Appendix to the working program

Federal State Budgetary Educational Institution of Higher Education
"Privolzhsky Research Medical University"
Ministry of Health of the Russian Federation

BANK OF ASSESSMENT TOOLS FOR DISCIPLINE
ONCOLOGY, RADIATION THERAPY

Training program (specialty): **31.05.01 GENERAL MEDICINE**

Department: **Department of Oncology, Radiation Therapy and Radiation Diagnostics**

Mode of study **FULL-TIME**

Nizhniy Novgorod
202_

1. Bank of assessment tools for the current monitoring of academic performance, mid-term assessment of students in the discipline / practice

This Bank of Assessment Tools (BAT) for the discipline "Oncology" is an integral appendix to the working program of the discipline "Oncology". All the details of the approval submitted in the WPD for this discipline apply to this BAT.

2. List of assessment tools

The following assessment tools are used to determine the quality of mastering the academic material by students in the discipline/ practice:

No.	Assessment tool	Brief description of the assessment tool	Presentation of the assessment tool in the BAT
1	Test №1-60	A system of standardized tasks that allows you to automate the procedure for measuring the level of knowledge and skills of a student	Test fund assignments
2	Situational tasks №1-10	A method of control that allows you to assess the criticality of thinking and the degree of assimilation of the material, the ability to apply theoretical knowledge in practice.	Task List

Approximate list of assessment tools (select the one you need)

№	Name of assessment tool	Brief description of the assessment tool	Presentation of assessment tool in the bank
1	Test №1-60	A system of standardized tasks that allows you to automate the procedure for measuring the level of knowledge and skills of a student	Test fund assignments
2	Situational tasks №1-10	A method of control that allows you to assess the criticality of thinking and the degree of	Task List

		assimilation of the material, the ability to apply theoretical knowledge in practice.	

3. A list of competencies indicating the stages of their formation in the process of mastering the educational program and the types of evaluation tools

Code and formulation of competence*	Stage of competence formation	Controlled sections of the discipline	Assessment tools
UK-4, GPC-1, GPC-4, PC-5, PC-9, PC-10	Input	Section 1. Current state and prospects for the development of oncology. Section 2. Principles of treatment of malignant tumors Section 3. Tumors of the skin. cancer and melanoma Section 4. Tumors of bones and soft tissues Section 5. Tumors of the head and neck Section 6. Precancerous conditions and breast cancer Section 7 Lung Cancer Section 8. Tumors of the digestive tract Section 9 Lymphoproliferative Disorders Section 10. Malignant tumors of the female genital area Section 11. Some clinical syndromes in oncology Section 12 Radiation Therapy Methods Section 13. Biological effect of ionizing radiation Section 14. The role of radiotherapy in the oncology clinic	Test tasks (30 pcs.) Situational tasks (8 pcs.)
UK-4, GPC-1, GPC-4, PC-5, PC-9, PC-10	Intermediate	Section 1. Current state and prospects for the development of oncology. Section 2. Principles of treatment of malignant tumors Section 3. Tumors of the skin. cancer and melanoma Section 4. Tumors of bones and soft tissues Section 5. Tumors of the head and neck Section 6. Precancerous conditions and breast cancer Section 7 Lung Cancer Section 8. Tumors of the digestive tract Section 9 Lymphoproliferative Disorders Section 10. Malignant tumors of the female genital area Section 11. Some clinical syndromes in	Test tasks (30 pcs.) Situational tasks (2 pcs.)

		oncology Section 12 Radiation Therapy Methods Section 13. Biological effect of ionizing radiation Section 14. The role of radiotherapy in the oncology clinic	

4. The content of the assessment tools of entry, current control

Entry /current control is carried out by the discipline teacher when conducting classes in the form of: assessment tool 1, assessment tool 2, etc. *(list the forms, for example, control work, organization of a discussion, round table, abstract, etc.)*

The input is carried out by the teacher of the discipline when conducting classes in the form of: testing (20 randomly selected tests and situational tasks in accordance with the topic of the current lesson)

4.1. Tasks for the assessment of competence «UK-4, GPC-1, GPC-4, PC-5, PC-9, PC-10» (specify the competence code):

1 THE SYMBOL "M" IN THE TNM CLASSIFICATION IS ACCEPTED TO DESIGNATE
- metastases to distant groups of lymph nodes
+ metastases in distant organs
- primary tumor
- regional lymph nodes

2 TNM SYMBOL "N" IS ADOPTED TO DESIGNATE STATE

- all groups of lymph nodes above or below the diaphragm
- any groups of lymph nodes
- metastases to distant organs
+ only regional lymph nodes

3 THE PURPOSE OF TNM STAGING AND DETERMINATION OF THE HISTOLOGICAL FORM OF THE TUMOR IS

+ development of a treatment plan
- determination of working capacity forecast
- evaluation of the effectiveness of treatment
- exchange of medical information

4 A SIGN OF CASHEXIA IS LOSS OF BODY WEIGHT OVER
- 10% for the last 12 months.
- 10% for the last 6 months.
- 5% for the last 12 months.
+ 5% for the last 6 months.

5 DISTANT METASTASES IN THE TNM CLASSIFICATION ARE DESIGNATED AS
- G1
+M1
- N1
- T1

6 THE MOST COMMON SYMPTOM OF MALIGNANT BONE TUMORS IS
+ pain
- the presence of a tumor
- limitation of mobility in the joint
- pathological fracture

7 TISSUE
- internal organs
- mature, well specialized
+ with pronounced physiological proliferation
- with reduced proliferative activity

8 INTERNATIONAL TNM CLASSIFICATION OF NEOPLASMS USED FOR CHARACTERISTICS
- congenital neoplasms
- benign tumors
+ malignant tumors
- precancerous conditions

9 THE BASIC METHOD FOR THE TREATMENT OF BENIGN TUMORS OF THE POSTERIOR MEDIUM IS
- radiation therapy
- polychemotherapy
- targeted therapy
+ surgical

10 COMBINED SURGERY IS THE REMOVAL OF THE TUMOR

- within healthy tissues together with the regional lymphatic barrier
- within healthy tissues, together with the regional lymphatic barrier and all available lymph nodes and tissue in the area of operation
- together with a regional lymphatic barrier and simultaneous operation for any other non-oncological disease
+ with resection (removal) of another organ involved in the tumor process

11 THE ONLY HUMAN MALIGNANT NEOPLASM THAT CAN BE CURED BY CHEMICAL DRUGS, EVEN IN THE PRESENCE OF MULTIPLE METASTASES, IS

- retroperitoneal non-organ tumor
- undifferentiated nasopharyngeal cancer
- non-small cell lung cancer
+ trophoblastic tumor

12 THE MECHANISM OF ACTION OF MOST ANTI-CANCER MEDICINES FROM THE ANTIMETABOLITE GROUP CONSISTS IN

- inhibition of mitosis by acting on microtubulins
+ enzyme inhibition
- formation of covalent bonds with DNA
- synchronization of tumor cell division

13 DETECTION OF STEROID HORMONE RECEPTORS IS REQUIRED FOR
+ hormone therapy
- radiation therapy
- chemotherapy
- surgical treatment

14 ADJUVANT CHEMOTHERAPY USED
- for the treatment of locally advanced cancer
- for the treatment of relapses and metastases that have arisen after local treatment
- before local antitumor effect
+ after local treatment to prevent the occurrence of relapses and tumor metastases

15 THE MAIN OBJECTIVE OF ADJUVANT DRUG THERAPY IS
- study of drug pathomorphosis for planning further treatment
- reduction in the size of the tumor mass
- increase in the degree of tumor damage

+ eradication of micrometastases

16 SYMPTOMATIC OPERATION FOR LOCALIZATION OF CANCER IN THE PYLOROANTHRAL DEPARTMENT IS

- gastrostomy
+ gastrojejunostomy
- pyloroplasty
- proximal subtotal resection of the stomach

17 KIDNEY FUNCTION DISTURBANCE DURING CHEMOTHERAPY IS MOST PROGRESS WHEN USING

- ifosfamide
- mitomycin
- nitrosomethylureas
+ platinum derivatives

18 SYMPTOMATIC TYPE OF TREATMENT OF CANCER PATIENTS

- after which clinical, radiological, endoscopic and morphological signs of the tumor process are not detected in the patient's body
+ during which all activities are aimed only at eliminating painful or life-threatening symptoms and complications of the disease
- during which the patient's life expectancy is less than one year
- during which surgical, radiation and medicinal methods of treatment are combined

19 THE MOST INFORMATIVE METHOD FOR DIAGNOSING BONE METASTASIS IS

- CT scan
- Magnetic resonance imaging
- x-ray examination
+ scintigraphy

20 PRE-INVASIVE CANCER IS DEFINED

+ with targeted biopsy
- with flow cytometry
- X-ray
- endoscopically

21 COLONY-STIMULATING FACTORS ARE USED FOR

- enzyme inhibition
+ relief of cytopenia syndrome
- elimination of carcinoid syndrome
- synchronization of tumor cell division

22 HORMONAL REGULATION OF TUMOR GROWTH IN THE ORGANISM

+ hormone receptors in the cell membrane
- oncoproteins
- transcription factor
- cytoplasm

23 ECTOPIC ENDOCRINE PARANEOPLASTIC SYNDROMES ARE MOST COMMONLY OBSERVED IN PATIENTS WITH _____ LUNG

- adenocarcinoma
- bronchiolo-alveolar cancer
+ small cell carcinoma
- squamous cell carcinoma

24 CARCINOID SYNDROME IS CAUSED BY RELEASE INTO THE BLOOD

- gastrin

- glucagon
- insulin
+ serotonin

25 ONCOGENIC VIRUS ASSOCIATED WITH THE DEVELOPMENT OF CERVICAL CANCER IS

- hepatitis B virus
- hepatitis C virus
+ human papillomavirus
- cytomegalovirus

26 TECHNIQUES FOR THE PREVENTION OF CERVICAL CANCER INCLUDED

- annual ultrasound examination of the pelvic organs
- annual cervicometry
- regular self-examination of the mammary glands
+ timely detection and treatment of background and precancerous diseases of the cervix

27 BREAST CANCER SCREENING IN MENOPAUSE WOMEN IS MOST EFFECTIVE

+ mammography
- palpation
- breast self-examination
- ultrasound tomography

28 MARKER OF TROPHOBLAST DISEASES IS

- alpha-fetoprotein
- luteinizing hormone
+ human chorionic gonadotropin
- chorionic thyrotropin

29 THE MOST CHARACTERISTIC BIOLOGICAL FEATURE OF BLADDER CANCER IS

- single mucosal lesion
- rare recurrence
- frequent distant metastasis
+ frequent recurrence

30 A TUMOR MARKER FOR PROSTATE CANCER IS

- adrenocorticotropic hormone
+ prostate-specific antigen
- trophoblastic beta globulin
- human chorionic gonadotropin

31 THE MOST COMMON SYMPTOM OF AN EARLY STAGE OF THE PATIENT WITH OROPHARYNGEAL CANCER, LOCALIZED IN THE AREA OF THE ROOT OF THE TONGUE AND PALATELT TONGSALES, AT THE EARLY STAGE IS

- Pain when swallowing on the side of the lesion
- bad breath
+ inconvenience when swallowing from the side of the lesion
- Difficulty opening the mouth (trismus)

32 THE MOST COMMONLY DETECTED SYMPTOM IN PATIENTS WITH HIGHLY DIFFERENTIATED THYROID CANCER IS

- voice change
- pain in the neck radiating to the shoulder
+ the presence of a palpable node on the neck
- swallowing disorder

33 THE MOST INFORMATIVE METHOD OF DIAGNOSTICS FOR SUSPECTED PERIPHERAL LUNG CANCER IS

+ computed tomography of the chest
- chest x-ray
- fibrobronchoscopy
- fluorography

34 A TUMOR MARKER FOR LIVER CANCER IS
- β-chorionic gonadotropin
+ AFP (α-fetoprotein)
- CEA (cancer embryonic antigen)
- acid phosphatase

35 TO OBLIGATORY PRECANCER
- Crohn's disease
- hyperplastic polyp
+ diffuse familial colon polyposis
- nonspecific ulcerative colitis

36 LOCAL ACUTE RADIATION REACTION IS CALLED
+ changes in irradiated tissues that occurred during radiation therapy or within 3 months. after its completion
- changes in irradiated tissues that occurred after 3 months. after radiation therapy
- the reaction of the whole organism to radiation
- response of the endocrine system to radiation

37 REMOTE BEAM THERAPY IS
- application
- intracavitary
- interstitial
+ gamma therapy

38 CONTACT RADIOTHERAPY INCLUDES
+ interstitial gamma therapy
- neutron therapy
- irradiation with bremsstrahlung of high-energy electrons;
- proton therapy

39 IS THE MOST RADIO SENSITIVE
- osteogenic sarcoma
- reticulosarcoma
+ Ewing's sarcoma
- fibrosarcoma

40 RADIOTHERAPY IS NOT SUITABLE FOR
- giant cell tumor
+ osteome
- reticulosarcoma
- eosinophilic granuloma

41 IN RADIATION THERAPY OF MALIGNANT EPITHELIAL TUMORS OF THE SKIN, IT IS MOST IMPORTANT TO SUPPLY THE TOTAL DOSE (IN GY)
- 20-30
- 30-50
+ 50-70
- 70-90

42 TO REDUCE RADIATION REACTIONS DURING STOMACH IRRADIATION, IT IS ADVANTAGED TO CARRY OUT
+ short-term gas hypoxia
- short-term artificial hyperglycemia
- local hyperthermia
- electron-withdrawing compounds

43 EXTERNAL BEAM THERAPY IS USED USING
- radiation sources introduced into natural human cavities
+ exposure to external beams
- exposure to radioactive drugs that have a tropism for the tumor
- endolymphatic administration of radionuclides

44 DOSE FIELD IS UNDERSTANDING

- dose corridor within which the tumoricidal effect of radiation therapy can be realized
- volume of the irradiated object
- area of the irradiated object
+ spatial distribution of the absorbed dose in the irradiated part of the patient's body

45 IN LOCALIZED SOFT TISSUE SARCOMAS, PREFERENCE SHOULD BE GIVED
+ combined treatment
- physiotherapy, including absorbable
- chemotherapy
- economic excision of the tumor

46 DEVELOPMENT OF SECONDARY OSTEOSARCOMA ASSOCIATED WITH HEREDITARY SYNDROME
- Downa
- Lynch
+ Rothmund–Thomson
- Shershevsky - Turner

47 FOR CHONDROSARCOMA OF A HIGH DEGREE OF MORPHOLOGICAL MATURITY
- fast growth
+ slow development with few symptoms
- Severe persistent pain
- frequent pathological fractures

48 THE MOST COMMON LOCALIZATION OF MALIGNANT BONE TUMORS IS
- diaphyses of long bones
+ metaepiphyses of long tubular bones
- flat bones
- spine

49 THE MOST COMMON LOCALIZATION OF HEMATOGENIC METASTASES IN SOFT TISSUE SARCOMAS IS OBSERVED IN
- brain
- bones
+ lungs
- liver

50 RADIOPHARMACEUTICAL DRUG IS USED FOR DIAGNOSTICS OF OSTEOSARCOMA
- 201Tl-chloride
- 99mTc-DMSA
- 99mTc-Technetrile
+ 99mTs-Phosphotech

51 MOST COMMON BONE SARCOMAS ARE LOCALIZED IN
+ femur
- ulna
- humerus
- ribs

52 MAIN CLINICAL SYMPTOMS OF EWING'S SARCOMA ARE
+ pain, fever, detectable swelling
- skin rash, cough, nausea
- pathological fracture, dizziness
- fever, headache

53 THE METHOD OF TREATMENT OF NEPHROBLASTOMA IN CHILDREN UNDER A YEAR IS
- radiation therapy + nephrectomy
+ radiation therapy + nephrectomy + chemotherapy
- Nephrectomy only
- chemotherapy + nephrectomy

54 THE MOST COMMON GENITAL MALIGNANT TUMORS IN GIRLS ARE
+ ovarian tumors
- uterine cancer
- cervical cancer
- vaginal sarcomas
55 HOURGLASS DEFECT IN CHILDREN
- hepatoblastoma
- ovarian dysgerminoma
+ neuroblastoma
- nephroblastoma
56 ULTRASONIC EXAMINATION OF THE RETROPERITONEAL SPACE IN CHILDREN WITH FAMILY CASES OF NEPHROBLASTOMA IS PERFORMED EVERY ___ MONTHS/MONTHS UNTIL THE CHILD REACHES 6-7 YEARS OF AGE
+ 3
- 4
- 5
- 6
57 CHEMOTHERAPY POSSIBLE A COMPLETE CURE
- small cell lung cancer
- osteogenic sarcoma
+ acute lymphoblastic leukemia in children
- ovarian cancer
58 IF A 7-YEAR-OLD GIRL HAS A FEVER FOR 10 DAYS, GENERALIZED ENLARGEMENT OF LYMPH NODES, HEPATOSPLENOMEGALIA, SUBCUTANEOUS AND BLEEDING IN THE MUCOUS CAVITY OF THE MOUTH, INFLAMMATORY PROCESS IN THE MOUTH THROAT, THEN A POSSIBLE DIAGNOSIS IS
- hemorrhagic vasculitis
- Infectious mononucleosis
+ acute leukemia
- thrombocytopenic purpura
59 AN ADVERSE PROGNOSIS FACTOR IN HODGKIN'S LYMPHOMA IS
- leukocytosis
- lymphoid predominance
- increased levels of AST, ALT
+ enlargement of mediastinal lymph nodes > 1/3 of chest diameter
60 ORGANOSPARE OPERATIONS FOR BREAST CANCER ARE
- Mastectomy according to Urban-Holdin
- Madden radical mastectomy
- radical mastectomy according to Patty
+ radical resection

4.2. Situational tasks for assessing competencies «UK-4, GPC-1, GPC-4, PC-5, PC-9, PC-10» (specify the competence code):

Task 1

READ THE SITUATION AND GIVE DETAILED ANSWERS TO THE QUESTIONS

A 36-year-old patient has been troubled by episodic impurities of scarlet blood with feces for 3 months. Examination was carried out: digital examination - 5 cm from the anus, a tumor about 2 cm in size is palpated, mobile without infiltration of the underlying tissues; RMS is a saucer-shaped tumor 1 cm above the internal sphincter with a diameter of 2 cm. without signs of bleeding; histology - highly differentiated adenocarcinoma; FCC - cancer of the lower ampullar rectum 2 cm in diameter 5 cm from the anus, 2 polyps of the descending colon on a wide base up to 1 cm in diameter; the histology of polyps is identical - villous tumor; MRI of the pelvic organs - a tumor of the lower

ampullar portion of the rectum 5 cm from the anus without signs of ingrowth into the mesorectum, 1 enlarged pararectal fat with characteristics of a metastatic lesion; CT of the abdominal cavity and chest - no signs of dissemination; the level of CA 19-9 and REA blood within normal limits.

Suggest the most likely diagnosis

cancer of the lower ampullar rectum T2N1M0, stage IIIA.

What is the best way to start treatment?

Taking into account the young age of the patient, the presence of a highly differentiated tumor of small size and depth of the intestinal wall, as well as the possibility of performing a sphincter-preserving operation, it is advisable to start treatment with a course of neoadjuvant chemoradiotherapy.

With a pronounced therapeutic pathomorphosis of the tumor, revealed during the morphological study of the removed preparation, is it necessary to reduce the stage of the tumor process in this patient?

The stage of the tumor process is established before radiation therapy according to the results of the examination, and the resulting therapeutic pathomorphosis should not cause a decrease in the stage of the tumor process.

What treatment is necessary after surgery?

Taking into account the existing metastatic lesion of the regional l / y, the young age of the patient and the sphincter-preserved volume of the operation, adjuvant polychemotherapy is indicated.

What is the best way to deal with the identified colon polyps?

In the presence of colon polyps, they are subject to endoscopic removal.

Task 2

FAMILIARISE YOURSELF WITH THE SITUATION AND GIVE DETAILED ANSWERS TO THE QUESTIONS

A 45-year-old female patient has sought medical help complaining of sharp pain during defecation accompanied by scarlet blood and occasional stool incontinence. She has been suffering from these complaints for the last 6 months and has been treated independently with no effect. Examination and additional examination revealed the following changes: RRS - anal canal tumour 4 cm in size, tumour growth starts immediately from anodermal line, limited mobility, finger examination is sharply painful. Histology - squamous cell non-keratinizing cancer. FBS - colon was examined completely - without pathology, in the anal canal the tumour had contact hemorrhage, occupied the entire anal canal. MRI of the pelvic organs - anal canal tumour, size 4 cm, invading all the walls of the intestine, no ingrowth into the surrounding tissues. Ultrasonic examination of the inguinal l/u - no abnormal changes in the inguinal l/u. CT scan of the abdomen and chest - no signs of dissemination. Blood and urine tests were within normal limits.

Suggest the most likely diagnosis

anal canal cancer T2N0M0, stage 2.

Justify the diagnosis you have made

Diagnosis of anal cancer based on the following examinations: MRI, MRI OMT - tumour size 4 cm and location in the anal canal, no ingrowth into the surrounding tissue, histological findings - squamous cell non-keratinised cancer, CT scan of OPP and CS, ultrasound of inguinal lungs - no

signs of dissemination

What is the most appropriate treatment plan in this situation?

As a first step, it is advisable to administer chemoradiotherapy to the tumour and regional metastases, followed by an assessment of the therapeutic pathomorphosis. If the tumour has regressed by more than 50%, continue with chemoradiotherapy. If the treatment is ineffective, abdominal perineal extirpation of the rectum should be performed

After chemoradiotherapy the tumour has completely regressed. The patient is offered follow-up care. Is this decision correct?

if there is complete radial pathomorphosis, abdominopelvic surgery is not advisable. Careful regular examination of the patient is necessary to detect early recurrence and metastasis.

One year after treatment, the patient had a local recurrence of 1.5 cm and dissemination to the right inguinal lymph nodes. There was no evidence of other distant dissemination. Surgical treatment of abdominoprocedural extirpation of the rectum and Duquesne surgery on the right side is proposed. Is this procedure correct?

If relapse and dissemination to regional lymph nodes occurs after previous chemoradiotherapy, there is no reason to resume radiotherapy and a surgical component is necessary.

Task 3

FAMILIARISE YOURSELF WITH THE SITUATION AND GIVE DETAILED ANSWERS TO THE QUESTIONS

A 65-year-old patient sought medical attention for a painful hyperemic lump in the perineal area of the anterior abdominal wall. An acute purulent inflammation of the soft tissues of the anterior abdominal wall was suspected in the emergency room of the surgical clinic at the place of residence, an autopsy was performed, after which the fistula began to discharge through the formed fistula passage.

What is the cause of this complication?

There appears to be a tumour of the transverse colon growing into the anterior abdominal wall and forming an external fistula.

What diagnostic measures need to be taken in this situation?

After opening the intestine lumen, a full bowel examination should be carried out to rule out a tumoural process: total FS with tumour biopsy, abdominal and chest CT scan, FGDS

Examination revealed the following pathological changes: FBS - tumour growth up to 10 cm in length was detected at the level of the c/o of the transverse colon. Endoscopic examination revealed tumor growth extending up to 10 cm; histology - low-differentiated adenocarcinoma; CT scan of the colon - tumor of the transverse colon growing into the anterior abdominal wall, about 14 cm in size; FGDS - gastric antral infiltrated along the greater curvature, limited mobility, mucosa unchanged - more evidence of tumor ingrowth from outside; CT scan of the CDC - no signs of dissemination. The patient was offered a surgical intervention. Combined resection of the transverse colon, distal resection of the stomach according to Bilroth-2-Rue, resection of the anterior abdominal wall were performed. Is the surgical procedure correct?

Given the extent of the tumour process, the involvement of neighbouring anatomical structures and the need to perform an "en block" operation, this scope of surgery is necessary. The formation of a primary intestinal anastomosis is justified under favourable conditions of intestinal preparation and minimal inflammatory changes.

After the postoperative wound has healed, the patient has been offered 12 courses of adjuvant polychemotherapy according to the FOLFOX regimen. Is this decision correct?

Given the extent of the tumour process, this regimen has shown good survival rates without recurrence.

Two years after the treatment, a 2 cm solitary metastasis developed in the postoperative scar of the anterior abdominal wall. There were no signs of other dissemination. The patient was suggested to undergo excision of the metastatic nidus followed by PCT. Is this treatment correct?

Solitary metastatic lesions must be surgically removed. Subsequent polychemotherapy significantly reduces the risk of disease progression.

Task 4

FAMILIARISE YOURSELF WITH THE SITUATION AND GIVE DETAILED ANSWERS TO THE QUESTIONS

A woman, 57 years old, goes to the doctor. She has no complaints.

Past medical history shows that during a routine check-up an FGDS revealed a tumour-like mass in the gastric mucosa. Smoker (approx. 25 years, 1 packet of cigarettes per day), denies alcohol abuse. Drug use - denies. Heredity - father died of gastric cancer.

On examination: satisfactory condition. Asthenic build. Height 170 cm, weight 65 kg. Her skin is clean and physiologically colored. Thorax is regular in shape. Percussion sound was clear and pulmonary. Auscultation - vesicular breathing. Breath rate - 15 per minute. Heart sounds are muffled and rhythmic. Heart rate - 78 beats per minute, BP - 110/70 mm Hg. The abdomen is soft, painful on palpation in the epigastric region, no peritoneal symptoms. The liver and spleen were not enlarged. No dysuria. The lumbar tapping symptom was negative. In the tests: Er - 4.1*10??/l, Hb - 130 g/l, Le - 6.2*10?/l, SLE - 9 mm/h.

FGDS : gastric mucosa edematous, hyperemic. There was a polypoid tumour of 1x1.5x0.5 cm in the middle third of the gastric body on the anterior wall. A forceps biopsy was taken.

Conclusion: gastric body polyp(?) early form of cancer(?). Gastritis without signs of mucosal atrophy.

Histological examination: pattern of highly differentiated gastric adenocarcinoma

FLH: no pathological changes

Abdominal ultrasound: diffuse changes in the liver, pancreas, signs of chronic cholecystitis. No focal pathology was detected.

Suggest the most likely diagnosis.

Early gastric body cancer (polypoid form) T1N0M0

The diagnosis is correct.

The diagnosis is incomplete: the clinical form of the cancer is misdiagnosed.

or no or incorrect localisation, TNM stage.

The diagnosis is not correct.

Justify the diagnosis you have made.

The diagnosis of gastric cancer was made on the basis of the following findings. 1) Results of histological examination (highly differentiated adenocarcinoma cells detected in the biopsy). 2) Fibrogastroscopy findings (polypoidal tumour mass in the gastric mucosa). 3) Past medical history: a history of cancer. Asymptomatic course of the disease, "accidental finding" during a preventive check-up. TNM staging based on instrumental findings that clinically exclude lymph node dissemination (ultrasound) and absence of distant metastases (FLS, ultrasound) and small tumour size according to FGDS.

Determination of the localisation of the process and the clinical form of the cancer is based on the endoscopic examination (FGDS: polypoid tumour on the mucosa of the gastric body).

The diagnosis is correct.

The diagnosis is not fully justified:

no substantiation of nosological form, clinical form of the process, localisation, wrong TNM stage

or

the justification for the clinical form, localisation, stage of the process, is not given correctly.

The diagnosis is wrongly justified.

State which additional method of instrumental examination should be used to further investigate the patient. Justify your choice.

Patient needs: blood chemistry to evaluate proteinemia and other blood chemistry (amylase, transaminases, urea, bilirubin, creatinine, blood glucose), chest CT scan, abdominal MRI to rule out metastatic abdominal lymph node involvement and metastases to abdominal organs.

The method of follow-up examination is correct and justified.

The method of follow-up examination is stated correctly, but not justified or justified incorrectly.

The method of follow-up examination is completely wrong.

Suggest a treatment tactic for the patient. Justify your choice.

The patient should undergo endoscopic submucosal resection of the gastric tumour. The choice is justified by the morphological form of the process (highly differentiated adenocarcinoma) and the invasion of the primary tumour into the gastric wall (clinically T1). After histological estimation of operative material, evaluation of tumour invasion, final stage of the disease is defined, and a decision about broader surgery (gastric resection in case of invasion of tumour into the muscular layer of the stomach wall) is taken. If only the mucosa is invaded, an endoscopic submucosal resection within healthy tissue may be limited.

The right treatment tactic has been chosen and the choice is correctly justified.

The right treatment tactic has been chosen, but the choice is not justified.

The treatment tactic is not correct.

What is your further treatment tactic? What is the tactic for further outpatient follow-up? Justify your choice.

After histological evaluation of the operative material, the final stage of the disease is determined. If necessary, a surgeon or oncologist will be consulted and, on their advice, a decision will be made to perform an extended operation (if the tumour has invaded the muscular layer of the stomach wall). The patient is registered as a patient in a polyclinic, where every 6 months he or she undergoes a check-up examination (ultrasound, MRI, FGDS, general and biochemical blood tests). Depending on the course of the process (recurrence, metastasis or smooth progression), a decision will be made whether to repeat treatment (chemotherapy, reoperation).

Further treatment tactics are correctly selected and justified.

The management of the patient is completely correct, but not justified or justified incorrectly

The management of this patient is completely wrong.

Task 5

FAMILIARISE YOURSELF WITH THE SITUATION AND GIVE DETAILED ANSWERS TO THE QUESTIONS

A 68-year-old man is admitted to the chemotherapy department of an oncological dispensary

Complaints

Cough with difficult sputum, back pain

Medical history

1. Chronic bronchitis, does not take any medication.

2. Does not abuse alcohol, smoked for 15 years no more than 5 cigarettes a day. Has not smoked for 35 years

3. No occupational hazards

4. No allergic reactions

Life history

He consulted a general practitioner at his local health centre in connection with the above complaints. X-rays of the spine and thoracic cavity were taken and a compression fracture of Th6 was detected. To confirm the diagnosis, a chest CT scan was performed, which revealed a peripheral mass of 43x56 mm in the upper lobe of the right lung, an increase of the right tripleobronchial lobes to 17x25 mm and the right bifurcation lobes to 20x18 mm. He was referred to an oncologic dispensary for further examination and treatment. Skeletal scintigraphy, abdominal CT scan were performed - RFS accumulation in Th6, no additional lesion areas were detected

Objective status

His condition is satisfactory. Breathing in the lungs is rigid, no rales. Respiratory rate 16. Cardiac tones are rhythmic, heart rate 70. BP 130/85 mmHg. The abdomen is soft, painless on palpation in all parts. The liver is not palpable. Stool with a tendency to constipation. There is painfulness on palpation in the paravertebral area at the level of Th5-Th8. Body temperature 36.6° C. Body S 1.7

A morphological diagnosis must be made:

transthoracic puncture, molecular genetic examination to detect mutations in the EGFR gene. molecular genetic examination to detect mutations in the ALK, ROS1 genes

Histological report: moderately differentiated lung adenocarcinoma. Molecular genetic study to identify mutations in the EGFR gene An activating mutation in exon 19 of the EGFR gene was detected

Molecular genetic study to identify mutations in the ALK, ROS1 genes

No mutations identified in ALK, ROS1

Establish a diagnosis

C34. Peripheral upper lobe right lung cancer stage IVa, cT2bN2a2M1b

The first stage of treatment should be to recommend :

Performing an orthopaedic aid

The main anti-tumour treatment:

Targeted therapy with tyrosine kinase inhibitors

Which drug could be used in the first line of treatment in this patient?

afatinib

A target drug that belongs to the EGFR tyrosine kinase inhibitors is:

OSIMERTINIB

First-line targeted therapy for non-small cell lung cancer may be stopped if

systemic or symptomatic progression of the disease

The most characteristic manifestation of toxicity for EGFR receptor tyrosine kinase inhibitors is:

Cutaneous toxicity

A mutation in the EGFR gene that needs to be identified in systemic
The progression of tumour progression on administration of 1st and 2nd generation tyrosine kinase inhibitors is:

T790M (20 exon)

Name the tumour markers of adenogenic lung cancer

RAA SA125 CYFRA 21-1

In lung AK, pembrolizumab monotherapy in line 1 is recommended for PDL1

Over 50%

Task 6

FAMILIARISE YOURSELF WITH THE SITUATION AND GIVE DETAILED ANSWERS TO THE QUESTIONS

A 43-year-old man suddenly had an epileptic seizure at work, was taken by ambulance to hospital, where MSCT of the brain revealed a volumetric mass in the left frontal lobe of 2.8-3.5-3.6 cm without perifocal changes.
A left frontal craniotomy was performed on an emergency basis. Histologically, a Grade 2 protoplasmic astrocytoma with areas of Grade 3 anaplastic astrocytoma.

Formulate a diagnosis.

Polymorphocellular astrocytoma of the frontal lobe on the left, after frontal craniotomy.

The diagnosis is correct.

The diagnosis is incomplete: the localisation of the tumour or surgical treatment is not indicated.

The diagnosis is not correct.

Justify the diagnosis you have made.

Diagnosis based on patient complaints, medical history, MSCT of the brain, histological findings

The diagnosis is correct.

The diagnosis is not fully justified:
there is no justification for one of the research methods

The reasoning is not correct.

Draw up and justify a plan for a further examination of the patient.

Patient recommended: MRI of the brain with contrast in three projections in standard modalities
Immunohistochemical examination of postoperative material
Examination by an ophthalmologist

The supplementary examination plan is correct.

The supplementary examination plan is incomplete One of the required supplementary examination methods has not been named.

The supplementary examination plan is completely wrong.

What treatment is indicated for the patient in this situation

A course of distant chemoradiotherapy at the tumour bed with 1.8 Gy SOD 60 Gy or 2 Gy SOD 60 Gy with temozolamide at a dose of 75 mg/cm2 on radiation days followed by adjuvant chemotherapy 6 - 10 courses of temozolamide chemotherapy at a dose of 150-200 mg/cm2 on days 1-5 every 28 days

Choosing the right treatment options

Only one treatment option has been chosen.

The answer is wrong: the treatment options are not chosen by the standards.

How the patient is followed up - which specialist is seen and with what frequency.

Active follow-up after treatment is carried out in the outpatient clinic of the territorial oncological dispensary or by the district oncologist and neurosurgeon and/ or neurologist
MRI of the brain with contrast is performed 2-4 weeks after radiotherapy, then every 2-3 months for 3 years

The follow-up tactics are correct.

The follow-up tactic is correct, but the time parameters are not defined or the specialist is incorrect.

The management of this patient is completely wrong.

Task 7

FAMILIARISE YOURSELF WITH THE SITUATION AND GIVE DETAILED ANSWERS TO THE QUESTIONS

A 55 year old patient has sought medical attention complaining of frequent small bowel movements and has lost 5 kg in weight. He has been experiencing these complaints for the last 6 months. He was treated by a general practitioner but was not offered a bowel examination. Consulted oncologist. Examination and additional examination revealed the following changes: finger examination - no pathology detected, CRS - at the level of 10 cm from the anus a circular narrowing of the intestinal lumen was detected. Histology - moderately differentiated adenocarcinoma. The colorectum was fully examined by FCS - rectosigmoid tumor of the colon, circularly narrowing the lumen up to 1 cm. CT scan of the abdominal cavity and thorax - no signs of dissemination detected. On palpation of the abdomen no pathological masses were detected. Laboratory parameters of blood and urine showed no pronounced pathological changes.

Suggest the most likely diagnosis

The results of the examination showed a diagnosis of T3NxM0 rectosigmoid colon cancer, stage T3NxM0.

Justify the diagnosis you have made

Diagnosis of T3NxM0 rectosigmoid colon cancer based on the following examinations: examination of the patient, MRS, FBC, histological examination of biopsy material, OBG and OGC CT data exclude distant dissemination

What is the most appropriate treatment plan in this situation?

As a first step, it is advisable to perform a laparoscopic anterior resection of the rectum, followed by pathomorphological examination of the removed specimen to determine the final stage of the tumour process and the indications for chemotherapy

On the 5th day of the postoperative period the patient had pain in the lower abdomen, fever with chills up to 38.7C, weakness, turbid discharge from the pelvic drain about 350ml/day, laboratory blood tests showed leukocytosis up to 13.2x106 /l. Examination showed slight mobility, dry tongue, grey plaque, pointed features, bloated abdomen, suspicious symptoms of peritoneal irritation on the left flank, sluggish peristalsis, BP - 110/80 mm Hg, heart rate - 88 per min. The patient was suspected of inter-intestinal anastomosis failure. The patient was offered an emergency laparotomy, abdominal cavity revision and transversostomy formation. Laparotomy revealed the following pathological changes: no signs of diffuse peritonitis, the loops of the colon were swollen, in the small pelvis there was a moderate amount (up to 300 ml) of turbid gray fluid, fibrin, 5 mm diameter defect of the left side wall of anastomosis in the infiltrate area. Sanation of abdominal cavity was performed, 2 additional drains were inserted into the small pelvis to the anastomosis, double-barrelled transversostomy was formed in the left subcostal area. Do you agree with this treatment tactic?

When a double-barrelled transverse stoma is formed, the inter-intestinal anastomosis is disconnected from the faecal passage. With effective flushing of the anastomosis defect and adequate antibiotic

therapy there is no need to separate the anastomosis, after 3-4 weeks the fistulous passage usually closes, after 1.5-2 months proctography and ORS is performed, if there is no anastomosis defect coloplasty can be performed

A patient on pathomorphological examination shows dissemination into two l/u of order 1. The patient is indicated for polychemotherapy. Due to the presence of anastomosis failure, it was decided to withhold it until the patient has recovered. Is this the right course of action?

Polychemotherapy slows tissue healing and increases the number of possible complications, so it is advisable to start it after the postoperative wound has healed and all purulent-inflammatory complications have been eliminated.

Task 8

FAMILIARISE YOURSELF WITH THE SITUATION AND GIVE DETAILED ANSWERS TO THE QUESTIONS

A 48-year-old patient was admitted to the hospital with complaints of persistent epigastric pain, weight loss, weakness, recurrent vomiting and lack of appetite. He had been suffering from peptic ulcer for 10 years. Repeatedly treated in hospitals and on outpatient basis. Over the last six months he noted a sharp worsening of condition. He applied for medical help only now. Blood tests: red blood cells -3.7?1012, Hb-96 g/l, leucocytes - 6700 per ?l. Total plasma protein - 58 g/l.

Suggest the most likely diagnosis.

A patient has gastric cancer with a long history of ulcers.

The diagnosis is correct.

The diagnosis is inaccurate.

The diagnosis is incorrect.

With which diseases should a differential diagnosis be made?

The diagnosis must be differentiated with an exacerbation of peptic ulcer disease, with existing gastrointestinal bleeding and ulcerative stenosis of the exit stomach.

The diseases for differential diagnosis are correct.

The diseases for differential diagnosis are listed correctly, but with some inaccuracies.

The diseases for differential diagnosis are incorrectly stated.

Draw up an examination plan for the patient.

Gastric contrast fluoroscopy, gastroscopy with biopsy, abdominal computed tomography and laparoscopy to evaluate the extent of the tumour process are needed to confirm the diagnosis.

The examination plan is correctly indicated.

The method of examination is stated correctly, but with inaccuracies.

The method of examination is completely wrong.

Treatment tactics?

Preoperative preparation - infusion therapy to correct water-electrolyte disturbances, correction of anaemia, parenteral nutrition. Surgical treatment.

The right treatment tactic has been chosen.

The right treatment tactics have been chosen, mistakes have been made.

The wrong treatment tactic has been chosen.

What is the extent of the proposed surgical intervention depending on the localisation and extent of the process in the stomach?

The extent of radical surgery depends on the location of the tumour in the stomach - either subtotal gastric resection or gastrectomy. A bypass gastroenteroanastomosis is indicated in the presence of an unremovable tumour in the exit gastric region and signs of stenosis. An exploratory laparotomy is indicated if distant metastases are detected.

The right amount of surgical intervention has been selected.

The correct amount of surgical intervention is indicated, but not completely.

The wrong scope of surgery has been selected.

Task 9

FAMILIARISE YOURSELF WITH THE SITUATION AND GIVE DETAILED ANSWERS TO THE QUESTIONS

A 56-year-old man consulted a physician about black liquid stools, occasional coffee grounds vomiting and weight loss of 5 kg in a month. The patient was known to have been experiencing deterioration for four months when he began to experience epigastric pain, which increased after meals, decreased appetite and unmotivated weakness. Treated on his own, painkillers, fosfalugel, omez. Smoker (approx. 25 years, 1 packet of cigarettes a day), alcohol abuse - denies. Drug use - denies.

On examination: satisfactory condition. He has an asthenic build. Height 180 cm and weight 69 kg. Skin is clean and pale. Thorax is regular in shape. Percussively, the sound was clear, pulmonary. Auscultatively, vesicular breath sounds. Breath rate is 15 per minute. The heart tones are muffled and rhythmic. Heart rate - 78 beats per minute, BP - 110/70 mm Hg. The abdomen is soft, slightly painful on palpation in the epigastric region, no peritoneal symptoms. The liver and spleen were not enlarged. No dysuria. The lumbar tapping symptom was negative. In the tests: Er - 4.1*10??/l, Hb - 90 g/l, Le - 6.2*10?/l, SLE - 9 mm/h.

FGDS: Forest 2b gastric haemorrhage, infiltrative ulcerative process of the antral gastric region. A biopsy was taken.

Histological examination: the preparations were dominated by fragments of ulcerous detritus, with adjacent microfocuses of low-differentiated gastric adenocarcinoma.

FLH: no pathological changes

Abdominal ultrasound: diffuse changes in the liver, pancreas, signs of chronic cholecystitis. No focal pathology was detected.

Suggest the most likely diagnosis.

Cr entral gastric infiltrative-ulcer form. T3N0M0. Forest 2b gastric bleeding. Degree of invasion (T3) is conditional, as there was no endoscopic ultrasound.

The diagnosis is correct.

The diagnosis is incomplete: the clinical form of the cancer is misdiagnosed.
or no or incorrect localisation, TNM stage.

The diagnosis is not correct.

Justify the diagnosis you have made.

The diagnosis of gastric cancer was made on the basis of the following findings. 1) Histological findings (biopsy of low-differentiated adenocarcinoma cells). 2) Fibrogastroscopy findings (F2b gastric bleeding, infiltrative ulcerative process in the gastric antrum). 3) Past medical history: gradual onset, presence of gastrointestinal bleeding symptoms (coffee grounds vomiting, melena) weight loss. Pain in the epigastrium, increasing after meals. 4). Based on objective examination (weight loss, pale skin, pain in the epigastrium on palpation) and laboratory data (anaemia Hb 90 g/l).

TNM staging is based conventionally on instrumental studies that clinically exclude lymph node dissemination (ultrasound) and absence of distant metastases (FPG, ultrasound)

Determination of the localisation of the process and the clinical form of the cancer is based on the endoscopic examination (FGDS infiltrative ulcerative process of the gastric antrum).

The diagnosis of gastric bleeding was made on the basis of complaints: coffee grounds vomiting, black liquid stool (melena), objective examination (pale skin), laboratory examination (decrease of blood haemoglobin to 90 g/mL). Endoscopic findings (gastric bleeding F2b - blood clot at the bottom of the ulcer)

The diagnosis is correct.

The diagnosis is not fully justified:
no substantiation of nosological form, clinical form of the process, localisation, wrong TNM stage
or
the rationale for the clinical form, localisation, stage of the process, is given incorrectly.

The diagnosis is completely wrong.

State which additional method of instrumental examination should be used to further investigate the patient. Justify your choice.

Patient needs: blood chemistry to assess proteinemia and other biochemical blood parameters (amylase, transaminases, urea, bilirubin, creatinine, blood glucose)

an abdominal MRI to rule out metastatic lymph node involvement and distant metastases, for which a PET scan is desirable. An endoscopic ultrasound of the gastric wall in the affected area and of the regional lymph nodes is also advisable.

The methods of follow-up examinations are correctly stated and justified.

The methods of follow-up examinations are stated correctly, but not justified or justified incorrectly.

The methods of follow-up examinations are incorrectly stated.

Suggest a treatment for the patient. Justify your choice.

The patient should undergo gastrectomy with D2 lymphodissection after preoperative preparation: haemostatic therapy (etamsilate, tranexam), infusion therapy to restore the BOD. Correction of hypoproteinemia (if present) and anaemia. The choice is justified by the morphological form of the process (low-differentiated adenocarcinoma), invasion of a primary tumor into the gastric wall, first revealed episode of gastric bleeding. After histological evaluation of the operative material, the final stage of the disease is determined, and a decision is made as to whether chemotherapy and radiotherapy should be administered.

The right treatment tactic has been chosen, and the choice is correctly justified.

The right treatment is chosen, but the choice is not justified

The answer is wrong: the wrong treatment tactic has been named for the patient.

What is your further treatment tactic? What is the tactic for further outpatient follow-up? Justify your choice.

After histological evaluation of the operative material, the final stage of the disease is determined. If necessary, a chemotherapist will be consulted and a chemotherapy appointment will be made based on the recommendations of the chemotherapist. The patient is registered at a polyclinic, where every 6 months he or she undergoes a check-up examination (ultrasound, MRI, gastrointestinal fluoroscopy, general and biochemical blood tests). Depending on the progression of the process (recurrence, metastasis or a smooth course), a decision is made as to whether additional treatment will be prescribed: chemotherapy, radiotherapy or repeated surgery.

Further treatment tactics are correctly selected and justified.

The management of the patient is correct, but not justified or justified incorrectly.

The management of this patient is completely wrong.

Task 10

FAMILIARISE YOURSELF WITH THE SITUATION AND GIVE DETAILED ANSWERS TO THE QUESTIONS

A 19-year-old patient went to see a neuro-oncologist at the outpatient clinic of a cancer centre

Complaints

Moderate headaches, general weakness

Medical history

1) chronic illnesses: chronic gastritis

2) bad habits: denies

3) denies allergic reactions to medication

4) Tumours in the family: no history of cancer

Life history

In 2016 he was diagnosed with osteosarcoma of the left femur. Treatment (at the oncology centre): Surgical: (segmental resection, osteosynthesis). In the preoperative period 3 courses of PCT (including doxorubicin, ifosfamide), in the postoperative period - 5 courses of PCT (including doxorubicin, ifosfamide).

In May 2018 she complained of headaches. A CT scan of the brain dated 02.05.2018 revealed a mass in the parieto-occipital region of the left cerebral hemisphere. The patient was referred to the outpatient clinic of the Cancer Centre.

Objective status

The overall condition is relatively satisfactory. Karnofsky's index is 70%. ECOG - 3. Weight 70 kg, height 187 cm. Body temperature 36.7 degrees Celsius. Skin is clean, smooth, no edema, turgor is normal. Muscular system: no pain or atrophy. Bones and joints: St.localis: area of postoperative scar on the left thigh without pathology. Peripheral lymph nodes were not enlarged. Respiratory organs: no complaints. Auscultatively: breathing with rigid tones on both sides, no rales. Breath rate 14/minute. Heart tones are clear, rhythmic, heart rate 59/minute, BP 121/80 mmHg.

The abdomen is soft and painless on palpation and no abnormal masses are palpated. Urination is independent and painless. Pasternatsky's symptom was negative on both sides. The stools were regular and regular. Neurological status: Consciousness is clear. General cerebral symptomatology in the form of moderately pronounced headaches. Eye movement: no abnormalities. Convergence is not disturbed. Accomodation is concomitant on the right, concomitant on the left. No decreased sensation in the face.

No hypotrophy of the masseter muscles. There is no pain in the face. Swallowing function is intact. The voice is sonorous. No hypotrophy of the neck and shoulder girdle muscles. No tongue deviation. Hypesthesia on the right side. Musculoskeletal sense is preserved. Motor functions are intact. Muscle tone is intact. Cerebellar functions are intact. Tendon reflexes and periosteal reflexes are unchanged, uniform. Meningeal symptoms are negative.

Name the required instrumental diagnostic method

Contrast-enhanced MRI of the brain

What tests are needed to assess the extent of the process and make a diagnosis?

Abdominal, pelvic, cervical and retroperitoneal ultrasound. A CT scan of the chest.
skeletal scintigraphy

MRI findings: Tumour in the left parieto-occipital region of the brain. Chest CT scan There are focal shadows in the lung tissue of both lungs:

(a) There are two foci on the right in S2, a single foci in S4, two foci in S8 and one foci in S10;

b) two foci in S6, S8 and S9 on the left up to 0.5 cm, in S4 and S10 up to 0.7 cm.

Foci of thickening up to 0.7 cm can be seen along the costal and mediastinal pleura on both sides. The trachea and bronchi are clear. There is no fluid in the pleural cavities.

Scintigraphy of the skeletal bones Areas of increased RFS accumulation were detected in the left femur The area occupies the greater and lesser vertebrae, intervertebral area and the upper third of the diaphysis. Changes of the same kind are present in the right femur, extending from the lateral and medial condyles and occupying the upper third of the diaphysis. In addition, an area of hyperfixation, of moderate intensity, located in the projection of a metastatic brain lesion is visualized. What diagnosis can be suspected?

Osteosarcoma of the left femur Condition after combined treatment in 2016. Disease progression in 2018: metastases in lungs, brain, skeletal bones

What is the treatment tactic for stage 1?

Surgical treatment

The choice of surgical treatment tactics for a patient is determined on the basis of

Ophthalmological examination

In stage 2 of the patient's treatment, it is recommended that

Carrying out radiotherapy

In stage 3 of the patient's treatment it is recommended that

Carrying out drug therapy

Name the chemotherapy regimen for the patient

AR regimen: Doxorubicin 90 mg/M² w/v + Cisplatin 120 Mr/M² w/v or v/a infusion on day 1, every 4 weeks.
Scheme HD I: Ifosfamide 2000 mg/M² v/v On days 1-7

Patients with osteosarcoma who have completed the combined treatment phase should be monitored at intervals of 1 per.....

3 months for the first 2 years, then once every 6 months until a total of 5 years

What is the algorithm for detecting mts in the CNS?

MRI of the brain with intravenous contrast every 3 months

Application
Osteomodifying agents for pain relief should be started as early as possible and may be combined with simultaneous use of....

NSAIDs, opioid and non-opioid analgesics, GCS

During treatment at with zoledronic acid, which blood values do you need to monitor?

biochemical indicators (calcium, phosphate, magnesium)

5. The content of the assessment tools of mid-term assessment

Intermediate certification is carried out in the form of testing (30 test items out of 60, randomized sample) and one situational task (randomized sample).

5.1.1. Test tasks (UK-4, GPC-1, GPC-4, PC-5, PC-9, PC-10) are given in section 4.1.

5.1.2. Situational tasks (UK-4, GPC-1, GPC-4, PC-5, PC-9, PC-10) are given in section 4.2.

6. Criteria for evaluating learning outcomes

For the credit (example)

Learning outcomes	**Evaluation criteria**	
	Not passed	**Passed**
Completeness of knowledge	The level of knowledge is below the minimum requirements. There were bad mistakes.	The level of knowledge in the volume corresponding to the training program. Minor mistakes may be made

Availability of skills	Basic skills are not demonstrated when solving standard tasks. There were bad mistakes.	Basic skills are demonstrated. Typical tasks have been solved, all tasks have been completed. Minor mistakes may be made.
Availability of skills (possession of experience)	Basic skills are not demonstrated when solving standard tasks. There were bad mistakes.	Basic skills in solving standard tasks are demonstrated. Minor mistakes may be made.
Motivation (personal attitude)	Educational activity and motivation are poorly expressed, there is no willingness to solve the tasks qualitatively	Educational activity and motivation are manifested, readiness to perform assigned tasks is demonstrated.
Characteristics of competence formation*	The competence is not fully formed. The available knowledge and skills are not enough to solve practical (professional) tasks. Repeated training is required	The competence developed meets the requirements. The available knowledge, skills and motivation are generally sufficient to solve practical (professional) tasks.
The level of competence formation*	Low	Medium/High

***** - *not provided for postgraduate programs*

For testing:

Rating "5" (Excellent) - points (100-90%)
Rating "4" (Good) - points (89-80%)
Grade "3" (Satisfactory) - points (79-70%)

Less than 70% - Unsatisfactory - Grade "2"

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Date "_____" _____ 202__