

**MINISTRY OF HEALTH OF THE REPUBLIC OF BELARUS
EDUCATIONAL INSTITUTION
BELARUSIAN STATE MEDICAL UNIVERSITY**

**Контрольный
экземпляр**



APPROVED

by First Vice-Rector, Professor
S.V. Gubkin

23.07.2018

Reg. # UD-1-612/1819 /edu

ONCOLOGY

**Curriculum of higher educational institution
in the educational discipline for the specialty:**

1-79 01 01 «General Medicine»

Minsk, BSMU 2018

Curriculum is based on the standard educational program «Oncology» for specialty 1-79 01 01 General Medicine, approved on October 19, 2017, registration # UD-L 612 type.

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RECOMMENDED FOR APPROVAL:

by the Department of Oncology of the Educational Institution «Belarusian State Medical University»

(protocol № 14 of 14.05.2018);

by the Methodological Commission of General Medicine of the Educational Institution «Belarusian State Medical University»

(protocol № 9 of 13.06.2018)

EXPLANATORY NOTE

«Oncology» is the educational discipline containing systematized scientific knowledge of the etiology and pathogenesis of neoplastic diseases, their clinical features, diagnosis of benign and malignant tumors, as well as treatment and prevention of cancer.

The curriculum of the discipline «Oncology» includes the latest scientific data about general and special oncology.

The aim of teaching and learning the discipline «Oncology» is to systematize and consolidate knowledge about the etiology, epidemiology, pathogenesis of tumors, the latest methods of treatment, the organization of cancer care, and provide practical training for early diagnosis and prevention of cancer.

The task of the discipline is to develop the students' academic competence, based on the ability to self-search educational and information resources, training and use of information resources, mastering methods of acquiring knowledge and understanding of the following:

- etiology and pathogenesis of malignancies;
- epidemiology of cancer;
- principles of organization of cancer care;
- early diagnosis of major localizations of malignant tumors and precancerous diseases;

The task of teaching the discipline includes the formation of students' social, personal and professional competences, based on the knowledge and application of:

- clinical signs of pre-cancerous diseases and malignancies in major locations;
- methods of examination for suspected malignancy in compliance with the rules of medical ethics and deontology, contributing to the formation of clinical thinking;
- approaches to the treatment of patients with precancerous diseases and the main most common malignant tumors;
- methods of cancer prevention.

Teaching and successful learning of the discipline «Oncology» is carried out on the basis of the knowledge and skills previously acquired by the students in the following disciplines:

Pathological physiology

Etiology and pathogenesis of tumors. Carcinogens, their classification. Stages and mechanisms of carcinogenesis. Pathophysiological basis of prevention and therapy of tumors.

Pathological anatomy

Pathological anatomy of cancer. Morphological diagnosis of cancer, methods. International morphological classification of tumors. Pathological features of some neoplastic diseases.

Microbiology, virology, immunology

Biological carcinogenesis. Antineoplastic immunity

Radiation and Environmental Medicine

Environmental and radiation etiological factors of tumor development. Radiation sources, mechanisms of action. Long-term effects of the Chernobyl accident.

Radiodiagnostics and radiotherapy

Methods of beam diagnostics in oncology. Beam diagnostics and radiation semiotics of major tumor localization.

Methods and biological bases of radiotherapy in the treatment of patients with tumor pathology.

Pharmacology

Antitumor drugs and their characteristic. Cell-based chemotherapy. Major groups of antitumor drugs.

National health and health care

Organization of cancer care in Republic of Belarus.

The organization of screening. Organization of preventive examinations for early detection of cancer.

Medical psychology

Psychological aspects of working with patients with neoplastic diseases.

Topographic Anatomy and Operative Surgery

Surgical treatment of patients with tumors of the major sites.

Internal Medicine

Diseases of the blood system.

Precancerous, background disease and cancer of the digestive system, lungs, kidneys, bones, the thyroid gland. Differential diagnosis with anemic syndrome and syndrome of accelerated erythrocyte sedimentation rate, lymphadenopathy.

Clinical examination of patients included in the group of cancer risk for diseases of the internal organs.

Outpatient therapy

Cancer prevention. Preventive district physician as a basis of early detection of factors predisposing to the development of cancer and precancerous diseases.

Clinical examination of patients included in the group of cancer risk. Medical tactics and plan of investigation for suspected cancer.

Differential diagnosis of internal diseases and cancer.

Surgical diseases

Differential diagnosis of surgical diseases and tumors. Clinical examination of patients included in the group of cancer risk in surgical diseases.

Obstetrics and Gynecology

Etiology and pathogenesis of tumors of female genital organs. Background, precancerous lesions and cancer of the female genital organs. Screening for early diagnosis and prevention of cancer. The organization and role of examination rooms, diagnostic capabilities.

Clinical examination of patients included in the group of cancer risk for diseases of the female genital organs.

Phthisiology and pulmonology

Screening examinations, radiation examinations of population for early detection of lung cancer. Examination methods with focal shadows in the lung,

pulmonary infiltrates, recessed formation in the lungs, the syndrome of pulmonary dissemination, hilar lymphadenopathy, pleural effusion syndrome.

Differential diagnosis of tuberculosis and sarcoidosis with tumor pathology of the lungs and mediastinal lymph nodes.

Infectious diseases

Differential diagnosis of infectious diseases and cancer.

Otorhinolaryngology

Benign and malignant tumors of hypopharynx, nasopharynx. Clinical picture, diagnosis, treatment.

Clinical examination of patients included in the group of cancer risk.

Ophthalmology

Benign and malignant tumors of the vision. The clinical picture, diagnosis and treatment.

Clinical examination of patients included in the group of cancer risk.

Dermatology

Benign and malignant skin tumors, precancerous lesions: obligate and facultative. Classification, clinical picture, diagnosis and treatment.

Clinical examination of patients included in the group of cancer risk.

Neurology and Neurosurgery

Tumors of the brain and spinal cord. Classification, clinical picture, diagnosis, treatment. Differential diagnosis. Modern methods of treatment of tumors of the brain and spinal cord. Clinical examination of groups of cancer risk from a neurologist.

Dentistry

Tumors of the maxillofacial region. Epidemiology, clinical features, diagnosis of benign tumors and congenital cysts of the soft tissues of the maxillofacial area and neck tumors of the facial bones, soft tissue tumors, head and neck tumors of the salivary glands. Modern aspects of treatment of patients with tumors of the maxillofacial localization. Clinical examination of groups of cancer risk from a dentist.

Pediatrics

Leukemia in children. Classification. Etiology. Pathogenesis. Clinic, diagnostics, laboratory diagnostics. International treatment protocols. Rehabilitation and outpatient observation. Solitary tumor of childhood. Tumors of the central nervous system. Classification, histological variants clinic. Diagnosis, treatment, clinical supervision and rehabilitation. Neuroblastoma, nephroblastoma. Clinics. Diagnostics. Treatment.

As a result of studying the discipline «Oncology» the student should know:

- organization of health and cancer care in Republic of Belarus;
- etiology, classification, pathogenesis, clinical presentation, diagnosis and differential diagnosis, treatment of the most common cancers in patients.

be able to:

- carry out routine inspection of the patient to detect latent malignancy;
- perform palpation of lymph nodes;

- carry out a physical examination of the thyroid gland, breast, soft tissue in order to identify tumor pathology;
- conduct a physical examination of the abdominal cavity and retroperitoneal space to identify tumor pathology;
- carry out physical examination of the chest cavity in order to identify tumor pathology;
- carry out a physical examination of the pelvic organs to detect tumor pathology;
- develop a plan of laboratory and instrumental examination for suspected malignancies main locations;
- interpret radiographs, CT scans, sonograms with typical signs of tumors (lung, mediastinum, soft tissues, bone, breast and thyroid, the organs of the digestive system, kidneys, reproductive organs);
- interpret the morphological and cytological conclusion of malignancy;
- interpret research data in neoplastic diseases;
- make smears with tumors;
- formulate a diagnosis of cancer with an estimate of the extent of the tumor and the determination of the stage of disease and clinical groups;
- to issue accounting records for cancer patients;

master:

- to take a case history and identify the most significant complaints specific to malignant neoplasms of the main locations;
- to perform palpation of peripheral lymph nodes in primary and metastatic tumor lesions;
- to perform palpation of the thyroid gland to identify nodal disease;
- to perform palpation of the mammary glands in benign and malignant tumors;
- to perform palpation of the abdomen to detect tumors of the gastrointestinal tract, kidneys, retroperitoneal metastatic lesions of the abdominal cavity;
- to perform physical examination of the pelvic organs to detect tumors of the genitals and prostate;
- to plan examination for establishing the diagnosis of cancer and evaluation of neoplastic process;
- to interpret the examination results for different tumor pathology;
- to make the diagnosis of cancer, indicating localization stage complications of tumor and clinical groups;
- to fill in primary records for cancer patients;
- to identify precancerous diseases and background pathology for the purpose of prevention and early diagnosis of cancer.

Total number of hours for the study of the discipline is 176 academic hours. Classroom hours according to the types of studies: lectures - 16 hours, practical classes - 78 hours, student independent work (self-study) - 82 hours.

Current assessment is carried out according to the syllabus of the specialty in the form of examination (10 semester).

Form of higher education – full-time.

**ALLOCATION OF ACADEMIC TIME
ACCORDING TO SEMESTERS OF STUDY**

Code, name of the specialty	semester	Number of academic hours					Form of current assessment
		total	in-class	including		out-of-class self-studies	
				lectures	laboratory studies (practical classes and seminars)		
1-79 01 01 «General Medicine»	9	80	56	8	48	24	examination
	10	96	38	8	30	58	
Total		176	94	16	78	82	

THEMATIC PLAN

Name of the section (subject)	Number of class hours	
	lectures	practical
1. Etiology and pathogenesis of tumors. Methods of diagnostics and treatment in oncology	2	-
2. Organization of the oncological aid to the patients with oncological diseases. Deontology.	-	5
3. Skin tumors	2	5
4. Tumors of the head and neck	2	10
4.1. Thyroid cancer	2	5
4.2. Tumors of salivary glands. Cancer of a lip, tongue, oral mucous. Pharyngeal carcinoma.	-	5
5. Breast tumors	2	6
6. Tumors of lungs and mediastinum	2	5
7. Tumors of digestive tract	4	12
7.1. Cancer of esophagus and stomach	2	6
7.2. Colorectal cancer	2	6
8. Hepato-pancreato-duodenal tumors	-	5
9. Malignant lymphomas	2	5
10. Tumors of soft tissues and bones. Tumors of retroperitoneal space	-	5
11. Oncourology	-	5
11.1. Tumors of kidneys and urinary bladder	-	2
11.2. Tumors of the testes. Prostate cancer	-	3
12. Oncogynecology	-	15
12.1. Ovarian tumors	-	5
12.2. Cervical cancer	-	5
12.3. Endometrial cancer	-	5
Total hours	16	78

CONTENT OF THE EDUCATIONAL MATERIAL

1. Etiology and pathogenesis of tumors. Methods of diagnostics and treatment in oncology

Definition of the concept «tumor». Main properties of malignant tumors. Etiology and pathogenesis of malignant growths. Classification of tumors. Precancerous process, early cancer. Cancer epidemiology. Incidence and cancer mortality, neglect. Structure of incidence, dynamics, correlation with the Chernobyl disaster.

Groups of carcinogens. Carcinogenesis mechanisms. Carcinogenesis stages.

Primary, secondary, tertiary prevention of cancer. Routine inspections of the population. Rules of medical examination of groups of the increased oncological risk.

Diagnostic algorithm in oncology. Principles of a formulation of the oncological diagnosis. Classification of tumors by TNM, stages. Diagnostic methods in oncology. Types of biopsies.

Types and methods of treatment in oncology. Principles of surgical treatment.

Biological bases of radiation and medicinal therapy of cancer, its principles. The equipment for radiation therapy of tumors. Methods of radiation therapy of malignant tumors.

2. Organization of the oncological aid to the patients with oncological diseases. Deontology Organization of the oncological care. Establishments of oncological service in the Republic of Belarus, their aims and structure. Documentation on the oncological patient, rules and terms of registration. Dispensary supervision of oncological patients. Groups of the dispensary accounting of oncological patients. Medico-social examination of oncological patients. Rehabilitation of oncological patients after radical treatment.

The principles of medical ethics during the work with oncological patients at different stages of inspection and treatment. Medical ethics and deontology during the work with relatives of the oncological patient. Features of work with patients in the early stages of malignant tumors.

3. Skin tumors

Pigment tumors of skin. Classification of pigment nevi. Signs of malignization of pigment nevus. Clinical features of melanoma. Methods of diagnosis of melanoma. Differential diagnosis of melanoma. Methods of treatment of melanoma. Prognosis. Prevention.

Classification of skin tumors. Skin cancer cases. Risk factors and pre-malignant diseases of skin (obligate and facultative). Histologic types of a cancer of skin, feature of their growth. Clinical manifestations. Methods of diagnosis of tumors of skin. Differential diagnosis of skin cancer. Skin cancer therapy methods. Prevention.

4. Tumors of the head and neck

4.1. Thyroid Cancer

Etiology of thyroid cancer. Epidemiology of thyroid cancer. Cancer cases of a thyroid gland. Correlation with the Chernobyl disaster. Histologic forms of cancer of thyroid gland. Clinical features of cancer. Biological features of various forms.

Hereditary syndromes, correlation with separate forms of cancer. Diagnostic methods. Treatment. Types of surgical interventions at a thyroid cancer. Role of radioiodine therapy, its indications.

Differential diagnosis of a thyroid cancer with benign diseases. Medical tactics in nodal pathology of a thyroid cancer.

4.2. Tumors of salivary glands. Cancer of a lip, tongue, oral mucous. Pharyngeal carcinoma.

Classification of tumors of salivary glands. Benign and malignant tumors of salivary glands. Cancer cases of salivary glands. Metastases of cancer. Clinic of a cancer and benign tumors of salivary glands. Methods of diagnostics and cancer therapy of salivary glands.

Lip cancer cases. Lip cancer etiology. Pre-cancer diseases. Clinical features of cancer of lip. Diagnostics, differential diagnostics. Treatment methods.

Tongue cancer cases. Tongue cancer etiology. Pre-cancer diseases. Metastases of Tongue cancer. Clinics. Diagnostics, differential diagnosis of Tongue cancer. Tongue cancer therapy methods.

Cases of oral mucous cancer. Etiology of oral mucous cancer. Pre-cancer diseases. Metastases of oral mucous cancer. Clinics of oral mucous cancer. Diagnostics, differential diagnostics. Methods of therapy of oral mucous cancer.

Pharyngeal carcinoma cases. Pharyngeal carcinoma etiology. Pre-cancer diseases. Clinics of pharyngeal carcinoma. Metastases. Diagnostics methods. Treatment.

5. Breast tumors

Benign tumors and tumor alike diseases of the mammary gland. Benign diseases of breast. Classification. Etiology of benign diseases of breast. Diagnosis of tumors and tumor-like diseases of breast. Clinical picture of diffusion and focal mastopathy. Treatment. Clinical picture of fibro adenoma, filloid tumor. Treatment. Clinical picture of ductal papilloma. Treatment.

Breast cancer. Breast cancer - incidence, mortality. Clinics of breast cancer, its forms. Skin symptoms in breast cancer. Metastases of cancer. Methods of diagnosis of breast cancer. Treatment. Breast cancer surgery. Combined and complex treatment. Early detection of breast cancer. Screening. Prevention.

Tumors of chest gland in men. Etiology of tumors of chest gland in men. Clinics of a gynecomastia and cancer of chest gland. Diagnostics of gynecomastia and cancer of chest gland. Treatment of gynecomastia and cancer of chest gland.

6. Tumors of lungs and the mediastinum

Lung cancer. Lung cancer cases, mortality. Lung cancer etiology. Premalignant diseases and risk factors. Histologic forms of cancer of lung, feature of growth and metastases. Clinics of cancer of lung. Clinical and radiological forms of lung cancer, paraneoplastic syndromes. Diagnosis of lung cancer. Radiological signs of various forms of cancer of lung. Differential diagnostics. Treatment. Ways of early diagnostics and prevention of cancer of lung.

Topography of mediastinum and classification of mediastinum tumors. Clinics of mediastinum tumors. Groups of symptoms of mediastinum tumors.

Diagnostics and differential diagnosis of mediastinum tumors Principles of treatment of mediastinum tumors

7. Tumors of digestive tract

7.1. Cancer of esophagus and stomach

Etiology, esophagus cancer epidemiology. Pre-cancer diseases, risk factors. Metastases of esophagus cancer. Clinics. Diagnostics. The principles of cancer therapy of esophagus – radical and palliative.

Incidence, mortality and neglect of gastric cancer. Gastric cancer etiology. Pre-cancer diseases. Features of growth and metastases of gastric cancer. Clinical signs of cancer depending on the form of tumor growth and localization. Diagnostic methods. Differential diagnosis. Principles of treatment. Radical and palliative surgery.

Early diagnosis of gastric cancer.

7.2. Colorectal cancer

Cancer cases of the colon; mortality. Neglect. Etiology and premalignant diseases of the colon. Metastases of colon cancer. Clinics, dependence on localization. Clinical forms of cancer. Diagnostics. Differential diagnostics. Treatment methods.

Rectum cancer cases, mortality. Late stages. Etiology and premalignant diseases of rectum. Metastasis of rectal cancer. Clinical picture, dependence on localization. Diagnostics. Differential diagnostics. Treatment.

8. Hepatic- pancreatic- duodenal tumors

Liver tumors.

Liver tumors (primary and metastatic). Classification. Liver cancer cases. Pre-cancer diseases of liver and its risk factors. Clinics of cancer of liver. Diagnostics, differential diagnosis. Principles of treatment.

Pancreatic tumors

Pancreas cancer etiology, risk factors. Incidence. Clinic of tumors of pancreas, correlation with localization. Methods of diagnosis of cancer of pancreas. Treatment.

Tumors of gall bladder and extrahepatic duct. Epidemiology, etiology, morphological classification of cancer of gall bladder and extrahepatic biliary channels. Clinics of cancer of gall bladder and extrahepatic biliary channels. Modern approaches to diagnostics, treatment and prevention of cancer of gall bladder and extrahepatic biliary channels.

9. Malignant lymphomas

Non-Hodgkin's lymphoma. Definition of malignant lymphoma. Classification of malignant lymphoma. General signs of malignant lymphoma.

Histological types of Non-Hodgkin lymphoma. Clinics of Non-Hodgkin lymphoma, groups of symptoms. Dependence of clinical manifestations on histological forms. Diagnostic methods. Principles of treatment.

Hodgkin's lymphoma Incidence, etiology and pathogenesis of Hodgkin lymphoma. Histologic forms of Hodgkin lymphoma. Stages of Hodgkin lymphoma. Clinics of Hodgkin lymphoma, groups of symptoms. Diagnostic methods. Principles of treatment. The remote results of treatment, rehabilitation of patients with Hodgkin lymphoma. Differential diagnostics of lymphadenopathy.

10. Tumors of soft tissues and bones. Tumors of retroperitoneal space

Classification of tumors of soft tissues. Clinics of benign tumors. Clinics of sarcomas of soft tissues. Diagnostics. Principles of treatment.

Classification of tumors of bones. Clinics of tumors of bones. Diagnostics, differential diagnosis of tumors of bones. Principles of treatment.

Classification of tumors of retroperitoneal space. Clinics of tumors of retroperitoneal space, manifestation depending on localization, the sizes, a histological form, complications. Diagnostics. Principles of treatment.

11. Oncology

11.1. Tumors of kidneys and urinary bladder

Kidney cancer cases. Classification. Features of growth and metastases. Clinics. Diagnostics. Treatment.

Urinary bladder tumors, its incidence. Risk factors urinary bladder carcinoma. Pre-cancerous diseases. Clinics of urinary bladder carcinoma. Diagnostics. Treatment.

11.2. Tumors of testes. Prostate cancer

Classification of tumors of testicles. Risk factors. Metastases of testicular tumors. Clinic of tumors of a testicle. Diagnostics. Principles of treatment.

Prostate gland cancer cases, neglect. Risk factors, pre-cancer diseases. Metastases. Clinics. Principles of treatment. Early diagnostics.

12. Oncogynecology

12.1. Ovarian tumors

Ovarian cancer. Classification of ovarian tumors. Etiology and pathogenesis of ovarian tumors, groups of risk. Clinical signs of ovarian tumors. Methods of diagnosis. Treatment.

12.2. Cervical cancer. Cervical cancer cases. Etiology. Premalignant diseases, background processes. Early diagnostics and prevention of cervical cancer. Principles and methods of screening. Classification of cervical cancer. Metastases. Clinics of cervical cancer, diagnostics. Treatment of pre-invasive and invasive cervical cancer. Radiation therapy, surgical method, combined and multimodality treatment of cervical cancer.

12.3. Endometrial cancer

Endometrial cancer cases. Background and premalignant diseases of endometrium, medical tactics. Metastases of endometrial cancer. Clinical picture of endometrial cancer. Diagnostics. Methods of treatment.

EDUCATIONAL DISCIPLINE CURRICULAR CHART

Section, topic #	Section (topic) name	num ber of hours			self-study	Equipment	Forms of control
		lectures	practical				
	9 semester	8	48	4			
1	Etiology and pathogenesis of tumors. Methods of diagnosis and treatment in oncology	2	-		Personal computer, slide projector, VCR, negatoscope, whiteboard, table, sonograms, scintigrams, X-rays, the natic photo album, simulators	Interviews, essays	
2	Organization of the oncological aid to the patients with oncological diseases. Deontology	-	5			Interviews, essays, written tests, control questioning, computer-based test, situational tasks	
5	Breast tumors	2	6			Interviews, essays, written tests, computer-based test, situational tasks	
7	Tumors of the digestive tract	4	12			Interviews, essays, written tests, computer-based test assessment, situational tasks	
	7.1. Cancer of the esophagus and stomach	2	6				
	7.2. Colorectal cancer	2	6	2			

Section, topic #	Section (topic) name	num ber of hours			Equipment	Forms of control
		lectures	practical	self-study		
8	Hepato-pancreato-duodenal tumors	-	5	3		Interviews, essays, written tests, computer-based test
		-	5	4		
		-	2	2		
11	Oncology 11.1. Tumors of kidney and urinary bladder 11.2. Testicular tumors. Prostate cancer	-	3	2		Interviews, essays, written tests, computer-based test, situational tasks
		-	15	10		
		-	5	3		
		-	5	3		
12	Oncogynecology 12.1. Ovarian tumors 12.2. Cervical Cancer 12.3. Endometrial cancer	-	5	4		Interviews, essays, written tests, computer-based test, situational tasks, control questioning
		-	5	3		
		-	5	4		
	10 semester	8	30	58		
3	Skin tumors	2	5	9	Personal computer, slide projector, VCR, negatoscope, whiteboard, table, sonograms, scintigrams, X-rays, thematic photo album, simulators	Interviews, essays, written tests, computer-based test, situational tasks
4	Tumors of the head and neck 4.1. Thyroid cancer.	2	10	20		Interviews, essays, written tests, computer-based test,
		2	5	10		

Section, topic #	Section (topic) name	num ber of hours			self-study	Equipment	Forms of control
		lectures	practical				
	4.2. Tumors of the salivary glands. Cancer of a lip, tongue, oral mucous. Pharyngeal carcinoma.	-	5	10		situational tasks, control questioning	
6	Tumors of the lungs and mediastinum	2	5	9		Interviews, written tests, computer-based test, situational tasks	
9	Malignant lymphomas	2	5	9		Interviews, essays, written tests, situational tasks	
10	Tumors of soft tissues and bones. Tumors of retroperitoneal space	-	5	11		Interviews, essays, written tests, computer based test, situational tasks, examination	

INFORMATION AND INSTRUCTIONAL UNIT LITERATURE

Basic:

1. Algorithms of diagnostics and treatment of malignant tumors. – Minsk, 2012. - 508 pages.
2. Oncology. Tutorial. Part 1. General oncology / Sukonko OG with co-authors; edited by Prokhorov AV. Minsk: New knowledge 2016 - 430 pages, illustrations
3. Oncology national guidelines / V.N.Chissov, M.I.Davydov. – M. Media, 2017. – 624 pages
4. Chemotherapy of malignant tumors. Foreign practical guidelines / ed. by E.Czu, V.de Vita. / M. Practica, 2009. – 455 pages
5. Oncologia. Foreign practical guidelines / ed. by D.Kaschiato/ M. Practica, 2008. – 1039 pages

Additional:

6. Algorithms of diagnostics and treatment of malignant new growths. – Minsk, 2012. - 508 pages.
7. Shepetsko, M.N., Baryash, V. V. Tumors of retroperitoneal space: tutorial /M.N.Shepetko, V.V.Baryash. – Minsk : BGMU, 2008. - 28 pages.
8. Lectures on onkogynecology: the textbook for students of higher education institutions / under the general edition of M.I.Davydov, V.V.Kuznetsova, under the editorship of V.M.Nechushkina. – Moscow: HONEY press inform, 2009. - 425 pages.
9. Korenj T.A., Minailo T.I. Scheme of writing the clinical record of the oncological patient: tutorial / T.A.Korenj, T.I.Minailo. – Minsk: BGMU, 2011. - 25 pages.

LIST OF AVAILABLE DIAGNOSTIC TOOLS

The following forms are used for competences assessment:

1. Oral form:
 - interviews;
 - situational tasks and tests;
2. Written form
 - tests;
 - control questioning;
 - essays;
3. Oral-written form
 - examination
4. Technical form
 - electronic tests

LIST OF PRACTICAL SKILLS

- Physical examination of patients with suspected tumors.
- Technique of concomitant examination in case of suspicion of malignant tumor.
- Technique of palpation of peripheral lymph nodes, breast and thyroid gland.
- Performing fine needle aspiration biopsy, smears-samples of tumors.
- Collection of sputum for revealing atypical cells.
- Taking a case history and identification of the most significant complaints of patients with malignant tumors of predominant localizations.
- Working up of examination algorithm of patients for establishing the diagnosis of malignant tumor and evaluation of the spreading of tumor process.
- Interpretation of laboratory tests, X-ray examinations, isotope methods of evaluation, morphological results of the examination in case of tumor suspicion.
- Formulation of diagnosis of malignant tumor with indication of localization, stage, complications of the tumor process and clinical group.
- Writing primary medical notes for oncological patients
- Selection of groups of people for screening programs.

LIST OF LECTURES

9 semester

1. Etiology and pathogenesis of tumors. Methods of diagnosis and treatment in oncology
2. Malignant neoplasm of breast.
3. Malignant neoplasms of the esophagus and stomach
4. Colorectal cancer.

10 semester

1. Malignant tumors of skin
2. Malignant tumors of thyroid
3. Malignant tumors of lungs and mediastinum
4. Malignant tumors of lymphatic system

LIST OF PRACTICAL CLASSES

9 semester

1. Organization of the oncological treatment for the patients with oncological diseases. Deontology in oncology
2. Cancer of the esophagus and gastric cancer.
3. Colorectal cancer.
4. Hepato-pancreato-duodenal malignant tumors.
5. Malignant breast tumors.
6. Tumors of kidney and urinary bladder.
7. Testicular tumors. Prostate cancer.
8. Ovarian tumors.

9. Cervical cancer.
10. Endometrial cancer.

10 semester

1. Skin tumors.
2. Thyroid cancer.
3. Tumors of the salivary glands. Cancer of the lips, tongue, oral mucosa.
4. Laryngeal cancer.
5. Tumors of lungs and mediastinum.
6. Malignant lymphomas.
7. Tumors of soft tissues and bones.
8. Tumors of retroperitoneal space

PROTOCOL OF THE CURRICULUM APPROVAL BY OTHER DEPARTMENTS

Title of the discipline requiring approval	Department	Amendments to the curriculum of the academic discipline	Decision of the department, which designed the curriculum (date, protocol #)
1. Surgical Diseases	1 st Department of Surgical Diseases	No amendments	protocol № 14 of 14.05.2018
2. Surgical Diseases	2 st Department of Surgical Diseases	No amendments	protocol № 14 of 14.05.2018


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Kolobukhov A. E.

Curriculum content, composition and accompanying documents comply with established requirements.

Dean of the Medical Faculty of
International Students

20.07. 2018



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Methodologist of the Educational
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Zaturanova S.V.

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