3. Instructions on the implementation of criteria for live birth and stillbirth recommended by the World Health Organization for the Republic of Kazakhstan, Almaty, 2005
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5. Integrated management of childhood diseases. WHO. UNICEF. 2010
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Additional literature:

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2. The MANUAL IVBDV Integrated Management Of Childhood Diseases. - World Health Organization Department of Child and Adolescent Health and Development (SAN). - WHO. UNICEF. 2000, 112 pages.

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2. Children's diseases. Vol. 2 [Electronic resource] : textbook / A.M. Zaprudnov, K. I. Grigoriev, L. A. Kharitonova. - 2nd ed., revised and an additional Electron. text data. (100Mb). Moscow : GEOTAR - Media, 2013. 752 p. ISBN 978-5-9704-2422-3 :

3. Children's diseases. Vol. 1 : textbook / A.M. Zaprudnov, K. I. Grigoriev, L. A. Kharitonova. – 2nd ed. - Electron. text data. (108Mb). Moscow : GEOTAR - Media, 2013. 768 p. ISBN 978-5-9704-2421-6 :
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11. L.A. Isaeva. Balalar aurulary 1st volume okulyk-2020j 192b
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14. L.A. Isaeva. Balalar aurulary 4tom okulyk -2020j 157b
https://elib.kz/ru/search/read_book/303/
15. Childhood diseases/ Author: L.A. Isaeva, N. A. Geppe. textbook. For medical students universities. Volume I. Edited by L.A. Isaeva. Almaty, Evero Publishing House, 2020, 222 p.
https://www.elib.kz/ru/search/read_book/700/
16. Childhood diseases/ Author: L.A. Isaeva, N.A. Geppe, textbook. For medical students universities. Volume II. Edited by L.A. Isaeva. Almaty, Evero Publishing House, 2020, 198 p.
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