The Ministry of Health of the Russian Federation

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of Higher Education
"North-Western State Medical University
named after I.I. Mechnikov"
under the Ministry of Health of the Russian Federation

(FSBEI HE NWSMU named after I.I. Mechnikov under the Ministry of Health of the Russian Federation)

WORK PROGRAM OF THE ACADEMIC COURSE

"**Oncology**"

Specialty: 31.05.01 General Medicine

Focus: Arrangement and delivery of primary health care to the adult population in medical organizations

Implementation language: Russian, English

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The work program of the academic course was discussed at the meeting of the Department of Oncology
March 23, 2021, Protocol No.3

Head of the Department _____ / Belyaev A.M./
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Approved by the Methodological Commission in major 31.05.01 General Medicine
May 11, 2021

Chairman _____ / Bakulin I.G./
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Reviewed by the Methodological Council and recommended for approval by the Academic Council
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Updated:

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1. Aim of mastering the academic course

Aim of mastering the discipline "Oncology" is the development of student's competency in the field of studying the main locations of malignant neoplasms, including the features of their clinical course, the use of modern methods and rational diagnostic strategy, patterns and methods of surgical, radiation, medicinal, combined, integrated and symptomatic treatment of cancer patients.

2. Place of the academic course in the structure of the educational program

The academic course "Oncology" belongs to the indispensable part of Block 1 "Courses (modules)" of the basic professional educational program for major 31.05.01 General Medicine (educational level: specialist's degree), focus: Arrangement and delivery of primary health care to the adult population in medical organizations. The academic course is obligatory.

3. List of planned course outcomes correlated with program outcomes

Code and name of the competency	Code and name of the competency achievement indicator
GPC-1 Student is able to carry out moral and legal norms, ethical and deontological fundamentals in professional activity .	AI-1 GPC-1.1 Student adheres to moral norms, ethical and deontological fundamentals of behavior in professional activities.
PC- 2 Student is able to conduct examination of the patient in order to identify the main pathological conditions, symptoms, disease syndromes, and nosological forms	AI-1 PC-2.1. Student carries out a survey and examination of the patient (collection of complaints, the patient's life and illness medical history, examination, palpation, percussion, auscultation). AI-2 PC-2.2. Student states a preliminary diagnosis, draws up a plan and directs the patient for laboratory and/or imaging tests if there are medical grounds in accordance with the current procedures for the health care delivery, clinical guidelines on the health care delivery with consideration to the standards of health care. AI-3 PC-2.3. Student refers the patient to medical specialists for consultation and/or for the specialized health care delivery in inpatient or outpatient settings, if there are medical grounds in accordance with current procedures for the health care delivery, clinical guidelines on the health care delivery with consideration to the standards of health care. AI-4 PC-2.4. Student performs differential diagnosis with other diseases/conditions. PC-2.5. Student determines a diagnosis based on clinical classifications and the current International Statistical Classification of Diseases and Related Health Problems (ICD).
PC-3 Student is able to manage and treat patients in need of the health care delivery	AI-1 PC-3.1. Student develops a plan and prescribes non-medicinal and medicinal treatment of patients, taking into account the diagnosis, age and clinical aspect in accordance with current procedures for the health care delivery, clinical guidelines on the health care delivery with consideration to the standards of

	primary health care. AI-2 PC-3.2. Student evaluates the effectiveness and safety of the use of medicines, medical devices and therapeutic nutrition and other treatment methods in primary health care. AI-3 PC-3.3. Student provides palliative care in collaboration with medical specialists and specialized medical organizations and social services in primary health care. AI-4 PC-3.4. Student provides personalized general therapeutic care to patients, including pregnant women, elderly and senile patients in primary health care.
PC-4 Student is able to implement a set of measures for the preparation and conduction of various examinations	AI-2 PC-4.2. Student determines indications for referral to a sociomedical examination in primary healthcare.

Competency achievement indicator code	Study outcomes (assessment criteria)	Assessment means
AI-1 GPC-1.1	**Student knows** moral norms, ethical and deontological fundamentals of behavior in professional activity. **Student is able** to establish relationships with the patient, following the fundamentals of deontology and the preservation of medical confidentiality	Tests. Essay.
AI-1 PC–2.1	**Student knows** methods of collecting complaints, the patient's medical history, methods of complete physical examination of the patient (examination, palpation, percussion, auscultation)	Tests. Presentation of a practical skill. Case tasks. Essay
	Student is able to collect complaints, the medical history and consider the information received, conduct a complete physical examination of the patient (examination, palpation, percussion, auscultation)	
	Student has the skill of palpating cervical lymph nodes	
AI-2 PC–2.2	**Student knows** patterns of healthy human body functioning and mechanisms of ensuring health based on the theory of functional systems; features of functional systems control of the human body in pathological processes; Etiology, pathogenesis and pathomorphology of oncological diseases, their clinical aspect, differential diagnosis, features of the course, complications and outcomes of oncological diseases; laboratory and instrumental study methods for the diagnosis of malignant tumors, medical indications for studies	Tests. Case tasks. Essay
	Student is able to justify the necessity and amount of laboratory and instrumental studies of an oncological patient; to determine the order of amount, content and sequence of diagnostic measures for oncological disease	
AI-3 PC–2.3	**Student knows** general issues of arranging oncological care to the population, the legislation of the Russian Federation in the field of health care, regulatory legal acts and other documents defining the activities of medical organizations and medical professionals, clinical guidelines on the oncological care with consideration of standards; fundamentals of oncological alertness	Tests. Case tasks. Essay

	Student is able to justify the need to refer a patient with suspected cancer for consultations with medical specialists; consider the results of the patient's examination, if necessary, justify and plan the amount of additional studies; interpret the results of collecting information about the patient's disease	
AI-4 PC–2.4	**Student knows** the etiology, pathogenesis and pathomorphology of oncological diseases, their clinical aspect, differential diagnosis, features of the course, complications and outcomes of oncological diseases	Tests. Case tasks. Essay
	Student is able to carry out early diagnosis of pretumor and tumor diseases; to carry out differential diagnosis of cancer from other pathology	
AI-5 PC–2.5	**Student knows** the ICD	Tests. Case tasks. Essay
	Student is able to interpret data obtained during laboratory and instrumental study of an oncological patient, as well as data obtained upon consultations between the patient and medical specialists; interpret the results of collecting information about the patient's disease	
AI-1 PC–3.1	**Student knows** modern methods of using medications in oncological practice, medical devices and therapeutic nutrition for oncological diseases in accordance with current procedures for the health care delivery, with consideration to standards; modern methods of non-medication treatment of oncological diseases in a patient in accordance with the current procedures for the health care delivery, with consideration to standards	Tests. Case tasks. Essay
	Student is able to draw up a treatment plan for a tumor disease, taking into account the diagnosis, the patient's age, and the clinical aspect of the oncological disease in accordance with current procedures for the health care delivery, clinical guidelines (treatment protocols) for the health care delivery, with consideration to standards; prescribe medications, medical devices, and therapeutic nutrition, taking into account the diagnosis, the patient's age, and the clinical aspect of the oncological diseases in accordance with current procedures for the health care delivery, clinical guidelines (treatment protocols) for the health care delivery, with consideration to standards; prescribe non-medication treatment of a tumor disease, taking into account the diagnosis, age of the patient, and the clinical picture of the disease in accordance with current procedures for the health care delivery, clinical guidelines (treatment protocols) for the health care delivery, with consideration to standards	
AI-2 PC–3.2	**Student knows** action mechanism of antitumor medications, medical devices and therapeutic nutrition used in oncological care, medical indications and contraindications to their use; complications caused by their use; Action mechanism of non-medication treatment of oncological diseases, medical indications and contraindications to their use; complications caused by their use	Tests. Case tasks. Essay
	Student is able to evaluate the effectiveness and safety of the use of medicines, medical devices and therapeutic nutrition in cancer patients	
AI-3 PC–3.3	**Student knows** general issues of arranging oncological care, the legislation of the Russian Federation in the field of health care, regulatory legal acts and other documents defining the activities of medical organizations and medical professionals, clinical guidelines on the oncological care with consideration to	Tests. Case tasks. Essay

	standards; Modern methods of using medications in oncological care, medical devices and therapeutic nutrition for oncological diseases in accordance with current medical procedures for the health care delivery, with consideration to standards; modern methods of non-medication treatment of oncological diseases in accordance with current procedures for the health care delivery, with consideration to standards; The procedure of providing palliative care to cancer patients.	
	Student is able to draw up a treatment plan for a tumor disease, taking into account the diagnosis, the patient's age, and the clinical aspect of the oncological disease in accordance with current procedures for the health care delivery, clinical recommendations (treatment protocols) for the health care delivery, with consideration to standards; prescribe medications, medical devices, and therapeutic nutrition, taking into account the diagnosis, the patient's age, and the clinical aspect of the oncological diseases in accordance with current procedures for the health care delivery, clinical guidelines (treatment protocols) on the health care delivery, with consideration to standards; prescribe non-medication treatment of a tumor disease, taking into account the diagnosis, age of the patient, and the clinical aspect of the disease in accordance with current procedures for the health care delivery, clinical guidelines (treatment protocols) on the health care delivery, with consideration to standards	
AI-4 PC–3.4	**Student knows** the patterns and methods of symptomatic therapy in cancer patients; features of the clinical course, complications of cancer, including in the elderly and pregnant women; implementation patterns of general therapeutic personalized care in patients, including the elderly and pregnant women	Tests. Case tasks. Essay
	Student is able to draw up a treatment plan for a tumor disease, taking into account the diagnosis, the patient's age, and the clinical aspect of the oncological disease in accordance with current procedures for the health care delivery, clinical guidelines (treatment protocols) on the health care delivery, with consideration to standards; prescribe medications, medical devices, and therapeutic nutrition, taking into account the diagnosis, the patient's age, and the clinical aspect of the oncological diseases in accordance with current procedures for the health care delivery, clinical guidelines (treatment protocols) for the health care delivery, with consideration of standards; prescribe non-medication treatment of a tumor disease, taking into account the diagnosis, age of the patient, and the clinical aspect of the disease in accordance with current procedures for the health care delivery, clinical guidelines (treatment protocols) on the health care delivery, with consideration to standards	
AI-2 PC–4.2	**Student knows** the procedure of referring a patient for a sociomedical examination; signs of persistent impairment of body functions caused by cancer or defects; rules for registration and issuance of medical documents when referring patients for specialized medical care, sanatorium treatment, and sociomedical examination	Tests. Essay
	Student is able to identify signs of temporary disability and signs of persistent impairment of body functions caused by cancer or defects.	

4. Scope of the academic course and types of academic work

Type of academic work	Labor intensity	Semesters
		XII
Students and teacher cooperative work	**66**	**66**
Classroom work:	**64**	**64**
Lectures (L)	18	18
Practical sessions (PS)	46	46
Individual study:	**42**	**42**
under the theoretical run	38	38
preparation for credit	4	4
Interim assessment: credit (taking the credit and group consultations included)	**2**	**2**
Total labor intensity: academic hours	**108**	
credit units	**3**	

5. Content of the academic course, structured with units (topics) including the amount of academic hours and session types

5.1. Content of the academic course units

Sl.No.	Name of the academic course unit	Annotated content of the academic course unit	The list of competencies being developed in the process of mastering the unit
1.	Issues of general oncology	- Modern issues of oncology - The structure of the oncological service in Russia - Fundamentals of malignant tumors treatment	GPC-1, PC-2, PC-3, PC-4.
2.	Issues of clinical oncology	- Lung cancer - Esophagus cancer - Gastric cancer - Colon and rectal cancer - Breast cancer - Tumors of the head and neck - Skin tumors - Liver and pancreatic cancer	PC-2, PC-3, PC-4.

5.2.Topical lecture plan

Sl. No.	Name of the academic course unit	Topics of lectures	Active forms of study	Labor intensity (academic hours)
1.	Issues of general oncology	L.1 The structure of the oncological service in Russia. The system of scientific research	-	2

		centers. Tasks and activities of republican, regional, city and district early treatment centres. Arrangement of treatment and early medical examination of people with precancerous diseases and cancer patients.		
2.	Issues of general oncology	L.2 Methods of malignant tumor treatment (surgical, radiation, medicinal). Combined, concurrent, complex treatment. Issues of palliative care of cancer patients.	-	2
3.	Issues of clinical oncology	L.3 Lung cancer (epidemiology, etiology, pathogenesis, pathomorphology, prevention, features of the clinical course in the elderly and senile, modern possibilities of early diagnosis, clinical and histological classifications, treatment, prognosis, rehabilitation).	-	2
4.	Issues of clinical oncology	L.4 Gastric cancer (epidemiology, etiology, pathogenesis, pathomorphology, prevention, modern possibilities of early diagnosis, features of the clinical course in the elderly and senile, clinical and histological classifications, treatment, prognosis, rehabilitation).	-	2
5.	Issues of clinical oncology	L.5 Colon and rectal cancer (epidemiology, etiology, pathogenesis, pathomorphology, prevention, modern possibilities of early diagnosis, features of the clinical course in the elderly and senile, clinical and histological classifications, treatment, prognosis, rehabilitation).	-	2
6.	Issues of clinical oncology	L.6 Esophageal cancer (epidemiology, etiology, pathogenesis, pathomorphology, prevention, modern possibilities of early diagnosis, features of the clinical course in the elderly and senile, clinical and histological classifications, treatment, prognosis, rehabilitation).	-	2
7.	Issues of clinical oncology	L.7 Breast cancer (epidemiology, etiology, pathogenesis, pathomorphology, prevention, features of the clinical course depending on age, early diagnosis, clinical classifications, development of approaches to surgical, combined and complex treatment, modern patterns and methods of radiation, combined and integrated treatment, complications, prognosis and rehabilitation).	-	2
8.	Issues of clinical oncology	L.8 Skin tumors: benign, cancer and melanoma (epidemiology, etiology, pathogenesis, pathomorphology, prevention, clinical features in the elderly and senile, modern possibilities of early diagnosis, clinical and histological classifications, treatment, prognosis, rehabilitation).	-	2
9.	Issues of clinical oncology	L.9 Tumors of the head and neck: A) cancer of the lower lip B) cancer of the tongue and oral cavity	-	2

		C) thyroid cancer (epidemiology, etiology, pathogenesis, pathomorphology, prevention, features of the clinical course in the elderly and senile, modern possibilities of screening and early diagnosis, clinical and histological classifications, treatment, prognosis, rehabilitation).		
		TOTAL:		18

LP – lecture-presentation

5.3. Topical plan of practical sessions

Sl. No.	Name of the academic course unit	Topics of practical sessions	Active forms of study	Means of actual monitoring	Labor intensity (academic hours)
1.	Issues of general oncology	PS.1 Modern issues of oncology. Epidemiology, biology, and prevention of cancer. Composition fundamentals and rules of the use of the international classification of malignant tumors according to the TNM system.	GD, CS	Tests.	6
2.	Issues of general oncology	PS.2 The structure of the oncological service in Russia. The system of scientific research centers. Tasks and activities of republican, regional, city and district early treatment centres. Arrangement of treatment and early medical examination of people with precancerous diseases and cancer patients.	GD, CS	Tests.	4
3.	Issues of general oncology	PS.3 Methods of malignant tumor treatment (surgical, radiation, medicinal). Combined, concurrent, complex treatment. Issues of palliative care of cancer patients.	GD, CS	Tests.	4
4.	Issues of clinical oncology	PS.4 Lung cancer (epidemiology, etiology, pathogenesis, pathomorphology, prevention, features of the clinical course in the elderly and senile, modern possibilities of early diagnosis, patterns of comprehensive complete examination , clinical classifications, methods of surgical, radiation, medicinal, combined, concurrent and integrated treatment, prognosis,	GD, CS	Tests. Case tasks.	4

Sl. No.	Name of the academic course unit	Topics of practical sessions	Active forms of study	Means of actual monitoring	Labor intensity (academic hours)
		rehabilitation).			
5.	Issues of clinical oncology	PS.5 Breast cancer (epidemiology, etiology, pathogenesis, pathomorphology, prevention, features of the clinical course depending on age, early diagnosis, clinical classifications, development of approaches to surgical, radiation, combined and integrated treatment, modern patterns and methods of combined and integrated treatment, complications and prognosis, rehabilitation).	GD, CS	Tests. Case tasks.	4
6.	Issues of clinical oncology	PS.6 Esophageal cancer (epidemiology, etiology, pathogenesis, pathomorphology, prevention, clinical features in elderly and senile people, modern clinical early diagnosis possibilities, classifications, surgical, radiation, combined and integrated treatment, complications and prognosis, rehabilitation).	GD, CS	Tests. Case tasks.	4
7.	Issues of clinical oncology	PS.7 Skin tumors (precancerous diseases, benign tumors, melanoma, cancer (epidemiology, etiology, pathogenesis, pathomorphology, prevention, clinical features in the elderly and senile, modern early diagnosis, clinical classifications, surgical, radiation, combined and integrated treatment, complications and prognosis, rehabilitation)).	GD, CS	Tests. Case tasks.	4
8.	Issues of clinical oncology	PS.8 Gastric cancer (epidemiology, etiology, pathogenesis, pathomorphology, prevention, clinical features in the elderly and senile, modern early diagnosis, clinical classifications, combined and integrated treatment, complications and prognosis, rehabilitation).	GD, CS	Tests. Case tasks.	4
9.	Issues of clinical oncology	PS.9 Colorectal cancer (epidemiology, etiology, pathogenesis, pathomorphology,	GD, CS	Tests. Case tasks.	4

Sl. No.	Name of the academic course unit	Topics of practical sessions	Active forms of study	Means of actual monitoring	Labor intensity (academic hours)
		prevention, clinical features in the elderly and senile, modern possibilities of early diagnosis, clinical classifications, combined and integrated treatment, complications and prognosis, rehabilitation).			
10.	Issues of clinical oncology	PS.10 Tumors of the head and neck: A) cancer of the lower lip B) cancer of the tongue and oral cavity C) thyroid cancer (epidemiology, etiology, pathogenesis, pathomorphology, prevention, features of the clinical course in the elderly and senile, modern possibilities of early diagnosis, clinical and histological classifications, treatment, prognosis, rehabilitation).	GD, CS	Tests. Case tasks.	4
11.	Issues of clinical oncology	PS.9 Liver and pancreatic cancer (epidemiology, etiology, pathogenesis, pathomorphology, prevention, features of the clinical course in the elderly and senile, modern possibilities of early diagnosis, clinical classifications, combined and integrated treatment, complications and prognosis, rehabilitation).	GD, CS	Tests. Case tasks.	4
				TOTAL:	46

Note:
GD - group discussion
CS - case study

5.4. Topical plan of seminars is not provided

5.5. Topical plan of laboratory classes is not provided

5.6. Independent work:

Sl.No.	Name of the academic course unit	Types of individual study	Means of actual monitoring	Labor intensity (academic hours)

Sl.No.	Name of the academic course unit	Types of individual study	Means of actual monitoring	Labor intensity (academic hours)
1.	Issues of general oncology	Working with lecture material (L.1, L.2). Working with educational literature (see point 8.1.) Preparation for credit	Tests. Case tasks.	8
2.	Issues of clinical oncology	Working with lecture material (L.3, L.4, L.5, L.6, L.7, L.8, L.9). Working with educational literature (see point 8.1.) Preparation of essay Preparation for credit	Tests. Case tasks. Writing essay	34
			TOTAL:	42

5.6.1. Topics for writing essay:

1. Breast cancer. Combined and integrated treatment.
2. Colon cancer. Combined and integrated treatment.
3. Gastric cancer. Combined and integrated treatment.
4. Lung cancer. Combined and integrated treatment.
5. Tumors of the head and neck. Combined and integrated treatment.
6. Mediation treatment of malignant tumors.
7. Radiation therapy of malignant tumors.
8. Skin tumors. Combined and integrated treatment.
9. Prevention of malignant tumors.

6. Guidelines for students on mastering the course of oncology

To effectively study the units of the Oncology course, it is necessary to independently study all the recommended educational materials, take tests on the proposed topics; actively participate in the discussion of issues proposed in practical sessions, and, if necessary, receive the consulting assistance of a teacher. To work on essay, it is necessary to select the required literature from the university library or other sources, consider the material, highlight the main points on the chosen topic and prepare essay in accordance with the requirements.

To successfully pass the interim assessment by testing, it is necessary to study and work out all the assessment means: essay presentation.

7. Assessment materials

Assessment materials on the course for conducting actual academic performance monitoring and interim assessment include examples of assessment means (Appendix A to the academic course's work program), procedure and criteria.

8. List of necessary educational literature and Internet resources to master the academic course

8.1. Educational literature:

1. Davydov M.I., Onkologiya: uchebnik [Oncology: student's book] [Electronic resource] / Davydov M.I., Gantsev Sh.Kh. - M.: GEOTAR-Media, 2013. - 920 p. - ISBN 9785970427194 - Access mode: http://www.studmedlib.ru/book/ISBN9785970427194.html .
2. Family medicine. Izbrannye lekcii: rukovodstvo dlya vrachej [Selected lectures: guide for doctors] / ed. Kuznetsova O.Yu., FSEI HE NWSMU named after I. I. Mechnikov under the Ministry of Health of the Russian Federation. - 2nd ed. – St. Petersburg: ELBI-SPb, 2017. - 815 p.
3. Velsher L.Z., Klinicheskaya onkologiya. Izbrannye lekcii [Clinical oncology. Selected lectures] [Electronic resource] / L.Z. Velsher, B.I. Polyakov, S.B. Peterson, Moscow: GEOTAR-Media, 2014. 496 p. ISBN 9785970428672 - Access mode: http://www.studmedlib.ru/book/ISBN9785970428672 . html.
4. Chissov V.I., Onkologiya [Oncology] / Ed. by V.I. Chissov, M.I. Davydova, Moscow: GEOTAR-Media, 2008. 1072 p. ("National Guidelines" series) - ISBN 9785970406762 – Access mode: https://www.rosmedlib.ru/book/ISBN9785970406762.html .
5. Onkologiya: modul'nyj praktikum [Oncology: modular practical training] [Electronic resource] / Davydov M.I., Velsher L.Z., Polyakov B.I., Gantsev Zh.Kh., Peterson S.B. et al. - Moscow: GEOTAR-Media, - Access mode: http://www.studmedlib.ru/book/ISBN9785970409299.html .
6. Onkologiya [Oncology] [Electronic resource] / Ed. by Chissova V.I., Davydova M.I. - Moscow: GEOTAR-Media, 2013. – Access mode: http://www.rosmedlib.ru/book/ISBN9785970423684.html .
7. Gantsev, Sh. Kh. Onkologiya: Uchebnik dlya studentov med. VUZov. [Oncology : student's book for students of medical universities.]– M.: Med. inform. Agency, 2004. – 516 p.
8. Onkologiya: uchebnik [Oncology: student's book] / ed. by Sh. Kh. Gantsev. - Moscow: GEOTAR-Media, 2023. 704 p. ISBN 978-5-9704-7469-3, DOI: 10.33029/9704-7469-3-ONC-2023-1-704 - The electronic version is available on the website of ELS "Student's Consultant": [website]. URL: https://www.studentlibrary.ru/book/ISBN9785970474693.html
9. Trufanov, G. E. Luchevaya terapiya (radioterapiya) [Radiation therapy (radiotherapy)] / G. E. Trufanov [et al.] ; ed. by G. E. Trufanov, Moscow : GEOTAR-Media, 2018. - 208 p. - ISBN 978-5-9704-4420-7. - Text: electronic // ELS "Student's Consultant": [website]. - URL : https://www.studentlibrary.ru/book/ISBN9785970444207.html
10. Davydov, M. I. Onkologiya : uchebnik [Oncology: student's book] / M. I. Davydov, S. Kh. Gantsev [et al.]. - Moscow : GEOTAR Media, 2020. - 920 p. : ill. - 920 p. - ISBN 978-5-9704-5616-3. - Text: electronic // ELS "Student's Consultant" : [website]. - URL : https://www.studentlibrary.ru/book/ISBN9785970456163.html
11. Velsher, L. Z. Klinicheskaya onkologiya. Izbrannye lekcii [Clinical oncology. Selected lectures] / L. Z. Velsher, B. I. Polyakov, S. B. Peterson - Moscow : GEOTAR-Media, 2014. 496 p. ISBN 978-5-9704-2867-2. - Text: electronic // ELS "Student's Consultant" : [website]. - URL : https://www.studentlibrary.ru/book/ISBN9785970428672.html
12. Davydov, M. I. Onkologiya: modul'nyj praktikum [Oncology: modular practical training] / Davydov M. I., Velsher L. Z., Polyakov B. I., Gantsev G. Kh. , Peterson S. B. et al . Moscow : GEOTAR-Media, 2008. 320 p. ISBN 978-5-9704-0929-9. Text : electronic // ELS "Student's Consultant" : [website]. - URL : https://www.studentlibrary.ru/book/ISBN9785970409299.html
13. Velsher, L. Z. Klinicheskaya onkologiya. Izbrannye lekcii [Clinical oncology. Selected lectures] / L. Z. Velsher, B. I. Polyakov, S. B. Peterson - Moscow : GEOTAR-Media, 2014. 496 p. ISBN 978-5-9704-2867-2. - Text: electronic // ELS "Student's

Consultant" : [website]. - URL : https://www.studentlibrary.ru/book/ISBN9785970428672.html
14. Chissov, V. I. Onkologiya: Nacional'noe rukovodstvo. Kratkoe izdanie [Oncology : National guidelines. Short edition] / ed. by V. I. Chissov, M. I. Davydov, Moscow : GEOTAR-Media, 2017. 576 p. ISBN 978-5-9704-3982-1. - Text: electronic // URL : https://mbasegeotar.ru/book/ISBN9785970439821/call_reader.html ?SSr=07E901186C98A

8.2. Resources of the information and telecommunications network "Internet":

Names of the Internet resource	Web address
Scientific Electronic Library eLIBRARY.RU	https://elibrary.ru/project_orgs.asp
Medical lectures	http://www.varles.narod.ru
Website of the European Association of Oncologists	http://www.cancerworld.org
Website of the Russian Association of Oncologists	http://www.oncology-association.ru

9. List of information technologies used to master the academic course, including a list of software, professional databases and information reference systems

9.1. List of information technologies used in the implementation of the educational process:

Sl.No.	Name of the academic course unit	Information technology
1.	Issues of general oncology	Placement of educational materials in the EIE of the FSBEI HE NWSMU named after I.I. Mechnikov under the Ministry of Health of the Russian Federation, https://moodle.szgmu.ru/course/view.php? id=1041.
2.	Issues of clinical oncology	Placement of educational materials in the EIE of the FSBEI HE NWSMU named after I.I. Mechnikov under the Ministry of Health of the Russian Federation, https://moodle.szgmu.ru/course/view.php? id =1041.

9.2. **List of software used in the educational process** ***(licensed and freely distributed software, including domestically produced):***

Sl.No.	Name of the software product	License validity period	Documents supporting the right to use software products
licensed software			
1.	ESET NOD 32	1 year	Public contract № 07/2020
2.	MS Windows 8 MS Windows 8.1 MS Windows 10 MS Windows Server 2012 Datacenter - 2 Proc MS Windows Server 2012 R2 Datacenter - 2 Proc MS Windows Server 2016	Unlimited	Public contract № 30/2013-O; Public contract № 399/2013-OA; Public contract № 07/2017-ЭА.

	Datacenter Core		
3.	MS Office 2010 MS Office 2013	Unlimited	Public contract № 30/2013-OA; Public contract № 399/2013-OA.
4.	Academic LabVIEW Premium Suite (1 User)	Unlimited	Public contract № 02/2015
licensed software of domestic production			
1.	Antiplagiat	1 year	Public contract № 2409
2.	"WEBINAR (VEBINAR)" VERSION 3.0	1 year	Contract № 347/2020-M
3.	"3KL Learning management system"	1 year	Contract № 348/2020-M
4.	TrueConf Enterprise	1 year	Contract № 396/2020-ЭА
freely distributed software			
1.	Google Chrome	Unlimited	Open License Agreement GNU GeneralPublicLicense
2.	NVDA	Unlimited	Open License Agreement GNU GeneralPublicLicense
freely distributed software of domestic production			
1.	Moodle	Unlimited	Open License Agreement GNU GeneralPublicLicense

9.3. List of professional databases and information reference systems:

Sl.No.	Name of the software product	License validity period	Documents supporting the right to use software products	Access mode for students with disabilities
1.	Konsul'tant Plyus [Consultant Plus]	1 year	Contract № 655/2020-ЭА	-
2.	ELS "Student's Consultant"	1 year	Contract № 307/2020-ЭА	http://www.studmedlib.ru/
3.	EML "Konsul'tant vracha" [Doctor's Consultant]	1 year	Contract № 281/2020-ЭА	http://www.rosmedlib.ru/
4.	ELS "ibooks.ru"	1 year	Contract № 06/2020	https://ibooks.ru
5.	ELS "IPRbooks"	1 year	Contract № 08/2020-ЗК	http://www.iprbookshop.ru/special
6.	Electronic Library System "BuckUP"	1 year	Contract № 05/2020	https://www.books-up.ru/
7.	ELS "Izdatel'stvo Lan'" [Fallow deer Publishing House]	1 year	Contract № 395/2020-ЭА	https://e.lanbook.com/

10. Logistic support of the course

Classrooms with equipment and technical educational medium tools for conducting lecture sessions, group and individual consultations, actual academic performance monitoring and interim assessment: St. Petersburg, Piskarevsky Prospekt, 47, lit. AE (building 32), room 1, lit. R (building 9), room 18, 19, FSBEI HE NWSMU named after I.I. Mechnikov under the Ministry of Health of the Russian Federation.

Equipment: chalkboard; teacher's desk, teacher's chair, student desks, student chairs.
Technical educational medium tools: multimedia projector, teacher's laptop, system unit, monitor.
Special educational medium tools: Roger Pen (Individual Roger wireless pen-shaped transmitter), Roger MyLink (Roger Pen system signal receiver) (for students with hearing impairments); IntelliKeys (wired keyboard with matte black coating Russian Braille script), (St. Petersburg, Piskarevsky Prospekt, 47, lit. R (building 9), classroom 18, 19, FSBEI HE NWSMU named after I.I. Mechnikov under the Ministry of Health of the Russian Federation).

Classrooms with equipment and educational medium tools for conducting seminars, group and individual consultations, actual academic performance monitoring and interim assessment of students:
Saint Petersburg, Pesochny settlement, Leningradskaya St., 68 (the NMRC of Oncology named after N.N.Petrov), "Laboratory building" II floor (contract 1 dated 30.11.2012).

Room for individual study of students, equipped with computer hardware connected to the Internet and provided with access to the electronic information and educational environment of the University: St. Petersburg, Piskarevsky Prospekt, 47, lit. AE (building 32), classroom 1, lit. R (building 9), classroom 18, 19 FSBEI HE NWSMU named after I.I. Mechnikov under the Ministry of Health of the Russian Federation.

Appendix A

The Ministry of Health of the Russian Federation

Federal State Budgetary Educational Institution
of Higher Education
"North-Western State Medical University
named after I.I.Mechnikov"
under the Ministry of Health of the Russian Federation

(FSBEI HE NWSMU named after I.I. Mechnikov under the Ministry of Health of the Russian Federation)

ASSESSMENT MATERIALS

(for the actual monitoring of academic performance and interim assessment of students)

Specialty:	31.05.01 General Medicine
Focus:	Arrangement and delivery of primary health care to the adult population in medical organizations
Name of the academic course:	Oncology

Saint Petersburg – 2021

1. List of planned study outcomes of the academic course

Competency achievement indicator code	Study outcomes (assessment criteria)	Assessment means
AI-1 GPC-1.1	**Student knows** moral norms, ethical and deontological fundamentals of behavior in professional activity. **Student is able** to establish relationships with the patient, following the fundamentals of deontology and the preservation of medical confidentiality	Tests. Essay.
AI-1 PC–2.1	**Student knows** methods of collecting complaints, the patient's life and illness medical history, methods of complete physical examination of the patient (examination, palpation, percussion, auscultation)	Tests. Presentation of a practical skill. Case tasks. Essay
	Student is able to collect complaints, the patient's medical history and consider the information received, conduct a complete physical examination of the patient (examination, palpation, percussion, auscultation)	
	Student has the skill of palpating cervical lymph nodes	
AI-2 PC–2.2	**Student knows** patterns of healthy human body functioning and mechanisms of ensuring health based on the theory of functional systems; features of functional systems control of the human body in pathological processes; Etiology, pathogenesis and pathomorphology of oncological diseases, their clinical aspect, differential diagnosis, features of the course, complications and outcomes of oncological diseases; laboratory and instrumental study methods for the diagnosis of malignant tumors, medical indications for studies	Tests. Case tasks. Essay
	Student is able to justify the necessity and amount of laboratory and instrumental studies of an oncological patient; to determine the order of amount, content and sequence of diagnostic measures for oncological disease	
AI-3 PC–2.3	**Student knows** general issues of arranging oncological care to the population, the legislation of the Russian Federation in the field of healthcare, regulatory legal acts and other documents defining the activities of medical organizations and medical professionals, clinical recommendations on the oncological care delivery with consideration of standards; fundamentals of oncological alertness	Tests. Case tasks. Essay
	Student is able to justify the need to refer a patient with suspected cancer for consultations with medical specialists; analyze the results of the patient's examination, if necessary, justify and plan the amount of additional studies; interpret the results of collecting information about the patient's disease	
AI-4 PC–2.4	**Student knows** the etiology, pathogenesis and pathomorphology of oncological diseases, their clinical aspect, differential diagnosis, features of the course, complications and outcomes of oncological diseases	Tests. Case tasks. Essay
	Student is able to carry out early diagnosis of pretumor and tumor diseases; to carry out differential diagnosis of cancer from other pathology	
AI-5 PC–2.5	**Student knows the** ICD	Tests. Case tasks. Essay
	Student is able to interpret data obtained during laboratory and instrumental study of an oncological patient, as well as data obtained upon consultations between the patient and medical	

	specialists; interpret the results of collecting information about the patient's disease	
AI-1 PC–3.1	**Student knows** modern methods of using medications in oncological practice, medical devices and therapeutic nutrition for oncological diseases in accordance with current procedures for the health care delivery, with consideration to standards; modern methods of non-medication treatment of oncological diseases in a patient in accordance with the current procedures for the health care delivery, with consideration to standards	Tests. Case tasks. Essay
	Student is able to draw up a treatment plan for a tumor disease, taking into account the diagnosis, the patient's age, and the clinical aspect of the oncological disease in accordance with current procedures for the health care delivery, clinical guidelines (treatment protocols) on the health care delivery, with consideration to standards; prescribe medications, medical devices, and therapeutic nutrition, taking into account the diagnosis, the patient's age, and the clinical aspect of the oncological diseases in accordance with current procedures for the health care delivery, clinical guidelines (treatment protocols) on the health care delivery, with consideration to standards; prescribe non-medication treatment of a tumor disease, taking into account the diagnosis, age of the patient, and the clinical picture of the disease in accordance with current procedures for the health care delivery, clinical guidelines (treatment protocols) on the health care delivery, with consideration to standards	
AI-2 PC–3.2	**Student knows** action mechanism of antitumor medications, medical devices and therapeutic nutrition used in oncological practice, medical indications and contraindications to their use; complications caused by their use; Action mechanism of non-medication treatment of oncological diseases, medical indications and contraindications to their use; complications caused by their use	Tests. Case tasks. Essay
	Student is able to evaluate the effectiveness and safety of the use of medicines, medical devices and therapeutic nutrition in cancer patients	
AI-3 PC–3.3	**Student knows** general issues of arranging oncological care to the population, the legislation of the Russian Federation in the field of healthcare, regulatory legal acts and other documents defining the activities of medical organizations and medical professionals, clinical guidelines on the oncological care delivery with consideration to standards; Modern methods of using medications in oncological practice, medical devices and therapeutic nutrition for oncological diseases in accordance with current medical procedures for the health care delivery, with consideration to standards; modern methods of non-medication treatment of oncological diseases in accordance with current procedures for the health care delivery, with consideration to standards; The procedure of providing palliative care to cancer patients	Tests. Case tasks. Essay
	Student is able to draw up a treatment plan for a tumor disease, taking into account the diagnosis, the patient's age, and the clinical aspect of the oncological disease in accordance with current procedures for the health care delivery, clinical guidelines (treatment protocols) for the healthcare delivery, with consideration to standards; prescribe medications, medical devices, and therapeutic nutrition, taking into account the	

	diagnosis, the patient's age, and the clinical aspect of the oncological diseases in accordance with current procedures for the health care delivery, clinical guidelines (treatment protocols) for the healthcare delivery, with consideration to standards; prescribe non-medication treatment of a tumor disease, taking into account the diagnosis, age of the patient, and the clinical picture of the disease in accordance with current procedures for the health care delivery, clinical guidelines (treatment protocols) on the health care delivery, with consideration to standards	
AI-4 PC–3.4	**Student knows** the patterns and methods of symptomatic therapy in cancer patients; features of the clinical course, complications of cancer, including in the elderly and pregnant women; implementation patterns of general therapeutic personalized care in patients, including the elderly and pregnant women	Tests. Case tasks. Essay
	Student is able to draw up a treatment plan for a tumor disease, taking into account the diagnosis, the patient's age, and the clinical aspect of the oncological disease in accordance with current procedures for the healthcare delivery, clinical recommendations (treatment protocols) for the healthcare delivery, with consideration to standards; prescribe medications, medical devices, and therapeutic nutrition, taking into account the diagnosis, the patient's age, and the clinical aspect of the oncological diseases in accordance with current procedures for the health care delivery, clinical guidelines (treatment protocols) for the health care delivery, with consideration of standards; prescribe non-medication treatment of a tumor disease, taking into account the diagnosis, age of the patient, and the clinical aspect of the disease in accordance with current procedures for the health care delivery, clinical guidelines (treatment protocols) for the health care delivery, with consideration to standards	
AI-2 PC–4.2	**Student knows** the procedure of referring a patient for a sociomedical examination; signs of persistent impairment of body functions caused by cancer or defects; rules for registration and issuance of medical documents when referring patients for specialized medical care, sanatorium treatment, and sociomedical examination	Tests. Essay
	Student is able to identify signs of temporary disability and signs of persistent impairment of body functions caused by cancer or defects	

2. Examples of assessment means and criteria of actual monitoring

2.1. Examples of input control

Question № 1.
Carcinoma (cancer) is a malignant tumor originating from:
a) connective tissue
b) lymphoid tissue
c) epithelial tissue
d) muscle tissue

Question № 2.
Usually, malignant tumors of the gastrointestinal tract are indicated in patients at the age of:
a) 15-20 years

b) 20-30 years old
c) 30-45 years old
d) over 45 years old

Assessment criteria, assessment scale *passed/not passed*

Grade	Description
"passed"	Student performs a complete understanding of the problem. All requirements for the task have been met.
"not passed"	Student performs a lack of understanding of the problem. Many of requirements for the task have not been met. Answer is not provided. There was no attempt to solve the task.

2.2. Examples of tests:
Choose the correct answer

AI-1 GPC-1.1
Question title: Question № 1
Deontology is the science of doctor's and nursing staff duty aimed to:
a) provide the best possible treatment
b) create a favorable environment for the patient's recovery
c) establish a trusting relationship: patient - doctor, doctor - patient, doctor - relatives of the patient, doctors among themselves
d) all of the above stated

Question title: Question № 2
Medical ethics and deontology are based on all the criteria listed below, except:
a) humanism
b) mercantilism
c) professionalism
d) individualism

AI-1 PC-2.1
Question title. Question № 1.
The term "Virchow's node" refers to:
a) a pelvic tissue metastasis
b) an ovaries metastasis
c) an umbilical metastasis
d) a supraclavicular lymph node metastasis

Question title. Question № 2.
Virchow's node in gastric cancer should be considered as:
a) a distant hematogenous metastasis
b) a distant orthograde lymphogenous metastasis
c) a regional lymphogenic metastasis
d) an implantation metastasis

AI-2 PC-2.2
Question title. Question № 1.
The exophytic type of tumor growth is most common in cancer of:
a) the caecum and ascending colon
b) the transverse colon
c) the descending colon
d) the sigmoid colon

Question title. Question № 2.

An instrumental method that makes it possible to differentiate the great vessels without contrasting them may be:

a) ultrasound tomography
b) angiography
c) plain radiography
d) there is no correct answer

AI-3 PC-2.3

Question title. Question № 1.

A patient with a removed rectal villous polyp should be monitored:

a) by a surgeon
b) by a proctologist
c) by an oncologist
d) by a physician

Question title. Question № 2.

The effectiveness of early medical examination service can be assessed according to all the listed criteria, except:

a) timely detection of diseases and registration of patients
b) reduction of temporary disability rates in days and cases per 100 medical examinees
c) increase in the number of medical examinees with stable remission or improvement in their health status
d) increase in the birth rate in the district assigned to a certain outpatient facility

AI-4 PC-2.4

Question title. Question № 1.

What type of polyps cancerates most often:

a) glandular
b) villous-glandular
c) villous
d) hyperplastic

Question title. Question № 2.

These non-epithelial tumors of the colon cancerate most often:

a) leiomyomas
b) lipomas
c) fibromas
d) neurofibromas

AI-5 PC-2.5

Question title. Question № 1.

Computed tomography can help the clinician to state:

a) a morphological diagnosis
b) a localization diagnosis
c) a clinical diagnosis
d) there is no correct answer

Question title. Question № 2.

An instrumental method that makes it possible to differentiate the great vessels without contrasting them may be:

a) ultrasound tomography

b) angiography
c) plain radiography
d) there is no correct answer

AI-1 PC-3.1
Question title. Question № 1.
Indications for chemotherapy for patients with malignant tumors of the head and neck are:
a) local inoperable relapses
b) distant metastases
c) low-differentiated tumors
d) all of the above stated
Question title. Question № 2.
Chemotherapy is most effective in:
a) papillary thyroid cancer
b) follicular thyroid cancer
c) low-differentiated thyroid cancer
d) the effectiveness does not depend on the morphological structure

AI-2 PC-3.2
Question title. Question № 1.
The leading treatment method for extraorgan neck tumors is
a) surgical
b) radiation
c) chemotherapy
d) combined

Question title. Question № 2.
A 65-year-old patient had a recurrence of basal cell carcinoma of about 1 cm in the nasolabial fold one year after close-focus radiation therapy with total boost dose - 60 Gy. It is most appropriate for him:
a) repeated course of close-focus radiotherapy
b) course of remote radioiodine therapy
c) laser destruction
d) surgical resection

AI-3 PC-3.3
Question title. Question № 1.
Irradiation of regional areas during radiation therapy of nasopharyngeal cancer is:
a) mandatory in all cases
b) performed only during the verification of metastases in the lymph nodes of the neck.
c) performed only in the suspected presence of metastases in the lymph nodes of the neck.
d) impractical
Question title. Question № 2.
The leading treatment method for skin melanoma is:
a) surgical
b) radiation therapy
c) combined
d) electro-coagulation

AI-4 PC-3.4
Question title. Question № 1.

The main types of surgical intervention for lung cancer are:

a) lobectomy (bilobectomy), pneumonectomy
b) segmentectomy
c) wedge or marginal lung resection
d) correct answers are a) and b)

Question title. Question № 2.

The most common cause of death in patients after partial lung resections for cancer is:

a) bronchial fistula and pleural empyema
b) pneumonia
c) cardiovascular insufficiency
d) pulmonary artery thromboembolia

AI-1 PC-4.2

Question title. Question № 1.

The Ib clinical group of patients includes:

a) patients with diseases suspected of being malignant neoplasm
b) patients with precancerous diseases
c) people having been cured of malignant neoplasms
d) there is no correct answer

Question title. Question № 2.

Transfer of an oncological patient with stage IV of the disease (after treatment) to the III clinical group is possible in:

a) breast cancer
b) lymphogranulomatosis
c) ovarian cancer
d) all of the above stated

Assessment criteria, scale of *test assessment*

Grade		**Description**
"passed with distinction"	5	Completed in full – 90%-100%
"passed with credit"	4	Completed not in full – 80%-89%
"passed"	3	Completed with contravention – 70%-79%
"failed"	2	Partially completed – 69% or less correct answers

2.3. Examples of patterns for practical skills performance

AI-1 PC-2.1

Patterns for practical skills performance

Sl.No.	Student's action
1	Student established contact with the patient (student greeted, introduced themselves, offered to sit down)
2	Student found out the patient's complaints and collected the medical history
3	Student hygienically treated hands before manipulation
4	Student correctly performed palpation of the cervical lymph nodes
5	Student hygienically treated hands after manipulation
6	Student informed the patient about the result of the examination

Assessment criteria, assessment scale *for practical skill performance*

Grade		**Description**
"passed with distinction"	5	Student knows the methods of performing practical skills,

Grade		Description
		indications and contraindications, possible complications, standards, etc., performs the implementation of practical skills without mistakes
"passed with credit"	4	Student knows the methods of performing practical skills, indications and contraindications, possible complications, standards, etc., independently performs the implementation of practical skills, committing some inaccuracies (unessential mistakes), which student independently detects and quickly corrects
"passed"	3	Student knows the basic patterns of the methods of performing practical skills, indications and contraindications, possible complications, standards, etc., performs the implementation of practical skills, committing some mistakes that student manages to correct with teacher's participation
"failed"	2	Student does not know the methods of performing practical skills, indications and contraindications, possible complications, standards, etc., cannot independently perform practical skills or performs them, committing gross mistakes

2.4. Examples of case tasks

AI-1 PC-2.1

Task

The patient came to an oncologist complaining of a dense, subcutaneous formation in the sternum.

1. What clinical group does he belong to?
2. What is timeframe of stating diagnosis?
3. Between what diseases differential diagnosis must be performed?
4. How to verify the diagnosis?
5. What are possible treatment variants?

Task

A 47-year-old woman came to a surgeon complaining of enlarged axillary lymph nodes on the right. On examination, single dense lymph nodes were found in the right axillary region, presenting with limited mobility, up to 1-1.5 cm in size, not matted together. On physical examination, nodular formations are not detected in the mammary glands. The nipples and areolae are not changed. Other groups of regional lymph nodes are not enlarged. There are no signs of inflammation in the right breast. The patient was referred for mammography, which revealed bilateral fibrocystic mastopathy of moderate severityn both mammary glands. Nodular formations in breast tissue were not detected. The patient was recommended a follow-up examination after 3 months.

1. Was the surgeon's choice of tactics correct?
2. What is the most likely preliminary diagnosis?
3. What diagnostic study methods are needed?
4. Between what diseases differential diagnosis must be performed?
5. How to verify the diagnosis?

AI-2 PC-2.2

Task

Gastric cancer was accidentally revealed as a microscopic finding upon autopsy of a corpse after a road accident.

1. *Which document is filled out by the pathologist?*
   2. Where it should be directed?

3. What are actions of the pathologist to clarify the nature of the process?
4. What is the direct cause of the patient's death?
5. What group of diseases should the patient be included in?

AI-3 PC-2.3
Task
You are assuming to conduct an active detection of early cancer in a district outpatient hospital.

1. *Who is responsible for the early medical examination of the population in a certain area?*
2. What are your actions in the first step?
3. Who should be involved in the screening?
4. What instrumental study methods can be used?
5. Where should the patient be referred in case of oncopathology?

Task
A 69-year-old patient complained of ulcerated skin formation in the forehead area. According to the patient, formation has been around for several years. There is slow growth of formation. 4 months ago, a small sore appeared in the field of formation, which has been gradually increasing. On examination: There is a 1.5 x 2.5 cm superficial formation in the forehead area, protruding above the skin surface with an ulceration in the center. The cervical lymph nodes are not enlarged.
1. What is the preliminary diagnosis?
2. What diagnostic study methods are needed?
3. Between what diseases differential diagnosis must be performed?
4. How to verify the diagnosis?
5. What are possible treatment variants?

AI-4 PC-2.4
Task
A 35-year-old patient went to the outpatient hospital complaining of a change in the color, shape and size of a pigment neoplasm on the skin of the anterior abdominal wall. Examination revealed a 2.5 cm neoplasm, dark brown, without downy hair, with a corolla of hyperemia on the circumference. Regional lymph nodes are not palpable.

1. What is the preliminary diagnosis?
2. What diagnostic study methods are needed?
3. Between what diseases differential diagnosis must be performed?
4. How to verify the diagnosis?
5. What are possible treatment variants?

Task
A 14-year-old boy has many pigmented formations on his skin. According to the mother, they are both inborn and appeared during the last year. Upon examination, it was found that three formations had rapidly increased in size, darkened and located in the area of constant irritation with the belt.
1. What is the preliminary diagnosis?
2. What diagnostic study methods are needed?
3. Between what diseases differential diagnosis must be performed?
4. How to verify the diagnosis?
5. What are possible treatment variants?

AI-5 PC-2.5
Task

A 68-year-old smoker has a crusty formation on the mucosa of the red border of the lower lip. A dense lymph node up to 2 cm is palpated on the left side of the neck.

1. What is the preliminary diagnosis?
2. What diagnostic study methods are needed?
3. Between what diseases differential diagnosis must be performed?
4. How to verify the diagnosis?
5. What are possible treatment options?

Task

For the past year, the patient has been experiencing periodic pain on the left lateral surface of the tongue. An induration appeared in this place about 2 months ago, the patient went to the doctor.

1. What is the preliminary diagnosis?
2. What diagnostic study methods are needed?
3. Between what diseases differential diagnosis must be performed?
4. How to verify the diagnosis?
5. What are possible treatment variants?

AI-1 PC-3.1

Task

Patient Zh., 50 years old, radiologist. History: goiter, increased TSH value. Family history: grandmother died of thyroid cancer. The patient complaints about an increase in the rate of goiter growth, the induration appearance in the gland tissue. Objectively: the body temperature is N, the thyroid gland is enlarged, an induration without clear boundaries is palpated in the gland tissue. Increased level of calcitonin draws closer attention, according to the results of the examination. Scintigraphy of skeletal bones revealed foci of increased accumulation of radiopharmaceutical in the femoral bones, which are qualified as specific.

1. What is the preliminary diagnosis?
2. What diagnostic study methods are needed?
3. Between what diseases differential diagnosis must be performed?
4. How to verify the diagnosis?
5. What are possible treatment variants?

Task

A 45-year-old patient underwent surgery for thyroid cancer. Immediately after the operation, hoarseness of voice appeared, the patient began to choke.

1. What is the diagnosis?
2. What diagnostic study methods are needed?
3. Between what diseases differential diagnosis must be performed?
4. What are possible treatment variants?
5. Long-term prognosis.

AI-2 PC-3.2

Task

During a preventive examination of a young woman, painless elastic nodule with a smooth surface was found in the right lobe of the thyroid gland. The puncture revealed type A cells. The surgeon performed enucleation of the node, sent the sample to a pre-arranged histological examination, and discharged the patient home on the 6th day. A week later, the surgeon received an answer: papillary thyroid cancer.

1. What is the diagnosis?
2. What additional diagnostic study methods are needed?
3. What is further tactics of patient management?

4. What are possible treatment variants?
5. Long-term prognosis.

Task

A 48-year-old patient complained of swelling and soreness of the left breast. The complaints arose 2 weeks ago, and the symptoms were gradually increasing. Body temperature is 36.6 C. On examination: The left mammary gland is larger than the right, the gland skin is diffusely swollen, hyperemic. There is an increase in local temperature. On palpation, it is moderately painful, diffusely firmed due to edema. Nodular formations are not detected. Enlarged axillary lymph nodes, dense in consistency, and painless, are detected in the left axillary region.

1. What is the preliminary diagnosis?
2. What diagnostic examination methods are needed?
3. What is stage of development?
4. What diseases this pathology must be differentiated from?
5. What are possible treatment variants?

AI-3 PC-3.3

Task

Patient G., 41 years old, secretary, complaining of an induration in the left breast. The mother died of breast cancer. She has a history of 10 abortions and no children. Pre-menopause. Objectively: an induration up to 3 cm in diameter is palpated in the upper outer quadrant of the left breast, and an enlarged lymph node up to 1.5 cm in diameter is palpated in the left axillary region. Mammography: a darkening with uneven, heavy contours up to 3 cm in diameter is detected in the upper outer quadrant of the left breast. The tumor and axillary lymph node were punctured. Cytological examination: atypical cells were found in both samples.

1. What is the preliminary diagnosis?
2. What diagnostic examination methods are needed?
3. What is stage of development?
4. How to verify the diagnosis?
5. What are possible treatment variants?

Task

The patient is 32 years old, independently discovered a tumor in her left breast. Examination at the local medical facility revealed: a tumor in the mammary gland measuring 1.5 cm. Cancer was diagnosed with a cytological conclusion. Regional and distant metastasis were not obtained.

1. What is the diagnosis?
2. What diagnostic examination methods are needed?
3. What is stage of development?
4. How to definitively verify the diagnosis?
5. What are possible treatment options?

AI-4 PC-3.4

Task № 17

A 60-year-old patient has a 4 cm tumor in her left breast and a conglomerate of lymph nodes in her left axillary region. No data on metastases were obtained in areas of distant metastasis.

1. What is the preliminary diagnosis?
2. What diagnostic examination methods are needed?
3. What is stage of development?
4. How to definitively verify the diagnosis?

5. What are possible treatment variants?

Task

The patient is 35 years old. On examination: on the left, at the border of the outer quadrants, there is a formation 2.0 cm in diameter, of a dense elastic consistency. The regional lymph nodes are not enlarged. The mammogram represents a shadow 2 cm in diameter, with a clear contour. Cytological examination of the biopsy specimen showed 5 ml of fluid, epithelium lining of the cyst wall, and macrophages. With pneumocystography – a cyst with walls up to 3mm is detected, intracystic formation is determined.

1. What is the preliminary diagnosis?
2. What diagnostic examination methods are needed?
3. How to definitively verify the diagnosis?
4. What are possible treatment variants?
5. Long-term prognosis.

Assessment criteria, scale of assessment of case tasks

Grade		Description
"passed with distinction"	5	Case solving is detailed, consistent, competent, with theoretical justifications, with necessary schematic images and visual presentations, with correct and fluent command of terminology; the answers to additional questions are correct, clear
"passed with credit"	4	Case solving is detailed, but not logical enough, with isolated particular errors, some difficulties in theoretical justification, schematic images and visual presentations, the answers to additional questions are correct, but not clear enough
"passed"	3	Case solving is not complete enough, inconsistent, with errors, weak theoretical justification, with significant difficulties and errors in schematic representations and visual presentations, the answers to additional questions are not clear enough, with errors in details
"failed"	2	Case solving is incomplete, inconsistent, with gross errors, without theoretical justification, without schematic images and visual presentations, or with a large number of errors, the answers to additional questions are incorrect or missing

2.5. Examples of essay topics

AI-1 GPC-1.1, AI-1 PC-2.1, AI-2 PC-2.2, AI-3 PC-2.3, AI-4 PC-2.4, AI-5 PC-2.5, AI-1 PC-3.1, AI-2 PC-3.2, AI-3 PC-3.3, AI-4 PC-3.4, AI-2 PC-4.2

1. Breast cancer. Combined and integrated treatment.
2. Colon cancer. Combined and integrated treatment.
3. Gastric cancer. Combined and integrated treatment.
4. Lung cancer. Combined and integrated treatment.
5. Tumors of the head and neck. Combined and integrated treatment.
6. Mediation treatment of malignant tumors.
7. Radiation therapy of malignant tumors.
8. Skin tumors. Combined and integrated treatment.
9. Prevention of malignant tumors.
10. Fundamentals of oncological deontology.

Assessment criteria, scale of *essay* assessment

Grade	Description

"passed with distinction"	5	All the requirements for writing an essay have been fulfilled: the issue has been identified and its relevance has been justified , a brief consideration of various viewpoints on the issue has been made and one's own viewpoint has been logically stated, conclusions have been formulated, the topic has been fully disclosed, required essay length has been maintained, and the requirements for formatting have been met
"passed with credit"	4	The basic requirements for the essay have been fulfilled, but there were shortcomings; in particular, there are inaccuracies in the presentation of the material; there is no logical consistency in judgments; required essay length has not been maintained; there are omissions in the formatting
"passed"	3	There are significant deviations from the requirements; in particular: the topic is only partially covered; factual errors were made in the content of the essay
"failed"	2	The essay's topic has not been disclosed, a significant misunderstanding of the issue has been revealed, or the essay has not been presented at all

3. Procedure of conducting actual monitoring

Actual monitoring of academic performance in the course is carried out by means of testing, solving case tasks, assessing the performance of practical skills, preparing and writing an essay on a pre-selected topic.

4. Examples of materials and criteria for interim assessment

Examples of essay topics

AI-1 GPC-1.1, AI-1 PC-2.1, AI-2 PC-2.2, AI-3 PC-2.3, AI-4 PC-2.4, AI-5 PC-2.5, AI-1 PC-3.1, AI-2 PC-3.2, AI-3 PC-3.3, AI-4 PC-3.4, AI-2 PC-4.2

1. Breast cancer. Combined and integrated treatment.
2. Colon cancer. Combined and integrated treatment.
3. Gastric cancer. Combined and integrated treatment.
4. Lung cancer. Combined and integrated treatment.
5. Tumors of the head and neck. Combined and integrated treatment.
6. Mediation treatment of malignant tumors.
7. Radiation therapy of malignant tumors.
8. Skin tumors. Combined and integrated treatment.
9. Prevention of malignant tumors.
10. Fundamentals of oncological deontology.

Assessment criteria, scale of essay assessment

Grade		Description
"passed with distinction"	5	All the requirements for the presentation of the essay have been fulfilled: the issue has been identified and its relevance has been substantiated, a brief consideration of various viewpoints on the issue has been made and one's own viewpoint has been logically stated, conclusions have been formulated, the topic has been fully disclosed, required essay length has been maintained, the requirements for formatting have been met; the correct answers to the additional questions

"passed with credit"	4	The basic requirements for the presentation of the essay have been fulfilled, but there were shortcomings; in particular, there are inaccuracies in the presentation of the material; there is no logical consistency in judgments; required essay length has not been maintained; there are omissions in formatting; incomplete answers to the additional questions during the presentation
"passed"	3	There are significant deviations from the requirements; in particular: the topic is only partially covered; factual errors were made in the content of the essay or in answering to the additional questions; there is no conclusion during the presentation
"failed"	2	The essay's topic has not been disclosed, a significant misunderstanding of the issue has been revealed, or the essay has not been presented at all

4.2. Examples of control questions:

AI-1 GPC-1.1
Deontology as the science of the doctor's and nursing staff duty.

AI-1 PC-2.1, AI-2 PC-2.2, AI-3 PC-2.3, AI-4 PC-2.4, AI-5 PC-2.5
The choice of treatment tactics in patients with rectal cancer.
The choice of treatment tactics in patients with gastric cancer.

AI-1 PC-3.1, AI-2 PC-3.2, AI-3 PC-3.3, AI-4 PC-3.4
Classification of esophageal cancer according to the TNM system.
Indications for breast cancer additional /adjuvant/ chemotherapy.
General fundamentals of chemotherapy for malignant tumors

AI-1 PC-4.2
The structure of the oncological service in Russia.
Who directs to sociomedical examination in oncology?

Assessment criteria, assessment scale for control issues

Grade		**Description**
"passed with distinction"	5	Student knows all the educational material, understands it perfectly and has firmly mastered it. Student gives correct, conscious and confident answers to questions (within the program). Student uses correct standard language and does not make mistakes in verbal answers
"passed with credit"	4	Student knows all the required educational material, understands it well and has firmly mastered it. Questions (within the program) are answered without difficulty. Student uses standard language in verbal answers and does not make mistakes
"passed"	3	Student knows the core educational material. Student answers questions (within the program) uneasily. Student makes mistakes in the presentation of the material and in the construction of speech during verbal answers
"failed"	2	Student does not know most of the educational material, has a tend to uncertainly answer merely teacher's guiding questions. Student makes frequent and gross mistakes in verbal answers

Assessment criteria, final assessment scale *(credit)*

Grade	**Description**

Grade	Description
"passed"	Student performs a complete understanding of the problem. Student knows the basic concepts within the discussed issue, the methods of study and their interrelation, practical problems and has an idea of the developmental promising directions of the issue under consideration
"not passed"	Student performs a lack of understanding of the problem. Student does not know the basic concepts and methods of study, and has no idea about the main practical problems within the discussed issue

5. Procedure of interim assessment

Interim assessment in the course is conducted by credit. Credit includes answering to control questions and presenting of the essay.