№СТОМ-21-ИН

Federal State Budgetary Educational Institution of Higher Education "North Ossetian State Medical Academy" of the Ministry of Health of the Russian Federation

Department of Radiation Diagnostics with Radiation Therapy and Oncology

APPROVED
minutes of the meeting
Central coordination
educational and methodological council
"23" May 2023 No. 5

ASSESSMENT MATERIALS

By _____ « Oncostomatology and radiation therapy"

main professional educational program of higher education - specialty program in specialty
05/31/03 Dentistry
approved on May 24, 2023

for___5th year students_____ (students/residents/postgraduate students/listeners – select what is required) (course/year of study)

specialty 05/31/03 Dentistry
(code/name)

Reviewed and approved at a department meeting
From 21.05. 2023 (protocol No. 7)

Head of the Department Doctor of Medic _____
Khasigov A.V.

Vladikavkaz 2023

STRUCTURE OF ASSESSMENT MATERIALS

1. Title page
2. Structure of assessment materials
3. Reviews of evaluation materials
4. Passport of evaluation materials
5. Set of assessment materials:
- questions for the module
- questions for testing
- questions for the exam
- bank of situational tasks/practical tasks/business games
- standards of test tasks (with title page and table of contents)
- exam papers/test tickets

FEDERAL STATE BUDGETARY EDUCATIONAL INSTITUTION OF HIGHER EDUCATION " NORTH OSSETIAN STATE MEDICAL ACADEMY" OF THE MINISTRY OF HEALTH OF THE RUSSIAN FEDERATION

REVIEW
for assessment materials

in the discipline _ ____ " Oncostomatology and radiation therapy"

for _____ 5th year students _____

specialty 05/31/03 Dentistry

Evaluation materials were compiled at the Department of Radiation Diagnostics with Radiation Therapy and Oncology

based on the work program of the discipline Oncostomatology and radiation therapy approved minutes of the meeting Central Coordination **Educational** and Methodological Council "23" May 2023 No. 5

and meet the requirements of the Federal State Educational Standard for Higher Education in the specialty **05/31/03 Dentistry** approved by the Ministry of Education and Science of the Russian Federation on 08/12/2020 No. 984

Evaluation materials include:
- questions for the module,
- questions for testing,
- questions for the exam,
- bank of situational tasks/practical tasks/business games,
- standards of test tasks (with title page and table of contents),
- exam tickets/test tickets

The bank of situational tasks/practical tasks/business games includes the tasks themselves and answer templates. All tasks correspond to the work program of the discipline " Oncostomatology and Radiation Therapy ", the competencies formed during its study, and cover all its sections.

The bank contains answers to all situational tasks/practical tasks/business games .
Test task standards include the following elements: test tasks, answer templates.
All tasks correspond to the work program of the discipline " Oncostomatology and Radiation Therapy ", the competencies formed during its study, and cover all its sections. The difficulty of the tasks varies. The number of tasks for each section of the discipline is sufficient for testing knowledge and eliminates repeated repetition of the same question in different versions. The standards contain answers to all test tasks.
The number of exam tickets is sufficient to conduct the exam and eliminates the repeated use of the same ticket during the exam within one day. Examination tickets/test tickets are made on uniform forms according to a standard form, on paper of the same color and quality. The examination ticket/test ticket includes _____ questions. The wording of the questions coincides with the wording of the list of questions submitted for the exam/test. The content of the questions on one ticket relates to various sections of the work program of the discipline, allowing you to more fully cover the material of the discipline.
In addition to theoretical questions, a bank of situational tasks (tests, recipes, radiographs, electrocardiograms, etc.) / practical tasks / business games is offered. Situational tasks/practical tasks/business games make it possible to objectively assess the level of student's mastery of theoretical material during ongoing monitoring of progress and intermediate certification. The complexity of questions in exam papers/test tickets is distributed evenly.

comments on the peer-reviewed assessment materials.

In general, assessment materials for the discipline of Oncostomatology and Radiation Therapy

contribute to a qualitative assessment of students' level of proficiency in universal/general professional/professional competencies.
Peer-reviewed assessment materials in the discipline of Dental Oncology and Radiation Therapy

can be recommended for use for ongoing monitoring of progress and intermediate certification at the Faculty of Dentistry for students of the 5th year/year of study.

Reviewer:

Chairman of the TSUMK for natural sciences and mathematics with a subcommittee for the examination of assessment materials, Associate Professor of the Department of Chemistry and Physics

signature *Botsiev N.I.*

M.P.
"23.05." 2023

FEDERAL STATE BUDGETARY EDUCATIONAL INSTITUTION OF HIGHER EDUCATION " NORTH OSSETIAN STATE MEDICAL ACADEMY" OF THE MINISTRY OF HEALTH OF THE RUSSIAN FEDERATION

REVIEW
for assessment materials

in the discipline _ ___ " Oncostomatology and radiation therapy"

for _____ 5th year students _____

specialty 05/31/03 Dentistry
(code/name)
Evaluation materials were compiled at the Department of Radiation Diagnostics with Radiation Therapy and Oncology

based on the work program of the discipline Oncostomatology and radiation therapy approved minutes of the meeting Central coordination educational and methodological council May 23, 2023 No. 5

and meet the requirements of the Federal State Educational Standard for Higher Education in the specialty **31.05.03 Dentistry** , _____ approved by the Ministry of Education and Science of the Russian Federation on August 12, 2020, No. 984

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complexity of questions in exam papers/test tickets is distributed evenly.
comments on the peer-reviewed assessment materials.

In general, assessment materials for the discipline of Oncostomatology and Radiation Therapy

contribute to a qualitative assessment of students' level of proficiency in universal/general professional/professional competencies.
Peer-reviewed assessment materials in the discipline of Oncostomatology and Radiation Therapy can be recommended for use for ongoing monitoring of progress and intermediate certification at the Faculty of Dentistry for students of the 5th year/year of study.

Reviewer:

Chief specialist - radiologist of the Ministry of Health of RSO-Alania, Head of the Department of Radiation Diagnostics, Federal State Budgetary Institution "SKMMC" of the Ministry of Health of the Russian Federation, Professor, Doctor of Medical Sciences.

signature *Georgiadi S.G.*

M.P.
"23.05." 2023

Passport of assessment materials for the discipline
Oncology, radiation therapy

No.	Name of the supervised section (topic) of the discipline/module	Code of the competence (stage) being formed	Name of assessment material
1	2	3	4
Type of control	**Ongoing progress monitoring/interim assessment**		
1	Physical foundations of radiation therapy. Radiobiological foundations of radiation therapy malignant and non-malignant diseases.	OPK-5 PC-1 PC-4 PK-6	test control, questions for the module, questions for the test, questions for the exam, bank of situational tasks/practical tasks/business games, test/exam tickets
2	Methods radiation therapy. Technical providing radiation therapy.	OPK-5 PC-1 PC-4 PK-6	test control, questions for the module, questions for the test, questions for the exam, bank of situational tasks/practical tasks/business games, test/exam tickets
3	Radiotherapy planning. Pre-radiation period. Radiation period. The body's reactions to therapeutic radiation exposure. Post-radiation period. Radiation protection of organs and tissues during radiation therapy.	OPK-5 PC-1 PC-4 PK-6	test control, questions for the module, questions for the test, questions for the exam, bank of situational tasks/practical tasks/business games, test/exam tickets
4	Module 4. Basics of radiation therapy for malignant tumors of the maxillofacial region. .	OPK-5 PC-1 PC-4 PK-6	test control, questions for the module, questions for the test, questions for the exam, bank of situational tasks/practical tasks/business games, test/exam tickets
5	Basics ray therapy for malignant tumors of the breast and abdominal _	OPK-5 PC-1 PC-4 PK-6	test control, questions for the module, questions for the test, questions for the exam, bank of situational tasks/practical tasks/business games, test/exam tickets
6	Radiation Basics therapy of malignant tumors of the central nervous system , thyroid	OPK-5 PC-1 PC-4 PK-6	test control, questions for the module, questions for the test, questions for the exam,

	gland, retroperitoneal space, skeletal system.		bank of situational tasks/practical tasks/business games, test/exam tickets

*The name of the controlled section (topic) or topics (sections) of the discipline/module is taken from the work program of the discipline.

Federal State Budgetary Educational Institution
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Department of " Radiation diagnostics and radiation therapy with oncology"
Faculty of Dental Course-5
Discipline : Oncostomatology and radiation therapy.

Questions for module No. 1

1. Tumors (their types) and tumor-like processes. Forms of growth and spread of tumors.
2. Subject of oncology. History of the development of oncology.
3. Biological properties of malignant tumors.
4. Stages of development of malignant tumors.
5. Structure of the oncological service in Russia.
6. The concept of precancer and background diseases.

7. Histological classification of human tumors.
8. Morphological classifications of tumors. The role and organization of morphological research.
9. Clinical groups of cancer patients.
10. Diagnostic methods in clinical oncology.
11. General principles of surgical treatment of malignant tumors.
12. General principles of radiation therapy for malignant tumors.
13. General principles of drug therapy for malignant tumors.
14. Combined treatment of malignant tumors.
15. Complex treatment of malignant tumors.
16. General principles of symptomatic treatment of malignant tumors.
17. Palliative treatment of malignant tumors.

Questions for module No. 2

1. Skin cancer statistics
2. Epidemiology of primary skin cancer.
3. Risk factors.
4. Clinical forms of skin cancer.
5. Diagnosis of skin cancer.
6. Differential diagnosis of skin cancer
7. Stages of the process according to domestic classification
8. Process stages in the TNM system.
9. Treatment of skin cancer, surgical treatment
10. Chemoradiation treatment of skin cancer
11. Prognosis of skin cancer.
12. Clinical observation for skin cancer
13. Morbidity and mortality from cancer of the lower lip and oral cavity in the world, Russia
14 Factors influencing the development of cancer of the lower lip and oral cavity.
15. Background and precancerous diseases of cancer of the lower lip and oral cavity.
16. Pathological anatomy of cancer of this localization.
17. Clinical forms of cancer of the lower lip and oral cavity and features of metastasis.
18. Classification according to the TNM system depending on location
19. Stages and methods of diagnosing cancer of the lower lip and oral cavity.
20. The importance of morphological methods.
21. Differential diagnosis with precancerous diseases.
22. Standards of treatment for cancer of the lower lip and oral cavity, including combined and complex.
23. Clinical observation of patients with cancer of the lower lip and oral cavity
24. Rehabilitation of patients with cancer of the lower lip and oral cavity

Questions for module No. 3

1. Morbidity and mortality from lung cancer in the world, Russia
2. Factors influencing the development of lung cancer.
3. Active detection of lung cancer: annual fluorographic
4. Research, monitoring of patients in dispensary observation groups.
5. Background and precancerous lung diseases.
6. Pathological anatomy of lung cancer.
7. Ways of spread of lung cancer.

8. Classification of lung cancer according to the TNM system.
9. Clinical manifestations of lung cancer (clinical forms). Characteristic symptoms of lung cancer (pulmonary, extrapulmonary, paraneoplastic). Features of clinical manifestations depending on the location and stage of the process.
10. Features of the course of lung cancer depending on age.
11. Diagnosis of lung cancer.
12. Differential diagnosis of lung cancer.
13. Complications of lung cancer.
14. Treatment of lung cancer according to the stage of the process.
15. Prognosis, clinical observation and rehabilitation.

Questions for module No. 4

1. Statistical data on the prevalence of mastopathy among the female population.
2. Anatomy and physiology of the mammary glands.
3. Factors determining the development of dishormonal hyperplasia of the mammary gland.
4. Clinical and morphological classification of dishormonal hyperplasias.
5. Symptomatology of nodular forms of mastopathy.
6. Symptomatology of diffuse forms of mastopathy.
7. Diagnosis of dishormonal hyperplasias.
8. Differential diagnosis of mastopathy.
9. Treatment of dyshormonal breast hyperplasia.
10. Surgical interventions for nodular mastopathy.
11. Clinical observation of patients with dishormonal hyperplasia of the mammary glands.
12. Incidence and mortality from breast cancer in the world, Russia
13. Factors influencing the development of breast cancer.
14. Pathogenetic forms of breast cancer
15. Active detection of breast cancer: self-examination , preventive examinations in organized teams, examination of patients in examination rooms of clinics, monitoring of patients in dispensary observation groups.
16. Background and precancerous diseases of the breast.
17. Pathological anatomy of breast cancer
18. How breast cancer spreads
19. Classification of breast cancer according to the TNM system
20. Clinical manifestations of breast cancer (clinical forms). Characteristic skin symptoms of breast cancer. Features of clinical manifestations depending on the location and stage of the process.
21. Features of the course of breast cancer depending on age.
22. Diagnosis of breast cancer
23. Differential diagnosis of breast cancer.
24. Complications of breast cancer.
25. Treatment of breast cancer
26. Clinical observation and rehabilitation of patients with breast cancer.

Questions for module No. 5

1. Risk factors influencing the development of esophageal cancer.
2. Pre-tumor and background diseases of the esophagus.
3. Primary and secondary prevention of cancer.
4. Classification of esophageal cancer according to TNM.
5. Morphological classification of esophageal cancer.
6. Clinical picture of esophageal cancer depending on location.

7. Diagnosis (standards) of esophageal cancer.
8. Treatment tactics (standards) for esophageal cancer.
9. Prognosis factors for esophageal cancer.
10. Clinical observation for esophageal cancer
11. Rehabilitation of patients with esophageal cancer.
12. Morbidity and mortality from stomach cancer in the world, Russia.
13. Factors influencing the development of stomach cancer.
14. Active detection of stomach cancer: preventive examinations, questionnaire method, gastrofluorography , formation of high-risk groups.
15. Background and precancerous diseases of the stomach.
16. Pathological anatomy of stomach cancer.
17. Early stomach cancer.
18. Ways of spread of stomach cancer.
19. Classification of cancer according to the TNM system.
20. Clinical manifestations of stomach cancer (symptoms of early and late stages of cancer).
21. Features of clinical manifestations depending on the localization of the tumor process in the stomach. Clinical forms of stomach cancer.
22. Features of the course of gastric cancer in young people.
23. Stomach cancer in the elderly.
24. Diagnosis of stomach cancer.
25. Differential diagnosis of stomach cancer.
26. Complications of stomach cancer.
27. Treatment of stomach cancer.
28. Clinical observation for stomach cancer
29. Rehabilitation of patients with stomach cancer.

Questions for module No. 6

1. Types and methods of irradiation.
2. The place of radiation therapy in the treatment of cancer.
3. Radiation therapy in the combined treatment of malignant tumors.
4. Goals of intraoperative radiotherapy.
5. Prevention and treatment of post-radiation complications.
6. Principles of clinical chemotherapy.
7. Objectives of neoadjuvant chemotherapy.
8. Principles and criteria for the effectiveness of adjuvant chemotherapy.
9. Objectives of adjuvant chemotherapy.
10. Objectives of hormone therapy.
11. Groups of hormonal agents and their mechanism of action, hormonocytostatics .
12. Targeted drugs (molecularly targeted) and their use in the treatment of cancer .

Questions for module No. 7

1. Radiation anatomy of the liver and bile ducts.
2. Radiation methods for studying the morphology and function of the liver and biliary tract.
3.Diagnostic capabilities in the study of the liver and biliary tract.
4. Methods of artificial contrast for X-ray examination of the gallbladder (cholecystography, cholegraphy , cholangiography).
5. Diseases of the liver and biliary tract.
6. Benign tumors and malignant tumors of the liver and biliary tract.

Questions for module No. 8

1. Radiation anatomy of the kidneys and urinary tract.
2.Diagnostic capabilities of ultrasound in identifying pathology of the urinary system.

3.Methods of X-ray examination of the urinary tract.
4.Method of intravenous excretory urography.
5.Method of ascending (retrograde) pyelography.
6.Diagnostic capabilities of computed tomography in the study of excretory organs.
7.Diagnostic capabilities of magnetic resonance imaging in the study of excretory organs.
8. Benign tumors and malignant tumors of the kidneys and urinary tract.
9. Diseases of the kidneys and urinary tract.

Questions for module No. 9

1. Radiation anatomy of the uterus and ovaries.
2. Radiation research methods in obstetrics and gynecology.
3. Radiation anatomy of the mammary gland.
4. Radiation picture for breast cancer.
5. Radiation picture for mastopathy, mastitis.
6. Tuberculosis of the internal female genital organs.
7. Malformations of the uterus and vagina.
8. Benign tumors and malignant tumors of the female genital organs.

Questions for module No. 10

1. X-ray anatomy of the ear.
2. X-ray anatomy of the nose, nasopharynx and paranasal sinuses.
3. Age-related patterns of the nose, nasopharynx and paranasal sinuses.
4. Ear diseases .
5. Diseases of the nose, nasopharynx and paranasal sinuses.
6. Diseases of the eye and orbit.
7. Benign and malignant tumors of ENT organs.
8. Diseases of the thyroid and parathyroid glands .

Questions for module No. 11

1. X-ray anatomy , methods of studying the maxillofacial region.
2. Radiation diagnostics, diseases of the maxillofacial region.
3. Radiation diagnostics of benign tumors of the maxillofacial region.

Radiation diagnostics of malignant tumors of the maxillofacial region.

Questions for testing

1. In what year were X-rays discovered, what they are, their properties.
2.Radioactivity, radioactive radiation and their characteristics.
3.Structure of the atom and atomic nucleus.
4. Interaction of ionizing radiation with atoms of matter.
5. The structure of the atom and the periodic system of elements D.I. Mendeleev.
6. Natural radiation and its components.
7.Activity, units of activity.
8. Units of dose of penetrating radiation and dosimetry methods.
9.Artificial radioactivity, radioactive isotopes and their production. Who owns the discovery of artificial radioactivity?
10.Methods for recording radiation, design of gas-discharge and scintillation detectors.
11. Thermography or thermal imaging techniques, the principle of obtaining images.
12. Ultrasound diagnostic technique, principle of image acquisition.
13. Classification of X-ray examination methods, principle of obtaining images.
14. Basic methods of x-ray examination, the principle of obtaining images.
15.Additional methods of x-ray examination, the principle of obtaining images.
16.Special methods of x-ray examination, the principle of obtaining images.
17.Computer tomography and its diagnostic capabilities, the principle of obtaining images.
18. Magnetic resonance imaging and its diagnostic capabilities, the principle of obtaining images.
19.Radionuclide diagnostics, fundamentals and capabilities, principle of image acquisition.
20. X-ray surgical methods of diagnosis and treatment.
21.Ultrasound diagnostics, its types, diagnostic capabilities, principles of image

acquisition.
22. Radiation anatomy of the lungs.
23. Basic methods of x-ray examination of the lungs.
24. Basic radiological syndromes of lung pathology in X-ray images.
25. Extensive darkening of the pulmonary field syndrome.
26.Syndrome of extensive clearing of the pulmonary field.
27. Syndrome of limited darkening of the pulmonary field.
28.Syndrome of limited clearing of the pulmonary field.
29. Syndrome of a rounded shadow in the pulmonary field.
20.Ring-shaped shadow syndrome in the pulmonary field.
21.Syndrome of limited dissemination in the pulmonary fields.
22. Syndrome of widespread dissemination in the pulmonary fields.
23. Syndrome of focal shadows in the pulmonary field.
24. Radiation research techniques used to recognize bronchial pathology.
25. Bronchial obstruction syndrome.
26. X-ray diagnosis of pneumonia.
27. Classification of pneumonia.
28. X-ray diagnosis of lung abscess.
29. Classification of pleurisy. X-ray diagnosis of effusion pleurisy.
30. X-ray diagnosis of pneumothorax and atelectasis.
31. X-ray diagnosis of primary pulmonary tuberculosis complex.
32. X-ray diagnosis of tuberculous bronchoadenitis.
33. X-ray diagnosis of disseminated pulmonary tuberculosis.
34. X-ray diagnosis of focal pulmonary tuberculosis.
35. X-ray diagnostics of the infiltrative-pneumonic form of pulmonary tuberculosis.
36. X-ray diagnosis of pulmonary tuberculoma .
37. X-ray diagnosis of the cavernous form of pulmonary tuberculosis.
38. X-ray diagnostics of the fibrous-cavernous form of pulmonary tuberculosis.
39. The role of fluorography in the detection of pulmonary tuberculosis.
40. The role of tomography in identifying pulmonary tuberculosis.
41. Classification of lung tumors.
42. X-ray diagnosis of central lung cancer.
43. X-ray diagnosis of peripheral lung cancer.
44. X-ray diagnosis of pulmonary echinococcus.
45. Radiation anatomy of the heart. Arcs of the cardiac contour in direct and oblique projections.
46.What are the arcs of the cardiac circuit. Which parts of the heart and blood vessels form the arches in the anterior projection.
47.Which parts of the heart correspond to each arch in the first and second oblique positions.
48.What is the X-ray picture of mitral heart defects.
49.What is the X-ray picture of aortic heart defects?
50. X-ray diagnosis of myocardial lesions.
51. X-ray diagnosis of pericardial lesions.
52.Diagnostic capabilities of ultrasound in identifying pathology of the heart and great vessels.
53.What are the methods for studying the great vessels and indications for them.
54.What are the methods for studying peripheral vessels and indications for them.
55. Radiation anatomy of the esophagus.
56. Radiation techniques for studying the digestive canal, artificial contrast of the gastrointestinal tract.

57. Oncology, radiation therapy of foreign bodies of the esophagus.
58. Diverticula of the esophagus, their classification and x-ray picture.
59. X-ray diagnosis of esophageal achalasia .
60. X-ray diagnosis of esophageal burns.
61. Macromorphological forms of esophageal cancer, their X-ray diagnosis.
62. X-ray semiotic signs of tumors of the gastrointestinal tract.
63. Radiation anatomy of the stomach.
64. Radiation techniques for studying the stomach.
65.What data on the morphology of the stomach can be obtained by x-ray examination.
66. X-ray diagnosis of gastritis.
67.What are the direct radiological signs of gastric and duodenal ulcers?
68.What are the indirect radiological signs of gastric ulcer.
69. X-ray diagnosis of complications of gastric and duodenal ulcers.
70. X-ray diagnosis of stomach cancer.
71. Methodology for studying the large intestine.
72. X-ray diagnosis of colon tumors.
73. X-ray diagnosis of acute intestinal obstruction.
74. Radiation anatomy of the kidneys and urinary tract.
75Diagnostic capabilities of ultrasound in identifying pathology of the urinary system.
76.Methods of X-ray examination of the urinary tract.
77.Method of intravenous excretory urography.
78.Method of ascending (retrograde) pyelography.
79.Diagnostic capabilities of computed tomography in the study of excretory organs.
80.Diagnostic capabilities of a magnetic resonance imaging scanner in the study of excretory organs.
81. Radiation anatomy of the uterus and ovaries.
82. Radiation research methods in obstetrics and gynecology.
83. Radiation anatomy of the mammary gland.
84. Radiation picture for breast cancer.
85. Radiation picture for mastopathy, mastitis.
86. Radiation anatomy of the liver and bile ducts.
87. Radiation methods for studying the morphology and function of the liver and biliary tract.
88.Diagnostic capabilities in the study of the liver and biliary tract.
89. Methods of artificial contrast for X-ray examination of the gallbladder (cholecystography, cholegraphy , cholangiography).
90. Radiation anatomy of bones and joints.
91.X-ray features of the image of bones and joints in children.
92. Radiation methods for studying bones and joints.
93. Age-related features of bones and joints during radiation studies.
94.Possibilities of radionuclide diagnostics in studies of bones and joints.
95.Osteoporosis syndrome.
96.Osteosclerosis syndrome.
97. Types of fractures, x-ray diagnosis of fractures.
98. X-ray diagnosis of dislocations and subluxations.
99. Features of fractures in childhood.
100.Healing of fractures in x-ray image.
101. Oncology, radiation therapy of acute and subacute (chronic) hematogenous osteomyelitis.
102. Oncology, radiation therapy of traumatic osteomyelitis.
103. X-ray diagnosis of tuberculous spondylitis.

104.0 Oncology, radiation therapy of benign bone tumors.
105. Oncology, radiation therapy of malignant bone tumors.

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Department of Radiation Diagnostics with Radiation Therapy and Oncology
Faculty/Specialty Dentistry **Course/Year of study 5**
Discipline : Oncostomatology and radiation therapy.

TASK No. 1
Woman, 41 years old.
Complaints of intermittent aching pain in the left shoulder joint. Anamnesis. The pain continues for two months and does not increase.
Objectively. Movements V shoulder joints Not limited. Deformations No. Soft fabrics are not changed.
On radiographs of the left shoulder joint in two projections in the proximal epimetaphysis brachial bones rounded lytic destruction With clear contours until 3 cm in diameter with small calcifications .

Your conclusion:
Brodie's abscess (chronic osteomyelitis).
Codman's tumor (chondroblastoma).
Arthrosis of the shoulder
joint. Tuberculosis.

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Department of Radiation Diagnostics with Radiation Therapy and Oncology
Faculty/Specialty Dentistry **Course/Year of study 5**
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TASK No. 2

Boy, 11 years old.

Complaints of pain in the right half of the chest, swelling above the right collarbone, periodic increases in temperature up to 38 degrees. Anamnesis. After suffering from a sore throat, pain appeared in the chest, and 2 weeks later a swelling appeared above the collarbone. The blood test shows inflammatory changes.

Objectively. Swelling without clear boundaries above the right collarbone, painful on palpation.

X-rays of the chest in two projections show a large homogeneous rounded node occupying the upper third of the right hemithorax , the pulmonary pattern is enhanced under the node. On a "hard" radiograph of the chest in a direct projection - in the first right rib on everyone throughout finely focal mixed character destruction with linear periosteal reaction along the upper contour ribs

Your conclusion:

Ewing's sarcoma of the first right rib.

Acute hematogenous osteomyelitis.

Tumor of the mediastinum.

Tuberculoma .

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Department of Radiation Diagnostics with Radiation Therapy and Oncology
Faculty/ Specialty Dentistry **Course/Year of study 5**
Discipline : Oncostomatology and radiation therapy.

TASK No. 3
Male, 70 years old.
Complaints of increasing bone pain. Anamnesis. Two months ago, pain appeared in the lumbar spine, followed by pain in the hip joints, back, ribs, and shoulder joints. Weakness appeared. Objectively. Right-sided scoliosis in the thoracic spine. Pain on palpation in the spinous processes of the vertebrae. Blood tests show anemia.

X-rays of the spine, pelvis, and humerus show multiple round, dense lesions up to 1 cm in diameter with clear contours. Dystrophic changes in the joints and spine. Systemic osteoporosis. Right-sided scoliosis in the thoracic spine.

Your conclusion:
Prostate cancer metastases.
2. Multiple myeloma.
Paget's disease (osteodystrophy).
Multiple osteomas.

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Department of Radiation Diagnostics with Radiation Therapy and Oncology
Faculty/ Specialty Dentistry **Course/Year of study 5**
Discipline : Oncostomatology and radiation therapy.

TASK No. 4

Woman, 52 years old.

Complaints of intermittent bone pain, increasing weakness, loss of appetite, weight loss. Anamnesis. Pain bother V flow latest three months, V last month, weakness increases, appetite worsens, weight loss... Objectively . Full range of joint movements. There is no pain on palpation. The configuration of the bones is not disturbed. Blood test shows anemia, high ESR - up to 65 mm/hour.

X-rays of the ribs, pelvis, skull, spine, long tubular bones show multiple round lytic destructions with clear contours in all bones, anterior wedge-shaped deformities of the lower thoracic vertebrae.

Your conclusion:

Metastases from an undetected primary site.

Multiple myeloma.

Fibrous dysplasia.

Recklinghausen's disease (hyperparathyroid osteodystrophy).

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Department of Radiation Diagnostics with Radiation Therapy and Oncology
Faculty/ Specialty Dentistry **Course/Year of study 5**
Discipline : Oncostomatology and radiation therapy.

TASK No. 5

Boy, 11 years old.

Complaints of severe pain and swelling in the right knee joint. Anamnesis. After injury three weeks back appeared pain V right knee joint Contacted To surgeon, treated for bruise alcohol compresses. Pain grew, at night wakes up from pain takes analgesics. A week ago, a swelling of the knee joint appeared and is increasing.

Objectively. The right leg is bent at the knee joint, movements are limited and painful. The tumor on the inner surface of the knee joint is 5x6 cm dense, immobile, moderately painful.

On radiographs right knee joint V two projections – V distal metaphysis of the right femur in the internal semi-cylinder, lytic destruction with fuzzy, uneven contours, extending to half of the metaphysis and limited to the growth zone with cloud-like ossification up to 1 cm in diameter against its background. The cortical layer is disintegrated along the inner surface throughout the metaphysis , the periosteal reaction is in the form of short frequent thin " spicules ", exfoliated periostosis . There are a few small ossifications in the area of the altered cortex. Osteoporosis of bones forming joint.

Your conclusion:

1. Chronic osteomyelitis of the right femur.
2. **Osteogenic sarcoma.**
3. Ewing's sarcoma .
4. Syphilis.

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Department of Radiation Diagnostics with Radiation Therapy and Oncology
Faculty/ Specialty Dentistry **Course/Year of study 5**
Discipline : Oncostomatology and radiation therapy.

TASK No. 6

A 37-year-old patient was admitted with complaints of a mass in the right hypochondrium and a feeling of heaviness there. It is known that she tested the formation on her own three months ago. Upon examination, a slight deformity of the abdomen was revealed due to bulging of the right parts. Immediately below the edge of the liver, a round-shaped formation of soft-elastic consistency with fuzzy contours, painless, is palpated. Mobility his limited, dimensions 10x12 cm. At irrigoscopy installed compression and pushing of the ascending colon anteriorly and medially . There were no signs of infiltration of the intestinal walls in the area of displacement. Ultrasound in the abdominal cavity reveals an anechoic , mobile, round formation with clear, even contours and a thin capsule. Located education top pole under right shares liver, A lower
- at the level of the aortic bifurcation. Inside the formation with color Doppler mapping vessels Not are determined. At computed tomography examination in the right half of the abdominal cavity reveals an encapsulated liquid formation homogeneous structures, density 3 unit N. Located education So, which occupies almost the entire anterior -posterior size of the right half of the abdominal cavity. The upper contour of the formation borders the lower surface of the right lobe of the liver. The right bend of the colon is located along the anterior surface of the formation. The lower border of the formation is located 4 cm above the pectineal line. Loops of thick tissue are adjacent to the lower pole of the formation. intestines.

Your conclusion:
Colon cancer
2. Cancer kidneys
3. Non-organ retroperitoneal cyst.
4. Metastatic damage to the lymph nodes of the abdominal cavity

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Faculty/ Specialty Dentistry **Course/Year of study 5**
Discipline : Oncostomatology and radiation therapy.

TASK No. 7

A 68-year-old patient was admitted with complaints of chest discomfort when eating rough or spicy food, belching of air mixed with sour contents that occurs after eating, weight loss of up to 5 kg over 4 months, weakness, drooling. From the medical history it is known that the above complaints appeared during the last 5 months, when the patient first felt discomfort after eating rough food. I began to adhere to a gentle diet. Gradually hiccups and other complaints arose. Then the clinical manifestations began to intensify. From the life history: he denies occupational hazards, smoking and alcohol abuse. Among the diseases suffered: duodenal ulcer without exacerbation for 10 years. He was sent to the Institute of Surgery for examination and treatment.

X-ray examination reveals a circular filling defect in the lower third of the thoracic esophagus (retropericardial segment according to Brombart). Above the site of narrowing there is a suprastenotic expansion of the lumen of the esophagus with a diameter of before 3 cm. On border narrowed parts esophagus And unchanged walls The esophagus is located along both contours of the “step”. Above the area of narrowing there are polypoid growths measuring 10x15 mm, blocking the lumen of the esophagus. Length narrowed plot enough great, So What fill stomach barium suspension was not possible due to the threat of regurgitation . After 3.5 hours suprastenotically expanded parts esophagus identified leftovers contrasting substances and mucus.. The contrast agent uniformly impregnates the narrowed “canal” to the cardia . Its length is about 9 cm. During an endoscopic examination of the upper parts of the digestive tract, in the distal part of the esophagus at a distance of 38 cm from the incisors, there is a stenosing tumor in the form of polyp-like growths of a reddish color, above which on right wall on distance 15 mm from basic tumors available "dropout" in form polypoid growths diameter 8 mm. At CT bottom parts chest cavity and abdominal cavity, uniform thickening of the walls of the esophagus up to 9-20 mm was revealed over 45 mm cranially cardio-esophageal junction. The wall of the stomach in the proximal region is also changed: it is locally thickened to 26 mm in the area subcardia And top thirds body stomach, A Also thickened before 8-15 mm By anterior and posterior walls of the proximal stomach. The clearance in the area of the narrowed part of the esophagus ranges from 2 to 4 mm. Packets of enlarged and compacted groups of lymph nodes in the area of the small oil seal.

Your conclusion:
Esophageal varices Esophageal
diverticulum
Cancer of the proximal stomach with transition to the distal esophagus and lymphogenous metastasis to the nodes of the upper floor of the abdominal cavity.
Cancer of the lower third of the thoracic esophagus.

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Faculty/ Specialty Dentistry **Course/Year of study 5**
Discipline : Oncostomatology and radiation therapy.

TASK No. 8

A 49-year-old patient complained of girdle pain in the upper abdominal cavity, Not related With reception food And time days. Pain stopped reception 4 tablets of baralgin. I first noticed pain 2 months before treatment. An ultrasound examination of the abdominal cavity, performed 9 months before treatment , revealed cyst pancreas glands And sick was warned O safe course of the disease. However soon arose pain shingles character And sick applied to the outpatient department of the Institute of Surgery, where he was asked to conduct a CT examination of the abdominal cavities.

A CT study revealed the presence of a significant amount of fluid in the abdominal cavity, expansion of the body of the pancreas up to 27 mm, inhomogeneity of the image of the body of the pancreas and polycyclicity of its contours. The density of the parenchyma in the tail area is 12-19 units N. In the body of the pancreas, a cyst measuring 19x18 mm with a content density of 2 units of N was visualized . In the remaining parts of the body of the pancreas, areas with a density of up to 30 units of N are noted . interspersed with less dense ones: up to 21 units N. A group of enlarged and hardened lymph nodes was identified in the hepatoduodenal ligament. In addition, infiltrative changes were detected around the aorta throughout the origin of the celiac trunk to the level of the left renal pedicle, including the beginning of the mesenteric artery. Due to infiltrative changes in this area, the contour of the aorta in the anterior section could not be separately identified. The left adrenal gland is enlarged.

Your conclusion:

Pancreatic body cyst
Pancreatic body cancer in combination with a body cyst, complicated by lymphatic metastasis to the nodes of the lesser omentum, ascites, damage to the left adrenal gland and infiltration of the para-aortic region.
Chr. pancreatitis
Lymphadenopathy of the retroperitoneum.

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Department of Radiation Diagnostics with Radiation Therapy and Oncology
Faculty/ Specialty Dentistry **Course/Year of study 5**
Discipline : Oncostomatology and radiation therapy.

TASK No. 9

A 55-year-old patient was admitted with complaints of headache. A month before admission, during an examination in one of the medical institutions, an ultrasound and CT scan of the abdominal cavity revealed a tumor of the left kidney. It is known that the patient has been suffering from urolithiasis for 3 years. Upon admission, palpation on the left in the meso- and hypogastrium reveals a tumor-like formation measuring 14x15 cm, densely elastic consistency, limited mobility, painless, with clear contours. During SCT with bolus intravenous administration of a non-ionic contrast agent, a volumetric formation of a round shape with dimensions of 13x14x20 cm is determined in the retroperitoneal space on the left. The density of the formation is uneven: along the entire length of the image, areas of low density (11-13 units N) alternate with areas with a density of about 33 units N . Areas of low density do not accumulate contrast material, unlike areas of high density. The upper pole of the formation is located between lower pole spleen, tail pancreas glands And the upper pole of the left kidney. In the distal direction, the formation is located along the lateral edge of the left kidney, displaces it medially and deforms.

The kidney is partially spread out on the formation. There is a small calculus in the lower calyx . The kidney parenchyma accumulates the contrast agent to a sufficient extent. In the distal direction, the pathological formation deforms the psoas muscle and displaces the intestinal loops forward and to the right.

Your conclusion:
Colon cancer
Kidney cancer
Urolithiasis disease
Non-organ retroperitoneal tumor, left kidney calculus.

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Department of Radiation Diagnostics with Radiation Therapy and Oncology
Faculty/ Specialty Dentistry **Course/Year of study 5**
Discipline : Oncostomatology and radiation therapy.

TASK No. 10
Male 48 years old.
Complaints: pain in the right shoulder joint, weakness, cough.

History: pain in the right shoulder joint first appeared 3 months ago after physical activity, I was self-medicating, the pain became more intense, a cough appeared, and weakness began to increase. He was examined at the clinic at his place of residence, and pathology was detected in the lung.
Objectively: the condition is satisfactory, the range of movements in the right shoulder joint is sharply limited, pain is expressed on palpation. Horner's sign (ptosis , miosis , enophthalmos).
Auscultation : weakened breathing in the upper part of the right lung.

X-ray picture: in the apical segment of the upper lobe of the right lung there is a nodular formation 4 cm in diameter, of heterogeneous structure, closely adjacent to the chest wall, with destruction of the posterior segment of the second rib over 3 cm, the apical pleura is unevenly thickened, the angles formed with it are sharp, the lower border is convexly directed downwards, the surface is finely lumpy with radiant contours. Enlarged lymph nodes in the root zone and mediastinum are not detected.

Your conclusion:
Tuberculoma .
Pencoast cancer .
Tumor of the
pleura.
Apical encysted pleurisy.

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Discipline : Oncostomatology and radiation therapy.

TASK No. 11

Male 53 years old.

Complaints: cough, hemoptysis, pain in the right side of the chest, weakness. History: he considers himself sick for three months, when a cough, temperature up to 38, and weakness appeared. Anti-inflammatory therapy was administered at the clinic for pneumonia. The condition improved, the temperature returned to normal, but fluorography revealed pathology in lung

Objectively: the general condition is satisfactory, percussion - on the right back at the level of the angle of the scapula there is a percussion sound with a boxy tint, auscultation - hard breathing.

At X-ray research V apical segment bottom shares (S6) of the right lung, a cavity formation 4.0 x 5.0 cm with unevenly thickened walls. The internal contours of the cavity are bay-shaped , undermined. The outer contours are indistinct, radiant, the surface is coarsely lumpy. A tomographic examination reveals the draining bronchus (B6), its walls are uneven, the lumen is unevenly narrowed. In the root zone, enlarged lymph nodes up to 1.5-2.0 cm. Contrasted with bariumthe esophagus at the level of the tracheal bifurcation is pushed to the left and posteriorly

Your conclusion:

Acute lung abscess.

Cavity form of peripheral cancer .

Tuberculoma with decay.

Echinococcosis of the lung.

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Department of Radiation Diagnostics with Radiation Therapy and Oncology
Faculty/ Specialty Dentistry **Course/Year of study 5**
Discipline : Oncostomatology and radiation therapy.

Woman 54 years.

Complaints: cough with copious sputum, malaise, shortness of breath, chest pain, weakness.

History: she fell ill 6 months ago, after suffering an acute respiratory infection, she began to notice a cough with sputum, the cough gradually intensified, and the amount of sputum discharge increased . Later, weakness and chest pain began, and she gradually lost weight. Objectively: state average heaviness, reduced nutrition. Skin covers pale, light acrocyanosis . Dyspnea before 36hd V min , pulse 116 beats/min, HELL 150/90. At percussion: in the lower parts of the lungs there is an uneven shortening of the percussion sound. Auscultation : different-sized wet wheezing.
The ECG shows the load on the right side of the heart.

On X-ray examination, in the lower lobes of the lungs on both sides and in the middle lobe on the right, there are areas of heterogeneous infiltrative compaction of the lung tissue of irregular shape in places with unclear contours, infiltration from the middle lobe on the right through the interlobar fissure spreads to the anterior segment of the upper lobe, and on the left - to the lingular segments. Against the background of compaction, the lumens of the lobar and segmental bronchi can be traced. No enlarged lymph nodes are detected in the root zones and mediastinum.

Your conclusion:

1. Bilateral pneumonia
2. **Bronchiolo-alveolar cancer.**
3. Swelling lung
4. Infiltrative pulmonary tuberculosis.

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Department of Radiation Diagnostics with Radiation Therapy and Oncology
Faculty/ Specialty Dentistry **Course/Year of study 5**
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TASK No. 13

Male 56 years old.

Complaints of cough, periodic hemoptysis, weakness, weight loss, pain in the left half of the chest.

Anamnesis: V flow 1.5 months worries annoying, gradually increasing cough, and in recent days hemoptysis has occurred. I lost 5 kg. Shortness of breath appeared during physical activity load.

Objectively: satisfactory condition, blood pressure 130/85 mm Hg Art ., pulse 86 beats/min, respiratory rate 24. Auscultation on the left in the upper part of the weakened vesicular breathing.

On X-ray examination, the upper lobe of the left lung is reduced in volume, heterogeneously compacted, the pulmonary pattern is condensed. The upper lobe bronchus is conically narrowed, its walls are uneven. The interlobar pleura is displaced upward. There are enlarged lymph nodes in the root zone and under the aortic arch.

Your conclusion:

Infiltrative tuberculosis. Acute
pneumonia.
Central cancer .
TELA.

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Department of Radiation Diagnostics with Radiation Therapy and Oncology

Faculty/ Specialty Dentistry **Course/Year of study 5**
Discipline : Oncostomatology and radiation therapy.

TASK No. 14
Woman 53 years old.
Complaints: constant coughing, weakness, shortness of breath on exertion.
History: deterioration in health has been noted for 3 months; after a cold, a cough and low-grade fever appeared. Anti-inflammatory treatment was carried out at the place of residence, the cough decreased, but did not completely disappear. Weakness and shortness of breath gradually developed. From the anamnesis: 12 years ago a radical mastectomy was performed on the right, followed by chemotherapy treatment. Once a year he undergoes control examinations at the oncology clinic .
Objectively: the condition is satisfactory, the skin is of normal color, shortness of breath up to 24 beats per minute, tachycardia up to 92 beats per minute. Auscultation in the lungs reveals weakened vesicular breathing, no wheezing is heard.

On X-ray examination, the pulmonary pattern on both sides is strengthened and deformed, against this background there are small pockets of compaction in the cortical sections. Their number increases from the tops to the diaphragm. The roots of the lungs are expanded and heavy . The sinuses are free.

Your conclusion:
Disseminated pulmonary tuberculosis. Sarcoidosis .
Lymphohematogenous metastases.
Exogenous allergic alveolitis .

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Department of Radiation Diagnostics with Radiation Therapy and Oncology
Faculty/ Specialty Dentistry **Course/Year of study 5**
Discipline : Oncostomatology and radiation therapy.

TASK No. 15

Male 45 years old.

He believes that he has been ill for 2 months when pain appeared in the lumbar region on the left. Objectively: in the left hypochondrium the lower edge kidneys Deviations V analyses: blood- ESR thirty mm/hour, V analysis urine fresh red blood cells 10-15 V p/ zr .

Data CT research: left bud increased V sizes, lateral contour V average thirds bulges behind check volumetric education diameter 4 cm. Density of formation 32 units, density of kidney parenchyma 35 units. The boundary between the formation and the renal parenchyma is not determined. In the education center area reduced density (25 units), With uneven, unclear contours. The renal sinus is deformed. With IV enhancement, the formation accumulates contrast agent up to 80 units, kidney parenchyma up to 70 units. In the center of the formation there is an area that poorly accumulates contrast agent (35 units). In the delayed phase: the excretory function of the kidney is preserved, the middle calyx deformed.

Your conclusion:

Kidney cancer.

Benign kidney tumor cyst.

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Department of Oncology, Radiation Therapy and Radiation Therapy with Oncology
Speciality: 05/31/03 Dentistry

Practical skills plan

Descriptions of chest radiographs.

1. What kind of study is this and in what projection was the radiograph taken?
2. Indicate whether a contrast agent was used for the study, if (yes) – That which. How is it distributed in the anatomical structure being studied? (evenly, are there any pathological accumulations, leaks, etc.).
3. Compare the size and shape of the left and right halves of the chest, as well as the degree of transparency of the lung fields (is there hypoventilation , hyperventilation).
4. Compare the state of the symmetrical sections of the lungs and decide whether there are darkening, clearing, or a combination of them.
5. Determine the location of the observed changes in the pulmonary fields, if any (in the medial or lateral, upper, middle or lower pulmonary field, at the apex of the lung, at the level of which ribs), as well as the magnitude. Shape, state contours, uniformity, shadows, its intensity.
6. Determine the state of the pulmonary pattern (unchanged or changed). If there are changes, then what (strengthening, depletion, deformation) and where - (totally, locally – specify localization).
7. Describe the condition of the roots of the lungs - is the structure preserved? or no expansion, are there additional shadows against the background of their projection (if yes, then give a description of these shadows.
8. Give a description of the position of the mediastinal organs: is there a displacement of them, if so, in which direction (towards healthy, towards pathological changes0 and to what extent.
9. Determine which group of pathology the changes belong to: diseases of the lungs, bronchial tree, pleura.
10. Give your conclusion.

Descriptions of radiographs of bones and joints.

1. What and in what projection is shown on the x-ray?
2. Define:

- is there a violation of the position, size, shape of the bone?
- are there changes in the intensity of the shadow of the bone and a violation of its structure (osteoporosis , osteosclerosis, destruction, osteonecrosis , sequestration).
- where the pathological process is localized (epiphysis, metaphysis , diaphysis), its magnitude,

form.

- state of the contours of the pathological shadow (in the presence of periosteal changes - clarify their character) .
- the state of the x-ray joint space (is there a change in shape, width) .
-condition of soft tissues in the area of pathological changes

3. Indicate whether the study was performed using a contrast agent

(If

yes, then with which one) .

4. Determine which group of pathologies the changes shown on the x-ray belong to.
5. Date your conclusion.

Descriptions of radiographs of the digestive organs .

1. What is shown and in what projection was the radiograph taken?
2. What contrast agent was used in the study, and how was it administered?
3. after the administration of the contrast agent was the radiograph taken? (immediately, after 30 minutes, after 1 hour, after 12 hours).
4. Determine if there are changes in the position, shape or size of the completed section of the digestive tract.
5. Determine whether there is a change in the size of the lumen of the area under study (expansion, narrowing).
6. Indicate whether there are niches, local protrusions, or filling defects in the section of the digestive tract being examined. Describe the localization in detail,

form

these changes, the state of their contours (clear - fuzzy, smooth - uneven).

7. Describe the state of the folds of the mucous membrane (thinning, thickening, incorrect location, breakage, convergence).
8. To what group of pathology do the detected changes belong?
9. Give your conclusion.

Descriptions of radiographs of the spine.

1. Area of research.
2. Projection of the image (direct, lateral, oblique, others).
3. Image quality assessment (physical and technical characteristics: optical

density,
contrast, image sharpness, absence of artifacts and veils).
4. Condition of soft tissues, especially para- prevertebral tissues (shape , volume, intensity and structure of the shadow).
5. The severity of physiological (lordosis , kyphosis) and the presence of pathological (scoliosis, kyphosis) bends.
6. Vertebral condition:
   - body (position , shape, size , contours, structure, ossification nuclei in young people).
   - arches (position , shape, size , contours, structure).
   - processes ((position, shape, size , contours, structure of the ossification nucleus in young people).
7. Condition of the intervertebral joints (facet joints , uncovertebral joints; in the thoracic region – costovertebral and costotransverse).
8. Condition of intervertebral discs (X-ray intervertebral spaces) -
shape, height, shadow structure.
9. Condition of the spinal canal (shape and width).
10. Condition of other visible parts of the skeleton.
11. X-ray morphometry (for functional studies, scoliosis, etc.).
12. X-ray (clinical -radiological) conclusion.
13. Recommendations.

Descriptions of radiographs of the skull.

1. Projection (overview and special).
2. Assessment of the correctness of installation (according to criteria for each projection).
3. Assessment of image quality (physical and technical characteristics: optical density, contrast , image sharpness, absence of artifacts and
veils).
4. Overall shape and size of the skull.
5. Correlation between the brain and facial regions.
6. Condition of the soft tissues of the skull (shape, volume, intensity and structure of the shadow) .
7. Condition of the cranial vault (shape and size, thickness and structure of bones, condition of the outer and inner plates and spongy layer, position and condition
sutures, condition of vascular grooves, venous outlets, pachyonic fossae, severity of “finger impressions,” pneumatization frontal sinuses) .
8. Condition of the skull base (configuration and dimensions, boundaries and contours of the anterior, middle and posterior cranial fossae, dimensions of the angles of the skull base, condition
sella turcica, pneumatization of bones, condition of natural openings in the area
base of the skull and pyramids of the temporal bones) .
9. Presence of calcifications in the skull area and analysis of their shadows (physiological
or pathogenic) .
10. General overview of the facial part of the skull (shape, size) .
11. Condition of soft tissues in the area of the facial skull (shape, volume, intensity and structure of the shadow) .
12. Condition of the eye sockets (shape, size, contours).

13. The nasal cavity and pyriform opening (position, shape, size , pneumatization , condition of the nasal turbinates) .
14. State of the cells of the ethmoid labyrinth (position, shape, size , contours, pneumatization) .
15. Condition of the maxillary sinuses (position, shape, size , contours, pneumatization) .
16. The condition of the visible parts of the jaws and teeth.
17. X-ray morphometry .
18. X-ray (clinical- radiological) conclusion.
19. Recommendations.

Descriptions of radiographs of the urinary system.

1. Conditions of the study (type, concentration, quantity and method of administration of contrast agent, projection and sequence of images:
position
patient, breathing tests, etc. conditions).
2. Assessment of image quality (quality of patient preparation for examination, physical Specifications 6: optical density, contrast, image sharpness,
absence of artifacts).
3. The condition of the visible parts of the skeleton.
4. Condition of soft tissues and neighboring organs.
5. Contours of the psoas major muscles, compared on both sides (determined
or
no, even - uneven, clear - not clear). 6.Position of the kidneys.
7. Kidney shape. 8. Kidney sizes.
9. Kidney contours.
10. Intensity and structure of the bud shadow.
11. The presence of additional shadows in the projection of the urinary tract and other organs of the retroperitoneal space and abdominal cavity, suspicious for
stones,
petrificates , tumors , etc.
12. Comparative assessment of the release of contrast agent by the kidneys (timing and severity of the nephrographic phase, timing and nature of filling the abdominal cavity with contrast systems) .
13. Position, shape and size of the cups and pelvis.
14. The position, shape, contours and width of the lumen of the various parts of the ureters.
15. The degree and nature of filling of the ureters with a contrast agent.
16. Position, shape, size of the bladder.
17. Contours and structure of the bladder shadow.
18. X-ray (clinical- radiological) conclusion. 19.Recommendations.

Descriptions of radiographs of the heart and large vessels.

1. What kind of study is this and in what projection was the radiograph taken?
2. Indicate whether a contrast agent was used for the study, and if so, what kind. How is it distributed in the anatomical structure under study (evenly, are there pathological accumulations, streaks, etc.).
3. Compare the size and shape of the left and right halves of the chest, as well as the degree of transparency of the lung fields (is there hypoventilation , hyperventilation).
4. Compare the state of the symmetrical sections of the lungs and decide whether there are darkening, clearing, or a combination of them.
5. Determine the location of the observed changes in the pulmonary fields, if any (in the medial or lateral, upper, middle or lower pulmonary field, at the apex of the lung, at the level of which ribs), as well as the magnitude. Shape, state of contours, uniformity, shadows, its intensity.
6. Determine the state of the pulmonary pattern (unchanged or changed). If there are changes, what kind (strengthening, depletion, deformation) and where - (totally, locally - clarify localization).
7. Give a description of the condition of the roots of the lungs - is the structure preserved, is there expansion or not, are there additional shadows against the background of their projection (if yes, then give a description of these shadows.
8. Give a description of the position of the mediastinal organs:
9. Its position in the chest (only for heart defects).
10. Characteristics of the cardiac waist, heart configuration in mitral and aortic defects .
11. Diameter of the heart: the ratio of the right and left diameter.
12. Condition of the heart chambers.
13. Characteristics of heart contractions during research behind the screen (depth, rhythm).
14. Is there a displacement of them, if so, in what direction (towards healthy, towards pathological changes0 and to what extent.
15. Condition of the aorta.
16. Determine which group of pathology the changes belong to: diseases of the heart or aorta.
17. Give your conclusion.

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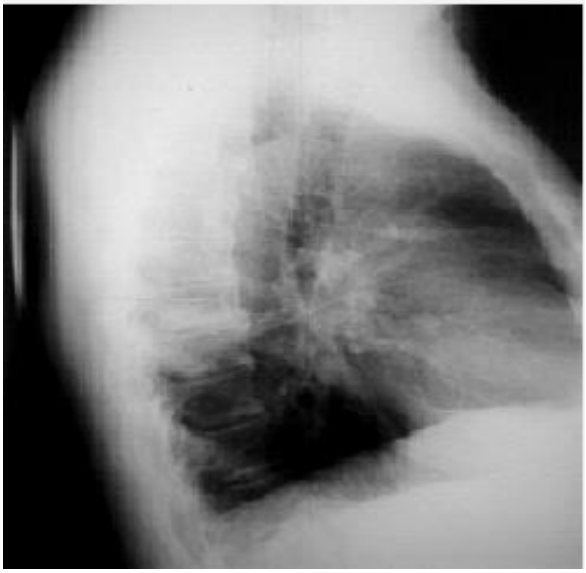
Faculty/ Specialty Dentistry **Course/Year of study 5**
Discipline : Oncostomatology and radiation therapy.

Practical task No. 1

Protocol. Describe the radiograph. (central lung cancer)



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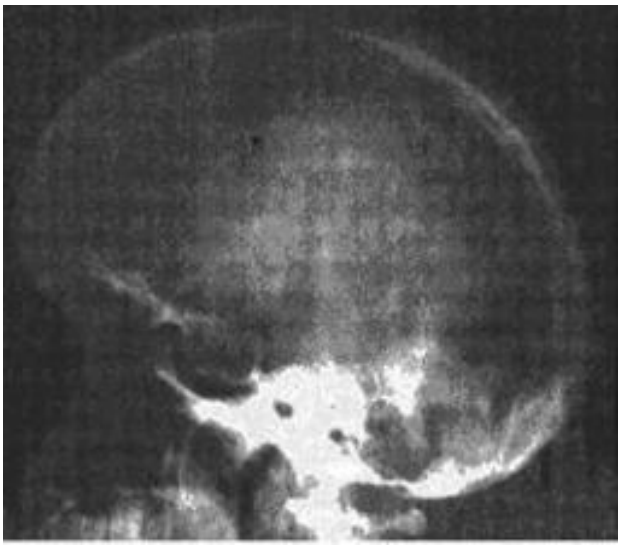
Faculty/ Specialty Dentistry **Course/Year of study 5**
Discipline : Oncostomatology and radiation therapy.

Practical task No. 2

Protocol. Describe the radiograph (pituitary adenoma)



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Practical task No. 3

Protocol. Describe the radiograph. (single fibroadenoma with lumps of lime)

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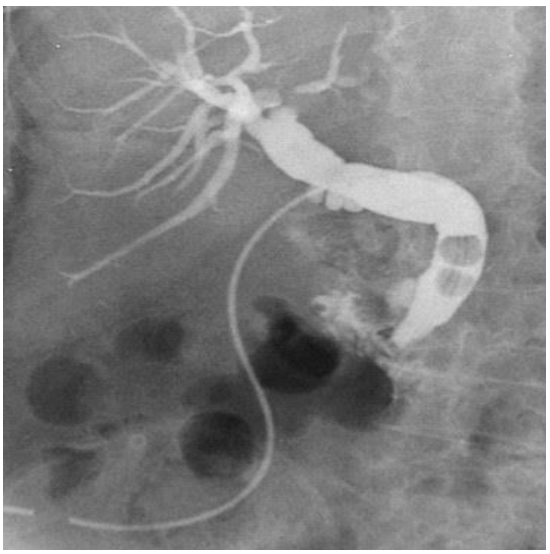
Practical task No. 4

Protocol. Describe the radiograph (cholecystolithiasis)



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Discipline : Oncostomatology and radiation therapy.

Practical task No. 5

Protocol. Describe x-ray (uterine cancer)

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Discipline : Oncostomatology and radiation therapy.

Practical task No. 6

Protocol. Describe the radiograph (urolithiasis)

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Discipline : Oncostomatology and radiation therapy.

Practical task No. 7

Protocol. Describe the radiograph (double left kidney)

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Faculty/ Specialty Dentistry **Course/Year of study 5**
Discipline : Oncostomatology and radiation therapy. **Practical task No. 8**

Protocol. Describe the radiograph (antral ulcer)

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Practical task No. 9

Protocol. Describe the radiograph (fracture-dislocation of the left hip)

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Practical task No. 10

Protocol. Describe the radiograph (osteosarcoma of the shoulder , osteoblastic variant)

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Faculty/ Specialty Dentistry **Course/Year of study 5**
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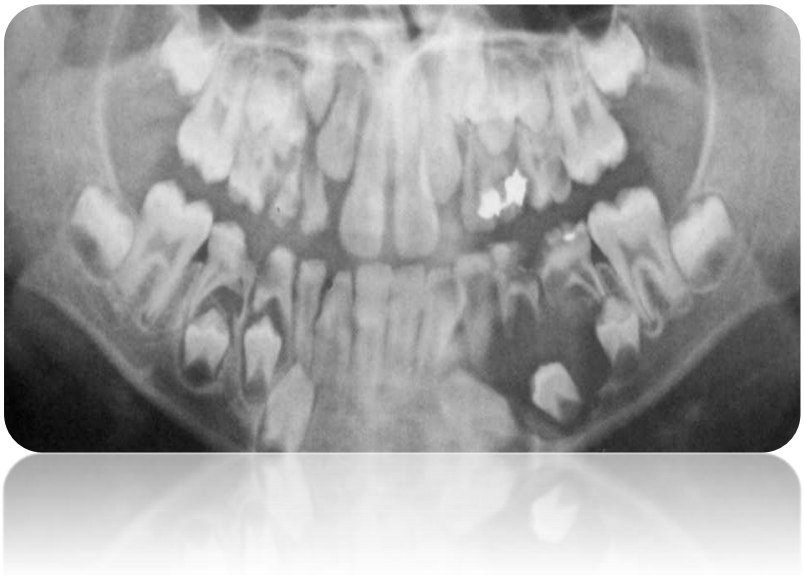
Practical task No. 11

Protocol. Describe the radiograph (follicular cyst)



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Practical task No. 12

Protocol. Describe the radiograph (phobrosarcoma)

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Business game No. 1

In the office of an oncologist, a woman with a referral from a general practitioner regarding the presence of a tumor on the skin of her forehead.

Instructions for simulating a doctor

Your task: to explain further examination tactics and offer to conduct a dermoscopic examination.

Instructions for simulating a patient

Patient: Ask your doctor about the possible risks associated with the examination and prognosis.

Important: insist on the need for a dermoscopic examination. Give arguments in favor of dermatoscopy .

Explanation:
Determine the need for a dermoscopic examination
Describe the dermoscopic picture.
Make a conclusion and refer for further examination if necessary.

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Business game No. 2

A 65-year-old man is in the oncologist's office . He came in on his own without a doctor's referral with complaints of hoarseness and difficulty breathing.

Instructions for simulating a doctor:

Your task: find out additional complaints, how many days the man considers himself sick, and what is associated with the appearance of complaints.

Instructions for simulating a patient:

Instructions for the patient: Complain about hoarseness and difficulty breathing, insist on an examination

Important: due to the lack of a doctor's referral, a preliminary diagnosis, based on the patient's complaints and examination data, determine the need for indirect laryngoscopy. Carry out differential . diagnostics.

Explanation:
Determine the need for laryngoscopic examination
Determine laryngoscopy method
Make a conclusion, refuting or confirming the assumption that the patient has cancer of the larynx.

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Business game No. 3

In the office of an oncologist (in a hospital setting) a patient with suspected intestinal obstruction.
Instructions for simulating a doctor : conduct an x-ray examination (determine the optimal projection, placement, etc.), identify x-ray signs of intestinal obstruction
Your task: describe the photo, write a conclusion
Instructions for the patient :
Describe your complaints about diffuse pain in the abdominal area, increasing over the course of three days.
Important: perform an X-ray examination and make a timely conclusion.

Explanation:
Determine the need for x-ray examination
Determine the method and projection of x-ray examination
Describe the radiograph
Give a conclusion

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Business game No. 4

In the office of an oncologist, a 40-year-old woman with a referral from the clinic for a biopsy of a left breast mass, ultrasound of the mammary glands: BI - RADS on the left - 5, BI - RADS on the right - 2.
Instructions for simulating a doctor : determine the verification method (fine-needle or core biopsy), inform the patient about further tactics
Patient simulation instructions :
Complain of malaise, pain in the left mammary gland
Your task: verify the process

Explanation:
Determine the need for process verification
Determine process verification method
Describe the result of the morphological study
Give a conclusion

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Business game No. 5

In the oncologist's office, a 70-year-old patient complains of blood in the urine, pain in the suprapubic region , with a referral from the local clinic with a preliminary diagnosis of " Z 03.1 Bladder neoplasm? Susp c - r "according to ultrasound examination data.
Instructions for simulating a doctor : collect a brief history, complaints, determine the optimal examination method.
Instructions for the patient : complain of intense pain in the suprapubic region, blood in the urine.
Your task: based on the history, complaints and preliminary diagnosis of the referring institution, determine the optimal research method .

Explanation:
Determine the need for a cystoscopic examination
Describe the conclusion of cystoscopy and the results of morphological examination
Give a conclusion

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Business game No. 6

A 30-year-old woman is in the radiologist's office with a referral from an ENT doctor for a biopsy of a mass in the nasal mucosa of the right sinus.
Instructions for simulating a doctor : determine the method and projection for the biopsy
Instructions for the patient : complain of headaches, bloody discharge from the nose, difficulty in nasal breathing on the right.
Your task: determine the method and projection for x-ray examination

Explanation:
Determine the need for a biopsy
Determine biopsy method
Describe the result of the morphological study
Give a conclusion

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Business game No. 7

In an oncology office in an oncology clinic, a 55-year-old woman is referred for an oral biopsy with a diagnosis of " Z 03.1 Oral cavity neoplasm? Susp c - r "
Instructions for the doctor : collect a brief history, complaints
Your task: perform a biopsy
Instructions for the patient : complain of bleeding from a non-healing ulcer in the mouth, pain in the area of the ulcer
Important: Carry out a differential . diagnosis of LP, stomatitis and cancer of the oral mucosa

Explanation:
Determine the need for a biopsy
Determine biopsy method
Describe the result of the morphological study
Give a conclusion

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Business game No. 8

In the oncology office, a 23-year-old woman complains of general weakness and the presence of generalized lymphadenopathy in all groups of lymph nodes.
Instructions for simulating a doctor : collect a brief history and complaints
Your task: to choose the optimal examination method in this case
Instructions for the patient : complain about general weakness and enlarged lymph nodes

Explanation:
Determine the need for a biopsy
Determine biopsy method
Describe the result of the morphological study
Give a conclusion

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Standards of test tasks

by discipline _____ Oncostomatology and radiation therapy. _____

main professional educational program of higher education - specialty program in the specialty **05/31/03 Dentistry**

, approved on May 24, 2023.

For 5th year students
(students/residents/postgraduates/listeners – select the required (course/year of study)

specialty **05/31/03 Dentistry** (code/name)

Vladikavkaz, 2023

Table of contents

No.	Name of the controlled section (topic) of the discipline/module	Code of competence (stage) being formed	Number of tests (total)	p. from __ to __
1	2	3	4	5
View control	**Ongoing progress monitoring/interim assessment**			
1.	Physical foundations of radiation therapy. Radiobiological foundations of radiation therapy Malignant and non-malignant diseases.	OPK-5 PC-1 PC-4 PK-6	**35**	**1-3**
2.	Methods radiation therapy. Radiation technical support therapy.	OPK-5 PC-1 PC-4 PK-6	**13**	**3-4**
3.	Radiotherapy planning. Pre-radiation period. Radiation period. The body's reactions to therapeutic radiation exposure. Post-radiation period. Radiation protection of organs and tissues during radiation therapy.	OPK-5 PC-1 PC-4 PK-6	**20**	**4-6**
4.	Basics of radiation therapy for malignant tumors of the maxillofacial region. .	OPK-5 PC-1 PC-4 PK-6	**10**	**8-9**
5.	Basics ray Therapy of malignant tumors of the chest and abdominal _	OPK-5 PC-1 PC-4 PK-6	**10**	**9-10**
6.	Radiation Basics therapy of malignant tumors of the central nervous system , thyroid gland, retroperitoneal space, skeletal system.	OPK-5 PC-1 PC-4 PK-6	**10**	**6-7**

*The name of the controlled section (topic) or topics (sections) of the discipline/module and the code of the competence being formed is taken from the work program of the discipline.

STANDARDS OF TEST TASKS

Preventive fluorographic examination of mandatory contingents is carried out
+ “continuous” - once every 2 years
differentiated - once every 2 years
differentiated with favorable conditions
epidemiological situation for tuberculosis - once every 3 years
continuously" - from the age of 7-12 years

Which organs and tissues of the patient need priority protection from ionizing radiation?
thyroid gland
mammary gland
+bone marrow, gonads
skin

Where should the individual be located? dosimeter? level
above the apron breasts
under the apron at level breasts
+above the apron at the level of
the pelvis under the apron at the
level of the pelvis

The development of radiology is associated with the name of V. Roentgen , who discovered radiation, which was later named after him
in 1890
+ in 1895
in 1900 year
in 1905 year

The most common initial site of kidney and urinary tract cancer is the pelvis
+ kidney
parenchyma calyx
ureter bladder

Cancer alertness means knowledge
+early symptoms of the disease
drugs for the treatment of
professional difficulties
permissible doses of radiation therapy

The main clinical manifestation of cancer of the mucous membrane of the floor of the mouth is
erosion without infiltration of the edges
ulcer without infiltration of edges
hyperemia and swelling of the mucous membrane
+ulcerating infiltrate adherent to surrounding tissues The most common

localization of cancer is in the oral cavity

floor of the mouth, buccal
mucosa
alveolar process of the maxilla
+language

Early clinical symptoms of cancer of the upper jaw are a runny nose
decreased vision,
nosebleeds
+ pathological growths in the socket of the extracted tooth of the upper jaw

One of the main surgical methods for treating maxillary sinus cancer is
Microwave
hyperthermia Krail
operation Billroth
operation
+resection of the upper jaw

Sarcomas develop from
epithelium
glandular tissue
+ connective tissue

Symptoms of sarcoma of the upper jaw are
+ nasal discharge, exophthalmos
dry mouth, paroxysmal acute pain, difficulty swallowing, hypersalivation ,
chills, muff-like infiltration of the jaw
paresis of the branches of the facial nerve

Fibrous dysplasia is a bone
tumor
soft tissue tumor true odontogenic
tumor
+tumor-like bone formation

The main treatment for gingival fibromatosis is
chemotherapy.
combined radiation
therapy
+excision of the tumor along with the periosteum

Odontoma belongs to the group
of inflammatory diseases of
tumor-like formations
+ malformations of dental tissues malignant
odontogenic tumors

Ameloblastoma belongs to the group
of precancers
inflammatory diseases of malignant
odontogenic tumors
+benign odontogenic tumors

The final diagnosis of ameloblastoma is made based on survey data
blood test
+histology
clinical and radiological examination

Giant cell tumor belongs to the group of tumor-
like formations
malignant odontogenic tumors malignant
odontogenic tumors
+benign odontogenic tumors true tumors

Synonym for giant cell tumor
cylindroma
osteosarcoma
+ osteoclastoma
retention cyst

The X-ray picture of a giant cell tumor is characterized by varieties of polymorphic,
monomorphic
+cellular, cystic, lytic subperiosteal ,
periapical proliferative, bone-forming

The main treatment for giant cell tumor is chemotherapy.
cryodestruction
curettage
+removal of the tumor within healthy tissues

The most reliable radiological sign of pituitary adenoma is
+increase in the size of the sella turcica,
osteoporosis of saddle parts
increased pneumatization of the main sinus;
decreased pneumatization of the main sinus

Not typical for benign bone tumors
+ thickening of soft tissues normal
thickness of soft tissues normal
structure of soft tissues

The most characteristic feature of malignant bone tumors is thinning of the
cortical layer.
breakage of the cortical layer with gradual thinning towards the point
of breakage breakage of the cortical layer against the background of
swelling (symptom of “spikes”)
+steep cliff of the cortical layer

Enlarged, heterogeneous, with uneven contours of the kidney shadow on a plain radiograph, filling defect, expansion or “amputation” of the calyx on

retrograde pyelogram , a defect in the filling of the pelvis with uneven, pitted contours is most characteristic
for solitary cyst for
hydronephrosis
+ for kidney tumor
for kidney tuberculosis

Significant narrowing of the stem part of the renal artery and its segmental and subsegmental branches, the formation of avascular zones. Intrarenal arterial branches displaced mainly To periphery, How would spread apart. These signs most characteristic
for solitary cysts for
hydronephrosis
+ for kidney tumors for
pyelonephritis

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Ticket to test No. 1

1. In what year were X-rays discovered, what they are , their properties.
2. Cancer and precancerous skin diseases. Cancer of the oral mucosa. Tumors of bones and soft tissues.

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Ticket to test No. 2

1. Layer-by-layer (tomographic) examination of the chest organs
2 Precancerous diseases and cancer mammary gland.

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Department of Radiation Diagnostics with Radiation Therapy and Oncology
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Ticket to test No. 3

1 Methods of radiation therapy.
2. Tumors of bones and soft tissues.

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Ticket to test No. 4

1. Basics of radiation therapy for malignant tumors of the maxillofacial region.
2. Precancerous diseases and lung cancer.

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Ticket to test No. 5

1. Radiotherapy planning.
2. Esophageal cancer, stomach cancer.

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Faculty/Specialty Dentistry **Course/Year of study 5**
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Ticket to test No. 6

1. basic methods of radiation therapy.
2. Malignant lymphomas . Multiple myeloma.

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Department of Radiation Diagnostics with Radiation Therapy and Oncology
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Discipline : Oncostomatology and radiation therapy

Ticket to test No. 7

1. Tumors of the hepatopancreatoduodenal zone.
2 Physical foundations of radiation therapy. Radiobiological principles of radiation therapy for malignant and non-tumor diseases.

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Department of Radiation Diagnostics with Radiation Therapy and Oncology
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Discipline : Oncostomatology and radiation therapy

Ticket to test No. 8

1. The body's reactions to therapeutic radiation exposure. Post-radiation period. Radiation protection of organs and tissues during radiation therapy
2. Colon and rectal cancer.

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Discipline : Oncostomatology and radiation therapy

Ticket to test No. 9

1. Technical support for radiotherapy
2. Types and methods of intracavitary therapy, indications for it

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Department of Radiation Diagnostics with Radiation Therapy and Oncology
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Ticket to test No. 10

1. Remote method of radiation therapy
2. Malignant lung tumors.