

## Catalog of elective disciplines

- 1. Department:** «Pediatrics-2»
- 2. Level of preparation:** Residency
- 3. Specialty:** 7R01106 «Children’s oncology and hematology»
- 4. Course:** 2
- 5. The name of the elective discipline** «Palliative pediatric oncology»
- 6. Number of credits:** 2
- 7. Purpose of the discipline:** The purpose of mastering the discipline "Palliative Care in Pediatric Oncology" is to develop the ability and readiness to solve professional problems aimed at providing timely and high-quality palliative care to children with oncological diseases.

**8. Objectives:**

- to form knowledge of the theoretical foundations of palliative care for children with incurable conditions in pediatric oncology;
- to form the skills and abilities of full-fledged high-quality and timely palliative care for malignant neoplasms in children;
- to form the skills of continuity in the provision of palliative care for malignant neoplasms in children;
- to form a stable skill in providing palliative care to patients with chronic pain syndrome in pediatric oncology.
- improve interpersonal communication skills with colleagues, patients and their parents;
- stimulate the resident's desire for self-development and self-improvement, the choice of a professional trajectory;
- 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 "Palliative pediatric oncology", a deeper and more complete mastering of the work of future pediatric oncogematologists is expected.

Palliative pediatric oncology studies the ethical, psychosocial and organizational aspects of palliative care for children. Providing palliative and symptomatic care for tumors in children. Modern principles of radical and palliative treatment of sick children with malignant tumors. Symptom control and crisis situations in palliative care for children.

**10. Result of training (competence):**

<b>Knowledge (cognitive sphere)</b>	<b>Skills and abilities (psychomotor sphere)</b>	<b>Personal and professional competencies (relationships)</b>
<b>Application:</b> Evaluation of studies, materials from professional literature on pediatric oncology and hematology. Use international databases in your daily activities.	<b>Accuracy:</b> demonstrates the ability to perform medical procedures on dummies during an objective structured clinical examination.	<b>Medical documentation:</b> - readiness to identify pathological conditions, symptoms, disease syndromes, and nosological forms in

<p>Participate in the work of the research team;</p> <ul style="list-style-type: none"> <li>- readiness for abstract thinking, analysis, synthesis;</li> <li>- assign a plan of laboratory and instrumental methods of examination;</li> <li>- interpret the results of laboratory and instrumental methods of examination;</li> <li>- provide assistance in case of complications.</li> </ul> <p><b>Analysis:</b> discusses and categorizes the knowledge of biomedical, clinical, social and behavioral sciences in specialized practice</p> <ul style="list-style-type: none"> <li>- conducts a comprehensive assessment of laboratory and instrumental studies.</li> </ul> <p><b>Rating:</b></p> <ul style="list-style-type: none"> <li>- evaluate the results of UAC, OAM, biochemical blood tests, BAC. research, coprology, CBS.</li> <li>- appreciate the indicators of peak flowmetry, ultrasound, radiography, computed tomography, NMRI</li> </ul>	<p><b>Articulation:</b> accurately performs medical procedures on real or standardized patients.</p> <p><b>Affective Domain</b> (Attitude/Behavior)</p> <p><b>Gives value:</b> relationships with patients and medical staff during medical procedures.</p> <p><b>Organization:</b></p> <ul style="list-style-type: none"> <li>-independent organizes medical procedures according to the list of the residency profile;</li> <li>-willingness to manage a team, to tolerate social, ethnic, religious and cultural differences.</li> </ul>	<p>newborns in accordance with the International Statistical Classification of Diseases and Health-related Problems;</p> <ul style="list-style-type: none"> <li>- medical documentation: registration of medical documentation for the specialty profile in accordance with the legislation in healthcare.</li> </ul>
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**11. Prerequisites:** Children's diseases in General medical practice.

**12. Postrequisites:** profile disciplines

### 13. References

**Main literature:**

1. Pediatric oncology. National leadership: hands. / ed. M. D. Aliev, V. G. Polyakov, G. L. Mentkevich and others; FSBI "N.N. Blokhin Russian Cancer Research Center" RAMS; Research Institute of Pediatric Oncology and Hematology. - M.: Publishing house. RONTs group, 2012. - 684 p.
2. Oncology. National leadership. Brief edition: practical guide / Chissov V.I., Davydov M.I. - Moscow: GEOTAR-Media, 2017 - 576 p.
3. Oncology. Tests with visualization elements: a tutorial / Cherenkov V.G. - Moscow: GEOTAR-Media, 2017 - 240 p.
4. Symptom control in palliative medicine / edited by G. A. Novikov. - Moscow: GEOTAR-Media, 2013. - 248 p.

5. Ponomarenko, G. N. Rehabilitation of disabled people: national leadership / edited by G. N. Ponomarenko. - Moscow: GEOTAR-Media, 2018. - 736 p.
6. Ponkina, A. A. Legal regulation of palliative care / A. A. Ponkina, I. V. Ponkin. - Moscow: GEOTAR-Media, 2019. - 176 p.
7. Clinical protocols of the Ministry of Health of the Republic of Kazakhstan.

**Additional literature:**

1. Abuzarova, G. R. Diagnosis and differentiated pharmacotherapy of chronic pain syndrome in cancer patients / G. R. Abuzarova. - Moscow: GEOTAR-Media, 2015. - 240 p.
2. Dvoynikov, S. I. Issues of palliative care in the activities of a nursing specialist: textbook / S. I. Dvoynikov, S. R. Babayan, Yu. A. Tarasova [and others]; edited by S. I. Dvoynikov. - Moscow: GEOTAR-Media, 2018. - 336 p.
3. Symptom control in palliative care. Ed. Novikova G.A. - M. : GEOTAR-Media, 2019. - 248 p.
4. Malyar, K. V. New forms of work in the organization of palliative care for children. V.2: scientific publication / K. V. Malyar; Foundation for Support of Children in Difficult Life Situations, City Clinical Hospital No. 9, Chelyabinsk, Charitable Foundation for Palliative Care «Pelikan». - Chelyabinsk: YuUGMU, 2016. - 56 p.
5. Ponkina, A.A. Legal regulation of palliative care. / Ponkina A.A., Ponkin I.V. - M. : GEOTAR-Media, 2019. - 176 p.
6. Sirota V.B., Bukenov A.M. Pediatric oncology: textbook. allowance. -Karaganda, 2015. - 128s.
7. Pediatric oncology: clinical guidelines for the treatment of patients with solid tumors / ed. M.Yu. Rykova, V.G. Polyakov. - M. : GEOTAR-Media, 2017. - 368 p.
8. Clinical manifestations of oncological diseases in children / ed. V.G. Polyakova, M.Yu. Rykov - St. Petersburg. : Printing house of Mikhail Fursov, 2017. - 52 p.
9. Abisatov H.A. Clinical oncology: textbook. - Almaty: publishing house "Arys", 2007. - T. 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. 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.

**Medical sites:**

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

- 1. Department:** «Pediatrics-2»  
**2. Level of preparation:** Residency  
**3. Specialty:** 7R01106 «Oncology and hematology for children»  
**4. Course:** 2  
**5. The name of the elective discipline** «Clinical Immunology 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 "Clinical immunology in pediatric oncology", a deeper and more complete mastering of the work of future pediatric oncematologists is expected.

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

Immuno-oncology 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):

<b>Knowledge (cognitive sphere)</b>	<b>Skills and abilities (psychomotor sphere)</b>	<b>Personal and professional competencies (relationships)</b>
<p><b>Application:</b> 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;</p> <ul style="list-style-type: none"> <li>- readiness for abstract thinking, analysis, synthesis;</li> <li>- assign a plan of laboratory and instrumental methods of examination;</li> <li>- interpret the results of laboratory and instrumental methods of examination;</li> <li>- provide assistance in case of complications.</li> </ul> <p><b>Analysis:</b> discusses and categorizes the knowledge of biomedical, clinical, social and behavioral sciences in specialized practice</p> <ul style="list-style-type: none"> <li>- conducts a comprehensive assessment of laboratory and instrumental studies.</li> </ul> <p><b>Rating:</b></p> <ul style="list-style-type: none"> <li>- evaluate the results of UAC, OAM, biochemical blood tests, BAC. research, coprology, CBS.</li> <li>- appreciate the indicators of peak flowmetry, ultrasound, radiography, computed tomography, NMRI</li> </ul>	<p><b>Accuracy:</b> demonstrates the ability to perform medical procedures on dummies during an objective structured clinical examination.</p> <p><b>Articulation:</b> accurately performs medical procedures on real or standardized patients.</p> <p><b>Affective Domain</b> (Attitude/Behavior)</p> <p><b>Gives value:</b> relationships with patients and medical staff during medical procedures.</p> <p><b>Organization:</b></p> <ul style="list-style-type: none"> <li>-independent organizes medical procedures according to the list of the residency profile;</li> <li>-willingness to manage a team, to tolerate social, ethnic, religious and cultural differences.</li> </ul>	<p><b>Medical documentation:</b></p> <ul style="list-style-type: none"> <li>- 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;</li> <li>- medical documentation: registration of medical documentation for the specialty profile in accordance with the legislation in healthcare.</li> </ul>

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

**12. Postrequisites:** profile disciplines

### **13. References**

#### **Main literature:**

1. Pediatric oncology: nat. management / FSBI «Russian Cancer Research Center im. N. N. Blokhin RAMS», Research Institute of Pediatric Oncology and Hematology / M. D. Aliev [and others]; ed. M. D. Alieva. Moscow: RONTs "Practical Medicine", 2012. S. 377–399.
2. Kovalchuk L.V., Gankovskaya L.V., Meshkova R.Ya. Clinical immunology and allergology with the basics of general immunology: textbook.-- M.: GEOTAR-Media, 2014.—640p.
3. Immunology: workshop: textbook. allowance / Ed. L.V. Kovalchuk, G. A. Ignatieva, L. V. Gankovskaya. - M.: GEOTAR - Media, 2014. - 176 p.
4. Lantskovsky, F. Children's hematology and oncology: per. from English. / F. Lantskovsky. Moscow: Lori, 2005. 784 p.
5. Oncology [Electronic resource] / ed. ed. S. B. Peterson. - M. : GEOTARMedia, 2014.
6. Clinical protocols of the Ministry of Health of the Republic of Kazakhstan.

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2. Immunology: workshop: textbook. allowance / Ed. L.V. Kovalchuk, G. A. Ignatieva, L. V. Gankovskaya. - M.: GEOTAR - Media, 2014. - 176 p.
3. Immunotherapy. Guide for doctors. Ed. Khaitova R.M. and Ataulakhanov R.I. M.: GEOTAR-Media, 2014—672 p.
4. Allergology and immunology / ed. L.S. Namazova-Baranova, A.A. Baranova, R.M. Khaitova: The Union of Pediatricians of Russia [and others]. - M. : Publishing house "Pediater", 2020. - 512 p. — (Practical recommendations for pediatricians).
5. Baldueva I.A., Nekhaeva T.L., Novik A.V., Danilova A.B., Pipia N.P., Shcherbakov A.M., Belyaev A.M. Antitumor vaccines based on dendritic cells // Priroda. 2018. No. 6 (1234). pp. 14-19.
6. Vorobyov S.V., Emelin A.Yu., Kuznetsova R.N., Kudryavtsev I.V. The role of the immune response in the pathogenesis of Alzheimer's disease and the possibility of anti-inflammatory therapy // Neurological Bulletin. 2020; T. LII (3): 55-62.
7. Kadagidze Z.G., Chertkova A.I., Zabotina T.N., Korotkova O.V., Slavina E.G., Borunova A.A. New possibilities of regulation of the antitumor immune response // Malignant tumors. 2015. No. 1 (12). pp. 24-30.
8. Novikov D.K. Clinical immunology and allergology: textbook /D. K. Novikov, P. D. Novikov, N. D. Titova. - Minsk: Higher School, 2019. - 495 p.
9. Fundamentals of clinical immunology and allergology: textbook. allowance / ed. L.S. Namazova-Baranova, L.V. Gankovskaya, N.G. Astafieva - M.: Pediater, 2016. - 152 p.
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 : 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

