MINISTRY OF SCIENCE AND HIGHER EDUCATION OF THE RUSSIAN FEDERATION,
MINISTRY OF SCIENCE, HIGHER EDUCATION AND INNOVATION
OF THE KYRGYZ REPUBLIC

Interstate Educational Institution of Higher Education
Kyrgyz-Russian Slavic University named after the First President
of the Russian Federation B.N. Yeltsin

APPROVED BY
Director
(position)
Abilova S.S.
(full name)
04.11. 2026

Polyclinic Surgery

working programme of the discipline (module)

Assigned to the department: Hospital Surgery named after Kh. S. Bebezov

Curriculum: 310501_26_1 лд plx
Specialty 31.05.01 (RF), 560001 (KR) General Medicine

Qualification: Medical Doctor (General Practitioner)

Mode of study: full-time

Total workload: 3 credit units

Hours per curriculum: 108
including:
classroom sessions: 64
independent work: 43.7

Forms of control by semester:
credit (zachet): 12

Distribution of the discipline's hours by semester

Semester (<Year>.<Semester of year>)	12 (6.2)		Total	
Weeks	18			
Type of class	CP	WP	CP	WP
Lectures	16	16	16	16
Practical classes	48	48	48	48
Contact work during theoretical training	0.3	0.3	0.3	0.3
Total classroom	64	64	64	64
Contact work	64.3	64.3	64.3	64.3
Independent work	43.7	43.7	43.7	43.7
Total	108	108	108	108

Программу составил(и):

Candidate of Medical Sciences, Associate Professor, Head of the Department of Hospital Surgery
Umetaliev Tilek Maratovich

Candidate of Medical Sciences, Associate Professor, Surov Edir Arbuduevich

Рецензент(ы):

Head of the Department of Surgical Diseases at the International Higher School of Medicine
Ermekov Turar Akhmetbekovich

Согласовано РОП:

Рабочая программа дисциплины

Поликлиническая хирургия

разработана в соответствии с ФГОС 3++:

Федеральный государственный образовательный стандарт высшего образования - специалитет по специальности 31.05.01 Лечебное дело (приказ Минобрнауки России от 12.08.2020 г. № 988)

составлена на основании учебного плана:

Специальность 31.05.01. - РФ, 560001 - КР Лечебное дело
(для иностранных студентов)

утвержденного учёным советом вуза от 26.06.2026 протокол № 11.

Рабочая программа одобрена на заседании кафедры госпитальной хирургии им. Х.С. Бебезова

Протокол от 26.08.2026 г. № 1
Срок действия программы: 2026-2031 уч.г.
Руководитель подразделения: Уметалиев Тилек Маратович

1. AIMS OF MASTERING THE DISCIPLINE

1.1	The aims of mastering the discipline are: further development of clinical thinking through the acquisition of practical skills in independent supervision of patients, in maintaining medical records, drawing up a diagnostic programme, interpreting the results of special investigation methods and resolving issues of surgical tactics. Students are trained with the development of skills and abilities for the independent work of a physician in the diagnosis and treatment of the most common surgical diseases.

2. PLACE OF THE DISCIPLINE IN THE STRUCTURE OF THE MAIN EDUCATIONAL PROGRAMME (MEP)

Cycle (section) of the MEP:	B1.B
2.1	**Requirements for the student's prior preparation:**
2.1.1	Faculty Surgery
2.1.2	General Surgery
2.1.3	Pathological Anatomy
2.1.4	Normal Physiology
2.1.5	Topographic Anatomy and Operative Surgery
2.1.6	Pathophysiology, Clinical Pathophysiology
2.1.7	Anatomy
2.2	**Disciplines and practical training for which mastering this discipline (module) is a prerequisite:**
2.2.1	Oncology, radiation therapy, continued training in clinical residency in surgery, plastic and reconstructive surgery, traumatology
2.2.2	Clinical residency in surgery

3. STUDENT COMPETENCIES FORMED AS A RESULT OF MASTERING THE DISCIPLINE (MODULE)

PC-6: ability to identify in a patient the main pathological conditions, symptoms, syndromes of diseases and nosological forms in accordance with the International Statistical Classification of Diseases and Related Health Problems, 10th Revision

Know:	
Level 1	the main pathognomonic signs of a pathological condition and their significance in combination with general clinical symptoms
Level 2	the main nosological forms of surgical diseases and the ability to determine the significance of a pathological condition
Level 3	the main problems of surgical diseases and analysis of their nosological forms
Be able to:	
Level 1	reveal the meaning of health-related problems and present the dynamics of development of a pathological condition
Level 2	compare various pathological conditions associated with health impairment
Level 3	determine the practical value of clinical symptoms and syndromes on the basis of which the pathological condition and the patient's health problems are constructed
Master:	
Level 1	skills of working with literature and identifying priority sources of information
Level 2	skills of searching, systematising and freely presenting material on surgical pathology and other nosological forms
Level 3	skills of identifying clinical symptoms and syndromes of nosological forms of surgical diseases, substantiating one's own position on the patient's health

PC-8: ability to determine the management tactics for patients with various nosological forms

Know:	
Level 1	the necessary methods and principles of managing patients with various nosological forms
Level 2	the main directions and methods of managing patients with various nosological forms
Level 3	the main directions and principles of therapeutic and diagnostic approaches in managing patients with various nosological forms
Be able to:	
Level 1	assess the condition of patients and determine the relationship with various nosological forms
Level 2	compare methods and tactics of managing patients with various nosological forms
Level 3	compare and select the necessary and effective methods of managing patients with various nosological forms
Master:	
Level 1	the main sources of information in the specialised literature
Level 2	methods of managing patients with various nosological forms
Level 3	skills of managing and treating patients with various nosological forms

PC-9: readiness to manage and treat patients with various nosological forms in outpatient and day-hospital settings	
Know:	
Level 1	the main therapeutic and diagnostic methods of managing patients with various nosological forms carried out in outpatient and day-hospital settings
Level 2	the main methods of diagnosis and treatment in managing patients with various nosological forms in outpatient and day-hospital settings
Level 3	the main therapeutic and diagnostic principles of managing patients with various nosological forms in outpatient and day-hospital settings
Be able to:	
Level 1	identify the main principles of management and the sequence of examination methods for patients with various nosological forms
Level 2	compare methods of managing and treating patients with various nosological forms in outpatient and day-hospital settings
Level 3	assess the practical value of therapeutic and diagnostic methods of managing patients in outpatient and day-hospital settings
Master:	
Level 1	skills of collecting literature sources on the management and treatment of patients with various nosological forms
Level 2	methods of searching for and systematising the principles of treating patients in outpatient and day-hospital settings
Level 3	skills of managing and treating patients with various nosological forms in outpatient and day-hospital settings

As a result of mastering the discipline, the student must	
3.1	**Know:**
3.1.1	– the aetiology and pathogenesis of the most common surgical diseases, traumatic injuries, developmental anomalies and critical conditions in patients with surgical pathology;
3.1.2	– the symptoms and features of the clinical course of the most common surgical diseases;
3.1.3	– the principles of their diagnosis (clinical, laboratory, instrumental) and differential diagnosis;
3.1.4	– surgical tactics and rational timing of treatment of the most common surgical diseases, traumatic injuries, developmental anomalies and critical conditions in patients with surgical pathology;
3.1.5	– the specifics of emergency care and intensive therapy in surgical diseases and critical conditions;
3.1.6	– the specifics of surgical treatment of children of various age groups with developmental anomalies, surgical diseases and traumatic injuries;
3.1.7	– the principles of rehabilitation and follow-up (dispensary) observation after surgical treatment;
3.1.8	– the principles of prevention of surgical diseases and traumatic injuries.
3.2	**Be able to:**
3.2.1	– assess the aetiopathogenesis and clinical picture of the most common surgical diseases;
3.2.2	– interview the patient and relatives, identify complaints, life history and history of the present illness;
3.2.3	– draw up a clinical examination plan;
3.2.4	– perform inspection and physical examination of patients with a surgical disease;
3.2.5	– make a preliminary diagnosis and determine treatment tactics;
3.2.6	– analyse the results of additional investigation methods in surgical
3.2.7	pathology;
3.2.8	– provide emergency care for surgical diseases and critical conditions in surgical patients;
3.2.9	– work independently with educational, scientific, regulatory and reference literature on surgery — search for information and turn what has been read into a means of solving professional tasks;
3.2.10	– keep the case history of a patient with a surgical disease;
3.2.11	– communicate freely with patients, competently using the knowledge acquired;
3.3	**Master:**
3.3.1	– methods of working with educational and teaching literature;
3.3.2	– methods of general clinical examination of patients;
3.3.3	– methods of analysing the results of laboratory examination (clinical and biochemical blood and urine tests, bacteriological and histomorphological studies, radiological studies: radiography, CT, MRI, etc.) and additional information on the patient's condition;
3.3.4	– the algorithm for making a preliminary diagnosis with subsequent referral of the patient to the appropriate specialist physician;
3.3.5	– performing the basic medical diagnostic and therapeutic measures to provide first medical aid in emergency and life-threatening conditions.

4. STRUCTURE AND CONTENT OF THE DISCIPLINE (MODULE)

Class code	Title of sections and topics /type of class/	Semester	Hours	Compe-tencies	Literature	Inter-active	Note
Unit 1. Cardiovascular surgery							
1.1	Congenital and acquired heart defects. Ischaemic heart disease (IHD). Post-infarction cardiac aneurysms. Pericarditis. Post-thrombophlebitic syndrome (PTS) /Lec/	12	2	PC-6 PC-8 PC-9	L1.1 L1.3 L1.6 L1.7 L2.2 L2.3 L2.4 E1 E2 E3	0	
1.2	Supervision of patients. Congenital heart defects. Acquired heart defects /Pr/	12	3	PC-6 PC-8 PC-9	L1.1 L1.3 L1.4 L1.5 L1.6 L1.7 L2.1 L2.2 L2.3 L2.4 E1 E2 E3 E4 E5	0	
1.3	IHD. Post-infarction cardiac aneurysms. Pericarditis. Post-thrombophlebitic syndrome (PTS) /Pr/	12	3	PC-6 PC-8 PC-9	L1.1 L1.3 L1.6 L1.7 L2.2 L2.3 L2.4 E1 E2 E3	0	
1.4	Medical deontology with surgical patients. Tetralogy of Fallot, coarctation of the aorta. Endovascular methods of treating acquired heart defects. Interventional methods of diagnosis and treatment of IHD. Diseases of the aorta and its branches, peripheral arterial disease, Takayasu disease, Leriche syndrome /SW/	12	5.5	PC-6 PC-8 PC-9	L1.1 L1.3 L1.6 L1.7 L2.1 L2.2 L2.3 L2.4 E1 E2 E3	0	
Unit 2. Thoracic surgery							
2.1	Diseases of the mediastinal organs. Lung cancer /Lec/	12	2	PC-6 PC-8 PC-9	L1.1 L1.3 L1.6 L1.7 L2.2 L2.3 L2.4 E1 E2 E3 E4 E5	0	
2.2	Diseases of the mediastinal organs. Diaphragmatic hernias. Relaxation (eventration) of the diaphragm /Pr/	12	3	PC-6 PC-8 PC-9	L1.1 L1.3 L1.6 L1.7 L2.2 L2.3 L2.4 E1 E2 E3	0	
2.3	Dysphagia syndrome. Lung cancer /Pr/	12	3	PC-6 PC-8 PC-9	L1.1 L1.3 L1.6 L1.7 L2.2 L2.3 L2.4 E1 E2 E3 E4 E5	0	
2.4	Diseases of the mediastinum (tumours, cysts). Pulmonary haemorrhage. Foreign bodies of the oesophagus. Benign lung tumours. Lung carcinoid /SW/	12	5.5	PC-6 PC-8 PC-9	L1.1 L1.3 L1.6 L1.7 L2.2 L2.3 L2.4 E1 E2 E3 E4 E5	0	
Unit 3. Purulent surgery							
3.1	Strangulated hernias. Intestinal fistulas /Lec/	12	2	PC-6 PC-8 PC-9	L1.1 L1.3 L1.6 L1.7 L1.8 L2.1 L2.2 L2.3 E1 E2 E3	0	
3.2	Strangulated hernias. Intestinal obstruction /Pr/	12	3	PC-6 PC-8 PC-9	L1.1 L1.3 L1.6 L1.7 L1.8 L2.1 L2.2 L2.3 E1 E2	0	
3.3	Modern methods of treating peritonitis. Intestinal fistulas. Diabetic foot and purulent-necrotic complications of diabetes mellitus /Pr/	12	3	PC-6 PC-8 PC-9	L1.1 L1.3 L1.6 L1.7 L1.8 L2.1 L2.2 L2.3 E1 E2 E3	0	
3.4	Richter's (parietal) strangulation. Rare forms of intestinal obstruction. Modern methods of treating peritonitis. Intestinal fistulas. Diabetes mellitus as a way of life /SW/	12	5.5	PC-6 PC-8 PC-9	L1.1 L1.3 L1.6 L1.7 L1.8 L2.1 L2.2 L2.3 E1 E2 E3	0	
Unit 4. Abdominal surgery							
4.1	Diseases of the spleen. Diseases of the operated stomach. Surgical treatment of gastric cancer /Lec/	12	2	PC-6 PC-8 PC-9	L1.1 L1.3 L1.6 L2.2 L2.3	0	
4.2	Diseases of the spleen. Diseases of the operated stomach. Surgical treatment of gastric cancer /Pr/	12	3	PC-6 PC-8 PC-9	L1.1 L1.3 L1.6 L2.2 L2.3	0	

Class code	Title of sections and topics /type of class/	Semester	Hours	Compe-tencies	Literature	Inter-active	Note
4.3	Interactive session: surgical knots and sutures /Pr/	12	3	PC-6 PC-8	L1.1 L1.3 L2.2	2	Mastering methods of tying surgical knots, skin suturing, applying intestinal sutures and tendon sutures
4.4	Thrombocytopenic purpura, splenic infarction, splenic trauma. Post-gastrectomy syndromes, GERD. Precancerous diseases of the stomach, methods of diagnosis and treatment. Surgical instruments, technique of surgical suturing /SW/	12	5.5	PC-6 PC-8 PC-9	L1.1 L1.3 L1.6 L2.2 L2.3	0	
Unit 5. Surgical endocrinology							
5.1	Surgical aspects of the treatment of Graves' disease. Diseases of the parathyroid glands. Diseases of the adrenal glands /Lec/	12	2	PC-6 PC-8 PC-9	L1.1 L1.2 L1.3 L1.6 L2.2 L2.3 L3.2 E1 E2 E3	0	
5.2	Nodular goitre. Thyroid cancer. Surgical aspects of the treatment of Graves' disease /Pr/	12	3	PC-6 PC-8 PC-9	L1.1 L1.2 L1.3 L1.6 L2.2 L2.3 L3.2 E1 E2 E3	2	Presentation
5.3	Diseases of the parathyroid glands. Diseases of the adrenal glands /Pr/	12	3	PC-6 PC-8 PC-9	L1.1 L1.2 L1.3 L1.6 L2.2 L2.3 L3.2 E1 E2 E3	0	
5.4	MEN I and MEN II syndromes. Hashimoto's goitre. Riedel's goitre. Urolithiasis as a manifestation of hyperparathyroidism. Pheochromocytoma, Conn's syndrome /SW/	12	5.5	PC-6 PC-8 PC-9	L1.1 L1.2 L1.3 L1.6 L2.2 L2.3 L3.2 E1 E2 E3	0	
Unit 6. Coloproctology							
6.1	Gastrointestinal bleeding. Topical issues of acute appendicitis. Ulcerative colitis. Crohn's disease. Colon cancer /Lec/	12	2	PC-6 PC-8 PC-9	L1.1 L1.2 L1.3 L1.6 L1.8 L2.1 L2.2 L2.3 L3.1 E1 E2 E3 E5	0	
6.2	Gastrointestinal bleeding. Topical issues of acute appendicitis (differential diagnosis with atypical position of the vermiform appendix; acute appendicitis in pregnant women, the elderly and children) /Pr/	12	3	PC-6 PC-8 PC-9	L1.1 L1.3 L1.6 L1.8 L2.1 L2.2 L2.3 L3.1 E1 E2 E3	2	One student plays a patient with acute phlegmonous appendicitis; the others practise diagnosing acute appendicitis
6.3	Ulcerative colitis. Crohn's disease. Diseases of the colon: diverticular disease, polyposis, dolichosigmoid. Colon cancer /Pr/	12	3	PC-6 PC-8 PC-9	L1.1 L1.2 L1.3 L1.6 L2.2 L2.3 E1 E3 E5	0	
6.4	Dieulafoy's lesion, Mallory–Weiss syndrome. Complications of acute appendicitis. Haemorrhoids. Acute paraproctitis. Hirschsprung's disease. Dolichosigmoid. Rectal cancer /SW/	12	5.5	PC-6 PC-8 PC-9	L1.1 L1.2 L1.3 L1.6 L1.8 L2.1 L2.2 L2.3 L3.1 E1 E2 E3 E5	0	
Unit 7. Diseases of the liver and pancreas							
7.1	Focal liver lesions. Portal hypertension syndrome. Liver and organ transplantation. Chronic pancreatitis. Cysts, fistulas, benign and malignant tumours of the pancreas /Lec/	12	2	PC-6 PC-8 PC-9	L1.1 L1.2 L1.3 L1.6 L1.8 L2.2 L2.3 E1 E2 E3 E4 E5	0	

Class code	Title of sections and topics /type of class/	Semester	Hours	Compe-tencies	Literature	Inter-active	Note
7.2	Focal liver lesions. Portal hypertension syndrome. Liver and organ transplantation /Pr/	12	3	PC-6 PC-8 PC-9	L1.1 L1.3 L1.6 L2.2 L2.3 E1 E2 E3 E4 E5	2	Presentation
7.3	Chronic pancreatitis. Cysts and fistulas of the pancreas. Benign and malignant pancreatic tumours /Pr/	12	3	PC-6 PC-8 PC-9	L1.1 L1.2 L1.3 L1.6 L1.8 L2.2 L2.3 E2 E5	0	Presentation
7.4	Major (extended) liver resections. Bleeding from oesophageal and gastric varices. Retrieval of organs and (or) tissues from a deceased donor and from a living donor for transplantation. Acute pancreatitis. Pancreatic insulinoma /SW/	12	5.5	PC-6 PC-8 PC-9	L1.1 L1.2 L1.3 L1.6 L1.8 L2.2 L2.3 E1 E2 E3 E4 E5	0	
Unit 8. Diseases of the extrahepatic bile ducts							
8.1	Modern tactics of diagnosis and treatment of gallstone disease and its complications. Postcholecystectomy syndrome. Cholangitis. Obstructive jaundice /Lec/	12	2	PC-6 PC-8 PC-9	L1.1 L1.3 L1.6 L2.2 L2.3 E1 E4	0	
8.2	Modern tactics of diagnosis and treatment of gallstone disease and its complications. Postcholecystectomy syndrome /Pr/	12	3	PC-6 PC-8 PC-9	L1.1 L1.3 L1.6 L2.2 L2.3 E1 E4	0	
8.3	Cholangitis. Obstructive jaundice /Pr/	12	3	PC-6 PC-8 PC-9	L1.1 L1.3 L1.6 L2.2 L2.3 E1 E4	0	
8.4	Mirizzi syndrome. Biliodigestive anastomoses: types, indications and technique. Choledochal cysts. Klatskin tumour /SW/	12	5.2	PC-6 PC-8 PC-9	L1.1 L1.3 L1.6 L2.2 L2.3 E1 E4	0	
8.5	/Credit/	12	0		L1.6 L2.2	0	
8.6	/CWTT/	12	0.3			0	
	Total: lectures 16 h; practical classes 48 h; independent work 43.7 h; contact work 0.3 h	12	**108**			**8**	

Abbreviations: /Lec/ – lecture; /Pr/ – practical class; /SW/ – independent (self-study) work; /Credit/ – pass/fail credit (zachet); /CWTT/ – contact work during theoretical training. PC – professional competence; L – literature (section 6.1); E – electronic resources (section 6.2).

5. ASSESSMENT FUND

5.1. Control questions and assignments

Questions for testing the KNOW level of learning: Appendix No. 1

Questions in units 1–8 relate to the credit (zachet) for semester 12

The list of typical assignments for testing the BE ABLE and MASTER levels of learning is in APPENDICES 4 and 5

5.2. Topics of term papers (projects)

A term paper is not provided for.

5.3. Assessment fund

TEST. The list of test questions by unit topic is in APPENDIX 5

Frontal questioning — list of questions: the list of theoretical questions from item 5.1, according to the unit topic.

Supervision of a patient

Clinical case tasks — the list of case tasks is in Appendix No. 4

Student report with a presentation

List of report topics:

1. Anatomy of the pancreas. Blood supply, venous and lymphatic drainage of the pancreas. Aetiology, pathogenesis and classification of acute pancreatitis. Clinical picture and diagnosis of acute pancreatitis, differential diagnosis. Comprehensive treatment of acute pancreatitis. Indications for surgical treatment, main types of surgical interventions in acute pancreatitis. Complications.
2. Strangulated hernias. Anatomy of the abdominal wall. Causes of strangulation of ventral hernias. Main diagnostic methods. Indications for surgical treatment. Methods of operation. Complications.

3. Surgical treatment of blood diseases. Classification of blood diseases. Indications for surgical treatment. Types of operations. Complications in the postoperative period.
4. Parasitic diseases of the liver. Classification. Aetiopathogenesis of echinococcosis. Clinical picture, diagnosis. Indications for surgical treatment. Types of operations.
5. Tumours of the extrahepatic ducts. Types of tumours of the extrahepatic ducts. Clinical picture, diagnosis. Types of palliative and radical operations. Postoperative management.
6. Diseases of the veins of the lower extremities. Anatomy of the vessels of the lower extremities. Diagnosis of vascular pathology. Clinical manifestations of thrombophlebitis and phlebothrombosis of the lower extremities. Types of surgical interventions.
7. Cardiospasm. Anatomy of the oesophagus. Classification of cardiospasm. Investigation methods. Para-surgical and surgical treatment. Complications.
8. Reconstructive surgery of the trachea. Anatomy of the tracheobronchial tree. Aetiology of tracheal stenoses. Types of surgical interventions. Complications.
9. Reflux oesophagitis. Causes of the disease. Clinical picture, diagnosis. Indications for surgical treatment. Types of oesophagofundoplication.
10. Pulmonary haemorrhage. Causes of pulmonary haemorrhage. Therapeutic and diagnostic algorithm for different degrees of bleeding. Para-surgical methods of haemostasis. Indications for surgery.
11. Tumours and cysts of the mediastinum. Anatomy of the mediastinum. Classification of mediastinal tumours and cysts. Diagnostic methods. Types of surgical interventions.
12. Myasthenia gravis. Causes of myasthenia. Classification. Clinical manifestations. Diagnosis. Indications for surgery. Types of surgical interventions. Complications.
13. Diaphragmatic hernias. Anatomy of the diaphragm. Causes of diaphragmatic hernias. Classification. Clinical manifestations, diagnostic methods. Types of operations.
14. Surgical treatment of IHD. Anatomy of the coronary vessels. Clinical picture and diagnosis of IHD. Types of endovascular interventions. Surgical treatment.
15. Diffuse familial polyposis of the colon. Aetiology. Clinical manifestations. Diagnosis. Extent of surgical intervention. Complications.
16. Differential diagnosis in gastrointestinal bleeding.
17. Functional and instrumental methods of investigation in diseases of the stomach and intestine.
18. Functional and instrumental methods of investigation in diseases of the liver, extrahepatic bile ducts and pancreas.
19. Differential diagnosis and treatment of diseases of the rectum and pararectal space.
20. Differential diagnosis and treatment of chronic non-specific ulcerative colitis and Crohn's disease.

Case history — the scheme for writing a case history is in Appendix No. 2

5.4. List of types of assessment tools

Frontal questioning

Tests

Clinical case tasks

Report with presentation

Supervision of a patient

Case history

Credit (zachet)

The list of assessment scales is in Appendix 3

6. EDUCATIONAL, METHODOLOGICAL AND INFORMATION SUPPORT OF THE DISCIPLINE (MODULE)

6.1. Recommended literature

6.1.1. Main literature

No.	Authors, compilers	Title	Publisher, year
L1.1	A.G. Abdulaeva	Hospital Surgery: Textbook	Moscow: GEOTAR-Media, 2015
L1.2	I.I. Dedov, G.A. Melnichenko, V.F. Fadeev	Endocrine Surgery: Textbook	Litterra, 2011
L1.3	Saveliev V.S., Kirienko A.I.	Clinical Surgery: National Guide in 3 volumes. Vol. 2: Study guide	Moscow: GEOTAR-Media, 2015
L1.4	V.K. Gostishchev	General Surgery	Moscow: GEOTAR-Media, 2015
L1.5	V.S. Saveliev, A.I. Kirienko	Surgical Diseases: Textbook	Moscow: GEOTAR-Media, 2014
L1.6	Ed. by Prof. Bogdanov A.E.	Methodological Recommendations: Programme and Case Tasks for the Interview at State Examinations in Surgical Disciplines	Moscow, 2011

No.	Authors, compilers	Title	Publisher, year
L1.7	Kochneva E.A., Gladenin V.F.	Faculty Surgery: Study Guide for Students of Higher Medical Educational Institutions	Moscow: Vlados-Press, 2015
L1.8	V.A. Stupin, V.V. Lapteva	Methodological Recommendations: Acute Surgical Diseases	Moscow, 2011

6.1.2. Additional literature

No.	Authors, compilers	Title	Publisher, year
L2.1	Kuzin M.I., Shkrob O.S., Kuzin N.M., Kuzin M.I.	Surgical Diseases: Textbook for Medical Students	Moscow: Meditsina, 2000
L2.2	Saveliev S.V., M.M. Abakumov, A.A. Adamyan, R.S. Akchurin, M.S. Alekseev	80 Lectures on Surgery: Educational and Practical Manual	GEOTAR-Media, 2008
L2.3	Bisenkov L.N., Trofimov V.M.	Hospital Surgery: Guide for Intern Physicians	Trofimov V.M., 2005
L2.4	Bisenkov L.N.	Thoracic Surgery: Guide for Physicians	St Petersburg: Gippokrat Publishing, 2004

6.1.3. Methodological materials

No.	Authors, compilers	Title	Publisher, year
L3.1	Kh.S. Bebezov, N.I. Akhunbaeva, B.Kh. Bebezov, S.B. Boronbaev	CLINICAL PICTURE AND COMPLICATIONS OF ACUTE APPENDICITIS: Teaching Manual	Bishkek, 2005
L3.2	Bebezov Kh.S., Bebezov B.Kh., Dvumarova A.A., Ilyenko M.V.	Surgical Endocrinology: Diagnosis and Surgical Treatment: Study Guide	Bishkek: KRSU Publishing, 2010

All sources are published in Russian; titles are given in English translation.

6.2. List of resources of the Internet information and telecommunication network

E1	Electronic library of a medical university	www.studmedlib.ru
E2	Electronic medical library	www.rosmedlib.ru
E3	Electronic medical library of the Vidar publishing house	www.vidar.ru/Library.asp
E4	Medical literature	http://www.medbook.net.ru/
E5	Electronic library of a medical university	http://www.studmedlib.ru/

6.3. List of information and educational technologies

6.3.1. Competence-oriented educational technologies

6.3.1.1	Traditional educational technologies — lectures, seminars, laboratory work of a reproductive type, focused primarily on communicating knowledge and methods of action passed to students in ready form and intended for reproductive learning and analysis of specific examples. Practical classes are most often held directly at the surgical clinic with mandatory patient visits.
6.3.1.2	Innovative educational technologies — classes that develop systems thinking and the ability to generate ideas when solving various creative tasks. These include classes at the mannequin simulation centre, as well as practical classes using the brainstorming method.
6.3.1.3	Information educational technologies — independent use by the student of computer equipment and Internet resources to complete practical assignments and independent work, and to become familiar with Internet sources and photo and video materials for the relevant unit. Preparation of lecture presentations by the teacher.

6.3.2. List of information reference systems and software

6.3.2.1	Hardware-software complex "Pirogov" — an interactive training software product that allows a clear logic of teaching students and physicians the cycle of natural-science disciplines: topographic anatomy, pathological anatomy, surgery.
6.3.2.2	Electronic library of a medical university — www.studmedlib.ru
6.3.2.3	Electronic medical library — www.rosmedlib.ru
6.3.2.4	Electronic medical library of the Vidar publishing house — www.vidar.ru/Library.asp
6.3.2.5	Medical literature — http://www.medbook.net.ru/
6.3.2.6	Electronic library of a medical university — http://www.studmedlib.ru/

7. MATERIAL AND TECHNICAL SUPPORT OF THE DISCIPLINE (MODULE)

7.1	The Department of Hospital Surgery is located at the I.K. Akhunbaev Clinic of the National Hospital under the Ministry of Health of the Kyrgyz Republic; in the surgical departments students supervise patients relevant to the topics. Students attend operations and patient dressings. At the clinic: a lecture hall for 200 seats equipped with a projector and an interactive whiteboard.
7.2	Practical classes are held at the clinic in 7 classrooms with 15 seats each.

7.3	The Department of Hospital Surgery is located at the I.K. Akhunbaev Clinic of the National Hospital under the Ministry of Health of the Kyrgyz Republic; in the surgical departments students supervise patients relevant to the topics. Students attend operations and patient dressings.
7.4	A lecture hall for 200 seats equipped with a projector and an interactive whiteboard.
7.5	To support the teaching process, the department has the following equipment: multimedia projectors – 2, video cameras – 3, television – 1, personal computers – 3, laptops – 2, sets of tables on the diagnosis of surgical diseases and types of operations, sets of slides for each topic, videos on surgical topics, sets of radiographs (CT, MRI), a set of clinical case tasks in surgery for each topic, a kit for practising surgical skills.

8. METHODOLOGICAL GUIDELINES FOR STUDENTS ON MASTERING THE DISCIPLINE (MODULE)

Technological maps of the discipline are in APPENDIX 6

METHODOLOGICAL GUIDELINES ON ORGANISING THE STUDY OF THE DISCIPLINE:

Training consists of classroom sessions (64 h), including a lecture course (16 h) and practical classes (48 h), and independent work (43.7 h); the total workload is 108 h (3 credit units). The main study time is allocated to practical work on surgical diseases. Supervision of patients, clinical case reviews and mastering practical skills of working with patients should be widely used. Practical classes are held as work at the patient's bedside, demonstration of topic-related video material and other visual aids, solving case tasks and test assignments, and analysis of clinical examples.

When analysing nosological forms of specific diseases, it is recommended to follow this sequence:

– definition;
– relevance of the nosological form studied and history of the issue;
– aetiology;
– pathogenesis, including genetic factors in the development of the disease, presence of concomitant pathology, pathomorphology;
– clinical picture;
– criteria for assessing the severity of the course at different periods of the disease;
– complications;
– possible outcomes, criteria of recovery, development of a chronic course, causes of death;
– laboratory and instrumental diagnosis;
– criteria for making the diagnosis at different periods of the disease;
– differential diagnosis;
– treatment: aetiological, pathogenetic, symptomatic, taking into account age and severity of the disease; emergency medical care in urgent conditions; treatment of severe forms of diseases; treatment and prevention of possible complications; inpatient and outpatient treatment;
– follow-up (dispensary observation), rehabilitation;
– prevention.

In accordance with the requirements of the FSES HE, active and interactive forms of classes must be widely used in the teaching process (business role-play games, analysis of specific clinical situations, search and research assignments using Internet resources, etc.). The share of classes conducted in interactive forms must be at least 10% of classroom sessions.

MODULAR CONTROL OF THE DISCIPLINE INCLUDES:

1. Current control: mastering of the study material in classroom sessions (lectures, practical classes; attendance and activity are also taken into account) and completion of mandatory independent work assignments.
2. Milestone (module) control: checking the completeness of knowledge and skills on the module material as a whole. Module control assignments are completed in writing and are a mandatory component of module control.
3. Interim control: a completed, documented part of the discipline — a set of closely related credit modules.

MAIN REQUIREMENTS FOR CURRENT CONTROL:

When structuring a practical class, teachers follow this general indicative plan:

1. Organisational stage of the class (time — up to 2%):
   1) roll call;
   2) assignment of the next topic as homework;
   3) motivation for the topic of this practical class;
   4) familiarising students with the aims and plan of the class.
2. Control and correction of the baseline level of knowledge (time — up to 20%):
   1) theoretical questioning on the current topic;
   2) correction of students' theoretical knowledge by the teacher;
   3) stage of demonstration of practical skills by the teacher (time — up to 15%);
   4) stage of demonstration of students' independent work (defence of a report with presentation) (time — up to 45%);
   5) final stage of the class (time — up to 18%): a) final control of the theoretical knowledge and skills formed by solving case tasks; b) summing up the practical class (the teacher's characterisation of how students achieved all aims of the class and individual assessment of knowledge and skills).

STUDENTS' INDEPENDENT WORK

It involves preparation for practical classes and includes study of specialised literature on the topic (recommended textbooks, teaching manuals, materials published in monographs, specialised journals and on recommended medical websites);

completion of search and research assignments using Internet resources; preparation of notes, seminar presentations, abstracts and multimedia presentations; conducting business games. Independent work is considered a type of academic work in the discipline and is carried out within the hours allotted to students' independent work. Each student is provided with access to the department's teaching and methodological room and the university library collections.

For each unit the department has developed methodological recommendations for students and methodological guidelines for teachers.

Working in a group develops a sense of collectivism, personal responsibility and communication skills. Attention must be paid to developing skills of communication with the patient. Working with patients helps form deontological behaviour, accuracy and discipline.

CLINICAL CASE TASK. MODEL ANSWER.

CONDITION:

A 37-year-old man was admitted 16 hours after the onset of the disease complaining of sudden severe cramping pain in the upper abdomen, repeated vomiting of food eaten, and abdominal distension. From the history: two years ago he was operated on for a penetrating wound of the abdominal cavity with injury to the liver and transverse colon. During the postoperative period several similar attacks were observed, which were effectively relieved by antispasmodics. This time the attack is more severe, and the usual conservative measures are ineffective.

Objectively: condition of moderate severity, the patient is restless and changes position. Pulse 90 per minute, blood pressure 110/70 mm Hg. The tongue is somewhat dry and coated. The abdomen is uniformly distended, soft, more tender in the upper sections; peristalsis is audible; peritoneal signs are absent. On the anterior abdominal wall there is a hypertrophic scar after midline laparotomy. A day ago the stool was normal. On rectal examination — traces of normally coloured faeces.

QUESTIONS:

1. Your preliminary diagnosis?
2. Plan of additional examination of the patient?
3. Role and extent of radiological examination, interpretation of data.
4. Aetiology and pathogenesis of the disorders developing in this pathology.
5. What is the extent of conservative therapeutic measures needed for this patient?
6. Indications for surgery, options for surgical interventions?
7. Measures aimed at preventing recurrence of the disease.

MODEL ANSWER

1. Acute intestinal obstruction caused by adhesions or by a strangulated post-traumatic diaphragmatic hernia.
2. The initial examination must include plain radiography of the abdominal cavity with monitoring of barium passage, and ultrasound examination.
3. The main aetiological factor in this case is a mechanical obstruction that caused ileus, resulting in partial or complete cessation of intestinal passage and, to a varying degree, impaired blood supply to the intestinal loop involved. Pathogenetically, among the many homeostatic disturbances, the greatest clinical significance belongs to developing water-electrolyte disorders, changes in intestinal wall permeability, necrosis of the intestinal wall, intestinal failure, endotoxicosis and secondary peritonitis.
4. A set of measures including: nil by mouth, gastric drainage, analgesia, intensive infusion therapy, antispasmodics, novocaine blocks, hyperbaric oxygenation (HBO), cleansing enemas, correction of developing multiple organ dysfunction.
5. The indication for surgery is the absence of a clear positive response (clinically and radiologically) to conservative treatment within 6 hours, signs of peritonitis, or a strangulated diaphragmatic hernia. In this case possible surgical options are: relief of obstruction, phrenoherniaplasty or adhesiolysis, resection (in case of necrosis) of the affected organ segment, transnasal intubation of the small intestine (if indicated).
6. Careful observance of the principles of operative technique, gentle handling of tissues, intubation of the small intestine, reliable hernioplasty, creation of hydroperitoneum, early restoration of peristalsis, postoperative HBO, hydrocortisone, antihistamines, physiotherapy, etc.

PROCEDURE FOR PATIENT SUPERVISION.

1. Theoretical preparation for patient supervision (familiarisation with the topic of the patient's disease).
2. Allocation of patients among students.
3. Establishing trusting contact with the patient.
5. Collecting complaints, history of the present illness and life history.
6. Inspection and examination of the patient by internal organ systems.
7. Inspection and description of clinical status.
8. Making a preliminary diagnosis.
9. Collecting laboratory data on the patient.
10. Making the clinical diagnosis.
11. Determining the tactics of the proposed treatment.
12. Writing progress notes and the interim or discharge summary in the educational case history.
13. Brief summary of aetiology, pathogenesis, clinical picture and treatment according to current literature.
14. Discussion of the educational case history in the group among students and with the department teacher.

CASE HISTORY.

The student completes the case history according to the following scheme:

I. GENERAL INFORMATION ABOUT THE PATIENT.

II. COMPLAINTS.

III. HISTORY OF PRESENT ILLNESS (Anamnesis morbi).

IV. LIFE HISTORY (Anamnesis vitae).

V. OBJECTIVE EXAMINATION.

VI. LABORATORY AND ADDITIONAL INVESTIGATIONS.

VII. CLINICAL DIAGNOSIS.

VIII. JUSTIFICATION OF THE CLINICAL DIAGNOSIS.

IX. DIFFERENTIAL DIAGNOSIS.

X. AETIOLOGY, PATHOGENESIS.

XI. PREOPERATIVE SUMMARY.

XII. OPERATION REPORT (scheme).

XIII. PROGRESS NOTES.

XIV. SUMMARY (EPICRISIS).

XV. PROGNOSIS.

XVI. OUTCOME OF THE DISEASE.

XVII. REFERENCES USED.

REPORT WITH PRESENTATION. Rules of preparation and writing:

An oral report should not be a retelling of other people's thoughts, but an attempt at independent problematisation and conceptualisation of a specific, fairly narrow and concrete topic. All footnotes in the work are carefully checked and given "addresses". It is unacceptable to include extracts from other authors' works without indicating this, to retell another's work close to the text without reference to it, or to use other people's ideas without indicating the original source. This also applies to sources found on the Internet; the full website address must be given. All cases of plagiarism must be excluded. A comprehensive list of all sources used is given at the end of the work.

Preparing a report for the class.

Main stages of report preparation:

– choosing a topic;
– consultation with the teacher;
– preparing the report plan;
– working with sources and literature, collecting material;
– writing the report text;
– formatting the manuscript and submitting it to the teacher before the report, which confirms the student's readiness to present;
– presenting the report and answering questions.

Report topics are offered by the teacher in the assessment fund.

Multimedia presentations are a type of students' independent work on creating visual information aids using the multimedia program PowerPoint. This type of work requires coordination of the student's skills in collecting, systematising and processing information and presenting it as a selection of materials briefly reflecting the main issues of the topic, in electronic form. Thus, creating presentation materials expands the methods and means of processing and presenting educational information and develops students' computer skills.

Presentation materials are prepared by the student as slides using Microsoft PowerPoint.

Requirements for students on preparing a presentation and defending it in class as a report.

1. The presentation topic is chosen by the student from the list in the assessment fund, must be agreed with the teacher and correspond to the topic of the class.
2. Stages of presentation preparation: drawing up the presentation plan (setting the task and aims of the work); thinking through each slide (at first this can be done by hand on paper), answering the questions: how does the idea of this slide reveal the main idea of the whole presentation? what will be on the slide? what will be said? how will the transition to the next slide be made?
3. Making the presentation in MS PowerPoint:
   – It makes sense to be neat. Sloppy slides (mixed fonts and indents, typos, typographic errors) suggest that the student-presenter also approached the content carelessly.
   – A title page is needed to introduce you and the topic of your report to the audience.
   – No more than 30 slides.
   – The optimal number of lines per slide is 6 to 11.
   – A common mistake is reading the slide word for word. It is best if the slide contains detailed information and the speech explains its meaning. Information on the slide may be more formal and strictly presented than in speech.
   – Optimal switching speed — one slide per 1–2 minutes.
   – Using more drawings, pictures, formulas, graphs and tables is welcome. Animation effects may be used.
   – When explaining tables, say what the rows and columns correspond to.

– Introduce only those notations and concepts without which the main ideas of the report cannot be understood.
– In a short talk, do not repeat the same thought, even in other words — time is precious.
– Every phrase should be said for a reason. Then the talk will be coherent and leave a good impression.
– In short presentations the last slide with conclusions need not be read aloud.
– The main font in text and formulas is recommended to be Arial or similar; Times looks poor from a distance. Be sure to set the main font size in MathType equal to the main text font size.

4. The student must prepare and deliver the report strictly within the time allotted by the teacher and on schedule.
5. Instructions for presenters:
   – communicate new information;
   – use technical aids;
   – know and be well oriented in the topic of the whole presentation;
   – be able to discuss and answer questions quickly;
   – strictly follow the established time limits: presenter — 10 min; discussion — 5 min.

It must be remembered that a talk consists of three parts: introduction, main part and conclusion.

The introduction helps ensure the success of a talk on any topic. The introduction should contain:

– the title of the presentation;
– a statement of the main idea;
– a current assessment of the subject;
– a brief list of the issues considered;
– a lively, interesting form of presentation.

The main part, in which the speaker should fully reveal the essence of the topic, is usually structured as a report. The task of the main part is to present enough data for the audience to become interested in the topic and want to study the materials. The logical structure of the theoretical block should not be given without visual aids, audio-visual and visual materials. The conclusion is a clear, precise generalisation and brief conclusions, which the audience always expects.

Appendix No. 1

Examination questions in Hospital Surgery (current and interim control)

Semester 12 — Unit 1

1. I.K. Akhunbaev and his role in the development of surgery in Kyrgyzstan.
2. Varicose disease. Relative insufficiency of venous valves. Aetiology, pathogenesis.
3. Varicose disease. Virchow's triad, clinical picture, surgical treatment.
4. Congenital heart defects. Ventricular septal defect (VSD): haemodynamic disorders, clinical picture, diagnosis, surgical treatment.
5. Congenital heart defects. Atrial septal defect (ASD): haemodynamic disorders, clinical picture, diagnosis, treatment.
6. Congenital heart defect. Coarctation of the aorta: haemodynamic disorders, clinical picture, diagnosis, treatment.
7. Closed injuries of the chest and its organs. Chest concussion: clinical picture, treatment. Chest contusion: clinical picture, treatment.
8. Significance of radiological diagnostic methods in surgery (X-ray, ultrasound, CT and MRI).
9. Iliofemoral syndrome: diagnosis, treatment.
10. Iliofemoral syndrome: aetiopathogenesis, clinical picture.
11. Foreign bodies of the oesophagus. Diagnosis, treatment.
12. Foreign bodies of the oesophagus. Clinical picture.
13. Ischaemic heart disease. History of surgical treatment of ischaemic heart disease.
14. Ischaemic heart disease. Clinical picture, diagnosis, indications for surgery. Principles of surgical treatment.
15. Coarctation of the aorta. Definition. Haemodynamic disorders. Clinical picture. Treatment methods.
16. Coarctation of the aorta. Definition. Haemodynamic disorders. Clinical picture. Treatment methods.
17. Mediastinal cysts. Classification. Clinical picture, diagnosis, indications for surgery.
18. Classification of mediastinal tumours and their topography. Clinical manifestations of mediastinal tumours. Principles of diagnosis and treatment.
19. Clinical picture of cicatricial stricture of the oesophagus. Location and forms of stricture. Diagnosis. Treatment by bougienage.
20. Clinical picture of cicatricial stricture of the oesophagus. Surgical treatment. Types of oesophageal replacement (plasty).
21. Coronary heart disease. Clinical picture, diagnosis, indications for surgery.
22. Minimally invasive methods of treating coronary heart disease.
23. Mediastinitis: aetiology, clinical picture, diagnosis, treatment. Prevention.
24. Mitral stenosis (classification according to B.V. Petrovsky and A.N. Bakulev), clinical picture, indications for surgery, types of operations.
25. Mitral valve insufficiency: causes, haemodynamic disorders, clinical picture, diagnosis, treatment.
26. Tricuspid valve insufficiency: causes, haemodynamic disorders, clinical picture, diagnosis, treatment.
27. Patent ductus arteriosus (Botallo's duct). Haemodynamic disorders, clinical picture, diagnosis, treatment.
28. Patent ductus arteriosus (Botallo's duct). Definition. Haemodynamic disorders. Clinical picture. Treatment methods.
29. Pericarditis. Classification. Aetiology, clinical picture, diagnosis, treatment of various forms of pericarditis.
30. Pericarditis. Classification, indications for and types of surgical treatment.
31. Post-infarction cardiac aneurysm: diagnosis, indications for surgical treatment, types of operation.
32. Post-infarction cardiac aneurysm. Classification of post-infarction cardiac aneurysms. Incidence.
33. Post-infarction cardiac aneurysm. Clinical picture, diagnosis. Indications and contraindications for surgery. Principles of surgical treatment.
34. Post-thrombophlebitic syndrome: definition, classification. Aetiopathogenesis. Clinical picture, diagnosis, treatment. Prevention.
35. Acquired heart defects. Mitral valve insufficiency: haemodynamic disorders, clinical picture, diagnosis, treatment.
36. Acquired heart defects. Aortic valve disease: haemodynamic disorders, clinical picture.

37. Acquired heart defects. Aortic valve disease: diagnosis, surgical treatment.
38. Tetralogy of Fallot: aetiopathogenesis, haemodynamic disorders, clinical picture, diagnosis and treatment.
39. Thrombophlebitis: definition, aetiopathogenesis, classification, clinical picture, diagnosis, treatment.
40. Thrombophlebitis: definition, aetiopathogenesis, classification.
41. Thrombophlebitis: definition, aetiopathogenesis, classification.
42. Surgical treatment of ischaemic heart disease (indications for surgical treatment, choice of surgical method, immediate and long-term results).
43. Endoscopic methods of diagnosis and treatment in surgery.

Unit 2

1. Oesophageal atresia: differential diagnosis. Importance of early diagnosis.
2. Oesophageal atresia: aetiology, pathogenesis, forms of atresia. Clinical picture, diagnosis, principles of surgical treatment.
3. Achalasia of the cardia (clinical picture, diagnosis, treatment, stages).
4. Femoral hernia: clinical picture, diagnosis and surgical treatment.
5. Femoral hernias: topography of the femoral canal, diagnosis, clinical picture, treatment.
6. Types of operations for hiatal hernias.
7. Types of oesophageal plasty for cicatricial strictures.
8. Secondary acute mediastinitis (aetiology, clinical picture, diagnosis).
9. Gastro-oesophageal reflux disease (clinical picture, diagnosis, treatment).
10. Hernias of the weak points of the diaphragm.
11. Hernias of the diaphragm proper.
12. Diaphragmatic hernias: aetiology, classification, clinical picture, diagnosis, surgical treatment.
13. Oesophageal diverticula.
14. Oesophageal diverticula: classification, clinical picture, diagnosis and treatment.
15. Retrosternal goitre (clinical picture, diagnosis, treatment).
16. Cardiospasm (clinical picture, diagnosis, treatment).
17. Mediastinal cysts (classification, aetiology, clinical picture, diagnosis, treatment).
18. Classification of mediastinitis.
19. Classification of mediastinal tumours.
20. Clinical picture of oesophageal burn.
21. Clinical picture of oesophageal injuries.
22. Clinical and anatomical forms of lung cancer — central, peripheral, atypical forms. Features of their radiological and clinical manifestations.
23. Clinical stages of oesophageal burn.
24. Combined burns of the oesophagus (diagnosis and treatment).
25. Treatment of acute purulent mediastinitis.
26. Treatment of chemical burns of the oesophagus in the acute period.
27. Lymphogenic tumours of the mediastinum (classification, clinical picture, diagnosis, treatment).
28. Mesenchymal tumours (classification, clinical picture, diagnosis, treatment).
29. Methods of oesophageal bougienage in chemical burns.
30. Methods of mediastinal drainage in purulent mediastinitis.
31. Neurogenic tumours of the mediastinum (classification, diagnosis, clinical picture, treatment).
32. Parasternal hernias.
33. Primary acute mediastinitis (aetiology, clinical picture).
34. Barrett's oesophagus.
35. Causes of oesophageal injuries and their prevention.
36. Lung cancer. Incidence and mortality worldwide. Morphological forms of lung cancer. Aetiology, pathogenesis, precancerous diseases. Metastasis of lung cancer. Prevention.
37. Lung cancer. Modern treatment methods. Early detection of lung cancer.
38. Lung cancer. Aetiology, classification, clinical picture, diagnosis, differential diagnosis.

39. Lung cancer: clinical manifestations — symptoms of the primary tumour, of locally advanced disease, signs of distant metastases.
40. Oesophageal cancer. Incidence, aetiology, classification, clinical picture, diagnosis, treatment and prognosis.
41. Early and late bougienage of the oesophagus in chemical burns.
42. Early and late bougienage in chemical burns of the oesophagus.
43. Relaxation (eventration) of the diaphragm.
44. Relaxation of the diaphragm: clinical picture, diagnosis. Indications for surgical treatment. Methods of diaphragmatic plasty.
45. Radiological diagnosis of foreign bodies of the oesophagus, oesophageal varices, post-burn stricture of the oesophagus.
46. Boerhaave syndrome.
47. Dysphagia syndrome.
48. Sliding (axial) hiatal hernia.
49. Sliding hernias. Aetiology, clinical picture, diagnosis, treatment.
50. Surgeon's tactics in oesophageal injuries.
51. Thymoma (aetiology, clinical picture, diagnosis, treatment).
52. Traumatic diaphragmatic hernias.
53. Chalasia of the cardia.
54. Chemical burns of the oesophagus. Pathogenesis. Clinical picture of the acute period. First aid and principles of treatment in the acute period. Early and late bougienage.
55. Chemical burns of the oesophagus. Pathogenesis. Clinical picture of the acute period. First aid and principles of treatment in the acute period. Early and late bougienage.
56. Chronic mediastinitis (aetiology, clinical picture, treatment).
57. Pericardial coelomic cyst (aetiology, clinical picture, diagnosis, treatment).
58. Oesophageal spasm. Definition. Clinical picture, diagnosis, differential diagnosis. Principles of treatment. Indications for surgical treatment, methods of operations.
59. Oesophageal spasm. Definition. Clinical picture, diagnosis, differential diagnosis. Principles of treatment. Indications for surgical treatment, methods of operations.
60. Mediastinal emphysema (aetiology, clinical picture, treatment).

Unit 3

1. Littre's hernia. Aetiology, clinical picture, methods of surgical treatment.
2. Hernias of the linea alba. Anatomical prerequisites for hernia formation. Clinical picture, diagnosis, differential diagnosis. Methods of operation.
3. Dynamic intestinal obstruction. Classification. Aetiology.
4. Dynamic intestinal obstruction. Clinical picture, diagnosis, treatment.
5. Volvulus of the sigmoid colon. Aetiopathogenesis, clinical picture, diagnosis, treatment.
6. Intussusception: aetiology, clinical picture, diagnosis and treatment.
7. Mechanical intestinal obstruction. Classification, aetiology, pathogenesis, pathological anatomy, clinical picture, diagnosis, treatment.
8. External intestinal fistulas: aetiology, classification, clinical picture, diagnosis, treatment.
9. Obstructive intestinal obstruction: clinical picture, diagnosis, differential diagnosis. Preoperative preparation and features of surgical treatment.
10. Obstructive intestinal obstruction: causes, pathogenesis. Features of water-electrolyte and acid-base disturbances.
11. Complications of gastric and duodenal ulcer disease. Penetration: clinical picture, diagnosis and treatment.
12. Complications of gastric and duodenal ulcer disease. Perforation: phases of development, clinical picture, diagnosis, choice of surgical method.
13. Complications of gastric and duodenal ulcer disease. Cicatricial deformity: clinical picture, diagnosis, preoperative preparation and surgical treatment.
14. Acute intestinal obstruction. Diagnosis. Differential diagnosis. Principles of treatment.
15. Inguinal hernia: topography of the inguinal canal, types, clinical picture, diagnosis and surgical treatment.

16. Peritonitis: classification, aetiology, pathogenesis, clinical picture, diagnosis, treatment. Causes of hypovolaemia, preparation of the patient for surgery.
17. Peritonitis: classification, aetiology, pathogenesis.
18. Peritonitis: clinical picture, diagnosis, treatment. Causes of hypovolaemia, preparation of the patient for surgery.
19. Postoperative (incisional) hernia of the anterior abdominal wall: pathogenesis, diagnosis, clinical picture and surgical treatment.
20. Postoperative management of patients. Enteral, parenteral and enteral tube feeding. Procedure for examining patients on parenteral nutrition.
21. Perforated gastric and duodenal ulcer. Classification of perforations, pathological anatomy. Clinical picture, stages of development.
22. Perforated gastric and duodenal ulcer. Clinical picture. Differential diagnosis. Surgical treatment.
23. Perforated gastric and duodenal ulcer. Classification of perforation. Clinical picture, diagnosis and treatment.
24. Umbilical hernia. Aetiology, clinical picture, methods of surgical treatment.
25. Cicatricial-ulcerative pyloric stenosis: clinical stages, diagnosis. Features of preoperative preparation. Tactics of surgical treatment.
26. Diabetic foot syndrome: classification, pathogenesis of neuropathic ulcers, principles of treatment and rehabilitation.
27. Diabetic foot syndrome: main risk factors for the development of diabetic foot.
28. Adhesive disease of the abdominal cavity: aetiology, pathogenesis. Clinical forms, diagnosis. Treatment.
29. Adhesive disease of the abdominal cavity: aetiology, pathogenesis. Clinical forms, diagnosis. Treatment.
30. Strangulating intestinal obstruction. Definition. Classification by aetiological causes. Features of pathogenesis. Diagnosis, differential diagnosis. Types of operations.
31. Strangulating intestinal obstruction. Definition. Clinical picture of various types of strangulating obstruction. Diagnosis.
32. Tactics of radiological examination in acute intestinal obstruction.
33. Small intestinal fistulas. Aetiology, clinical picture and diagnosis. Treatment tactics for high fistulas.
34. Colonic fistulas: aetiology, classification, clinical picture, diagnosis, treatment.
35. Mesenteric vascular thrombosis: clinical picture, diagnosis and treatment.
36. Knotting and volvulus of the small intestine. Aetiopathogenesis, clinical picture, diagnosis, treatment.
37. Strangulated hernia: clinical picture, diagnosis. Types and mechanism of strangulation. Principles of treatment of a strangulated hernia.

Unit 4

1. Splenic abscesses.
2. Diseases of the operated stomach. Hypoglycaemic syndrome: aetiopathogenesis, clinical picture, diagnosis, treatment.
3. Diseases of the operated stomach. Dumping syndrome: aetiopathogenesis, clinical picture, diagnosis, treatment.
4. Diseases of the operated stomach. Peptic ulcer of the anastomosis: aetiopathogenesis, clinical picture, diagnosis, treatment.
5. Diseases of the operated stomach. Cancer of the gastric stump: aetiopathogenesis, clinical picture, diagnosis, treatment.
6. Diseases of the operated stomach. Afferent loop syndrome: aetiopathogenesis, clinical picture, diagnosis, treatment.
7. Werlhof's disease (thrombocytopenic purpura): aetiopathogenesis, clinical picture, diagnosis, treatment.
8. Disease of the operated stomach: cancer of the gastric stump. Aetiology, pathogenesis, clinical picture, diagnosis, treatment.
9. Disease of the operated stomach: afferent loop syndrome. Aetiology, pathogenesis, clinical picture, diagnosis, treatment.
10. Two-stage (delayed) rupture of the liver and spleen (clinical picture, diagnosis, treatment).
11. Benign tumours and precancerous diseases of the stomach. Classification. Clinical picture. Diagnosis. Treatment tactics.
12. Splenic cysts.

13. Splenic injury: aetiology, clinical picture, diagnosis, treatment.
14. Splenic injuries (clinical picture, diagnosis and treatment).
15. Splenic injuries: diagnosis, treatment. Splenosis.
16. Splenic injuries: aetiology, clinical picture.
17. Injuries, infarction and cysts of the spleen. Clinical picture, diagnosis, treatment.
18. Gastric cancer. Incidence. Factors contributing to the development of gastric cancer. Classification. Clinical picture, diagnosis. Routes of metastasis. Treatment. Prognosis.
19. Gastric cancer. Classification, histological forms. Clinical picture. Diagnostic methods. Treatment tactics.
20. Early complications after gastric resection. Treatment, prevention.
21. Early complications after gastric resection. Causes, clinical picture.
22. Splenomegaly and hypersplenism.
23. Surgical treatment of gastric and duodenal ulcer disease. Billroth I and Billroth II gastric resection. Indications and technique.

Unit 5

1. Graves' disease: definition, aetiology, clinical picture, diagnosis and treatment.
2. Hypoparathyroidism, tetany. Pathogenesis, clinical picture, diagnosis, prognosis, treatment.
3. Diffuse toxic goitre. Conservative and surgical treatment.
4. Diffuse toxic goitre. Preoperative preparation. Methods of operations, complications of thyrotoxicosis.
5. Hashimoto's goitre. Definition, aetiology, pathogenesis, clinical picture, diagnosis, differential diagnosis. Indications for medical and surgical treatment.
6. Hashimoto's goitre. Definition, aetiology, pathogenesis, clinical picture, diagnosis, differential diagnosis. Indications for medical and surgical treatment.
7. Incidentaloma. Clinical picture, diagnosis, indications for surgical treatment.
8. Clinical picture and diagnosis of external, internal and occult bleeding. Complications of bleeding.
9. Parathyroid tumours. Clinical picture, diagnosis, treatment.
10. Complications during and after thyroid surgery. Clinical manifestations, treatment, prevention.
11. Complications. Prevention and treatment of thyrotoxic crisis and acute cardiovascular failure after surgery in patients with thyrotoxicosis.
12. Prevention and treatment of thyrotoxic crisis and acute cardiovascular failure after surgery in patients with thyrotoxicosis.
13. Thyroid cancer. Clinical and histological classification. Clinical picture, diagnosis, treatment. Outcomes and long-term results. Prognosis. Prevention.
14. Thyroid cancer. Extent of surgical intervention. Combined treatment — radiation, chemotherapy, hormone therapy, radioactive iodine therapy.
15. Cushing's (Itsenko–Cushing) syndrome. Aetiology, pathogenesis. Clinical picture, diagnosis, treatment.
16. Sporadic goitre: definition, classification, clinical picture, diagnosis and treatment.
17. Mitral valve stenosis: causes, haemodynamic disorders, clinical picture, diagnosis, treatment.
18. Strumitis. Definition. Aetiology, pathogenesis, clinical picture, diagnosis, differential diagnosis. Conservative and surgical treatment.
19. Thyroiditis. Conservative and surgical treatment.
20. Thyroiditis. Definition. Aetiology, pathogenesis, clinical picture, diagnosis, differential diagnosis.
21. Thyrotoxicosis. Classification, clinical picture, diagnosis, surgical treatment.
22. Thyrotoxicosis. Clinical picture, diagnosis, differential diagnosis.
23. Thyrotoxicosis. Definition. Aetiology, pathogenesis. Classification.
24. Nodular goitre: definition, classification, clinical picture, diagnosis and treatment.
25. Pheochromocytoma. Clinical picture, diagnosis, indications for surgical treatment.
26. Endemic goitre: conservative and surgical treatment. Prevention.
27. Endemic goitre: definition, clinical picture, diagnosis and treatment.
28. Endemic goitre: aetiology, pathogenesis, clinical picture, diagnosis.

Unit 6

1. Appendicular infiltrate (mass). Definition. Clinical picture, diagnosis and treatment.

2. Hirschsprung's disease. Aetiology. Pathogenesis, clinical picture, diagnosis, differential diagnosis, treatment.
3. Hirschsprung's disease. Aetiology. Pathogenesis, clinical picture, diagnosis, differential diagnosis, treatment.
4. Crohn's disease. Definition, clinical picture, diagnosis, treatment. Complications, their diagnosis and treatment.
5. Colonic diverticula: clinical picture, diagnosis, indications for surgical treatment and types of operations.
6. Incidence and mortality from colorectal cancer. Precancerous diseases of the colon and rectum. Methods of diagnosing colorectal cancer. Ways to improve early diagnosis.
7. Ischaemic colitis. Clinical picture, diagnosis, treatment.
8. Clinical picture and diagnosis of external, internal and occult bleeding. Dangers and outcomes of bleeding.
9. Clinical picture of colon and rectal cancer. Symptom groups. Clinical forms of colon cancer, relation to location.
10. Bleeding from oesophageal and cardiac varices. Differential diagnosis. Conservative treatment. Sengstaken–Blakemore tube.
11. Bleeding from oesophageal and cardiac varices. Methods of surgical treatment.
12. Bleeding gastric and duodenal ulcer. Classification by severity of bleeding. Pathogenesis of disorders. Clinical picture, diagnosis, differential diagnosis. Conservative and surgical treatment.
13. Treatment of patients with colon and rectal cancer. Radical and palliative operations. Radiation therapy and chemotherapy in the treatment of colorectal cancer.
14. Methods of stopping bleeding from oesophageal varices.
15. Ulcerative colitis (UC). Definition, clinical picture, diagnosis, treatment. Complications, their diagnosis and treatment.
16. Complications of appendicitis. Appendicular abscess. Clinical picture, diagnosis and treatment.
17. Complications of appendicitis. Pelvic and interloop abscess. Clinical picture, diagnosis and treatment.
18. Complications of acute appendicitis: classification, pathogenesis, clinical picture, diagnosis, treatment tactics.
19. Complications of acute appendicitis: classification, pathogenesis, clinical picture, diagnosis, treatment tactics.
20. Acute appendicitis in pregnant women: differential diagnosis, surgical treatment.
21. Acute appendicitis in children: aetiology, features of pathogenesis, clinical picture, diagnosis, features of the course in children under 3 years. Features of surgical treatment.
22. Acute appendicitis: clinical picture depending on the location of the vermiform appendix. Diagnosis.
23. Acute appendicitis: aetiology, pathogenesis, classification, differential diagnosis, surgical treatment.
24. Pylephlebitis. Definition. Clinical picture, diagnosis and treatment.
25. Rectal polyps. Clinical picture, diagnosis, treatment.
26. Colon cancer. Incidence. Classification, clinical picture, diagnosis, treatment. Features of surgical treatment in obstructing colon cancer.
27. Mallory–Weiss syndrome: aetiology, clinical picture, diagnosis, treatment.
28. Chronic appendicitis. Classification. Clinical picture, diagnosis, differential diagnosis. Indications and contraindications for surgical treatment.
29. Chronic non-specific ulcerative colitis. Methods of conservative and surgical treatment.
30. Chronic non-specific ulcerative colitis. Aetiology. Clinical picture, diagnosis.
31. Gastric and duodenal ulcer disease complicated by bleeding. Clinical picture, diagnosis, surgical tactics.

Unit 7

1. Alveococcosis of the liver. Aetiology, clinical picture, diagnosis and treatment.
2. Algorithm of staff actions in the presence of a potential donor.
3. Ascites. Methods of conservative and surgical correction.
4. Types of rejection reactions in transplantation.
5. Possibilities of using modern minimally invasive technologies in the treatment of portal hypertension.
6. Issues of general transplantology. History of transplantation. Terminology and classification. Legal aspects of transplantation. Immunosuppressive therapy.
7. Issues of organ donation. Introduction. Organ donors. Technique of donor organ retrieval. Methods of donor organ preservation. Principles of donor organ allocation. Transplantation aspects of brain death. Social aspects of organ donation.
8. Diagnosis of pancreatic cancer. Treatment methods.

9. Historical stages of transplantation development.
10. Pancreatic cysts. Classification, clinical picture, diagnosis. Principles of surgical treatment.
11. Classification of liver tumours. Aetiology, risk factors and precancerous diseases. Clinical manifestations of cancer. Methods of diagnosis and treatment.
12. Classification of portal hypertension.
13. Classification of chronic pancreatitis.
14. Clinical picture of portal hypertension.
15. Minimally invasive interventions for focal liver lesions.
16. Methods of diagnosing portal hypertension.
17. Methods of stopping bleeding from oesophageal varices.
18. Non-parasitic liver cysts. Aetiology, clinical picture, diagnosis, treatment.
19. Definition of "portal hypertension". Causes and pathogenesis of portal hypertension.
20. Klatskin tumour. Definition, classification, clinical picture, diagnosis and treatment.
21. Complications of portal hypertension.
22. Complications of organ transplantation (causes, prevention, treatment).
23. Main groups of surgical interventions in portal hypertension.
24. Basic terms of transplantology and types of transplantation.
25. Acute pancreatitis: definition, classification. Comprehensive treatment. Indications for surgical treatment.
26. Acute pancreatitis: aetiology, pathogenesis, classification, clinical picture, diagnosis.
27. Prehepatic (subhepatic) portal hypertension. Aetiology. Classification. Clinical picture, diagnosis. Principles of surgical treatment, methods of operations.
28. Indications for surgical treatment of patients with chronic pancreatitis.
29. Concept and procedure for establishing brain death.
30. Concept of transplantation immunity; pathogenesis of the immune response to the graft.
31. Portal hypertension. Aetiology. Classification. Clinical picture, diagnosis. Principles of surgical treatment, methods of operations.
32. Portal hypertension: aetiology, pathogenesis, classification, clinical picture, diagnosis. Surgical treatment. Methods of operations.
33. Principles of surgical treatment of portal hypertension. Types and methods of shunting operations.
34. Liver cancer. Aetiology, classification, clinical picture, diagnosis, treatment.
35. Pancreatic cancer. Incidence, aetiology, classification, clinical picture, diagnosis, treatment and prognosis.
36. Pancreatic cancer. Aetiology. Risk factors. Main clinical manifestations depending on the location and extent of the tumour.
37. Results of organ and tissue transplantation. Prospects and directions for the development of transplantology.
38. Pancreatic fistulas. Classification, clinical picture, diagnosis. Principles of treatment.
39. Pancreatic fistulas. Classification, clinical picture, diagnosis. Surgical treatment.
40. Budd–Chiari syndrome. Clinical picture, diagnosis, treatment.
41. Structure of the portal vascular system. Portosystemic anastomoses.
42. Liver transplantation (indications, contraindications, types and stages of operation).
43. Pancreas transplantation (general information, indications for surgery, types of operation).
44. Kidney transplantation (indications, contraindications, principles of donor selection, types and stages of operation).
45. Heart transplantation (indications, contraindications, main methods and stages of operation).
46. Conditions and procedure for performing transplantation.
47. Chronic pancreatitis: classification, aetiopathogenesis, clinical picture, diagnosis, differential diagnosis. Conservative treatment. Indications for surgical treatment, methods of surgical treatment.
48. Echinococcosis of the liver: biology of the parasite, clinical picture, diagnosis, differential diagnosis, treatment, prevention.
49. Echinococcosis of the liver: biology of the parasite, clinical picture, diagnosis, differential diagnosis, treatment, prevention.

Unit 8

1. Anomalies of the bile ducts and gallbladder. Diagnosis, treatment, prognosis.
2. Painless obstructive jaundice (causes, diagnosis, treatment).
3. Caroli disease. Aetiology, clinical picture, diagnosis and treatment.
4. Types of transhepatic drains (indications for use).
5. Secondary sclerosing cholangitis.
6. Distal strictures of the bile ducts (clinical picture, diagnosis, treatment).
7. Gallstone disease. Aetiology and pathogenesis of stone formation. Clinical picture, diagnosis. Treatment (extracorporeal lithotripsy, medical dissolution of stones), indications for surgery.
8. Gallstone disease. Causes. Clinical picture. Diagnosis. Treatment.
9. Instrumental methods of examination in obstructive jaundice.
10. Classification of postcholecystectomy syndrome.
11. Methods of examining patients with postcholecystectomy syndrome.
12. Methods of examining patients with obstructive jaundice.
13. Obstructive jaundice: aetiology, pathogenesis, classification, clinical picture, diagnosis, differential diagnosis. Surgical treatment. Methods of operations.
14. Obstructive jaundice: aetiology, pathogenesis, classification, clinical picture, diagnosis, differential diagnosis. Surgical treatment. Methods of operations.
15. External biliary fistulas (causes, diagnosis, treatment).
16. Tumours of the gallbladder and extrahepatic ducts. Aetiology. Clinical picture of cancer of the gallbladder and extrahepatic ducts. Diagnosis and treatment.
17. Complications of gallstone disease. Choledocholithiasis. Indications for choledochotomy and methods of completing it. Endoscopic papillotomy.
18. Complications after cholecystectomy. Reasons for repeat operations on the bile ducts. Types of bile duct drainage.
19. Features of diagnosis and treatment of bile duct strictures.
20. Acute cholangitis.
21. Indications for and methods of external and internal drainage of the bile ducts.
22. Indications for choledochotomy and methods of completing it.
23. Indications for endoscopic interventions in postcholecystectomy syndrome.
24. Postcholecystectomy syndrome: classification, clinical picture, diagnosis, treatment.
25. Causes of biliary system occlusions.
26. Reconstructive and restorative operations on the bile ducts in patients with postcholecystectomy syndrome.
27. Mirizzi syndrome (classification, diagnosis, treatment).
28. Methods of intraoperative examination of the bile ducts.
29. Stenosis of the major duodenal papilla (diagnosis, treatment).
30. Stricture of biliodigestive anastomoses.
31. Surgeon's tactics in bile duct injuries.
32. Surgical anatomy of the gallbladder and bile ducts; pathoanatomical classification of cholecystitis.
33. Surgical tactics in acute cholecystitis: indications for emergency, urgent and early (delayed) surgery.
34. Cholangitis. Classification, clinical picture, diagnosis, treatment.
35. Choledocholithiasis. Causes. Clinical picture and diagnosis. Treatment. Indications for choledochotomy and methods of completing it.
36. Chronic cholecystitis. Differential diagnosis and treatment.
37. Chronic cholecystitis. Aetiology, classification, clinical picture, diagnosis.
38. Endoscopic interventions in obstructive jaundice.

Appendix No. 2

SCHEME FOR WRITING THE CASE HISTORY OF A SURGICAL PATIENT

I. GENERAL INFORMATION ABOUT THE PATIENT:

1. Surname, first name, patronymic.
2. Age (year, month, date of birth).
3. Sex.
4. Place of residence.
5. Place of work.
6. Position held.
7. Profession, specialty.
8. Date and time of admission to the clinic.
9. Date of discharge from the clinic.
10. Number of bed-days.
11. Admitted as an emergency / as a planned admission.
12. Diagnosis: a) of the referring medical institution; b) on admission to the clinic; c) clinical: main disease, complication of the main disease, concomitant disease; d) final: main disease, complication of the main disease, concomitant disease.
13. Operation: name, date, time, duration, method of anaesthesia.
14. Blood group and Rh factor.
15. Outcome of the disease (recovery, improvement, no change, deterioration, death).
16. Working capacity (restored, temporarily lost, completely lost, referred to the Medical and Social Expert Commission).

II. COMPLAINTS:

(All of the patient's current complaints are listed briefly and clearly.)

III. HISTORY OF PRESENT ILLNESS (Anamnesis morbi).

The onset of the disease is established. A detailed description is given of the course and development of the present disease from its first manifestations to the examination by the supervising student.

Symptoms and the dynamics of the process are described chronologically, indicating the presumed causes of the disease. The initial state (background) against which the disease developed is noted, and the subsequent course of the disease is determined up to the moment the patient sought medical help. In chronic diseases, the duration of the disease, frequency and causes of exacerbations, and the patient's well-being during remissions are established. The nature and duration of treatment before admission to the clinic and its effectiveness are indicated.

In a previously operated patient, the nature and extent of the surgical intervention and the results of postoperative treatment must be established. If the patient has been transferred from another medical institution, it is desirable to obtain an extract from the case history.

IV. LIFE HISTORY (Anamnesis vitae).

Previous diseases, injuries, operations, transfusions of blood and blood substitutes. Post-transfusion reactions and complications. Drug tolerance. Heredity: malignant neoplasms, tuberculosis, mental illness, viral hepatitis, HIV carriage.

V. OBJECTIVE EXAMINATION:

A. Objective examination of the general condition (Status praesens communis).

It consists of successively performed inspection, palpation, percussion and auscultation, the principles of which are described in detail in textbooks on propaedeutics of internal diseases. The objective examination begins with an assessment of the patient's general condition.

General condition. It may be satisfactory, of moderate severity, severe or extremely severe. Body build: asthenic, hypersthenic or normosthenic. Patient's position: active, passive, forced (on the side, on the back, with legs drawn up to the abdomen). Consciousness: clear (full), clouded, unconscious. Facial expression: normal, suffering, mask-like. Sharpened facial features. Facial expressions. Eyes: shine, eyeball movements, eye signs.

Height. Weight.

Skin and visible mucous membranes. Skin colour: normal (pale pink), pale, cyanotic, icteric, grey (earthy). Skin pigmentation and its location. Elasticity, turgor, dryness, moisture of the skin. Pathological formations and their location: scars, warts, rashes, scratches, peeling, bedsores, tumours, etc. Mucous membranes: colour, moisture, coating, rashes, ulcerations, etc. Hair and nails: colour, baldness, hair loss, nail deformity, etc.

Subcutaneous tissue. Development: weak, moderate, excessive. Oedema: location, extent, severity, conditions of appearance and disappearance, elephantiasis.

Lymphatic system. Palpation of the submandibular, cervical, supraclavicular, subclavian, axillary, cubital, femoral and inguinal lymph nodes: size, shape, consistency, tenderness, adhesion to each other and surrounding tissues.

Muscles. Hypertrophy, atrophy, tone, tenderness, twitching, cramps.

Bones. Deformities of the skeleton: skull, spine, chest, shoulder girdle, upper and lower limbs, pelvis. Limb length.

Joints. Configuration, crepitus, tenderness, mobility, range of motion.

Neck. Presence of fistulas, tumours. Circumference in cm. Palpability and mobility of lymph nodes. Larynx: mobility, voice characteristics. Thyroid gland: displacement on swallowing, consistency and surface of the organ, tenderness, enlargement by degrees.

Chest, respiratory organs. Chest shape: normal, funnel-shaped, barrel-shaped, emphysematous. State of the subcutaneous tissue: crepitus, oedema. State of the supraclavicular and subclavian fossae and intercostal spaces. Chest circumference at nipple level. Type, rhythm, depth and rate of breathing per minute; Cheyne–Stokes, Kussmaul, Biot breathing. Dyspnoea: inspiratory, expiratory, mixed.

Mammary gland: shape, size, volume, symmetry, state of the nipple–areola complex. Palpation: presence of indurations, tumours, nodes, their size and location by quadrants, tenderness, mobility, adhesion to the skin. State of regional lymph nodes. Nipple discharge: colour, amount, character. The mammary glands are inspected and palpated with the patient in the upright and supine positions, with arms lowered and raised.

Percussion of the chest: comparative percussion, lung borders. Percussion sound over the lungs: clear pulmonary, box-like (hyperresonant), metallic. Dullness of the pulmonary sound: borders, severity, location.

Auscultation: vesicular, bronchial, amphoric breathing, absence of breath sounds; dry and moist rales (fine-, medium-, coarse-bubbling). Pleural friction rub. Bronchophony, vocal fremitus.

Circulatory organs. Pulse: rate per minute, rhythm, tension, filling, expression at different sites. Comparison of the pulse at symmetrical sites (e.g. both radial arteries). Pulsation of the iliac, femoral, popliteal, posterior tibial and dorsalis pedis arteries.

Heart: apex beat, "cardiac hump". Epigastric pulsation, "cat's purr" (thrill). On percussion — borders of relative and absolute cardiac dullness. Heart sounds at typical points. Heart murmurs.

Veins: location of venous dilatation. Induration and tenderness of veins, especially dilated ones. Troyanov, Trendelenburg and Hackenbruch signs, marching test for varicose veins of the lower extremities.

Digestive organs. Mouth, teeth, mucosa of the cheeks, palate and gums. Oral cavity: colour, pigmentation, ulcerations, scars, coating.

Tongue: moist or dry, clean or coated (character), colour, cracks, ulcers, etc.

Pharynx, tonsils: colour, state of the mucosa, size and shape of the tonsils, presence of coating, etc.

Abdomen: shape, symmetry, protrusion of individual areas. Mobility of the abdominal wall during breathing. Visible intestinal peristalsis. Wahl's sign. Skin: dilation of subcutaneous veins, pigmentation. Subcutaneous tissue: oedema. State of the umbilicus. Percussion of the abdomen: areas of tympanic sound and dullness, their location and severity. Palpation of the abdomen: superficial and deep (sliding) according to Obraztsov–Strazhesko. Sensitivity, tone, protective tension of the abdominal wall muscles. Structure (defects, gaps) of the abdominal wall, borders and properties of palpable organs. Identification of characteristic objective signs: Shchetkin–Blumberg, Voskresensky and others. State of the inguinal, femoral and umbilical rings, diastasis of the rectus muscles.

Anal region. Inspection determines the state of the skin, presence of fissures, fistulas, external haemorrhoids, rectal prolapse. Digital examination determines sphincter tone, pain on insertion of the finger, presence of fissures, tumours, faecal accumulation in the rectal ampulla, internal haemorrhoids, inflammatory infiltrates, the state of the rectal walls and adjacent organs (prostate, seminal vesicles).

Genitourinary organs. Inspection of the lumbar region. Pasternatsky's sign (tenderness and appearance of haematuria on tapping the lumbar region). Palpation of the kidneys in the supine, lateral and upright positions: tenderness, palpability, mobility, size. External genitalia in men: development, descent of the testes. Bimanual examination in women (by a gynaecologist).

Nervous system. Pupils: reaction to light (direct and consensual). Skin sensitivity: hypo-, hyper-, anaesthesia, dermographism (red, white, persistent, non-persistent). Tenderness along peripheral nerves. Reflexes: corneal, pharyngeal, abdominal, cremasteric, plantar, knee, Achilles. Gait. Speech.

B. Objective examination of the affected organ (system) — surgical (local) status (Status localis).

This section presents data from a detailed examination of the site of the pathological process; for example, when the main process is located in the vermiform appendix (acute appendicitis), the objective examination of the entire digestive system is described in detail. To avoid repetition, the corresponding organ system is transferred in full to the surgical status from section (A) of the general objective examination.

VI. LABORATORY AND ADDITIONAL INVESTIGATIONS

This section gives a brief description of the results of the laboratory and additional investigations performed, in chronological order.

VII. CLINICAL DIAGNOSIS

A full formulation of the main disease, complications of the main disease and concomitant disease is given. In emergency patients the clinical diagnosis is made within the first hours (up to 24 h) of admission to the surgical clinic; in planned patients it may be made on the day of admission but may be refined within the next 3 days.

VIII. JUSTIFICATION OF THE CLINICAL DIAGNOSIS

The clinical diagnosis is justified on the basis of the patient's complaints, history of present illness, life history, characteristic objective signs over time, and results of laboratory and other additional and special investigations. In this section the supervising student gradually, step by step, unfolds the history of the disease, explaining each symptom and establishing logical connections between them.

IX. DIFFERENTIAL DIAGNOSIS

Differential diagnosis is carried out between the present disease and diseases with a similar clinical picture. The differences in the manifestation of identical subjective and objective signs in the present and similar disease are analysed and determined.

X. AETIOLOGY, PATHOGENESIS

When discussing the aetiology of the disease, only those causes that led to the disease in this patient should be indicated. It should be remembered that the supervising student writes the case history of this particular patient — he or she should not copy information on the aetiology of a disease from textbooks, guides and manuals.

The pathogenesis section gives a generalised picture of the mechanism of disease development in this patient, indicating the main and secondary links of this mechanism, documenting the functional state of the patient's physiological systems, and indicating the mechanism of complications and the expected outcome of the disease.

XI. PREOPERATIVE SUMMARY

The preoperative summary contains a brief justification and full formulation of the clinical diagnosis, the extent and name of the proposed surgical intervention, and the method of anaesthesia (local, regional, intravenous anaesthesia, endotracheal anaesthesia). The patient's blood group and Rh factor are indicated, and whether transfusion of autologous blood, donor blood or blood substitutes is planned. It is also stated that the patient has been informed about the extent of the forthcoming operation, possible outcomes and the method of anaesthesia, and that the patient consents to the operation and has confirmed this with a signature. If the patient is unconscious or not competent, the decision to operate is confirmed by the signature of accompanying relatives or by a council of three physicians (three signatures).

XII. OPERATION REPORT (scheme):

OPERATION REPORT No. ___.

Diagnosis _____

Name of operation _____

Surgeon (full name) _____

Assistants (full names) _____

Scrub nurse (full name) _____

Anaesthesiologist (full name) _____

Date _____ Start _____ Duration _____

Description of the course of the operation:

XIII. PROGRESS NOTES (DIARY)

Progress notes are written daily or several times a day depending on the severity of the surgical patient's condition. They reflect in detail the dynamics of complaints, objective condition and local status of the patient during the day. The prescription of potent and narcotic drugs is justified.

XIV. SUMMARY (EPICRISIS)

The summary may be preoperative (described above), interim, discharge or post-mortem.

An interim summary is drawn up every 10 days of the patient's stay in the surgical clinic; it reflects the course of the disease over these days, changes in the clinical diagnosis, and the need for additional diagnostic and therapeutic measures. If necessary, it is signed by the deputy chief physician for clinical expert review.

On discharge, a discharge summary is drawn up, detailing the clinical diagnosis, history of the disease, length of treatment in the clinic, results of diagnostic measures, all therapeutic measures performed, surgical intervention, local and general status at discharge, and recommendations.

A post-mortem summary is drawn up in the event of death.

XV. PROGNOSIS

The prognosis for life, health and working capacity should be justified by facts obtained from observation of the course of the disease and repeated laboratory and instrumental investigations during treatment.

XVI. OUTCOME OF THE DISEASE

The outcome of the disease may be: recovery, improvement, no change, death. In the event of death, indicate the presumed cause of death.

XVII. REFERENCES USED

A list of literature sources used in writing the case history is given: textbooks, guides, study guides, monographs, journal articles, lectures.

APPENDIX 3

ASSESSMENT SCALE FOR A CLINICAL CASE TASK (current and milestone control)

No.	Indicator	Score (%)
1	Correctness of the diagnosis	0–30
2	Correctness of the choice of action algorithm	0–25
3	Correctness of the choice of additional diagnostic methods	0–20
4	Correctness of the prescribed treatment tactics	0–25
	Total points	Sum of points

ASSESSMENT SCALE FOR PATIENT SUPERVISION — READING IMAGES (current control)

No.	Indicator	Score (%)
1	Correct interpretation of plain radiographs	0–20
2	Correct interpretation of computed tomography (MRI and CT)	0–40
3	Correct interpretation of contrast radiographs	0–20
4	Correct interpretation of ultrasound images	0–20
	Total points	Sum of points

ASSESSMENT SCALE FOR PATIENT SUPERVISION — ANALYSIS OF LABORATORY TESTS (current control)

No.	Indicator	Score (%)
1	Preliminary assessment of the patient's condition by external signs	0–30
2	Correct reading of the complete blood count, urinalysis and blood biochemistry	0–70
	Total points	Sum of points

CRITERIA FOR ASSESSING THE MASTERY OF PRACTICAL SKILLS AND ABILITIES:

Grade	Assessment criteria
85–100%	the student has systematic theoretical knowledge (knows the technique of practical skills, indications and contraindications, possible complications, standards, etc.) and independently demonstrates practical skills without errors;
70–84%	the student has theoretical knowledge (knows the technique of practical skills, indications and contraindications, possible complications, standards, etc.) and independently demonstrates practical skills, making some inaccuracies (minor errors) which he/she detects and corrects quickly;
60–69%	the student has satisfactory theoretical knowledge (knows the basic provisions of the technique of practical skills, indications and contraindications, possible complications, standards, etc.) and demonstrates practical skills, making some errors which he/she can correct when the teacher points them out;
"unsatisfactory"	the student lacks a sufficient level of theoretical knowledge (does not know the technique of practical skills, indications and contraindications, possible complications, standards, etc.) and/or cannot independently demonstrate practical skills or performs them with gross errors.

ASSESSMENT SCALE FOR PATIENT SUPERVISION — PARTICIPATION IN DRESSING PROCEDURES (current control)

No.	Indicator	Score (%)
1	Compliance with infection control (medical uniform, hand hygiene, etc.)	0–15
2	Assessment of the wound condition	0–20
3	Wound treatment	0–25
4	Fixation of dressings with adhesive plaster or bandage	0–25
5	Ability to use surgical instruments	0–15
	Total points	Sum of points

ASSESSMENT SCALE FOR FRONTAL QUESTIONING (current control)

No.	Indicator	Score (%)
1	Persuasiveness of the answer	0–10
2	Understanding of the problem and adequacy of interpretation	0–30
3	Justified use of medical terminology (appropriateness and reliability of information)	0–30
4	Keywords (anatomy): their importance for the stated topic, correct use, number	0–15
5	Logic and consistency of the oral statement	0–10
	Total points	Sum of points

ASSESSMENT SCALE FOR THE THEORETICAL ASSIGNMENT (interim control)

Each question of the examination card is assessed:

No.	Indicator	Score (%)
1	Question 1	0–100
2	Question 2	0–100
3	Question 3	0–100
4	Question 4	0–100
	Total points	Arithmetic mean (sum of points / 4)

"85–100%"

– deep and solid mastery of the material of the topic or unit;
– complete, consistent, competent and logically presented answers;
– demonstration of knowledge within the programme covered and additional recommended literature;
– reproduction of the study material with the required degree of accuracy.

"75–84%"

– minor errors, confidently corrected by the student after additional and leading questions;
– demonstration of knowledge within the programme covered;
– clear presentation of the study material.

"60–74%"

– minor errors in the answer that the student does not correct;
– insufficiently complete knowledge of the programme covered;
– unstructured, incoherent presentation of the study material.

"less than 60%"

– lack of knowledge of the material of the topic or unit;
– serious errors in the answer.

TEST ASSESSMENT SCALE (milestone control)

1. One test assignment contains 25 closed questions.
2. Ready-made answers are given for selection: one correct and the others incorrect.
3. The student must remember: each single-choice item has a correct answer.
4. Each correct answer — 4 points.
5. The overall score is the sum of points obtained.
6. Score (in %).

ASSESSMENT SCALE FOR A REPORT WITH PRESENTATION (current control)

No.	Indicator	Score (%)
	FORM	**10**
1	Division of the text into introduction, main part and conclusion	0–5
2	Logical and clear transition from one part to another and within parts	0–5
	CONTENT	**50**
1	Relevance to the topic	0–10
2	Presence of the main theme (thesis) in the introduction and its address to the reader	0–10
3	Development of the theme (thesis) in the main part (disclosure of the main points through a system of arguments supported by facts, examples, etc.)	0–15
4	Presence of conclusions corresponding to the topic and content of the main part	0–15
	PRESENTATION	**25**
1	Title slide with heading	0–2
2	Slide design and use of additional effects (slide transitions, sound, graphics)	0–5
3	Presentation text is concise and well written; ideas are clearly stated and structured	0–10
4	Slides are presented in a logical sequence	0–5
5	Slides are printed in notes format	0–3
	REPORT	**15**
1	Correctness and accuracy of speech during the defence	0–5
2	Breadth of outlook (answers to questions)	0–5
3	Adherence to the time limit	0–5
	Total points	Sum of points

ASSESSMENT SCALE FOR WRITING THE CASE HISTORY (interim control)

No.	Indicator	Score (%)
1	GENERAL INFORMATION ABOUT THE PATIENT	0–2
2	COMPLAINTS (all current complaints listed briefly and clearly)	0–7
3	HISTORY OF PRESENT ILLNESS	0–7
4	LIFE HISTORY	0–7
5	OBJECTIVE EXAMINATION	0–8
6	LABORATORY AND ADDITIONAL INVESTIGATIONS	0–7
7	CLINICAL DIAGNOSIS and JUSTIFICATION OF THE CLINICAL DIAGNOSIS	0–10
8	DIFFERENTIAL DIAGNOSIS	0–7
9	AETIOLOGY, PATHOGENESIS	0–8
10	TREATMENT	0–9
11	PREOPERATIVE SUMMARY	0–7
12	OPERATION REPORT according to the scheme	0–7
13	PROGRESS NOTES	0–7
14	SUMMARY and PROGNOSIS	0–7
	Total points	Sum of points

ASSESSMENT SCALE FOR GENERAL KNOWLEDGE OF THE DISCIPLINE (final control of the discipline)

ASSESSMENT SCALE FOR ORAL QUESTIONING (interim control — "KNOW")

When assessing oral answers testing the KNOW level of learning, the following criteria are taken into account:

1. Knowledge of the main processes of the subject area studied; depth and completeness of the answer.
2. Command of terminology and its use in the answer.
3. Ability to explain the essence of phenomena, events and processes, draw conclusions and generalisations, and give reasoned answers.

4. Command of monologue speech, logic and consistency of the answer, ability to answer questions and express one's opinion on the problem discussed.

16–20 points are awarded for an answer showing solid knowledge of the following:

– aetiology, pathogenesis and prevention of the most common surgical diseases;
– the modern classification of surgical diseases;
– the clinical picture, features of the course and possible complications of diseases in children of various age groups;
– the basic principles of diagnosing surgical diseases of childhood;
– modern methods of clinical, laboratory and instrumental examination of patients;
– treatment methods and indications for their use;
– the fundamentals of organising outpatient and polyclinic care for the population;
– the timing of surgical treatment of congenital malformations in children;
– principles of dispensary observation and rehabilitation of patients;
– ethical and deontological aspects of paediatric surgery.

The student demonstrated logic and consistency in the answer.

10–15 points are awarded for an answer revealing solid knowledge of the following:

– aetiology, pathogenesis and prevention of the most common surgical diseases;
– the modern classification of surgical diseases;
– the clinical picture, features of the course and possible complications of diseases in children of various age groups;
– the basic principles of diagnosing surgical diseases of childhood;
– modern methods of clinical, laboratory and instrumental examination of patients;
– treatment methods and indications for their use;
– the fundamentals of organising outpatient and polyclinic care for the population;
– the timing of surgical treatment of congenital malformations in children;
– principles of dispensary observation and rehabilitation of patients;
– ethical and deontological aspects of paediatric surgery.

The student demonstrates logic and consistency in the answer. However, one or two inaccuracies in the answer are allowed.

5–10 points are awarded for an answer showing basic knowledge of the following:

– aetiology, pathogenesis and prevention of the most common surgical diseases;
– the modern classification of surgical diseases;
– the clinical picture, features of the course and possible complications of diseases in children of various age groups;
– the basic principles of diagnosing surgical diseases of childhood;
– modern methods of clinical, laboratory and instrumental examination of patients;
– treatment methods and indications for their use;
– the fundamentals of organising outpatient and polyclinic care for the population;
– the timing of surgical treatment of congenital malformations in children;
– principles of dispensary observation and rehabilitation of patients;
– ethical and deontological aspects of paediatric surgery.

Several errors in the content of the answer are allowed.

1–4 points are awarded for an answer revealing ignorance of theory on virtually all topics, inability to give reasoned answers, poor command of monologue speech, and lack of logic and consistency. Serious errors in the content of the answer are made.

0 points are awarded for an answer in which the student shows a lack of understanding of the problem, or there is no answer and no attempt to solve the task. Previously filled in the case history poorly.

For solving a clinical case task the student can earn a maximum of 10 points — 100%. For the case task assessment scale, see above.

Appendix No. 4

Clinical case tasks in the discipline Hospital Surgery

TASK No. 1

A 65-year-old man with a confirmed diagnosis of intestinal diverticulosis is admitted to the department with fever and intense diffuse abdominal pain. The abdomen is tender in all areas, the anterior abdominal wall is tense, and bowel sounds are absent.

1. Your preliminary diagnosis?
2. Choice of examination tactics for this patient.
3. Plan of additional examination of the patient?
4. Choice of surgical treatment tactics. Indications for surgery, options for surgical interventions?

TASK No. 2

Six hours after the start of treatment the pain persists; on palpation in the right hypochondrium a sharply tender gallbladder fundus measuring 4×6 cm is found. Pulse 104/min, body temperature 37.5 °C. Blood test: leukocytes 12.5×10<super>3</super>/L, leukocyte formula unchanged, ESR 25 mm/h.

1. Your preliminary diagnosis?
2. Choice of examination tactics for this patient.
3. Plan of additional examination of the patient?
4. Choice of surgical treatment tactics. Indications for surgery, options for surgical interventions?

TASK No. 3

Patient V., 58 years old, complains of repeated vomiting twice a day, weakness and weight loss of 12 kg over the last 4 months. On examination: condition of moderate severity. Skin with an earthy tinge. Reduced nutrition. Skin turgor decreased. HR 88 beats per minute, BP 110/60 mm Hg. The abdomen is retracted, soft and painless on palpation; in the epigastric region a dense, poorly mobile tumour 10 cm in diameter is palpated. On palpation of the gastric area — succussion splash. Complete blood count: RBC 4.8×10<super>12</super>/L; Hb 156 g/L; leukocytes 8.4×10<super>9</super>/L; ESR 2 mm/h.

1. Your preliminary diagnosis?
2. Choice of examination tactics for this patient.
3. Plan of additional examination of the patient?
4. Choice of surgical treatment tactics. Indications for surgery, options for surgical interventions?

TASK No. 4

On percussion, tympanitis is found in the right hypochondrium, with dullness of the percussion sound in the right lateral canal and right iliac region. On a plain radiograph, a crescent-shaped lucency under the dome of the diaphragm — free gas.

1. Your preliminary diagnosis?
2. Choice of examination tactics for this patient.
3. Plan of additional examination of the patient?
4. Choice of surgical treatment tactics. Indications for surgery, options for surgical interventions?

TASK No. 5

A 25-year-old woman is admitted with complaints of low-grade fever, weight loss, cramping pain in the left iliac region, diarrhoea with blood and tenesmus. Colonoscopy revealed changes in the rectal mucosa: hyperaemia, granularity and bleeding on minimal mechanical contact. Your diagnosis?

1. Your preliminary diagnosis?
2. Choice of examination tactics for this patient.
3. Plan of additional examination of the patient?
4. Choice of surgical treatment tactics. Indications for surgery, options for surgical interventions?

TASK No. 6

During surgery for chronic calculous cholecystitis, an enlarged pancreas of dense consistency was found, the common bile duct was dilated to 2 cm, and intraoperative cholangiography showed a cicatricial narrowing of its distal part. Surgeon's tactics.

1. Your preliminary diagnosis?
2. Choice of examination tactics for this patient.
3. Plan of additional examination of the patient?
4. Choice of surgical treatment tactics. Indications for surgery, options for surgical interventions?

TASK No. 7

Patient N., 64 years old, complains of constant epigastric pain unrelated to food intake, which first appeared 5 months ago.

On examination: condition satisfactory. Skin somewhat pale. Reduced nutrition. Peripheral lymph nodes not enlarged. HR 88 beats per minute, BP 150/90 mm Hg. The abdomen is soft and painless on palpation; in the epigastric region a dense mobile tumour 7 cm in diameter is palpated. Examination: on oesophagogastroduodenoscopy — an ulcerative-infiltrative tumour along the lesser curvature and posterior wall of the stomach from the subcardial to the prepyloric section. Histology — signet-ring cell gastric cancer. Gastric fluoroscopy — from the subcardial to the antral section along the lesser curvature, a filling defect with a barium depot in the centre; gastric mobility preserved, evacuation not impaired. Further examination revealed no evidence of distant metastases.

1. Your preliminary diagnosis?
2. Choice of examination tactics for this patient.
3. Plan of additional examination of the patient?
4. Choice of surgical treatment tactics. Indications for surgery, options for surgical interventions?

TASK No. 8

A 51-year-old patient was admitted with complaints of heaviness in the epigastric region, early satiety, belching with a rotten smell and sharp weight loss. About three weeks before admission, periodic profuse vomiting with remnants of food eaten the day before appeared. For 7 years he has suffered from gastric ulcer disease with annual exacerbations.

Objectively: emaciated, skin dry and flabby, gathers into folds. Abdomen soft, fasting "succussion splash" below the umbilicus. BP 90/75 mm Hg. Positive Chvostek's sign.

1. Your preliminary diagnosis?
2. Choice of examination tactics for this patient.
3. Plan of additional examination of the patient?
4. Choice of surgical treatment tactics. Indications for surgery, options for surgical interventions?

TASK No. 9

Patient N., 64 years old, complains of constant epigastric pain unrelated to food intake, which first appeared 5 months ago.

On examination: condition satisfactory. Skin somewhat pale. Reduced nutrition. Peripheral lymph nodes not enlarged. HR 88 beats per minute, BP 150/90 mm Hg. The abdomen is soft and painless on palpation; in the epigastric region a dense mobile tumour 7 cm in diameter is palpated. Examination: on oesophagogastroduodenoscopy — an ulcerative-infiltrative tumour along the lesser curvature and posterior wall of the stomach from the subcardial to the prepyloric section. Histology — signet-ring cell gastric cancer. Gastric fluoroscopy — from the subcardial to the antral section along the lesser curvature, a filling defect with a barium depot in the centre; gastric mobility preserved, evacuation not impaired. Further examination revealed no evidence of distant metastases.

1. Your preliminary diagnosis?
2. Choice of examination tactics for this patient.
3. Plan of additional examination of the patient?
4. Choice of surgical treatment tactics. Indications for surgery, options for surgical interventions?

TASK No. 10

During surgery for a tumour of the splenic flexure of the colon, a 7×8 cm cyst of the pancreatic tail was found, intimately adherent to the splenic hilum.

1. Your preliminary diagnosis?
2. Choice of examination tactics for this patient.
3. Plan of additional examination of the patient?
4. Choice of surgical treatment tactics. Indications for surgery, options for surgical interventions?

TASK No. 11

Several months after a Billroth II gastric resection performed for ulcer disease, a 48-year-old woman complains of palpitations, sweating, diarrhoea and facial flushing appearing 30 minutes after eating. Make a diagnosis.

1. Your preliminary diagnosis?
2. Choice of examination tactics for this patient.
3. Plan of additional examination of the patient?
4. Choice of surgical treatment tactics. Indications for surgery, options for surgical interventions?

TASK No. 12

Patient E., 47 years old, was admitted to the clinic with complaints of intense pain in the upper half of the abdomen that appeared suddenly 2 hours earlier. From the history: the patient has long suffered from gastric ulcer disease and has lost a lot of weight in recent months. On examination: condition relatively satisfactory. Pulse 84 beats per minute. BP 110/70 mm Hg. The abdomen is not distended; on palpation it is sharply tense and tender in all areas. Shchetkin's sign positive. Plain radiography revealed free gas in the abdominal cavity. Emergency laparotomy revealed an ulcer of the prepyloric stomach on the lesser curvature, with whitish edges of cartilaginous density, with a perforation 2 mm in diameter in the centre. In the lesser omentum there are dense lymph nodes enlarged to 1.5 cm.

1. Your preliminary diagnosis?
2. Choice of examination tactics for this patient.
3. Plan of additional examination of the patient?
4. Choice of surgical treatment tactics. Indications for surgery, options for surgical interventions?

TASK No. 13

A 60-year-old man complains of pain and numbness in the left leg occurring when walking. After rest the pain passes. For several years he has suffered from impotence. Examination revealed atrophy of the muscles of the left lower limb, normal reflexes and a bruit over the femoral artery.

1. Your preliminary diagnosis?
2. Choice of examination tactics for this patient.
3. Plan of additional examination of the patient?
4. Choice of surgical treatment tactics. Indications for surgery, options for surgical interventions?

TASK No. 14

A 20-year-old woman complains of lower abdominal pain, more on the right, nausea, weakness and dizziness that arose after physical exertion 6 hours before presentation. Examination revealed moderate tenderness in the lower abdomen; peritoneal signs are equivocal; BP 95/65 mm Hg, pulse 100 beats per minute.

1. Your preliminary diagnosis?
2. Choice of examination tactics for this patient.
3. Plan of additional examination of the patient?
4. Choice of surgical treatment tactics. Indications for surgery, options for surgical interventions?

TASK No. 15

A 24-year-old patient complains of nausea and vomiting and periumbilical pain lasting about 5 hours. During the last half hour the pain has moved to the right iliac region; body temperature 37.6 °C.

1. Your preliminary diagnosis?
2. Choice of examination tactics for this patient.
3. Plan of additional examination of the patient?

4. Choice of surgical treatment tactics. Indications for surgery, options for surgical interventions?

TASK No. 16

A 52-year-old woman was admitted with complaints of severe pain in the right hypochondrium that arose after eating fatty food. The attack lasted 12 hours and was relieved by an antispasmodic. Previously she considered herself healthy. Gallbladder ultrasound revealed a single calculus 30 mm in diameter.

1. Your preliminary diagnosis?
2. Choice of examination tactics for this patient.
3. Plan of additional examination of the patient?
4. Choice of surgical treatment tactics. Indications for surgery, options for surgical interventions?

TASK No. 17

A 25-year-old patient was admitted to the emergency surgery department 20 minutes after a car accident complaining of abdominal pain, weakness, nausea and dizziness. On examination: pale skin, BP not measurable, pulse 130/min; in the left hypochondrium — a subcutaneous haemorrhage from the impact. No signs of traumatic brain injury. Breath sounds are heard on both sides.

1. Your preliminary diagnosis?
2. Choice of examination tactics for this patient.
3. Plan of additional examination of the patient?
4. Choice of surgical treatment tactics. Indications for surgery, options for surgical interventions?

TASK No. 18

A 65-year-old woman is admitted to the emergency department with complaints of cramping pain and abdominal distension. For a day, no flatus or stool has passed. Plain abdominal radiography revealed distended small bowel loops and Kloiber's cups (air-fluid levels).

1. Your preliminary diagnosis?
2. Choice of examination tactics for this patient.
3. Plan of additional examination of the patient?
4. Choice of surgical treatment tactics. Indications for surgery, options for surgical interventions?

TASK No. 19

The patient underwent vagotomy for a non-healing duodenal ulcer. Six months after the operation the ulcer disease recurred. Examination revealed Zollinger–Ellison syndrome.

1. Your preliminary diagnosis?
2. Choice of examination tactics for this patient.
3. Plan of additional examination of the patient?
4. Choice of surgical treatment tactics. Indications for surgery, options for surgical interventions?

TASK No. 20

Patient A., 56 years old, was admitted to the clinic with complaints of unbearable itching of the skin, aching pain in the right hypochondrium and epigastric region, weakness, loss of strength, lack of appetite and jaundice, which appeared 1.5 months ago and is intensively increasing. He has never had attacks of severe pain.

On examination: sclerae and skin olive-coloured, skin turgor sharply reduced; numerous scratch marks on the skin. Abdomen soft. Liver enlarged. In the right hypochondrium a slightly tender, tense-elastic, ovoid formation is palpated. Stool acholic.

1. What preliminary diagnosis can be made?
2. Which methods of laboratory and instrumental diagnosis will help establish the final diagnosis?
3. How can the patient be helped?
4. Choice of surgical treatment tactics.

TASK No. 21

A 31-year-old man was admitted to hospital with sudden acute pain in the epigastric region. Radiograph — free gas in the abdominal cavity.

1. Your preliminary diagnosis?

2. Choice of examination tactics for this patient.
3. Plan of additional examination of the patient?
4. Choice of surgical treatment tactics. Indications for surgery, options for surgical interventions?

TASK No. 22

A 65-year-old man suddenly developed abdominal pain accompanied by flatulence and bloody diarrhoea. Shchetkin–Blumberg sign negative. Bowel sounds are not heard. Complete blood count: leukocytosis with a left shift. Serum amylase is increased.

1. Your preliminary diagnosis?
2. Choice of examination tactics for this patient.
3. Plan of additional examination of the patient?
4. Choice of surgical treatment tactics. Indications for surgery, options for surgical interventions?

TASK No. 23

A 60-year-old patient has had jaundice of the skin for 2 weeks. No history of abdominal pain. Ultrasound revealed significant enlargement of the gallbladder.

1. Your preliminary diagnosis?
2. Choice of examination tactics for this patient.
3. Plan of additional examination of the patient?
4. Choice of surgical treatment tactics. Indications for surgery, options for surgical interventions?

TASK No. 24

During oesophagoscopy the patient sustained an oesophageal perforation. Contrast radiography (barium) showed a small amount of contrast leaking into the left pleural cavity.

1. Your preliminary diagnosis?
2. Choice of examination tactics for this patient.
3. Plan of additional examination of the patient?
4. Choice of surgical treatment tactics. Indications for surgery, options for surgical interventions?

TASK No. 25

A 30-year-old man complains of severe pain in the right half of the abdomen, nausea and vomiting. Acute onset 36 hours before hospitalisation. On palpation the abdomen is tense and sharply tender in the right iliac region. Positive Shchetkin–Blumberg, Voskresensky and Razdolsky signs. Surgeon's tactics?

1. Your preliminary diagnosis?
2. Choice of examination tactics for this patient.
3. Plan of additional examination of the patient?
4. Choice of surgical treatment tactics. Indications for surgery, options for surgical interventions?

TASK No. 26

Patient M., 52 years old, was brought to the clinic by an ambulance team 12 hours after the onset of the disease.

Complaints on admission: severe weakness, dizziness, loose black stools. She has considered herself ill for about 12 hours, when weakness appeared, followed by coffee-ground vomiting and then two episodes of profuse loose black stools. No history of ulcer disease.

Objectively: the patient is inhibited and drowsy. Skin and visible mucous membranes are pale. BP 90/40 mm Hg, pulse 120/min, weak filling.

The abdomen is soft and painless on palpation; on auscultation — increased bowel sounds. Peritoneal signs negative.

1. Your preliminary diagnosis?
2. Choice of examination tactics for this patient.
3. Plan of additional examination of the patient?
4. Choice of surgical treatment tactics. Indications for surgery, options for surgical interventions?

TASK No. 27

A 55-year-old man was admitted to the emergency department with profuse haematemesis. Examination revealed abdominal distension, shifting dullness in the abdomen and telangiectasias on the face and chest. Oesophagogastroduodenoscopy: rapid accumulation of blood in the distal oesophagus.

1. Your preliminary diagnosis?
2. Choice of examination tactics for this patient.
3. Plan of additional examination of the patient?
4. Choice of surgical treatment tactics. Indications for surgery, options for surgical interventions?

TASK No. 28

A 10-month-old boy in hospital has difficulty passing stool and gas. For the last 3 months stool has occurred only after an enema. Appetite reduced. Objectively: the child is pale and fretful, body weight 8 kg. The abdomen is enlarged; dilated bowel loops with faecal stones are palpable.

1. Your preliminary diagnosis?
2. Choice of examination tactics for this patient.
3. Plan of additional examination of the patient?
4. Choice of surgical treatment tactics. Indications for surgery, options for surgical interventions?

TASK No. 29

A 3-day-old newborn was brought to the paediatric surgery clinic. The child has vomiting after feeding and mucous discharge from the mouth and nose. Objectively: the patient's condition is severe, skin pale, breath sounds conducted on both sides without rales; the abdomen is soft and painless. Meconium has passed, gases pass. On tube examination of the oesophagus: the tip of the tube comes back out. Radiograph — contrast retention at the 1st physiological narrowing and gas in the intestine. Make a diagnosis. Surgeon's tactics?

1. Your preliminary diagnosis?
2. Choice of examination tactics for this patient.
3. Plan of additional examination of the patient?
4. Choice of surgical treatment tactics. Indications for surgery, options for surgical interventions?

TASK No. 30

A 43-year-old man fell ill 3 months ago, when epigastric pain on swallowing solid food, heartburn, periodic vomiting and weight loss of 4 kg appeared. Radiologically, in the lower third of the oesophagus there is a narrowing of the lumen due to a filling defect over 7 cm with ulceration; on oesophagoscopy at 34 cm from the incisors — narrowing of the lumen due to an exophytic tumour with ulceration; morphologically — squamous cell carcinoma. No distant organ metastases were found.

1. Your preliminary diagnosis?
2. Choice of examination tactics for this patient.
3. Plan of additional examination of the patient?
4. Choice of surgical treatment tactics. Indications for surgery, options for surgical interventions?

TASK No. 31

A 6-month-old boy was admitted to the clinic. According to the mother, 3 hours ago the child became restless, refused food, cried and kicked his legs. There were two episodes of vomiting and stool mixed with blood. Objectively: general condition relatively satisfactory. Lungs and heart unremarkable. The abdomen is soft and painless; a tumour-like mass is palpated in the right iliac region.

1. Your preliminary diagnosis?
2. Choice of examination tactics for this patient.
3. Plan of additional examination of the patient?
4. Choice of surgical treatment tactics. Indications for surgery, options for surgical interventions?

TASK No. 32

A 42-year-old man was admitted to the surgical hospital with complaints of a tumour-like mass in the left inguinal region and pain. According to the patient, he has had an inguinal hernia for 3 years and reduced it himself. On examination, in the left inguinal region there is a 4×8 cm tumour-like mass, tender on palpation and irreducible into the abdominal cavity. According to the patient, the mass appeared 2 hours ago. Make a diagnosis. Surgeon's tactics?

1. Your preliminary diagnosis?
2. Choice of examination tactics for this patient.
3. Plan of additional examination of the patient?
4. Choice of surgical treatment tactics. Indications for surgery, options for surgical interventions?

TASK No. 33

A 14-year-old girl was admitted from a district hospital in a serious condition. Marked dyspnoea, breathing on the right sharply weakened, the right half of the chest lags behind the left in breathing. On percussion: a box-like (hyperresonant) sound over the right lung. Radiograph attached. Make a diagnosis. Surgeon's tactics?

1. Your preliminary diagnosis?
2. Choice of examination tactics for this patient.
3. Plan of additional examination of the patient?
4. Choice of surgical treatment tactics. Indications for surgery, options for surgical interventions?

TASK No. 34

A 10-year-old girl was admitted to the surgical clinic with complaints of cough with thick sputum, worse in the mornings, general weakness and malaise. Objectively: facial puffiness, "drumstick" fingers and "watch-glass" nails. On percussion: dullness of the pulmonary sound over the lungs. On auscultation: weakened breathing and moist rales of various sizes in the lower sections. Bronchogram attached. Make a diagnosis. Surgeon's tactics?

1. Your preliminary diagnosis?
2. Choice of examination tactics for this patient.
3. Plan of additional examination of the patient?
4. Choice of surgical treatment tactics. Indications for surgery, options for surgical interventions?

TASK No. 35

A 9-month-old child was admitted with complaints (according to the mother) of nausea, vomiting, frequent loose stools without pathological admixtures, restlessness, weakness and fever up to 38 °C. Objectively: the abdomen is uniformly distended, local tension of the abdominal wall more on the right; on palpation of the right half of the abdomen the child pushes your hand away. Complete blood count: leukocytes 22,000. Make a diagnosis.

1. Your preliminary diagnosis?
2. Choice of examination tactics for this patient.
3. Plan of additional examination of the patient?
4. Choice of surgical treatment tactics. Indications for surgery, options for surgical interventions?

TASK No. 36

A 45-year-old woman consulted a general practitioner complaining of a neck deformity causing cosmetic inconvenience. She noticed a mass on the anterior surface of the neck about 6 months ago. She cannot associate its appearance with anything. Over this time the size of the mass has not changed. The patient feels well. She is of normosthenic build. Pulse rhythmic, 60/min, BP 120/80 mm Hg. Status localis: a mass with clear borders, about 40×30 mm, occupies the anterior and partly the right lateral surface of the neck. Its lower border is 1 cm short of the jugular notch of the sternum. On palpation the mass is soft, moves on swallowing and is not adherent to the skin. The skin over it is unchanged. Cervical lymph nodes are not enlarged.

1. Your preliminary diagnosis?
2. Choice of examination tactics for this patient.
3. Plan of additional examination of the patient?
4. Choice of surgical treatment tactics. Indications for surgery, options for surgical interventions?

TASK No. 37

A 7-year-old boy was admitted with complaints of chronic constipation, periodic abdominal pain, general weakness and malaise. Objectively: the abdomen is enlarged and tender along the colon; faecal stones are palpable; positive "clay" sign. Blood test — anaemia; ECG — metabolic disturbances of the myocardium due to faecal intoxication. Irrigogram attached.

1. Your preliminary diagnosis?
2. Choice of examination tactics for this patient.
3. Plan of additional examination of the patient?
4. Choice of surgical treatment tactics. Indications for surgery, options for surgical interventions?

TASK No. 38

A 35-year-old man was admitted with complaints of a fistula in the pararectal region. Six months ago he was treated for acute paraproctitis. Locally: in the pararectal region at 3 o'clock there is a fistula with purulent discharge without signs of inflammation.

1. Your preliminary diagnosis?
2. Choice of examination tactics for this patient.
3. Plan of additional examination of the patient?
4. Choice of surgical treatment tactics. Indications for surgery, options for surgical interventions?

TASK No. 39

A 2-year-old child was admitted with complaints of periodic vomiting after eating, occurring suddenly without preceding nausea. The vomitus contains unchanged food without signs of gastric contents. The child is undernourished; the abdomen is soft and painless on palpation. Oesophagoscopy revealed a dilated oesophagus.

1. Your preliminary diagnosis?
2. Choice of examination tactics for this patient.
3. Plan of additional examination of the patient?
4. Choice of surgical treatment tactics. Indications for surgery, options for surgical interventions?

TASK No. 40

A 30-year-old woman underwent laparoscopic cholecystectomy for chronic calculous cholecystitis. 72 hours after the operation she developed pain throughout the abdomen, nausea, repeated bilious vomiting and weakness. On examination: condition of moderate severity, skin pale, BP 100/60 mm Hg, pulse 110/min. Body temperature 38.2 °C. The abdomen is moderately distended, soft on palpation and tender in all areas; peritoneal signs positive. Peristalsis is not heard. Gases do not pass. The dressing at the drain site is soaked with light bile.

1. Your preliminary diagnosis?
2. Choice of examination tactics for this patient.
3. Plan of additional examination of the patient?
4. Choice of surgical treatment tactics. Indications for surgery, options for surgical interventions?

TASK No. 41

A 42-year-old woman complains of paroxysmal dry cough and periodic haemoptysis. She has been ill for 8 years. Tomograms show a round shadow 1.2 cm in diameter with clear contours in the lumen of the right main bronchus.

1. Your preliminary diagnosis?
2. Choice of examination tactics for this patient.
3. Plan of additional examination of the patient?
4. Choice of surgical treatment tactics. Indications for surgery, options for surgical interventions?

TASK No. 42

The patient underwent surgery: total removal of the right lobe of the thyroid gland together with the isthmus, as well as the anteromedial part of the left lobe. On the second day after the intervention the patient notes numbness of the lips and a "pins and needles" sensation in the fingertips.

1. Your preliminary diagnosis?
2. Choice of examination tactics for this patient.
3. Plan of additional examination of the patient?

4. Choice of surgical treatment tactics. Indications for surgery, options for surgical interventions?

TASK No. 43

A man was admitted to the clinic with complaints of an infiltrate in the pararectal region and fever up to 38 °C. Objectively: in the pararectal region at 7 o'clock there is a 3×3 cm infiltrate; the skin over it is hyperaemic and sharply tender, with fluctuation in the centre. Make a diagnosis. Surgeon's tactics?

1. Your preliminary diagnosis?
2. Choice of examination tactics for this patient.
3. Plan of additional examination of the patient?
4. Choice of surgical treatment tactics. Indications for surgery, options for surgical interventions?

TASK No. 44

A man was admitted to the clinic with complaints of an infiltrate in the pararectal region and fever up to 38 °C. Objectively: in the pararectal region at 7 o'clock there is a 3×3 cm infiltrate; the skin over it is hyperaemic and sharply tender, with fluctuation in the centre.

1. Your preliminary diagnosis?
2. Choice of examination tactics for this patient.
3. Plan of additional examination of the patient?
4. Choice of surgical treatment tactics. Indications for surgery, options for surgical interventions?

TASK No. 45

On the 2nd day after surgery for diffuse toxic goitre, the patient suddenly developed motor and mental agitation, tachycardia of 130 beats/min and body temperature of 39.8 °C. Your diagnosis?

1. Your preliminary diagnosis?
2. Choice of examination tactics for this patient.
3. Plan of additional examination of the patient?
4. Choice of surgical treatment tactics. Indications for surgery, options for surgical interventions?

TASK No. 46

A 30-year-old man complains of severe pain in the right half of the abdomen, nausea and vomiting. Acute onset 36 hours before hospitalisation. On palpation the abdomen is tense and sharply tender in the right iliac region. Positive Shchetkin–Blumberg, Voskresensky and Razdolsky signs.

1. Your preliminary diagnosis?
2. Choice of examination tactics for this patient.
3. Plan of additional examination of the patient?
4. Choice of surgical treatment tactics. Indications for surgery, options for surgical interventions?

Appendix No. 5

List of test items in Hospital Surgery

1. [T017776] IN THE DIAGNOSIS OF LIVER CIRRHOSIS THE DECISIVE METHOD IS
A) elastometry
B) ultrasound examination
C) radiography
D) irrigoscopy

2. [T017777] A CHARACTERISTIC COMPLICATION OF LIVER CIRRHOSIS IS
A) liver failure
B) haemoptysis
C) atrioventricular conduction disturbance
D) hypertensive crisis

3. [T017778] THE PRESENCE OF CHOLESTASIS IS INDICATED BY
A) increased alkaline phosphatase, bilirubin, cholesterol
B) increased aspartate and alanine aminotransferases, glucose
C) decreased prothrombin, haemoglobin, fibrinogen
D) increased amylase, total protein, creatinine

4. [T017779] THE MAIN CLINICAL SIGN OF CHOLESTASIS IS
A) skin itching
B) splenomegaly
C) ascites
D) hepatomegaly

5. [T017811] ARTERIAL HYPERTENSION IN PHEOCHROMOCYTOMA IS CAUSED BY
A) increased secretion of catecholamines
B) increased secretion of renin
C) excessive secretion of mineralocorticoids
D) increased formation of angiotensin

6. [T011672] THE GASTRIC POLYPS MOST PRONE TO MALIGNANT TRANSFORMATION ARE
A) adenomatous
B) hyperplastic
C) hyperplasiogenic
D) juvenile

7. [T011673] THE FREQUENCY OF MALIGNANT TRANSFORMATION OF GASTRIC POLYPOSIS IS ___ %
A) 50
B) 60
C) 25
D) 1

8. [T011674] THE FREQUENCY OF MALIGNANT TRANSFORMATION OF A CHRONIC GASTRIC ULCER IS ___ %
A) 10
B) 15
C) 20
D) 30

9. [T011686] RECTAL CANCER IS MOST LIKELY TO DEVELOP IN THE PRESENCE OF
A) a villous polyp
B) constipation
C) haemorrhoids
D) Crohn's disease

10. [T023233] ON EXAMINATION WITH A TRANSABDOMINAL PROBE, THE NORMAL GALLBLADDER WALL APPEARS AS

A) a single-layer isoechoic structure forming the contour of the gallbladder
B) a single-layer curvilinear structure consisting of hypo- and hyperechoic layers
C) a two-layer linear structure consisting of hypo- and hyperechoic layers
D) a two-layer hypoechoic structure forming the contour of the gallbladder

11. [T023281] THE MOST COMMON SYMPTOM OF DIFFUSE OESOPHAGEAL SPASM IS

A) retrosternal pain
B) odynophagia
C) dysphagia
D) regurgitation

12. [T024765] THE DRUG OF CHOICE FOR THE TREATMENT OF CONN'S SYNDROME IS

A) an aldosterone antagonist
B) a calcium antagonist
C) an angiotensin II type 1 receptor antagonist
D) a beta-blocker
D) 1000 mcg of vitamin B12 once every six months

13. [T024824] CHRONIC HEPATITIS C IS CHARACTERISED BY

A) predominance of ALT over AST
B) predominance of AST over ALT
C) isolated increase in ALT
D) isolated increase in AST

14. [T024833] PORTAL HYPERTENSION IN LIVER DISEASES IS DIAGNOSED WHEN OESOPHAGEAL VARICES ARE COMBINED WITH

A) enlargement of the spleen
B) reduction of the spleen
C) echo-heterogeneity of the spleen
D) decreased echodensity of the spleen

15. [T024835] DIAGNOSTICALLY SIGNIFICANT FOR CHRONIC PANCREATITIS IS THE PRESENCE OF

A) calcifications in the head of the pancreas
B) increased faecal elastase activity
C) decreased urinary diastase activity
D) a large amount of fat in the stool

16. [T024838] TO ASSESS IMPAIRED EXOCRINE PANCREATIC FUNCTION, THE ACTIVITY OF THE FOLLOWING IS DETERMINED

A) faecal elastase
B) faecal lipase
C) blood elastase
D) blood lipase

17. [T024866] EXTRAINTESTINAL MANIFESTATIONS OF CROHN'S DISEASE INCLUDE

A) erythema nodosum
B) interintestinal fistulas
C) pancreatogenic diabetes mellitus
D) generalised erosive psoriasis

18. [T024871] IN HEPATOCELLULAR CARCINOMA THE BLOOD LEVEL OF THE FOLLOWING INCREASES

A) alpha-fetoprotein
B) procalcitonin
C) gamma globulin
D) beta-phytosterol

19. [T025367] PHEOCHROMOCYTOMA IS A TUMOUR OF
A) the adrenal medulla with hyperproduction of catecholamines

20.
B) the pituitary gland with ACTH hypersecretion
C) the adrenal cortex with hyperproduction of aldosterone
D) the adrenal cortex with hyperproduction of cortisol

21. [T025368] ISOLATED SYSTOLIC HYPERTENSION IS CHARACTERISTIC OF
A) aortic insufficiency
B) aortic stenosis
C) mitral insufficiency
D) mitral stenosis

22. [T025374] IN A PATIENT WITH ARTERIAL HYPERTENSION AND A 20 MM HG DIFFERENCE IN BP BETWEEN THE LEFT AND RIGHT ARMS, ONE SHOULD FIRST SUSPECT
A) Takayasu disease
B) Cushing's disease
C) atherosclerotic lesion of the brachial artery
D) Addison's disease

23. [T025622] PATIENTS WITH THYROTOXICOSIS TYPICALLY COMPLAIN OF
A) tremor of the hands and eyelids, sweating, weight loss, palpitations
B) thickening of the fingers, enlargement of the lower jaw, increased foot size
C) facial hyperaemia, thinning of the skin, fat deposition in the abdomen, purple striae
D) dry skin, hair loss, decreased body temperature

24. [T025639] IN THE DIAGNOSIS OF PHEOCHROMOCYTOMA IT IS BEST TO USE ANALYSIS OF
A) 24-hour urine for metanephrine and normetanephrine
B) 24-hour urine for vanillylmandelic acid (VMA)
C) blood for electrolytes and plasma renin activity
D) blood for renin and aldosterone with the aldosterone-to-renin ratio

25. [T025641] FOR THE TREATMENT OF OVERT HYPOTHYROIDISM RESULTING FROM AUTOIMMUNE THYROIDITIS, THE FOLLOWING IS INDICATED
A) levothyroxine in a replacement dose
B) levothyroxine in a suppressive dose
C) potassium iodide in a therapeutic dose
D) potassium iodide in a prophylactic dose

26. [T025644] THE MOST INFORMATIVE METHOD IN THE DIAGNOSIS OF THYROID CANCER IS
A) fine-needle aspiration biopsy
B) scintigraphy with iodine-131 radioisotopes
C) ultrasound examination
D) palpation

27. [T025699] INSULIN IS PRODUCED BY THE FOLLOWING PANCREATIC CELLS
A) β-cells
B) α-cells
C) δ-cells
D) PP cells

28. [T025717] PRIMARY OVERT HYPOTHYROIDISM IS CHARACTERISED BY
A) increased TSH and decreased free T4
B) increased TSH and normal free T4
C) increased TSH and increased free T4
D) decreased TSH and decreased free T4

29. [T025718] THE NORMAL THYROID VOLUME FOR ADULT WOMEN
A) is up to 18 ml
B) is up to 25 ml

C) is up to 20 ml
D) depends on age

30. [T025719] THYROID ULTRASOUND IS INDICATED
A) when a palpable mass is detected in the projection of the gland
B) for all patients over 50 years of age
C) for all pregnant women living in a region of moderate iodine deficiency
D) for all children living in a region of moderate iodine deficiency

31. [T025722] VIRAL AETIOLOGY IS CHARACTERISTIC OF
A) subacute thyroiditis
B) cytokine-induced thyroiditis
C) postpartum thyroiditis
D) acute purulent thyroiditis

32. [T025723] ACCORDING TO THE WHO 2001 CLASSIFICATION, GRADE 2 GOITRE IS DIAGNOSED IF
A) the enlarged thyroid gland is visible with the neck in normal position
B) the volume of each lobe does not exceed the size of the distal phalanx of the subject's thumb
C) the thyroid gland is not visible with the neck in normal position, but a nodule about 1 cm in diameter is palpable in one lobe
D) multiple nodules are detected by ultrasound in a thyroid gland of normal volume

33. [T025724] ANTIBODIES TO THE TSH RECEPTOR ARE A SPECIFIC MARKER OF
A) Graves–Basedow disease
B) chronic autoimmune thyroiditis
C) postpartum thyroiditis
D) cytokine-induced thyroiditis

34. [T025901] A CAUSE OF INCREASED CARDIAC PRELOAD MAY BE
A) mitral valve insufficiency
B) stenosis of the aortic orifice
C) arterial hypertension
D) hypertrophic cardiomyopathy

35. [T025903] INCREASED PULSATION IN THE 2ND INTERCOSTAL SPACE TO THE RIGHT OF THE STERNUM MOST OFTEN INDICATES
A) dilation of the ascending aorta
B) dilation of the left ventricular cavity
C) mitral valve stenosis
D) pulmonary hypertension

36. [T025906] SOUND PHENOMENA ASSOCIATED WITH THE ACTIVITY OF THE FOLLOWING VALVE ARE BEST CONDUCTED TO THE CARDIAC APEX
A) mitral
B) aortic
C) pulmonary
D) tricuspid

37. [T025913] A NORMAL AORTIC VALVE IS CHARACTERISED BY THE PRESENCE OF ___ CUSPS
A) three
B) two
C) four
D) three to five

38. [T025914] THE NORMAL AREA OF THE MITRAL ORIFICE IS ___ CM^2
A) 4–6
B) 2–4
C) 6–8
D) 3–5

39. [T025915] NODDING OF THE HEAD IN TIME WITH THE HEARTBEAT (MUSSET'S SIGN) IS TYPICAL OF
A) aortic valve insufficiency
B) stenosis of the aortic orifice
C) mitral valve insufficiency
D) mitral valve stenosis

40. [T025919] A LATE COMPLICATION OF MYOCARDIAL INFARCTION IS
A) left ventricular aneurysm
B) rupture of the left ventricular wall
C) cardiogenic shock
D) ventricular fibrillation

41. [T025944] AORTIC DISSECTION REQUIRES URGENT
A) surgical intervention
B) thrombolysis
C) MRI examination
D) antibacterial treatment

42. [T026100] THE MOST CHARACTERISTIC COMPLICATION OF CROHN'S DISEASE IS
A) intestinal obstruction
B) bleeding
C) increased risk of malignancy
D) development of toxic megacolon

43. [T027086] LUNG CANCER MOST OFTEN METASTASISES TO THE ___ LYMPH NODES
A) supraclavicular
B) axillary
C) posterior cervical
D) submandibular

44. [T027094] SPONTANEOUS PNEUMOTHORAX IS MORE COMMON AT THE AGE OF ___ YEARS
A) 30–40
B) 0–18
C) 18–30
D) 40–60

45. [T027095] THE MOST COMMON SYMPTOM OF SPONTANEOUS PNEUMOTHORAX IS
A) chest pain
B) dry cough
C) vascular collapse
D) pulmonary haemorrhage

46. [T027096] IN SPONTANEOUS PNEUMOTHORAX, ON THE AFFECTED SIDE OF THE CHEST THERE IS
A) lagging during breathing
B) reduction in volume
C) dullness on percussion
D) increased vocal fremitus

47. [T027097] IN SPONTANEOUS PNEUMOTHORAX, AUSCULTATION ON THE AFFECTED SIDE REVEALS
A) weakened breathing
B) bronchial breathing
C) increased bronchophony
D) pleural friction rub

48. [T027098] A CHARACTERISTIC COMPLICATION OF SPONTANEOUS PNEUMOTHORAX IS
A) mediastinal emphysema
B) vicarious emphysema

C) air embolism
D) pulmonary haemorrhage

49. [T027122] THE PATIENT EXPECTORATES A MOUTHFUL OF SPUTUM IN THE MORNING IN
A) bronchiectatic disease
B) bronchial asthma
C) lobar pneumonia
D) exudative pleurisy

50. [T027123] HAEMOPTYSIS AND PULMONARY HAEMORRHAGE MAY OCCUR IN
A) lung abscess
B) bronchial asthma
C) cystic fibrosis
D) exudative pleurisy

51. [T027124] DURING PLEURAL PUNCTURE THE NEEDLE SHOULD BE INSERTED
A) along the upper edge of the rib
B) along the lower edge of the rib
C) midway between the ribs
D) between the ribs

52. [T027126] IN PULMONARY HAEMORRHAGE THE BLOOD IS
A) scarlet, frothy
B) dark, with clots
C) dark, frothy
D) coffee-ground in colour

53. [T027132] HYDROTHORAX IS CHARACTERISED BY ACCUMULATION IN THE PLEURAL CAVITY OF
A) exudate
B) blood
C) pus
D) lymph

54. [T031315] THE MAIN AIM OF ANTI-HELICOBACTER THERAPY IN ULCER DISEASE IS
A) reducing the frequency of ulcer relapses
B) reducing hydrochloric acid secretion
C) reducing the severity of pain
D) reducing the risk of ulcer perforation

55. [T031318] WHEN DETERMINING THE SEVERITY OF CIRRHOSIS, THE CHILD–PUGH PROGNOSTIC INDEX DOES NOT INCLUDE THE CLINICAL OR LABORATORY PARAMETER OF
A) platelet count
B) presence of ascites
C) stage of hepatic encephalopathy
D) prothrombin time/index

56. [T031320] THE MAXIMUM INTERNAL DIAMETER OF THE PANCREATIC DUCT IN THE HEAD OF THE PANCREAS IN HEALTHY PEOPLE IS ___ MM
A) 2
B) 5
C) 4
D) 3

57. [T031321] ULTRASOUND EXAMINATION CANNOT CHARACTERISE THE ___ OF THE ORGANS AND STRUCTURES STUDIED
A) microstructure (morphological structure)
B) macrostructure
C) topographic and anatomical relationships
D) macrostructure and topographic and anatomical relationships

58. [T031323] A GASTROINTESTINAL COMPLICATION THAT IS NOT CHARACTERISTIC OF CROHN'S DISEASE IS

A) polyposis
B) perforation
C) cholelithiasis
D) intraluminal obstruction

59. [T031327] OESOPHAGEAL IMPEDANCE MEASUREMENT IS A METHOD OF

A) recording liquid and gas refluxes, based on measuring the resistance that contents entering the oesophageal lumen offer to an alternating electric current
B) X-ray examination of the oesophagus with barium
C) measuring resting pressure and assessing lower oesophageal sphincter relaxation while swallowing a small amount of water
D) spectrophotometry of the refluxate

60. [T031328] THE CLINICAL SIGNIFICANCE OF BARRETT'S OESOPHAGUS IS DETERMINED BY AN INCREASED RISK OF

A) oesophageal adenocarcinoma
B) bleeding from oesophageal varices
C) squamous cell carcinoma of the oesophagus
D) oesophageal leukoplakia

61. [T031329] BARRETT'S OESOPHAGUS IS CHARACTERISED BY METAPLASIA OF

A) the stratified squamous non-keratinising epithelium of the oesophagus with development of intestinal-type columnar epithelium
B) the stratified squamous non-keratinising epithelium of the oesophagus with development of columnar epithelium with cardiac-type glands
C) the stratified squamous non-keratinising epithelium of the oesophagus with development of columnar epithelium with fundic (gastric) type glands
D) the gastric epithelium of the intestinal type

62. [T031331] THE RISK OF OESOPHAGEAL ADENOCARCINOMA IS HIGHEST IN

A) intestinal metaplasia of the oesophageal epithelium with high-grade dysplasia
B) eosinophilic infiltration of the oesophagus with more than 15 eosinophils per high-power field
C) columnar metaplasia with fundic-type glands
D) columnar metaplasia with cardiac-type glands

63. [T031332] ZENKER'S DIVERTICULUM IS A ___ DIVERTICULUM

A) pharyngo-oesophageal
B) epibronchial
C) bifurcation
D) epiphrenic

64. [T038589] CONGENITAL HEART DEFECTS INCLUDE

A) patent ductus arteriosus
B) patent foramen ovale
C) atrial septal aneurysm
D) Chiari network

65. [T039294] MYOCARDIAL BLOOD SUPPLY OCCURS DURING

A) diastole
B) systole
C) systole and diastole
D) presystole

66. [T001162] A PATIENT WITH A ROUND PERIPHERAL LUNG LESION OF UNCLEAR AETIOLOGY SHOULD UNDERGO

A) lung biopsy
B) hormone therapy

C) dynamic observation
D) anti-tuberculosis therapy

67. [T001191] THE DIAGNOSIS OF "DIABETIC FOOT SYNDROME" IS MADE WHEN A PATIENT WITH DIABETES MELLITUS IS FOUND TO HAVE
A) an ulcer of the sole and sensorimotor neuropathy
B) dry skin of the feet
C) marked deformity of the toes
D) decreased sensitivity in the feet

68. [T001205] OVERT THYROTOXICOSIS IS CHARACTERISED BY THE FOLLOWING CHANGES IN THYROID HORMONE AND TSH LEVELS
A) T3 increased; T4 increased; TSH decreased
B) T3 normal; T4 normal; TSH decreased
C) T3 increased; T4 normal; TSH normal
D) T3 normal; T4 decreased; TSH increased

69. [T001206] PRIMARY OVERT HYPOTHYROIDISM IS CHARACTERISED BY THE FOLLOWING CHANGES IN THYROID HORMONE AND TSH LEVELS
A) T4 decreased; TSH increased
B) T4 decreased; TSH normal
C) T4 decreased; TSH decreased
D) T4 normal; TSH increased

70. [T001207] THE DRUG OF CHOICE FOR THE TREATMENT OF HYPOTHYROIDISM IS
A) L-thyroxine
B) Iodomarin (potassium iodide)
C) Mercazolil (thiamazole)
D) dexamethasone

71. [T001210] THE FIRST-LINE TEST IN THE DIAGNOSIS OF PRIMARY HYPOTHYROIDISM IS DETERMINATION OF THE LEVEL OF
A) TSH
B) total thyroxine
C) free thyroxine
D) triiodothyronine

72. [T001215] THE ADRENAL DISEASE THAT DEVELOPS WITH A TUMOUR OF THE ADRENAL CORTEX IS
A) corticosteroma
B) pheochromocytoma
C) secondary hyperaldosteronism
D) somatotropinoma

73. [T001216] MEASUREMENT OF 24-HOUR URINARY EXCRETION OF FRACTIONATED METANEPHRINES (METANEPHRINE AND NORMETANEPHRINE) ALLOWS ONE TO CONFIRM OR EXCLUDE THE DIAGNOSIS OF
A) pheochromocytoma
B) Cushing's disease
C) primary hyperaldosteronism
D) primary hypocorticism

74. [T001218] THE CAUSE OF CUSHING'S DISEASE IS A TUMOUR OF
A) the anterior pituitary
B) the zona glomerulosa of the adrenal cortex
C) the zona fasciculata of the adrenal cortex
D) the zona reticularis of the adrenal cortex
D) glucagon secretion

75. [T001220] FOR THE DIFFERENTIAL DIAGNOSIS OF CUSHING'S DISEASE AND CUSHING'S SYNDROME THE FOLLOWING IS USED

A) overnight suppression test with 8 mg of dexamethasone
B) determination of blood cortisol
C) overnight suppression test with 1 mg of dexamethasone
D) determination of 24-hour urinary cortisol excretion

76. [T001221] FOR THE DIFFERENTIAL DIAGNOSIS OF CUSHING'S DISEASE AND CUSHING'S SYNDROME A TEST IS PERFORMED WITH

A) dexamethasone
B) prednisolone
C) cortisol
D) ACTH

77. [T001285] LONG-TERM COMPENSATION OF THE DEFECT IN AORTIC STENOSIS IS ACHIEVED THROUGH HYPERFUNCTION OF THE

A) left ventricle
B) right ventricle
C) left atrium
D) right atrium

78. [T001286] HYPERTROPHY AND DILATATION OF THE LEFT VENTRICLE IN AORTIC VALVE INSUFFICIENCY ARE CAUSED BY

A) volume overload of the left ventricle
B) reduced coronary blood flow
C) pressure overload of the left ventricle
D) reduced cardiac output

79. [T001287] IN PATIENTS WITH SEVERE AORTIC STENOSIS, THE CHARACTERISTIC CHANGE DETECTED BY ECHOCARDIOGRAPHY IS

A) a high left ventricle/aorta pressure gradient
B) increased stroke volume
C) aortic regurgitation
D) a zone of akinesia in the interventricular septum

80. [T001288] "MITRALISATION" OF AN AORTIC DEFECT IS THE TERM FOR

A) compensatory hyperfunction of the left atrium with reduced left ventricular contractility
B) a combination of aortic and mitral stenosis
C) addition of mitral stenosis to an existing aortic defect due to recurrent rheumatic fever
D) a combination of aortic stenosis and mitral valve prolapse

81. [T001313] THE AUSCULTATORY PICTURE IN MITRAL STENOSIS INCLUDES

A) an accentuated first heart sound and a diastolic murmur
B) a weakened first heart sound and a systolic murmur
C) unchanged heart sounds and a "soft, blowing" systolic murmur
D) a weakened second heart sound and a diastolic murmur

82. [T001314] THE MURMUR IN MITRAL INSUFFICIENCY

A) radiates to the left axillary region
B) radiates to the carotid arteries
C) does not radiate anywhere
D) radiates to the jugular notch

83. [T001338] CONGESTION IN THE PULMONARY CIRCULATION LEADS TO

A) pulmonary oedema
B) renal failure
C) ascites
D) oedema of the lower legs

84. [T001352] THE ONCOLOGICAL DISEASES THAT MOST OFTEN COMPLICATE THE COURSE OF CHRONIC HEPATITIS C INCLUDE
A) hepatocellular carcinoma
B) gastric cancer
C) lung cancer
D) lymphoma

85. [T001354] AUTOIMMUNE HEPATITIS IS TREATED WITH
A) corticosteroids (sometimes in combination with cytostatics)
B) antiviral therapy
C) strict abstinence from alcohol
D) dynamic observation

86. [T001357] HYPERSPLENISM IS
A) intensified elimination of formed blood elements
B) enlargement of the spleen
C) widening of the splenic vein diameter
D) intensified blood supply to the spleen

87. [T001361] WHEN LIVER CIRRHOSIS IS SUSPECTED, THE DECISIVE FINDING IS
A) varicose veins of the lower third of the oesophagus
B) varicose subcutaneous veins of the lower extremities
C) hepatomegaly
D) splenomegaly

88. [T001363] THE DEVELOPMENT OF LIVER CANCER ON A BACKGROUND OF CIRRHOSIS MAY BE SUSPECTED WHEN THE BLOOD LEVEL OF THE FOLLOWING IS INCREASED
A) alpha-fetoprotein
B) AST
C) immunoglobulin A
D) cholinesterase

89. [T001364] THE DIAGNOSIS OF LIVER CIRRHOSIS IS CONFIRMED WHEN THE BIOPSY MATERIAL SHOWS
A) disrupted lobular architecture
B) piecemeal necrosis of hepatocytes
C) steatosis of hepatocytes
D) widened portal tracts

90. [T005684] THE MORPHOLOGICAL SUBSTRATES OF NON-SPECIFIC ULCERATIVE COLITIS ARE
A) chronic erosion, ulcer, crypt abscesses
B) specific granulomas
C) lymphocytic granulomas
D) cicatricial changes of the intestine

91. [T005686] INFLAMMATION IN NON-SPECIFIC ULCERATIVE COLITIS INVOLVES
A) the mucosa
B) all layers of the intestine
C) the submucosa
D) the muscular layer

92. [T005687] IN THE REMISSION STAGE OF NON-SPECIFIC ULCERATIVE COLITIS, ENDOSCOPY REVEALS
A) unchanged mucosa
B) "cobblestone" mucosa
C) mucosa with erosions
D) contact bleeding of the mucosa

93. [T005689] IN CROHN'S DISEASE THE FOLLOWING ARE AFFECTED
A) all layers of the intestine

B) the mucosal and submucosal layers
C) the submucosal and muscular layers
D) the muscular layer and serosa

94. [T005724] THE FOLLOWING ARE NOT CLINICAL SYMPTOMS OF THYROTOXICOSIS
A) constipation
B) excitability, irritability
C) weight loss
D) increased appetite

95. [T005725] THE CLINICAL MANIFESTATIONS OF HYPOTHYROIDISM DO NOT TYPICALLY INCLUDE
A) palpitations
B) drowsiness
C) constipation
D) dry skin

96. [T005727] IN A POLYCLINIC SETTING, THE MOST RELIABLE AND ACCESSIBLE SCREENING TEST FOR DETECTING CLINICALLY SIGNIFICANT AND SUBCLINICAL THYROID DYSFUNCTION IS
A) determination of thyroid-stimulating hormone level
B) thyroid ultrasound
C) determination of antithyroid antibodies
D) palpation of the thyroid gland

97. [T005728] THE MAIN SIGN INDICATING SUBCLINICAL HYPERTHYROIDISM IS
A) decreased thyroid-stimulating hormone
B) increased thyroid-stimulating hormone
C) increased thyroxine
D) decreased thyroxine

98. [T005733] THE PRESENCE OF AORTIC STENOSIS IS MOST STRONGLY INDICATED BY
A) decreased pulse pressure
B) marked hypertrophy of the left ventricular myocardium
C) a coarse systolic murmur at the base of the heart with a sharply weakened second sound and wide radiation
D) frequent attacks of exertional angina in a patient with a systolic murmur over the aorta

99. [T005767] THE FOLLOWING MAY HAVE CARCINOGENIC PROPERTIES WITH REGARD TO COLORECTAL CANCER
A) fried meat
B) fish
C) milk
D) bread

100. [T005768] THE MOST COMMON CAUSE OF COLORECTAL CANCER IS
A) intestinal polyps
B) haemorrhoids
C) diverticular disease
D) poor diet

Appendix 6.

TECHNOLOGICAL MAP OF THE DISCIPLINE "HOSPITAL SURGERY"

SEMESTER 12

Discipline modules per the working programme	Control	Form of control	Credit minimum	Credit maximum	Control schedule (week of semester)
Unit 1 "Cardiovascular surgery"	Current control, topics 1.1–1.4	Activity and attendance are taken into account (1 point is deducted for each missed and not made-up class). 1) Frontal questioning 2) Supervision 3) Report	2	4	2
	Milestone control	Testing	3	4	
Unit 2 "Thoracic surgery"	Current control, topics 2.1–2.4	Activity and attendance are taken into account (1 point is deducted for each missed and not made-up class). 1) Frontal questioning 2) Supervision 3) Report	2	5	5
	Milestone control	Testing	3	4	
Unit 3 "Purulent surgery"	Current control, topics 3.1–3.4	Activity and attendance are taken into account (1 point is deducted for each missed and not made-up class). 1) Frontal questioning 2) Supervision 3) Report	2	4	7
	Milestone control	Testing	3	4	
Unit 4 "Abdominal surgery"	Current control, topics 4.1–4.4	Activity and attendance are taken into account (1 point is deducted for each missed and not made-up class). 1) Frontal questioning 2) Supervision 3) Report	2	5	9
	Milestone control	Testing	3	5	
Unit 5 "Surgical endocrinology"	Current control, topics 5.1–5.4	Activity and attendance are taken into account (1 point is deducted for each missed and not made-up class). 1) Frontal questioning 2) Supervision 3) Report	2	4	11
	Milestone control	Testing	3	4	
Unit 6 "Coloproctology"	Current control, topics 6.1–6.4	Activity and attendance are taken into account (1 point is deducted for each missed and not made-up class). 1) Frontal questioning 2) Supervision 3) Report	2	5	14
	Milestone control	Testing	3	4	
Unit 7 "Diseases of the liver and pancreas"	Current control, topics 7.1–7.4	Activity and attendance are taken into account (1 point is deducted for each missed and not made-up class). 1) Frontal questioning 2) Supervision 3) Report	2	4	16
	Milestone control	Testing	3	4	
Unit 8 "Diseases of the extrahepatic bile ducts"	Current control, topics 8.1–8.4	Activity and attendance are taken into account (1 point is deducted for each missed and not made-up class). 1) Frontal questioning 2) Supervision 3) Report	2	5	18
	Milestone control	Testing. Case history	3	5	
Total for the semester			**40**	**70**	
Interim control (CREDIT)		In writing, by examination cards, and solving a clinical case task	**20**	**30**	
Semester rating for the discipline			**60**	**100**	

Note:

1. One point is deducted for each missed lecture or practical class not made up, if the student has not made up the class within two weeks.
2. A student is not admitted to interim control if there are classes (practical or lecture) not made up.
3. One point is added for active participation in a practical class.
4. One point is added for active participation in student research work.
5. The case history is submitted before interim control.
6. If the student fails the tests three times, the minimum passing score is subsequently awarded.