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**Assessment tools for midterm assessment**  
***FACULTY SURGERY***

Curriculum	31.05.01 General Medicine
Qualification	General Medicine
Form of education	Full-time
Department	Surgical diseases
Final department	Internal diseases

**TYPICAL TASKS FOR THE CONTROL WORK**

**CONTROL WORK – MEDICAL HISTORY (7, 8 SEMESTER)**

**WRITING A CLINICAL CASE HISTORY**

The student independently chooses the nosological form, develops and protects the medical history according to the proposed scheme.

The main stages of writing an educational history:

The title page (separate page)

1. The passport part.
2. Complaints: the main ones and those found in the survey of organ systems.
3. Anamnesis of the main and concomitant diseases.
4. Anamnesis of life.
5. Data from an objective examination of the patient (general status by systems).
6. Data from an objective examination of the patient (local status).
7. Justification of the preliminary diagnosis and its formulation.
8. The survey plan.
9. Laboratory and instrumental research data, consultant opinions.
10. The final clinical diagnosis (justification and formulation).
11. Differential diagnosis.
12. Treatment of the patient and its justification (preoperative preparation, surgical stage, postoperative treatment).
13. Final clinical diagnosis (justification and formulation)
14. The curation diary.
15. Epicrisis.
16. Forecast.
17. List of references.

**SAMPLE QUESTIONS FOR THE CREDIT (7th semester)**

**Assignments on the CREDIT include an assessment of theoretical knowledge and an assessment of practical skills – the ticket contains 3 questions (2 theoretical and 1 situational task).**

**Questions for the oral quiz:**

**"Faculty surgery"**

1. Acute appendicitis: definition, epidemiology, etiology, pathogenesis, classification

2. Acute appendicitis: clinical picture, symptoms of acute appendicitis (Kocher, Shchetkin-Blumberg, Voskresensky, Rovsing, Sitkovsky, Bartomier-Michelson, Obratsov, Cope (psoa-symptom))
3. Acute appendicitis: methods of treatment, surgical tactics (accesses for acute appendicitis), management of the postoperative period
4. Acute appendicitis: early complications of acute appendicitis
5. Acute appendicitis: late complications of acute appendicitis
6. Acute appendicitis: features of the clinical picture depending on the location of the appendix. Differential diagnosis of acute appendicitis
7. Acute appendicitis: atypical forms, features of the clinical picture in children, pregnant women, the elderly
8. Acute appendicitis: appendicular infiltration (definition, clinical picture, diagnosis, differential diagnosis, treatment), outcomes
9. Acute appendicitis: appendicular abscess (definition, clinical picture, diagnosis, differential diagnosis, treatment)
10. Perforated ulcer of the stomach and duodenum: clinical picture, diagnosis, treatment, surgical tactics (including indications and contraindications to gastric resection)
11. Pyloroduodenal stenosis: causes, classification, clinical picture, diagnosis, treatment methods
12. Gastrointestinal bleeding: etiology, clinical and endoscopic classification according to Forest, clinical picture depending on the degree of blood loss, diagnosis, differential diagnosis
13. Gastrointestinal bleeding: methods of treatment, indications for emergency surgical treatment, endoscopic methods of stopping bleeding, prevention
14. Gallstone disease: etiology, pathogenesis, types of gallstones, prevention, epidemiology
15. Gallstone disease: chronic calculous cholecystitis (clinical picture, diagnosis, treatment methods)
16. Gallstone disease: acute cholecystitis (classification, clinical picture, treatment methods)
17. Gallstone disease: choledocholithiasis (definition, clinical picture, diagnosis, treatment)
18. Cholelithiasis: cholangitis (definition, clinical picture, Charcot triad, diagnosis, treatment)
19. Acute pancreatitis: definition, epidemiology, etiology, pathogenesis, prevention of acute pancreatitis
20. Acute pancreatitis: classification, clinical picture depending on the form and phase, diagnosis, differential diagnosis
21. Acute pancreatitis, early complications: classification, methods of prevention and treatment
22. Acute pancreatitis, late complications: classification, methods of prevention and treatment
23. Acute pancreatitis: methods of treatment, indications for surgical treatment
24. Acute intestinal obstruction: definition, epidemiology, etiology, pathogenesis, classification
25. Acute small bowel obstruction: etiology, clinical picture, principles of surgical treatment
26. Acute obstructive colonic obstruction: etiology, clinical picture, principles of surgical treatment
27. Peritonitis: etiopathogenesis, classification, principles of treatment.
28. Modern approaches to surgical treatment and intensive care of common peritonitis.
29. Local peritonitis. Kinds. Clinical manifestations. Features of diagnosis and treatment.
30. Dumping syndrome. Definition. Etiology. Epidemiology. Pathogenesis. Classification. The clinical picture of the disease. Diagnostics. Treatment. Forecast.
31. Adductor loop syndrome. Definition. Etiology. Epidemiology. Pathogenesis. Classification. The clinical picture of the disease. Diagnostics. Treatment. Forecast.
32. Mastitis. Definition. Etiology. Epidemiology. Pathogenesis. Classification. The clinical picture of the disease. Diagnostics. Treatment. Forecast.
33. Mastopathy. Definition. Etiology. Epidemiology. Pathogenesis. Classification. The clinical picture of the disease. Diagnostics. Treatment. Forecast.
34. Diffuse toxic goiter. Definition. Etiology. Epidemiology. Pathogenesis. Classification. The clinical picture of the disease. Diagnostics. Treatment. Forecast.
35. Nodular goiter. Definition. Etiology. Epidemiology. Pathogenesis. Classification. The clinical picture of the disease. Diagnostics. Treatment. Forecast.
36. Autoimmune thyroiditis. Definition. Etiology. Epidemiology. Pathogenesis. Classification. The clinical picture of the disease. Diagnostics. Treatment. Forecast.
37. Hernias of the anterior abdominal wall: definition of the concept of hernia, etiology, classification of hernias of the anterior abdominal wall, predisposing and producing factors, prevention of hernia formation.

38. Inguinal hernias: anatomy of the inguinal canal (inguinal region, inguinal triangle, inguinal gap), classification of inguinal hernias.
39. Inguinal hernias: clinical picture of inguinal hernia, diagnosis, diagnostic methods (manual, instrumental), differential diagnosis.
40. Inguinal hernias: methods of surgical treatment, types of hernioplasty: plastic surgery of the posterior wall of the inguinal canal with local tissues, non-tensioning types of plastic surgery.
41. Femoral hernias: anatomy of the femoral canal, features of the clinical course of femoral hernias.
42. Femoral hernias: clinical picture, diagnosis, surgical treatment, management of the postoperative period.
43. Umbilical hernias: clinical picture, diagnosis, differential diagnosis, methods of surgical treatment, management of the postoperative period.
44. Hernia infringement: definition of the concept, types of infringement, clinical picture, methods of treatment, tactics of the surgeon in case of spontaneous reduction, prevention of infringement.
45. Non-rightness of hernia: definition of the concept, clinical picture, methods of treatment, prevention of non-rightness.

## List of situation tasks

### *Situational task No. 1*

A patient with a clearly limited appendicular infiltration, subfebrile temperature and a condition significantly improved during treatment on the 5th day of admission and on the 10th day after the onset of the disease suddenly had severe abdominal pain, the temperature began to rise, thirst appeared, tachycardia, the tongue became dry. There was a single vomiting. The abdomen is swollen, sharply painful in all parts, the abdominal wall is limited in mobility when breathing, the Shchetkin-Blumberg symptom is determined. Leukocytosis increased from 10.0 to 18.0.

Questions.

What complication did the patient have?

What should be done?

### *Situational task No. 2.*

Patient Z., 47 years old, was urgently delivered by ambulance with complaints of pain in the upper abdomen, nausea, vomiting, weakness, dizziness. He gets sick during the day. According to relatives, he has been drinking a lot of alcoholic beverages for the last 4 days. A day before admission, there was repeated vomiting of eaten food, gastric contents with an admixture of bile, and subsequently blood streaks appeared in the vomit. After vomiting, pain appeared in the upper half of the abdomen, heartburn. 3 hours before admission, vomiting of "coffee grounds" with an admixture of fresh blood. There was a single mushy black stool. I felt weak and dizzy. He fainted, and his relatives called an ambulance. During the examination: The general condition of the patient of moderate severity. The skin is pale and moist. There is harsh breathing in the lungs all over the fields, scattered dry wheezes. BHD 18 per minute, heart rate 110 per minute, blood pressure 100/70 mmHg. The tongue is dry, overlaid with a green-brown coating. The abdomen participates in the act of breathing. Palpation is painful, moderately tense in the epigastric region, peristalsis is active, the Shchetkin-Blumberg symptom is negative. The kidney area is not changed, there is no pain during palpation. Urination is free, there is no pain. Per rectum: the tone of the sphincter is good, in the ampoule of the rectum there are remnants of feces, of a mushy consistency, black feces on the glove. Alcoholic status: the patient is agitated, the smell of alcohol from the mouth, is unstable in the Romberg pose, performs a finger-nasal test uncertainly. Blood test: Hb - 82 g/l; erythrocytes -  $2.8 \times 10^{12}$ , hematocrit - 28%; color index - 0.9; leukocytes -  $4.9 \times 10^9$ , e-0, p- 4, c-75, L-19, m-2; platelets - 175.0; ESR- 18 mm/ h. Urine analysis: straw-yellow; cloudy; specific gravity - 1012; reaction - acidic; protein - negative; erythrocytes - 3-4; bile - negative; sugar - negative; leukocytes - 12-15; flat epithelium - entirely in the field of view; bacteria +++++. Biochemical analysis: total bilirubin - 30.8 mmol/l, direct - 12.3 mmol/L; thymol sample - 2.0 units; ALT- 1.6 mmol/l; AST- 0.8 mmol/L; total protein - 66 g/l; cholesterol - 5.1 mmol/L; urea - 28.0 mmol/l; creatinine - 289 mmol/l; potassium - 5.0 mmol/l; sodium - 141 mmol/l; calcium - 1.1 mmol/l; chlorides - 110 mmol/l glucose - 3.8 mmol/l; PTI - 89%; fibrinogen - 3.7 g/L. FGDS: the esophagus is freely passable. Starting from the border of the middle and lower third of the esophagus, hyperemia, contact bleeding, edema in

the cardia, hyperemia, mucosal wounds of 1.3-1.5 cm with moderate bleeding from wounds, gastric mucosa is edematous, folds are straightened with difficulty, multiple erosions merging with each other.

Questions:

1. Make a clinical diagnosis.
2. Formulate a diagnostic algorithm.
3. Determine the patient's treatment tactics.
4. Indications for surgical intervention.
5. List modern methods of conservative treatment, describe each of them.
6. Prognosis of the disease.
7. Rehabilitation program.

*Situational task No. 3.*

Patient T., 56 years old, was taken by the "SP" team to the emergency department of the surgical hospital with complaints of pain in the right hypochondrium of a permanent nature with irradiation to the heart area, nausea, vomiting with an admixture of bile, dry mouth, t rise to 38.50 C.

Paroxysmal pain in the right hypochondrium has been bothering periodically for 5 years. The real aggravation occurred more than 2 days ago after eating canned food. During the day, the patient is in the hospital, where infusion, antispasmodic, antibacterial therapy was performed, despite this, the pain syndrome has somewhat intensified and has become permanent.

In the anamnesis: coronary heart disease, angina pectoris; diabetes mellitus, type II.

The general condition is serious. The skin is of ordinary color, the sclera are subicteric. In the lungs, breathing is vesicular, there is no wheezing. The heart tones are rhythmic, muted, with an accent of the II tone above the aorta. Heart rate is 92 in 1 minute. Blood pressure is 130/60 mmHg. The tongue is dry, overlaid with a white coating. The abdomen is of the usual shape, participates in breathing, is tense and painful in the right hypochondrium. Due to rigidity, it is not possible to palpate the liver and gallbladder. The spleen is not detected. The Shchetkin–Blumberg symptom is weakly positive in the right hypochondrium. Auscultation – peristalsis is not changed. Palpation and percussion of the lumbar regions are painless. There are no dysuric phenomena, the urine is of normal color.

Of the additional diagnostic methods:

general blood test: Hb – 129 g/l; Er. – 5.5 □ 10<sup>12</sup>/l; Ht – 47%; Cv. p. – 1.0; ESR – 18 mm/h; L – 14.8 □ 10<sup>9</sup>/l; e – 0, p – 9, c – 55, l – 30, m – 6.

general urine analysis: s /w; epiphany; acid; 1018; cax. – rel.; bel. – rel.; L – 2 – 3 in n/a.; ep. – 1 – 2 in n/a.

biochemical study: O/ bel. – 82 g/l; O/bil. – 32.4 mmol/l; alkaline phosphatase – 315 units; L-amylase – 169 g □ h /l; Alt – 1.2; Ast – 1.0; Tim. - 2.5 units; Sul. 4.0 units; Urea. – 6.8 mmol/l; Creatine – 78 mmol/l; K+ - 4.2 mmol/l; Na++ - 138 mmol/l; Cl- - 103 mmol/L.

ECG: sinus rhythm, 86 per minute. EOS is deviated to the left; diffuse changes in the myocardium; in V3-6, the inversion of the P wave.

Questions:

1. What is your preliminary diagnosis?
2. What is the reason for this course of the disease?
3. What additional methods can confirm the diagnosis?
4. Tactics and scope of treatment?

*Situational task No. 4*

Patient T., 52 years old, was admitted to the emergency department with complaints of pain in the epigastric region of a shingling nature, nausea, repeated vomiting, which did not bring relief, weakness. The pain appeared sharply this morning (I had a hearty dinner the day before), localized in the left hypochondrium, with irradiation to the left half of the chest, then difficulty breathing joined. The patient has been suffering from hypertension for a long time; coronary heart disease, angina pectoris (observed and treated by a therapist). The patient was delivered by the "SP" team 2 hours after the onset of the disease. Upon examination, the condition is serious. The temperature is 37.00C. The food is excessive. The skin is pale, acrocyanosis is noted, the skin is covered with cold sweat. Breathing is weakened in the lungs, there is no wheezing. The heart tones are rhythmic, systolic murmur is heard at the II point and at the apex. Heart rate 140 in 1 minute, low voltage. Blood pressure is 100/60 mmHg. The tongue is dry, overlaid with a white

coating. The abdomen is moderately evenly swollen, participates in the act of breathing to a limited extent, soft, sharply painful in the epigastric region. The liver is not palpable (due to the excessive subcutaneous fat layer of the abdominal wall). The spleen is not detected. There are no symptoms of irritation of the peritoneum. The symptoms of Voskresensky and Mayo-Robson are positive. Hepatic dullness is preserved, there is no bluntness in the sloping places. Auscultatively, a decrease in peristalsis is determined. Palpation and percussion of the lumbar regions are painless. There are no dysuric phenomena. Of the additional diagnostic methods: general blood test: Hb – 139 g/l; Er. –  $4.8 \times 10^{12}/l$ ; Ht – 38%; c. p. – 0.9; ESR – 15 mm/h; L –  $12.5 \times 10^9/l$ ; e – 1, p – 7, c – 53, L – 32, m – 7. general urine analysis: s/w; epiphany; acid; 1018; cax. – rel.; bel. – rel.; L – 2 – 3 in n/a; ep. – 1-2 in n/a; urine diastasis 1024 units. biochemical study: O/bel. – 82 g/l; O/bil. – 18.4 mmol/l; alkaline phosphatase – 255 units; L-amylase –  $325 \text{ g} \times \text{h}/l$ ; Alt – 0.5; Ast – 0.7; Tim. – 2.5 units; Sul. 4.0 units; Urea. – 6.8 mmol/l; Creatine. – 78 mmol/l; K<sup>+</sup> - 3.5 mmol/l; Na<sup>++</sup> - 138 mmol/l; Cl<sup>-</sup> - 96 mmol/L. ECG: sinus rhythm, 86 in min. EOS is deviated to the left; diffuse changes in the myocardium; in V3-6, the inversion of the prong P.

Questions:

1. What is your preliminary diagnosis?
2. What should be used for differential diagnosis?
3. What research methods can confirm the diagnosis?
4. Treatment tactics?

#### *Situational task No. 5*

A 40-year-old man was kicked in the stomach. He was admitted to the clinic 2 hours after the injury. Complains of pain in the lower abdomen, difficulty urinating dropwise. Urine with an admixture of blood. The condition is satisfactory. In the suprapubic region, soreness, muscle tension are determined, and a dull sound is percutorially determined. A positive symptom of Shchetkin-Blumberg.

Questions

1. A presumptive diagnosis.
2. What research methods are needed?
3. Treatment.

#### ***Response standards***

1. Abscess of the appendicular infiltrate with the breakthrough of the abscess into the abdominal cavity. Common peritonitis. An emergency operation after preoperative preparation is indicated – laparotomy, sanitation, drainage of the abdominal cavity, delimiting tamponade of the abscess. Infusion, antibacterial therapy.
2. Mallory-Weiss syndrome. Alcohol intoxication. Hemodynamic and Nv monitoring, FGS monitoring after 1 day. Conservative treatment – infusion, hemostatic, antisecretory therapy, endoscopic hemostasis, if necessary, the installation of a Blackmore probe. Surgical treatment is only available for massive bleeding and non-effectivity of the hemostasis methods described above. The prognosis is favorable. Rehabilitation – treatment by a gastroenterologist, refusal to take alcohol.
3. Acute calculous cholecystitis. A recurrent course with the addition of a bacterial infection. Diagnosis – ultrasound, CT scan of the abdominal cavity, laparoscopy. Surgical treatment after preoperative preparation is indicated – cholecystectomy, possibly laparoscopic. Infusion, antibacterial, antispasmodic, analgesic therapy in the postoperative period.
4. Acute interstitial pancreatitis, severe course. Pancreatogenic shock. Differentiate with acute myocardial infarction. The diagnosis is confirmed by ultrasound, CT scan of the abdominal cavity, blood amylase and lipase levels. Troponin test for differentiation with myocardial infarction. In the absence of positive dynamics, laparoscopy is performed. Intensive care in RAO conditions. Massive infusion, detoxification therapy, antiferments, "interrupting" therapy (cooling + medication), plasmapheresis. Surgical treatment is not indicated at this stage of the disease development.
5. Possible extraperitoneal rupture of the bladder. Cystoscopy or cystography is indicated. Upon confirmation of the diagnosis, an emergency operation is indicated – suturing the rupture of the bladder with a 2-row suture with epicystostomy discharge or maintenance on a permanent urinary catheter. Uroantiseptics, antibacterial therapy.

## STANDARD EXAM QUESTIONS (8th semester)

**The EXAM tasks include an assessment of theoretical knowledge and an assessment of practical skills – the exam ticket contains 3 questions (2 theoretical and 1 situational task).**

### Questions for the oral quiz:

#### "Faculty surgery"

1. Acute appendicitis: definition, epidemiology, etiology, pathogenesis, classification.
2. Acute appendicitis: clinical picture, symptoms of acute appendicitis (Kocher, Shchetkin-Blumberg, Voskresensky, Rovsing, Sitkovsky, Bartomier-Michelson, Obratsov, Cope (psoa-symptom)).
3. Acute appendicitis: methods of treatment, surgical tactics (accesses for acute appendicitis), management of the postoperative period.
4. Acute appendicitis: complications of the disease and the postoperative period. Methods of diagnosis and treatment.
5. Acute appendicitis: features of the clinical picture depending on the location of the appendix. Differential diagnosis of acute appendicitis.
6. Acute appendicitis: atypical forms, clinical features in children, pregnant women, and the elderly.
7. Acute appendicitis: appendicular infiltration (definition, clinical picture, diagnosis, differential diagnosis, treatment), outcomes.
8. Acute appendicitis: appendicular abscess (definition, clinical picture, diagnosis, differential diagnosis, treatment).
9. Hernias of the anterior abdominal wall: definition of the concept of hernia, etiology, classification of hernias of the anterior abdominal wall, predisposing and producing factors, prevention of hernia formation.
10. Inguinal hernias: anatomy of the inguinal canal (inguinal region, inguinal triangle, inguinal gap), classification of inguinal hernias.
11. Inguinal hernias: clinical picture of inguinal hernia, diagnosis, diagnostic methods (manual, instrumental), differential diagnosis.
12. Inguinal hernias: methods of surgical treatment, types of hernioplasty: plastic surgery of the posterior wall of the inguinal canal with local tissues, non-tensioning types of plastic surgery.
13. Femoral hernias: anatomy of the femoral canal, features of the clinical course of femoral hernias.
14. Femoral hernias: clinical picture, diagnosis, surgical treatment, management of the postoperative period.
15. Umbilical hernias: clinical picture, diagnosis, differential diagnosis, methods of surgical treatment, management of the postoperative period.
16. Hernia infringement: definition of the concept, types of infringement, clinical picture, methods of treatment, tactics of the surgeon in case of spontaneous reduction, prevention of infringement.
17. The non-rightness of a hernia: definition of the concept, clinical picture, methods of treatment, prevention of non-rightness.
18. Gallstone disease: epidemiology, etiology, pathogenesis, types of gallstones, prevention.
19. Gallstone disease: chronic calculous cholecystitis (clinical picture, diagnosis, treatment methods).
20. Cholelithiasis: choledocholithiasis (definition, clinical picture, diagnosis, treatment).
21. Cholelithiasis: acute cholecystitis (classification, clinical picture, methods of treatment.)
22. Cholelithiasis: cholangitis (definition, clinical picture, Charcot triad, diagnosis, treatment).
23. Acute pancreatitis: definition, epidemiology, etiology, pathogenesis, prevention of acute pancreatitis.
24. Acute pancreatitis: classification, clinical picture depending on the form and period, diagnosis, differential diagnosis.
25. Acute pancreatitis: methods of treatment, indications for surgical treatment.
26. Acute pancreatitis, early complications: classification, methods of prevention and treatment.
27. Acute pancreatitis, late complications: classification, methods of prevention and treatment.
28. Perforated ulcer of the stomach and duodenum: clinical picture, diagnosis, treatment, surgical tactics (including indications and contraindications to gastric resection)
29. Gastrointestinal bleeding: etiology, clinical and endoscopic classification according to Forest, clinical picture depending on the degree of blood loss, diagnosis, differential diagnosis.

30. Gastrointestinal bleeding: methods of treatment, indications for emergency surgical treatment, endoscopic methods of stopping bleeding, prevention.
31. Pyloroduodenal stenosis: causes, classification, clinical picture, diagnosis, treatment methods.
32. Penetration and malignancy of gastroduodenal ulcers. Features of the clinical picture. Methods of diagnosis and treatment. Types of operations.
33. Acute intestinal obstruction: definition, epidemiology, etiology, pathogenesis, classification.
34. Acute obstructive colonic obstruction: etiology, clinical picture, principles of surgical treatment.
35. Peritonitis: etiopathogenesis, classification, principles of treatment.
36. Modern approaches to surgical treatment and intensive care of common peritonitis.
37. Local peritonitis. Kinds. Clinical manifestations. Features of diagnosis and treatment.
38. Purulent lung diseases. Definition. Etiology. Epidemiology. Pathogenesis. Classification. The clinical picture of the disease. Diagnostics. Treatment. Forecast.
39. Purulent diseases of the pleura. Definition. Etiology. Epidemiology. Pathogenesis. Classification. The clinical picture of the disease. Diagnostics. Treatment. Forecast.
40. Acute mediastinitis. Definition. Etiology. Epidemiology. Pathogenesis. Classification. The clinical picture of the disease. Diagnostic errors. The examination program. Treatment tactics: indications for surgery, choice of surgical access, volume of surgery. Postoperative management.
41. Injury to the chest and abdomen. Definition. Etiology. Epidemiology. Pathogenesis. Classification. The concept of isolated, multiple, combined and combined trauma. Principles of organizing assistance to victims with chest and abdominal injuries in peacetime.
42. Traumatic pneumothorax. Definition. Etiology. Epidemiology. Pathogenesis. Classification. The clinical picture of the disease. Diagnostics. Treatment. Forecast.
43. Traumatic hemothorax. Definition. Etiology. Epidemiology. Pathogenesis. Classification. The clinical picture of the disease. Diagnostics. Treatment. Forecast.
44. Damage to the heart. Definition. Etiology. Epidemiology. Pathogenesis. Classification. The clinical picture of the disease. Features of diagnosis and treatment. Complications of heart damage and their prevention. Forecast.
45. Lung damage. Definition. Etiology. Epidemiology. Pathogenesis. Classification. The clinical picture of the disease. Features of diagnosis and treatment. Complications of lung injuries and their prevention. Forecast.
46. Damage to the diaphragm. Definition. Etiology. Epidemiology. Pathogenesis. Classification. The clinical picture of the disease. Features of diagnosis and treatment. Complications of diaphragm injuries and their prevention. Forecast.
47. Liver damage. Definition. Etiology. Epidemiology. Pathogenesis. Classification. The clinical picture of the disease. Features of diagnosis and treatment. Complications of liver damage and their prevention. Forecast.
48. Damage to the spleen. Definition. Etiology. Epidemiology. Pathogenesis. Classification. The clinical picture of the disease. Features of diagnosis and treatment. Complications of spleen injuries and their prevention. Forecast.
49. Damage to the hollow organs of the abdomen. Definition. Etiology. Epidemiology. Pathogenesis. Classification. The clinical picture of the disease. Features of diagnosis and treatment. Complications of damage to the hollow abdominal organs and their prevention. Forecast.
50. Damage to the organs of the retroperitoneal space (duodenum and pancreas). Definition. Etiology. Epidemiology. Pathogenesis. Classification. The clinical picture of the disease. Features of diagnosis and treatment. Complications of retroperitoneal organ injuries and their prevention. Forecast.
51. Obliterating atherosclerosis of the vessels of the lower extremities: etiology, epidemiology, pathogenesis, classification of chronic ischemia of the lower extremities, prevention.
52. Obliterating atherosclerosis of the vessels of the lower extremities: classification of chronic lower limb ischemia, clinical picture, modern principles of diagnosis and treatment, prevention.
53. Obliterating atherosclerosis of the vessels of the lower extremities: lesion of the main arteries, Lericq syndrome, clinical picture, diagnostic methods, treatment methods.
54. Obliterating endarteritis: etiology, epidemiology, pathogenesis, classification of chronic lower limb ischemia, clinical features, principles of diagnosis and treatment, prevention.
55. Modern principles of diagnosis and surgical treatment of aortic aneurysms.
56. Modern principles of diagnosis and surgical treatment of heart diseases.

57. Acute arterial obstruction: etiology, classification, clinical picture.
58. Acute arterial obstruction: classification, methods of diagnosis and treatment.
59. Varicose veins of the lower extremities: etiology, epidemiology, pathogenesis, functional tests (Trojanova-Trendelenburg, Perthes, Pratt 2), prevention;
60. Varicose veins of the lower extremities: clinical picture, diagnostic methods, functional tests, principles of treatment.
61. Thrombophlebitis of the superficial veins of the lower extremities: clinical picture, methods of diagnosis and treatment, prevention.
62. Deep vein thrombosis of the lower extremities: clinic, differential diagnosis, treatment methods, ileofemoral thrombosis – prevention of pulmonary embolism.
63. Postthrombophlebitis syndrome: pathogenesis, clinic, degrees of venous insufficiency, methods of diagnosis and treatment, prevention.
64. Modern principles of surgical treatment of venous diseases and chronic venous insufficiency.
65. Surgical complications of diabetes mellitus (diabetic foot). Definition. Etiology. Epidemiology. Pathogenesis. Classification. The clinical picture of the disease. Diagnostics. Treatment. Forecast.
66. Dumping syndrome. Definition. Etiology. Epidemiology. Pathogenesis. Classification. The clinical picture of the disease. Diagnostics. Treatment. Forecast.
67. Adductor loop syndrome. Definition. Etiology. Epidemiology. Pathogenesis. Classification. The clinical picture of the disease. Diagnostics. Treatment. Forecast.
68. Mastitis. Definition. Etiology. Epidemiology. Pathogenesis. Classification. The clinical picture of the disease. Diagnostics. Treatment. Forecast.
69. Mastopathy. Definition. Etiology. Epidemiology. Pathogenesis. Classification. The clinical picture of the disease. Diagnostics. Treatment. Forecast.
70. Diffuse toxic goiter. Definition. Etiology. Epidemiology. Pathogenesis. Classification. The clinical picture of the disease. Diagnostics. Treatment. Forecast.
71. Nodular goiter. Definition. Etiology. Epidemiology. Pathogenesis. Classification. The clinical picture of the disease. Diagnostics. Treatment. Forecast.
72. Autoimmune thyroiditis. Definition. Etiology. Epidemiology. Pathogenesis. Classification. The clinical picture of the disease. Diagnostics. Treatment. Forecast.
73. Portal hypertension and its complications. Definition. Etiology. Epidemiology. Pathogenesis. Classification. The clinical picture of the disease. Diagnostics. Treatment. Forecast.
74. Mechanical jaundice. Definition. Etiology. Epidemiology. Pathogenesis. Classification. The clinical picture of the disease. Diagnostics. Differential diagnosis of jaundice. Treatment. Forecast.

## List of situation tasks

### *Situational task No. 1*

Patient K., 36 years old, was admitted to the clinic urgently with complaints of epigastric pain, nausea, heartburn, vomiting of eaten food with an admixture of blood.

It was found out from the anamnesis that he was ill for about 4 days. The onset of the disease is associated with the intake of spicy food and alcohol. I was worried about burning pains of medium intensity in the epigastric region, a feeling of nausea, nausea, heartburn. During these days, he refused to eat, due to increased pain after eating. He notes a gradual deterioration of the condition - the pain is constant, increasing in the evening and at night. Defecation with brown feces. Deterioration 7 hours before admission, after eating, the pain increased, nausea appeared, there was double vomiting of eaten food with streaks of blood. He was taken by ambulance.

During the examination: the general condition is satisfactory. The skin and visible mucous membranes are physiologically colored. In the lungs, breathing is vesicular, there are no wheezes, BPD is 18 per minute. Heart tones are clear, rhythmic, heart rate 98 per minute, blood pressure 120/80 mm Hg. Pulse of satisfactory filling and tension. The tongue is dried, densely overlaid with a greenish coating. The abdomen is involved in the act of breathing, soft and slightly painful in the epigastric region. There is no muscular defiance, peristalsis is active. The kidney area is not changed. Palpation of soreness is not determined. Urination is free, daily diuresis is 1400 ml.

Per rectum: the tone of the sphincter is good. In the ampoule of the rectum, the feces are decorated, on the glove the feces are black, decorated.



Blood test: Hb - 110 g/l; erythrocytes – 3.2 x 10<sup>12</sup>, hematocrit – 34%; color index – 0.9; leukocytes - 15.9 x 10<sup>9</sup>, e-0, p-24, c-55, L-19, m-2; platelets – 175.0; ESR- 26 mm/h.

Urine analysis: straw-yellow; transparent; specific gravity – 1012; reaction – acidic; protein – negative; erythrocytes – 3-4; bile – negative; sugar – negative; leukocytes – 12-15; flat epithelium – entirely in the field of view; bacteria +++++. Biochemical analysis: total bilirubin - 17.8 mmol/l, direct - 12.3 mmol/L; thymol sample – 1.0 units; ALT- 0.6 mmol/l; AST-0.4 mmol/L; total protein - 66 g/l; cholesterol – 5.1 mmol/L; urea – 8.0 mmol/l; creatinine – 109 mmol/l; potassium – 5.0 mmol/l; sodium – 141 mmol/l; calcium – 1.1 mmol/l; chlorides – 110 mmol/l glucose – 3.8 mmol/l; PTI – 89%; fibrinogen – 3.7 g/l.

With FGDS: the esophagus is freely passable. During the examination, the esophagus is freely passable, in the lower third there is hyperemia, swelling of the mucous membrane, small erosions. There is a rough folding and swelling of the gastric mucosa, multiple submucosal hemorrhages and erosion of the mucous membrane, covered with gray plaque, areas of the mucosa covered with black plaque. Blood leakage from erosion sites. Contact bleeding of the mucous membrane, a large amount of mucus and "coffee grounds" in the stomach, a small admixture of fresh blood.

Questions:

1. Make a clinical diagnosis.
2. Justify the correctness of your assumptions.
3. Formulate a diagnostic program.
4. Determine the treatment tactics.
5. What complications can develop against the background of this disease.
6. Indications for surgical treatment.
7. Prognosis of the disease.

Treatment. Forecast.

### Situational task No. 2

Patient O., 42 years old, went to the local therapist with complaints of epigastric pain, which worsened after eating and, especially at night, heartburn, belching.

It was revealed from the anamnesis that he suffered from peptic ulcer with ulcer localization in the bulb of the duodenum. He was repeatedly treated in the gastroenterology department during periods of exacerbations. Three years before the treatment, he was operated on for a perforated ulcer of the duodenum. I was worried about hunger pains, heartburn, belching rotten. When treated with antacids, the symptoms decreased. After the operation, within 6 months, the existing symptoms were joined by vomiting of eaten food, weight loss, weakness. He was operated on for urgent reasons one year ago. The scope of the operation is unknown. A real deterioration in the condition during the last week. Epigastric pain resumed, intense pain, not relieved by eating or antacids, heartburn, belching, pain at night. Notes a general deterioration in well-being.

During examination: the patient is exhausted. The skin is slightly pale and dry. In the lungs, breathing is vesicular, there is no wheezing, BPD is 18 per minute. The heart tones are clear, rhythmic, heart rate is 76 beats per minute, blood pressure is 120/80 mm Hg. The tongue is moist, thickly overlaid with a white coating at the root. The abdomen is navicular in shape, there is a postoperative scar 18 x 0.5 cm along the middle line without signs of inflammation. On palpation, the abdomen is soft, painful in the epigastrium and in the right hypochondrium. Peristalsis is active. The stool is mushy 2-3 times a day, brown in color. The kidney area is not changed. Palpation - soreness is not determined. Urination is free, daily diuresis is 1300 ml.

Blood test: Hb- 100 g/l; erythrocytes – 3.8 x 10<sup>12</sup>, hematocrit – 34%; color index – 0.9; leukocytes - 6.9 x 10<sup>9</sup>, e-0, p-4, c-75, L-19, m-2; platelets – 175.0; ESR- 26 mm/h.

Urine analysis: yellow; cloudy; specific gravity – 1012; reaction – acidic; protein – 0.067 g / l; blood – negative; bile – negative; sugar – negative; leukocytes – 12-18; flat epithelium – entirely in the field of vision; oxalates - +++++.

Biochemical analysis: total bilirubin – 19.5 mmol/l, direct – 10.5 mmol/L; thymol sample – 1.0 units; ALT- 0.6 mmol/l; AST-0.4 mmol/L; total protein - 46 g/l; cholesterol – 5.1 mmol/L; urea – 18.0 mmol/l; creatinine – 179 mmol/l; potassium – 7.0 mmol/L; sodium – 141 mmol/L; calcium – 1.1 mmol/L; chlorides – 110 mmol/l; glucose – 3.8 mmol/l; PTI – 89%; fibrinogen – 3.7 g/l; alkaline phosphatase – 168 mmol/L.

During X-ray: the esophagus is freely passable, its walls are elastic. The stomach stump on an empty stomach contains a large amount of liquid, has a funnel shape, folds are poorly visualized, smoothed. The evacuation to the diversion loop is somewhat slowed down. The lumen of the anastomosis is 1.5 cm, immediately after the anastomosis, a stable barium depot of 1.0 x 1.0 cm (ulcerative niche) is determined.

Questions:

1. What kind of preliminary diagnosis can be made to the patient.
2. What research methods should be carried out to make a diagnosis.

3. What diseases should be treated with a differential diagnosis.
4. What complication did the patient develop after suturing a perforated ulcer?
5. Tactics of treatment

Situational task No. 3

Patient V., 37 years old, was admitted to the surgical department with complaints of dull aching bursting pains in the right hypochondrium, nausea and vomiting.

It is known from the medical history that the patient has been suffering from peptic ulcer disease for 12 years. He was treated regularly in the hospital during periods of exacerbation. Over the past 3 years, peptic ulcer relapses have become more frequent, conservative therapy has had a short-term effect, and supportive therapy was too expensive for the patient. In this regard, the patient was operated on a year ago. In the postoperative period, there is a significant improvement in the condition. The pain, heartburn, and belching have completely stopped. 3 months after the operation, dull aching pains in the right hypochondrium began to appear after eating, which passed on their own. Gradually, the pain became more intense, bursting and passed only after taking antispasmodics. Subsequently, a feeling of nausea, overflow was added, in connection with which the patient provoked vomiting, which brought relief. I began to resort to this method regularly to alleviate my condition. Notes the presence of a large amount of bile in the vomit. Recently, eating any food causes the listed symptoms, the patient is starving, has lost weight.

During the examination: the patient is exhausted, the general condition is of moderate severity, the skin is grayish, the skin turgor is reduced. In the lungs, breathing is vesicular, there are no wheezes, BDD-18 per minute; heart rate-78 beats per minute; blood pressure-110/70 mm Hg. The tongue is dry, overlaid with a yellowish coating. The abdomen is navicular when examined. The postoperative scar along the midline is 15x0.5 cm in size. On palpation in the epigastric region of elastic consistency, the formation is 12x6 cm, mobile. Peristalsis is active. Stool 1 time in 3-4 days. The kidney area is not changed. Palpation - soreness is not determined. Urination is free, daily diuresis is 1300 ml.

Blood test: Hb - 104 g/l; erythrocytes -  $4.2 \times 10^{12}$ , hematocrit - 34%; color index - 0.9; leukocytes -  $7.9 \times 10^9$ , e-0, p-4, c-75, L-19, m-2; platelets - 175.0; ESR- 26 mm/h.

Urine analysis: straw-yellow; transparent; specific gravity - 1012; reaction - acidic; protein - negative; blood - negative; bile - negative; sugar - negative; leukocytes - 2-3; epithelium flat - 4-8 in the field of view. Biochemical analysis: total bilirubin - 27.8 mmol/l, direct - 15.3 mmol/L; thymol sample - 1.0 units; ALT- 0.6 mmol/l; AST-0.4 mmol/L; total protein - 66 g/l; cholesterol - 5.1 mmol/L; urea - 8.0 mmol/l; creatinine - 109 mmol/l; potassium - 5.0 mmol/l; sodium - 141 mmol/l; calcium - 1.1 mmol/l; chlorides - 110 mmol/l glucose - 3.8 mmol/l; PTI - 89%; fibrinogen - 3.7 g/l.

Ultrasound examination: the liver is heterogeneous, the intrahepatic ducts are not dilated, the choledochus is 0.8 cm, the terminal part of the choledochus is not located. Pancreas: head 29 mm, body 22 mm and tail 17 mm. The structure of the gland is heterogeneous, with increased density. Gallbladder: dimensions 12 x 8 cm, the wall is thickened - 0.4 cm, has a double contour, in the lumen there are multiple concretions from 0.5 to 1.0 cm.

X-ray on an empty stomach: there is liquid in the stump of the stomach. There is a massive casting of the contrast mass into the leading loop, the latter is unevenly expanded, in places up to 3.5 - 4.0 cm. The contrast mass does not persist in it for a long time.

Questions:

1. Make a clinical diagnosis.
2. What research methods should be carried out by the patient.
3. What complications developed after surgery and its causes.
4. Formulate treatment programs.
5. Formulate the indications for surgical correction of the complication.
6. Prognosis of the disease.
7. Rehabilitation program.

Situational task No. 4

Patient U., 32 years old, was admitted to the clinic complaining of severe weakness, itching, periodic jaundice with chills and fever.

From anamnesis: a year before admission, she underwent emergency surgery for destructive calculous cholecystitis. The course of the postoperative period is severe, a biliary external fistula has formed. During fistulography, the contrast agent entered the hepatic ducts and into the duodenum. After 5 months, the discharge from the fistula decreased, and then completely stopped. The patient began to be disturbed by pain in the right hypochondrium, periodic chills with fever, after seizures, darkening of the color of urine and discolored feces were noted. The pain and fever became more frequent, and jaundice appeared at times. Upon admission, the condition is of moderate severity. Slight ictericity of the sclera and skin, there are traces of scratching. In the lungs, breathing is harsh during auscultation, single dry scattered wheezes, BDD-18 per minute. The heart tones are muted,

rhythmic. Pulse is 96 per minute, blood pressure is 120/90 mm Hg. The tongue is coated at the root with a white coating, dried. Abdomen: there is a scar on the anterior abdominal wall of 19 x 0.8 cm, in the right hypochondrium up to 4 cm in diameter without signs of inflammation. On palpation, the abdomen is soft, painful in the right hypochondrium, a dense liver is determined, protruding from under the edge of the costal arch by 3 cm. Peristalsis is active. The stool is daily, the stool is stained. The kidney area is not changed. Palpation - soreness is not determined. Urination is free, daily diuresis is 900 ml.

Blood test: Hb- 100 g/l; erythrocytes – 3.8 x 10<sup>12</sup>, hematocrit – 34%; color index – 0.9; leukocytes - 8.9 x 10<sup>9</sup>, e-0, p-4, c-75, L-19, m-2; platelets – 175.0; ESR- 56 mm/h.

Urine analysis: yellow; cloudy; specific gravity – 1012; reaction – acidic; protein – 0.067 g / l; blood – negative; bile – negative; sugar – negative; leukocytes – 12-18; flat epithelium – entirely in the field of vision; oxalates - +++.

Biochemical analysis: total bilirubin – 64.5 mmol/l, direct – 40.5 mmol/L; thymol sample – 2.0 units; ALT- 1.6 mmol/l; AST-1.4 mmol/L; total protein - 66 g/l; cholesterol – 5.1 mmol/L; urea – 18.0 mmol/l; creatinine – 179 mmol/l; potassium – 7.0 mmol/L; sodium – 141 mmol/L; calcium – 1.1 mmol/l; chlorides – 110 mmol/l; glucose – 3.8 mmol/l; PTI – 89%; fibrinogen – 3.7 g/l; alkaline phosphatase – 168 units.act.l.

Ultrasound: the structure of the liver is dense, the intrahepatic ducts are moderately dilated, the choledoch is up to 1.2 cm.

Questions:

1. Make a preliminary diagnosis of the patient.
2. Formulate a diagnostic program.
3. Determine the treatment tactics.
4. Type of surgical correction, justification.
5. The dangers of the postoperative period, especially in the management of the patient.
6. Prognosis of the disease
7. Rehabilitation program.

#### Situational task No. 5

Patient P., 77 years old, was admitted to the clinic complaining of minor dull pains in the right hypochondrium, weakness, yellowing of the skin, itching, weight loss, darkening of urine and light feces.

It is known from the medical history that he has been ill for 2 months. According to the patient, jaundice staining of the sclera appeared, slight ictericity of the skin. The jaundice decreased and increased again, and itchy skin appeared. He was examined in the infectious diseases department, where infectious hepatitis was excluded.

Gradually, dull pains appeared in the right hypochondrium, weakness. It notes a decrease in appetite. Recently, I have lost 8 kg. Due to the increasing jaundice, he was sent for examination.

On examination: general condition of moderate severity. The skin and sclera are jaundiced, there are areas of scratching. In the lungs, breathing is weakened in the lower lateral sections, moist multi-bubbly wheezing, BDD- 18 per minute. The heart tones are muted, rhythmic, pulse is 78 per minute, blood pressure is 130/80 mm Hg. The tongue is dried, overlaid with a yellowish coating. The hollow abdomen participates in the act of breathing. On palpation, the liver protrudes 2 cm from under the edge of the costal arch, a dense slightly painful edge. The bottom of the gallbladder is determined. The latter is enlarged and painless. The symptoms of Ortner, Mayo-Robson, Murphy-Georgievsky are negative. The peristalsis is good. Stool 1 time in three days decorated with feces of gray color. The kidney area is not changed. Palpation - soreness is not determined. Urination is free, urine is dark in color, daily diuresis is 1,900 ml.

Blood test: Hb- 108 g/l; erythrocytes – 3.8 x 10<sup>12</sup>, hematocrit – 34%; color index – 0.9; leukocytes - 8.9 x 10<sup>9</sup>, e-0, p-4, c-75, L-19, m-2; platelets – 175.0; ESR- 56 mm/h.

Urine analysis: yellow; cloudy; specific gravity – 1012; reaction – acidic; protein – 0.067 g / l; blood – negative; bile – negative; sugar – negative; leukocytes – 12-18; flat epithelium – entirely in the field of vision; oxalates - +++.

Biochemical analysis: total bilirubin – 264.5 mmol/l, direct – 176.5 mmol/L; thymol sample – 2.0 units; ALT- 2.6 mmol/L; AST-1.4 mmol/L; total protein - 66 g/L; cholesterol – 5.1 mmol/L; urea – 18.0 mmol/l; creatinine – 179 mmol/l; potassium – 7.0 mmol/L; sodium – 141 mmol/L; calcium – 1.1 mmol/L; chlorides – 110 mmol/l; glucose – 7.8 mmol/l; PTI – 89%; fibrinogen – 3.7 g/l; alkaline phosphatase – 468 units.act

ECG : horizontal position of the electrical axis of the heart, sinus tachycardia, hypertrophy of the left ventricle. Heart rate is 78 per minute.

Ultrasound: the liver is enlarged in size, echolithous, and the intrahepatic ducts are dilated. The choledochus is 2.5 cm, the terminal part of the choledochus is not visualized. The gallbladder is 18 x 10 cm in size, its wall is thinned, atonic. The head of the pancreas is 52 mm, the body is 41 mm, the tail is 17 mm.

Questions:

1. What kind of disease can be suspected.
2. What diseases should be treated with a differential diagnosis.

3. Formulate a diagnostic program.
4. Formulate a preoperative preparation plan.
5. Indications for surgery, the volume of surgery, factors affecting the volume of intervention.
6. Prognosis of the disease.
7. Rehabilitation program.

*Situational task No. 6*

Patient F., 65 years old, was taken by the "SP" team to the emergency department of the surgical hospital 3 hours after the onset of the disease with complaints of sudden abdominal pain of a permanent nature, without clear localization, dry mouth.

The patient is moaning loudly, rushing about. Vomiting with the smell of intestinal contents was observed, which did not bring relief.

A history of hypertension: it is treated uncontrollably with antihypertensive drugs.

The general condition is serious. His face is pale and covered with cold sweat. The skin has a grayish tinge. In the lungs, breathing is vesicular, there is no wheezing. The heart tones are arrhythmic, systolic murmur is heard above the aorta, the apex. Heart rate 112 in 1 minute. Blood pressure 160/90 mmHg. Temperature 36.60 C. The tongue is dry, overlaid with a "dirty" coating. The abdomen is not swollen, participates in breathing, is soft, the pain does not increase during palpation. The liver is on the edge of the costal arch, painless. The spleen is not palpable. There are no symptoms of irritation of the peritoneum. Auscultation – peristalsis is not listened to. The stool is frequent, watery, with an admixture of blood. During rectal examination, there is no overhanging, soreness of the walls of the rectum, no pathological formations were detected, traces of watery stool with an admixture of blood were found on the glove. Palpation and percussion of the lumbar regions are painless. There are no dysuric phenomena.

Of the additional diagnostic methods:

general blood test: Hb – 119 g/l; Er. – 5.0 □ 10<sup>12</sup>/l; Ht – 35%; c. p. – 0.9; ESR – 18 mm/h; L – 2.1 □ 10<sup>9</sup>/l; e – 1, p – 18, c – 53, L – 22, m – 6.

general urine analysis: s/w; epiphany; acid; 1022; cax. – rel.; bel. – rel.; L – 3 – 4 in n/a.; ep. – 5 – 6 in n/

a. biochemical study: O/ bel. – 68 g / l; O/ bil. – 15.8 mmol/ l; SCHF – 425 units; L-amylase – 169 g □ h/l; Alt – 0.5; Ast – 0.7; Tim. – 2.5 units; Sul. 4.0 units; Urea. – 8.8 mmol/l; Creatine. – 278 mmol/l; K<sup>+</sup> – 5.2 mmol/l; Na<sup>++</sup> – 138 mmol/l; Cl<sup>-</sup> – 103 mmol/l.

Questions:

1. What is your preliminary diagnosis?
2. What diseases should be differentiated from?
3. The scope of the additional examination.
4. What are the treatment tactics?

*Situational task No. 7*

Patient T., 28 years old, was taken to the emergency department of the surgical hospital by the SP team with complaints of intense abdominal pain of a cramping nature, without clear localization, nausea, repeated vomiting with an admixture of bile in vomit, dry mouth.

Anamnesis: 3 years ago, the patient underwent a right-sided adnexectomy. Since then, there have been 5 attacks of acute abdominal pain, which were easily relieved after conservative measures. The present deterioration within 4 hours (associated with physical activity), this time the onset of the disease is more abrupt and proceeds much more severely than the previous ones (according to the patient's assessment).

The general condition is serious. The patient is restless, rushes, changes position. The skin is of ordinary color. In the lungs, breathing is vesicular, there is no wheezing. The heart tones are rhythmic, there is no additional noise. Heart rate is 100 in 1 minute. Blood pressure is 90/60 mmHg. The tongue is moist, covered with a white coating. The abdomen is swollen, breathing is limited, there is an asymmetric protrusion to the left of the navel, soft on palpation, painful in the area of protrusion. The liver is not enlarged, it is painless. The spleen is not palpable. There are no symptoms of irritation of the peritoneum. Percussion – local tympanitis over protrusion, there is no dullness in sloping places. During auscultation, there is a weakening of peristalsis. At the beginning of the disease, there was a single stool. Palpation and percussion of the lumbar regions are painless. There are no dysuric phenomena.

Of the additional diagnostic methods:

general blood test: Hb – 152 g/l; Er. – 4.5 □ 10<sup>12</sup>/l; Ht – 48%; Cv. p. – 1.0; ESR – 18 mm/h; L – 12.8 □ 10<sup>9</sup>/l; e – 0, p – 12, c – 50, L – 33, m – 5.

general urine analysis: s/w; epiphany; acid; 1018; cax. – rel.; bel. – rel.; L – 2 – 3 in n/a.; ep. – 1 – 2 in n/a.

biochemical study: O/ bel. – 86 g/l; O/bil. – 12.4 mmol/l; alkaline phosphatase – 333 units; L-amylase – 169 g □ h / l; Alt – 0.5; Ast – 0.7; Tim. – 2.5 units; Sul. 4.0 units; Urea. – 7.8 mmol/l; Creatine – 98 mmol/l; K<sup>+</sup> – 3.5 mmol/l; Na<sup>++</sup> – 138 mmol/l; Cl<sup>-</sup> – 92 mmol/L.

Questions:

1. Formulate a diagnosis.

2. What should be done to confirm the diagnosis?
  3. What symptoms are described during examination and percussion of the abdomen?
  4. How can we explain the difference between the present clinical picture and previous seizures?
- Therapeutic tactics?

#### Situational task No. 8

Patient T., 52 years old, was admitted to the emergency department with complaints of pain in the epigastric region of a shingling nature, nausea, repeated vomiting, which did not bring relief, weakness.

The pain appeared sharply this morning (I had a hearty dinner the day before), localized in the left hypochondrium, with irradiation to the left half of the chest, then difficulty breathing joined

The patient has been suffering from hypertension for a long time; coronary heart disease, angina pectoris (observed and treated by a therapist).

The patient was delivered by the "SP" team 2 hours after the onset of the disease. Upon examination, the condition is serious. The temperature is 37.00C. The food is excessive. The skin is pale, acrocyanosis is noted, the skin is covered with cold sweat. Breathing is weakened in the lungs, there is no wheezing. The heart tones are rhythmic, systolic murmur is heard at the II point and at the apex. Heart rate 140 in 1 minute, low voltage. Blood pressure is 100/60 mmHg. The tongue is dry, overlaid with a white coating. The abdomen is moderately evenly swollen, participates in the act of breathing to a limited extent, soft, sharply painful in the epigastric region. The liver is not palpable (due to the excessive subcutaneous fat layer of the abdominal wall). The spleen is not detected. There are no symptoms of irritation of the peritoneum. The symptoms of Voskresensky and Mayo-Robson are positive. Hepatic dullness is preserved, there is no bluntness in the sloping places. Auscultatively, a decrease in peristalsis is determined. Palpation and percussion of the lumbar regions are painless. There are no dysuric phenomena.

Of the additional diagnostic methods:

general blood test: Hb – 139 g/l; Er. – 4.8 □ 10<sup>12</sup>/l; Ht – 38%; c. p. – 0.9; ESR – 15 mm/h; L – 12.5 □ 10<sup>9</sup>/l; e – 1, p – 7, c – 53, L – 32, m – 7.

general urine analysis: s/w; epiphany; acid; 1018; cax. – ref.; bel. – ref.; L – 2 – 3 in n/a.; ep. - 1 – 2 in n/a.; urine diastasis 1024 units.

biochemical study: O/ bel. – 82 g/l; O/bil. – 18.4 mmol/l; alkaline phosphatase – 255 units; L-amylase – 325 g□h / l; Alt – 0.5; Ast – 0.7; Tim. - 2.5 units; Sul. 4.0 units; Urea. – 6.8 mmol/l; Creatine – 78 mmol/l; K+ - 3.5 mmol/l; Na++ - 138 mmol/l; Cl - - 96 mmol/L.

ECG: sinus rhythm, 86 per minute. EOS is deviated to the left; diffuse changes in the myocardium; in V3-6, the inversion of the P wave.

Questions:

1. What is your preliminary diagnosis?
2. What is the need for differential diagnosis?
3. What research methods can confirm the diagnosis?
4. Treatment tactics?

#### Situational task No. 9

Patient S., 49 years old, was admitted to the emergency department with complaints of intense pain in the epigastric region, radiating to the lumbar region and the left shoulder, nausea, vomiting, which does not bring relief, dry mouth. The sharp pain appeared suddenly 2 hours ago. I celebrated a friend's birthday the night before.

The patient has a history of duodenal ulcer – for 6 years, was treated irregularly.

Upon examination, the condition is serious. The skin is pale, acrocyanosis is noted, the skin is covered with cold sweat. Breathing is weakened in the lungs, there is no wheezing. The heart tones are rhythmic, muted. Heart rate 98 in 1 minute, low voltage. Blood pressure is 110/60 mmHg. The tongue is dry, covered with a white coating. The abdomen is of the usual shape, does not participate in the act of breathing, is sharply tense and painful in the upper abdomen. The liver and spleen are not palpable. Symptoms of peritoneal irritation are questionable. The symptoms of Voskresensky and Mayo-Robson are questionable. Hepatic dullness is preserved, there is no bluntness in the sloping places. Auscultation determines the weakening of peristalsis. Palpation and percussion of the lumbar regions are painless. There are no dysuric phenomena.

Of the additional diagnostic methods:

general blood test: Hb – 139 g/l; Er. – 4.8 □ 10<sup>12</sup>/l; Ht – 38%; c. p. – 0.9; ESR – 15 mm/h; L – 12.5 □ 10<sup>9</sup>/l; e – 1, p – 7, c – 53, l – 32, m – 7.

general urine analysis: s/w; epiphany; acid.; 1018; sah. – ref.; bel. – ref.; L – 2 – 3 in n/a.; ep. - 1 – 2 in n/a.; urine diastasis 512 units.

biochemical study: O/ bel. – 82 g/l; O/bil. – 18.4 mmol/l; alkaline phosphatase – 255 units; L-amylase – 325 g□h / l; Alt – 0.5; Ast – 0.7; Tim. - 2.5 units; Sul. 4.0 units; Urea. – 6.8 mmol/l; Creatine – 78 mmol/l; K+ - 3.5 mmol/l; Na++ - 138 mmol/l; Cl - - 96 mmol/L.

overview R-gr. abdominal cavity: the air in the free abdominal cavity is not determined.

FGDS: cicatricial ulcerative deformation of the bulb of the DPC was detected, there is an ulcerative defect on its posterior wall, the bottom is covered with fibrin.

Ultrasound: it is not possible to examine the pancreas due to the interposition of the transverse colon.

Questions:

1. What is your preliminary diagnosis?
2. With which diseases should differential diagnosis be carried out?
3. What research methods can be used to clarify the diagnosis?
4. Treatment tactics?

#### Situational task No. 10

The patient F., 29 years old, was brought to the emergency department by sanitation from the geological party. Due to the severity of the condition, it is difficult to come into contact, cannot report the onset and course of the disease.

It is known that he is ill for 3 days.

Upon examination, the condition is extremely serious. The patient is sluggish, apathetic, adynamic. There is a Hippocratic face. The temperature is 39.20 C. The skin is gray-tinged, cyanotic, dry to the touch. Shallow breathing, up to 36 in 1 min. In the lungs in the lower parts, breathing is weakened, dry wheezing on both sides. The heart tones are rhythmic, muted. Heart rate 140 in 1 minute, low voltage. Blood pressure is 80/40 mmHg. The tongue is dry, covered with a brown coating. The abdomen is sharply evenly swollen, and therefore practically does not participate in breathing, moderately painful in all departments. The liver and spleen are not detected. The Shchetkin–Blumberg symptom is negative. Hepatic dullness is absent, dullness is noted in sloping places. Auscultatively, peristalsis is not listened to. Liquid fetid feces are released through the gaping sphincter. Palpation and percussion of the lumbar regions are painless. Diuresis is sharply reduced.

Of the additional diagnostic methods:

general blood test: Hb – 109 g/l; Er. – 4.2 □ 1012/l; Ht – 55%; c. p. – 0.9; ESR – 65 mm/h; L – 22.5 □ 109/l; e – 0, p – 25, s - 57, L – 18, m – 0.

general urinalysis: yellow; cloudy; acid; 1028; cax. – rel.; bel. – 2.66.; L – 2 – 3 in n/a.; ep. - 5 – 6; hyal. cyl. – 10-12 in n/a.; urine diastasis 256 units.

biochemical study: O/ bel. – 52 g/l; O/bil. – 26.4 mmol/ l; alkaline phosphatase – 255 units; L-amylase – 325 g □ h / l; Alt – 1.5; Ast – 1.7; Tim. - 3.5 units; Sul. 4.0 units; Urea. – 12.8 mmol/l; Creatine – 278 mmol/l; K+ - 2.5 mmol/l; Na<sup>++</sup> - 125 mmol/l; Cl - - 82 mmol/L.

Questions:

1. What is your preliminary diagnosis?
2. What additional studies should be carried out.
3. Treatment tactics?
4. If you decide to operate, specify the amount of preoperative preparation, type of anesthesia, access, and the main stages of the operation.

#### Situational task No. 10

The patient F., 29 years old, was brought to the emergency department by sanitation from the geological party. Due to the severity of the condition, it is difficult to come into contact, cannot report the onset and course of the disease.

It is known that he is ill for 3 days.

Upon examination, the condition is extremely serious. The patient is sluggish, apathetic, adynamic. There is a Hippocratic face. The temperature is 39.20 C. The skin is gray-tinged, cyanotic, dry to the touch. Shallow breathing, up to 36 in 1 min. In the lungs in the lower parts, breathing is weakened, dry wheezing on both sides. The heart tones are rhythmic, muted. Heart rate 140 in 1 minute, low voltage. Blood pressure is 80/40 mmHg. The tongue is dry, covered with a brown coating. The abdomen is sharply evenly swollen, and therefore practically does not participate in breathing, moderately painful in all departments. The liver and spleen are not detected. The Shchetkin–Blumberg symptom is negative. Hepatic dullness is absent, dullness is noted in sloping places. Auscultatively, peristalsis is not listened to. Liquid fetid feces are released through the gaping sphincter. Palpation and percussion of the lumbar regions are painless. Diuresis is sharply reduced.

Of the additional diagnostic methods:

general blood test: Hb – 109 g/l; Er. – 4.2 □ 1012/l; Ht – 55%; c. p. – 0.9; ESR – 65 mm/h; L – 22.5 □ 109/l; e – 0, p – 25, s - 57, L – 18, m – 0.

general urinalysis: yellow; cloudy; acid; 1028; cax. – rel.; bel. – 2.66.; L – 2 – 3 in n/a.; ep. - 5 – 6; hyal. cyl. – 10-12 in n/a.; urine diastasis 256 units.

biochemical study: O/ bel. – 52 g/l; O/bil. – 26.4 mmol/ l; alkaline phosphatase – 255 units; L-amylase – 325 g □ h / l; Alt – 1.5; Ast – 1.7; Tim. - 3.5 units; Sul. 4.0 units; Urea. – 12.8 mmol/l; Creatine – 278 mmol/l; K+ - 2.5 mmol/l; Na<sup>++</sup> - 125 mmol/l; Cl - - 82 mmol/L.

Questions:

1. What is your preliminary diagnosis?

2. What additional studies should be carried out.
3. Treatment tactics?
4. If you decide to operate, specify the amount of preoperative preparation, type of anesthesia, access, and the main stages of the operation.

Situational task No. 12

Patient I. 38 years old was admitted to the surgical department of MGB No. 1 with complaints of weakness, abdominal pain, the presence of a painful formation in the groin area on the left, nausea, vomiting, high body temperature, chills. Got sick at work (works as a builder) 3 days before admission, when, after physical exertion, he noted the appearance of a painful formation in the groin area on the left. Gradually, abdominal pain joined in. The gases stopped escaping. During the last 24 hours, the condition worsened, fever and chills joined. He did not seek medical help due to alcohol consumption and the weakening of pain syndrome in this regard. Upon admission, the general condition is severe. The skin is pale in color. Body weight 38.0 g. s. Pulse 120 beats per 1 min. Blood pressure of 100/60 mmHg In the lungs is vesicular, weakened in the lower parts. Heart tones are muted, tachycardia. The abdomen is moderately evenly swollen, participates in breathing to a limited extent, the abdominal wall is rigid during palpation, painful in all departments, the Shchetkin-Blumberg symptom is weakly positive. In the inguinal region, a 6x4 cm formation is visualized on the left, descending into the scrotum, the skin above the formation is swollen, hyperemic. Local hyperthermia and severe soreness. The external inguinal ring on the left is not defined. The symptom of a coughing fit is negative.

In the general blood test, Hb – 128 g/l, er.  $4.0 \times 10^{12} / l$ , leukocytes –  $14.5 \times 10^9 / l$ , p-24, c-62, l- 14. ESR – 32 mm/hour. In the general analysis of urine – c / yellow, cloudy, protein – 0.66 g / l, leu 4-5 in n / a, erythr. – 1-2 in n / a, sugar rel.

Questions:

1. What is your diagnosis?
2. With what nosologies is it necessary to differentiate the disease you have established?
3. Your tactics?
4. If surgical treatment is indicated, decide on the expected volume of the operation?

***Response standards***

1. Erosive gastritis, esophagitis of alcoholic etiology based on anamnesis and FGS results. Nv control in dynamics. FGS control in 2-3 days. Anemia, recurrent bleeding, Mallory-Weiss syndrome, alcoholic delirium. They are absent in this patient. A favorable forecast.
2. Postgastroresection syndrome, peptic ulcer of the small intestine. FGS with a small intestine examination is indicated. Cancer of the stomach stump. Stenosis of the outlet part of the stomach. Surgical treatment is indicated – reconstructive resection of the stomach after preparation. The prognosis is favorable. Rehabilitation after surgery in the gastroenterology department followed by sanatorium treatment.
3. Postgastroresection syndrome – adductor loop syndrome. FGS with examination of the anastomosis zone, CT of the abdominal cavity. The causes of the adductor loop syndrome are a technical defect in performing the primary gastric resection operation. It is necessary to perform reconstructive gastric resection after preoperative preparation. The indication for surgery is the inability to eliminate the complication by therapeutic means. The prognosis is favorable. Rehabilitation after surgery in the gastroenterology department followed by sanatorium treatment.
4. Residual choledocholithiasis. Mechanical jaundice. Reactive hepatitis. ERCP, CT of the abdominal cavity, and MRI cholangiography are shown. EPST with lithoextraction is indicated, if it is impossible, surgical treatment is choledocholithotomy with external drainage of the choledochus or choledohodenostomy. In the postoperative period, there may be an increase in manifestations of liver failure, which requires infusion therapy, the use of hepatoprotectors, and antibiotic prophylaxis. The prognosis is favorable. Rehabilitation in the Department of gastroenterology followed by sanatorium treatment.
5. Cancer of the head of the pancreas, Vater's nipple, terminal choledochus. Differentiation with choledocholithiasis. FGS, ERCP, CT of the abdominal cavity, MRI cholangiography. Intensive therapy with detoxification by forced diuresis, plasmapheresis, correction of the hemostasis system. The operation consists of 2 stages – first decompression of the biliary tract (cholecystostomy, stenting, nasobiliary drainage), then the decision on the possibility of radical surgery (Whiplash operation), if impossible – the imposition of a biliodigestive anastomosis. The prognosis is unfavorable, taking into account the age and extent of the lesion. Rehabilitation – food regime control, long-term intake of hepatoprotectors, enzymes. Spa treatment is contraindicated.

6. Acute violation of mesenteric circulation (arteriomesenteric intestinal obstruction). Differentiation with acute pancreatitis, rupture of an abdominal aortic aneurysm, peritonitis, abdominal myocardial infarction. Ultrasound and X-ray of the abdominal cavity, duplex abdominal vessels, CT of the abdominal cavity, laparoscopy. After preoperative preparation, diagnostic intervention is performed – DLS or trial laparotomy to determine the resectability of the process. If possible, resection of necrotic intestinal fragments. The program of relaparotomy.
7. Acute adhesive small bowel obstruction (strangulation according to clinical data). Abdominal X-ray, ultrasound, CT scan of the abdominal cavity. Symptoms of Valya, Kivulya. In this case, there is strangulation with impaired blood circulation and intestinal innervation. After preoperative preparation, an emergency operation is laparotomy with the elimination of intestinal obstruction. In case of intestinal necrosis– intestinal resection is performed. Intensive care in the conditions of RAO in the postoperative period.
8. Acute interstitial pancreatitis, severe course. Pancreatogenic shock. Differentiate with acute myocardial infarction. The diagnosis is confirmed by ultrasound, CT scan of the abdominal cavity, blood amylase and lipase levels. Troponin test for differentiation with myocardial infarction. In the absence of positive dynamics, laparoscopy is performed. Intensive care in RAO conditions. Massive infusion, detoxification therapy, antiferments, "interrupting" therapy (cooling + medication), plasmapheresis. Surgical treatment is not indicated at this stage of the disease development.
9. Acute interstitial pancreatitis on the background of a penetrating ulcer of the duodenum. Differentiation with atypical perforation of the duodenal ulcer. Gastric X-ray with contrast, CT scan of the abdominal cavity. Relief of manifestations of acute pancreatitis (infusion, interrupting, anti-enzyme therapy). Then surgical treatment of a complicated ulcer in a planned manner – gastric resection according to Billrot-2.
10. Acute widespread peritonitis. Severe abdominal sepsis. SPON. Laparoscopy is indicated. Emergency surgical treatment after preoperative preparation. Intensive preoperative preparation in RAO conditions – infusion, ventilation, sympathomimetics, broad-spectrum antibiotics. Laparotomy surgery, revision, elimination of the source of peritonitis, sanitation and drainage of the abdominal cavity under general anesthesia. It is likely that the method of programmatic relaparotomy or laparostomy will be used. Continuation of intensive care in RAO conditions.
11. Postoperative widespread peritonitis. The reason is the leaving of a necrotic intestinal loop in the abdominal cavity. There is a tactical defect in the primary operation – with retrograde infringement, the intermediate intestinal loop has not been examined for its viability. An emergency operation is indicated – laparotomy, resection of the necrotic small intestine with anastomosis, sanitation, drainage of the abdominal cavity. Intensive therapy of peritonitis in the conditions of RAO.
12. Pinched inguinal hernia on the left with intestinal necrosis. Phlegmon of the hernial sac. Acute intestinal obstruction. It is necessary to differentiate with inguinal abscessing lymphadenitis, a leaky abscess. After preoperative preparation, an emergency operation is indicated – laparotomy, resection of the necrotized intestinal loop with side-to-side anastomosis, autopsy, sanitation, drainage of the phlegmon zone of the hernial sac with the removal of the previously resected intestinal loop. Delayed hernioplasty.