**Ministry of healthcare of the Republic of Kazakhstan**

**The Kazakh Scientific Research Institute of Oncology and Radiology**

**SILLABUS**

**for students of the residency on the specialty 6R112000 "Radiation therapy"**

**Discipline**

**«Oncology in hospital»**

The amount of training hours - 360 hours / 8 credits

including:

Practical lessons - 120 hours

Independent work - 240 hours

Form of control: examination

**Almaty, 2017**

The syllabus is compiled according to the Model curriculum, the Residency Educational Program for the specialty "Radiation Therapy", the Instruction Letter No. 8 for the development of educational and methodological documentation in the organizations of the Republic of Kazakhstan, which are preparing for the residency approved by the Republican Center for Innovative Technologies of Medical Education and Science of the Ministry of Health of the Republic of Kazakhstan on April 27 2010 (Protocol No. 4).

Approved at the meetingRadiological Board

(Protocol 7 from"August" 25, 2017)

**Responsible for discipline: DMSTelguziyevaZh.A.**

**PhD Savkhatova A.D.**

**Ishkinin E.I.**

**1.** **General information**

1.1 Kazakh Scientific Research Institute of Oncology and Radiology (address: Almaty, Abai Ave., 91)

1.2 Clinical base (clinical and diagnostic units KazNIIOiR): department Day hospital for radiotherapy, Department of Clinical dosimetry and physical and technical support of radiotherapy, Center for Head and Neck Tumors, Neurooncology Center, Mammology Center, Thoracic Oncology Center, Abdominal Oncology Center, Oncogynecology Center, Oncourology Center, Children's Oncology Center, Department of Hemoblastoses, Center for Tumors of Bones and Soft Tissues, Department of Radiation Diagnostics.

1.3 Specialty: 6 R112000 "Radiation therapy"

1.4 Discipline: "Oncology in hospital»

1.5 The amount of teaching hours: 360 hours/8 credits

1.6 Information about the teachers

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| --- | --- | --- | --- | --- |
| **№** | **First and last name** | **Post** | **Academic degree** | **Priority**  **interests** |
| 1 | Telguziyeva  ZhannatAhmetbekovna | Chairman of the  Radiological Board | Prof. | Oncology,  Radiation therapy |
| 2 | Savkhatova  AkmaralDosbolovna | Head of the department Day hospital of radiotherapy | PhD | Oncology,  Radiation therapy |
| 3 | Ishkinin  YevgenyIvanovich | Radiation Therapist  Oncourology Center | Assistant | Oncology,  Radiation therapy |

1.7 Contact information:

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1.8 Policies and Procedures. The policy of discipline consists in the consistent and purposeful implementation of the educational process. Teachers' requirements for residents are based on general principles of education in higher educational institutions of the Republic of Kazakhstan:

* compulsory clothing: standard medical gown or surgical form; indoor shoes; medical mask (carry)
* strict observance of labor discipline in basic institutions
* active participation in the educational process (preparation of theoretical material, solving situational problems and tests, mastering practical skills); attendance of classes, participation in pre-radial treatment of patients (including stage of ultrasound, CT-topometry), in planning and conducting radiotherapy sessions
* mandatory night duty in accordance with the approved plan
* compulsory maintenance of general and specialized medical documentation
* regular self-improvement (working in the library and with the Internet)
* adherence to the principles of medical ethics and deontology in relation to patients and colleagues
* timely informing mentors and the head of the department about temporary incapacity for work or other reasons for absence from the workplace
* penalties: if you miss 3 lessons for disrespectful reasons, work off in the form of night duty and prepare presentations on the topics of missed classes with subsequent protection. Passes of classes for valid reasons are worked out by self-preparation with protection of presentation on missed topics.

**2 Program**

**2.1 Introduction**

The training of highly qualified medical personnel with modern knowledge, skills and practical skills sufficient to provide qualified medical and diagnostic care is an important state task, the solution of which is possible only in the conditions of continuous postgraduate education. The training of qualified physicians - ray therapists is a complex and urgent problem. This program includes the amount of modern knowledge, skills and habits of the resident in the main (radiotherapy) and related (oncology) specialties on the basis of the principles of evidence-based medicine with the training of qualified radiological medical personnel.

In this discipline, questions of organization of oncological service in medical institutions of the Republic of Kazakhstan are presented. The questions of the clinic, diagnostics and the main principles of the specialized treatment of malignant tumors of various localizations are consecrated in detail.

**2.2 The purpose of the discipline** is to acquire and improve theoretical and practical knowledge in general oncology.

**2.3 Tasks of the discipline:**

1) To form general knowledge on oncology (etiology, pathogenesis, prophylaxis, symptomatology, classification, differential diagnosis of various forms of malignant neoplasms and precancerous processes).

2) Develop knowledge and master the methods of clinical examination and the volume of diagnostic measures for the detection of malignant neoplasms.

3) Develop knowledge on the principles of treatment of malignant neoplasms in general, as well as individual localizations.

**2.4** **Independent work**

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| --- | --- | --- |
| **№** | **Table of contents** | **Number**  **of hours** |
| 1 | Participation in out-patient reception of patients with registration of directions for specialized treatment in the admission and advisory department of the Institute | 18 |
| 2 | Participation in clinical analysis of cancer patients | 18 |
| 3 | Inpatient reception and supervision of cancer patients | 18 |
| 4 | Participation in the management of medical documentation of cancer patients | 18 |
| 5 | The study of individual topics with the help of slides and other training aids (lung cancer and mediastinal tumor, head and neck tumors, skin cancer, melanoma, colorectal cancer, oncogynecologic tumors, breast cancer, urogenital tumors, central nervous system tumors, hemoblastoses). | 18 |
| 6 | Preparation of abstracts:  - Mammary cancer.  - Colorectal cancer.  - Prostate cancer.  - Ewing's sarcoma.  - Wilms tumor.  - Cervical cancer.  - Tumors of the central nervous system.  - Non-Hodgkin's lymphoma | 18 |
| 7 | Solution of clinical situational problems in general oncology | 18 |
| 8 | Reports of residents on the training group with subsequent discussion of individual topics on general oncology | 18 |
| 9 | Preparation of reports, presentations at clinical, pathological and anatomical conferences | 18 |
| 10 | Participation in consultations, consultations in other clinical units of the Institute | 18 |
| 11 | Duty in the clinical units of the Institute | 18 |
| 12 | Work in the library, with the Internet | 18 |
| 13 | Forming the resident listener's portfolio | 24 |
|  | **Total hours** | **240** |

**2.5** **Recommended literature:**

Main literature:

1. Davydov M., Axel E. Cancer Statistics in Russia and the CIS countries, Moscow 2010.

2. Zaluckij I. Oncology: a tutorial-Minsk: Lebedevka. NIS, 2007.-703 p.

3. BelogurovaM. Pediatric Oncology (for doctors).-, Lit., 2002.-351 p.

4. DavydovM., Ghanaians Sh. Oncology.-m.: medicine, 2010 -920 p.

5. ChissovV., Darjalova S. Oncology.-m.; Medicine, 2007

6. Fingers M., Anichkov N. Atlas of pathology of human tumors - M.: medicine, 2005 — 424 p.

7. Møller T., Rife E. Atlas section of human anatomy on the example of CT and MRI slices: in 3 volumes (translation from English; under the AGG ed. Prof. Trufanova G.-m.: MEDpress-inform, 2008.

9. NurgazievK.,Sejtkazina G., etc. Indicators of the RK of the oncology service for year 2012 (statistics).-Almaty, 2013.-98 p.

10. TrofimovaS. Radiation human anatomy, 2005.

11. Trufanov G. Radiation Diagnostics, 2007.

12. TrufanovG., Fokin V. Computed tomography, 2007.

13. TrufanovG, Fokin V. Magnetic resonance imaging, 2007.

14. Clinical the leadership of the NCCN Clinical Practice Guidelines//in Oncology.-Version 2.2012.

15. NikiforovB.,Macko D.Brain tumor. Series "QuickStart"-Spb: Piter, 2003.-. 279-286.

17. American Joint Committee on Cancer (AJCC). AJCC Cancer Staging Manual 7th ed. Edge S.B., Byrd D.R. Carducci, M.A. et al., eds. New York: Springer; 2009.

18. Eisenhauer E., Therasse P., Bogaerts J. etc. New response evaluation criteria in solid tumours: Revised RECIST guideline (version 1.1)//European journal of cancer. -V. 45-p. 228-247.

19. Parking D.M., Bray F, Pisani f., Pisani p. Global cancer statistics 2008//CA Cancer J Clin. 2009.-v. 59, no. 2. -P. 74-108.

20. WHO Handbook for Reporting Results of cancer Treatment. — WHO, Geneva, 1979.

21. WHO Classiffication of Tumors of the Central "Nervous System (2007)/eds. D.N. Louis, h. Ohgaki, O.D., w. WistlerCavenee.-Geneva: WHO Press, 2007.

Additional literature:

1. TelguziyevaZh.,ZholdybayZh., Shibanova A. etc. Cervical cancer: epidemiology, pathogenesis, diagnosis, treatment (review of literature)// «Hygiene, epidemiology and Immunology» -Almaty 2011,№2 (48)- P.12-15.
2. TelguziyevaZh., Goncharova T. Study of pharmacokinetics of methotrexate in tumors and in plasma of experimental animals // «Hygiene, epidemiology and immunobiology». - Almaty, 2011. -№4 (50)-Р.161-163.
3. TelguziyevaZh. Philippenko V., ZholdybayZh., Kim S. Application of techniques of complex medical visualization in an estimation chemoradiation therapy of the cancer are // ESTRO Anniversary.-London (UK), 8-12 May 2011-p. 309.
4. TelguziyevaZh. Metronomic chemotherapy with gemcitabine at radical irradiation of the cancer are // The 17th int. Meeting of the ESGO-Milan (Italy), September 11-14, 2011-p. 58.
5. TelguziyevaZh., Kim S., Bainazarova A. The survival rate of patients with cancer are at use of a combination of chemical radiomodificators and radical irradiation // The 18th International meeting of the ESGO-October 19-22, 2013. -Liverpool, UK. -P. 269.
6. TelguziyevaZh., Kim S., Bainazarova A. Perspectives of metronomic chemotherapy in the treatment of cancer are radiological // The 18th International meeting of the ESGO-October 19-22, 2013.-Liverpool, UK - P.794.
7. Ishkinin E., Ongarbaev B., TelguziyevaZh., Kim S. Availability of high-tech methods for the treatment of prostate cancer population in Kazakhstan // Oncology and radiology of Kazakhstan - Almaty, 2016.-№1 (39)-Р.50-54.
8. IshkininE., Ongarbaev B., Kim S., TelguziyevaZh. etc. Experience brachytherapy for prostate cancer // Oncology and Radiology Journal (special issue). - Almaty, 2017.-Р.108
9. Ishkinin E., Ongarbaev B., Kim S., TelguziyevaZh. etc. Experience brachytherapy for prostate cancer // Oncology and Radiology Journal (special issue).-Almaty, 2017.- P.161
10. Telguziyeva Zh., Trushchenko O., Kaibarov M. Application of intensevly-modulated radiation therapy in the treatment of locally-common forms of malignant head and neck tumors. // Oncology and Radiology Journal (special issue). -Almaty, 2017. -P. 164
11. TelguziyevaZh., Filippenko V. Patent №22356 invention «Method of treatment for cervical cancer» (15.03.2010)
12. Telguziyeva Zh., Filippenko V. Patent №22490 invention «Method of treatment for cervical cancer» (17.05.2010)
13. Telguziyeva Zh., Filippenko V. Patent №23075 invention «Method of integrated Ultrasound techniques to evaluate the efficiency of combined radiation therapy for cervical cancer» (15.11.2010)
14. TelguziyevaZh., Baimahasheva A., Filippenko V. etc Patent №23100 on invention «Method of treating patients with cervical cancer» (15.11.2010)
15. TelguziyevaZh.,Filippenko V., ZholdybayZh. etc. Patent №23404 from 15.12.2010 on the invention of «The way to improve the effectiveness of radiation therapy for cervical cancer»
16. Periodic protocols for diagnosis and treatment of malignant neoplasms (2012, 2015).
17. «The clinical guide to oncology» // Almaty, 2016.
18. Act implementing the master-class «High-tech radiotherapy-radiosurgery» in KazNIIOiR (31.03-04.04.2016)
19. Act implementing the master-class «High-tech radiation therapy radiation oncology (joint master class for radiologists and medical physicists)» in KazNIIOiR (28.06-02.07.2016)
20. Act implementing the master-class «High-tech radiation therapy radiation oncology» in KazNIIOiR (18.10-22.10.2016)
21. Ishkinin E., Kim V., Ibraimova M. etc. Radiation treatment of patients with kidney cancer with metastatic bone lesion // V Congress of oncologists and radiologists Kazakhstan - Almaty 2014. - №180-Р.106-107
22. Ishkinin E., Kim V., Antropova T. etc. Evolutionary development of radiotherapy for prostate cancer in the Republic of Kazakhstan // V Congress of oncologists and radiologists Kazakhstan-Almaty 2014.-No. 181-c. 107
23. Kim V., Ishkinin E., Almabek A. etc. Pre-radial topometry training in 3d conformal and intensely-modulated radiation therapy, experiences in Kazakhstan // V Congress of oncologists and radiologists in Kazakhstan. -Almaty, 2014-No. 185-P. 109-110
24. Malignant tumors of testicular, prostate cancer, renal cell carcinoma, bladder cancer // Periodic protocols of diagnostics and treatment of malignancies.-Almaty, 2012.-325-377
25. Guide for the target groups of the male population screening for early detection of prostate cancer and ensure its quality// Nurgaliyev N., Zhylkajdarova A., Ishkinin E., edited by m.d. Kyrgyz Republic Shmone, m.d., Prof. M.K. Alchinbaev - revision and additions. -Almaty, 2014. - 71 p. ISBN 978-601-80100-8-8
26. Early diagnosis of prostate cancer at the level of primary health care. Guidelines//Zhylkajdarova A., Nurgaliyev N., Ishkinin E., edited by m.d. Kyrgyz Republic Author, revision and additions. -Almaty, 2014. -26 p. ISBN 978-601-80100-7-1
27. Ishkinin Y., Kim V., Kossymbayeva Y. Fractionation modes of radiation therapy for kidney cancer patients with bone metastasis // Irradiation and Oncology Journal of the ESTRO # 33, vol III supplement 1 april 2014, ISSN: 0167-8140 p 533 # EP-1372

The syllabus was developed in accordance with the working curriculum, discussed at the meeting of the Scientific Council of KazNIIOiR (Protocol №7 from «August» 25, 2017).

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