# METHODOLOGICAL GUIDELINES FOR INDEPENDENT WORK OF STUDENTS

Discipline code:PESP 3215
Name of the discipline: "The digestive and endocrine system in pathology
The name and code of the educational program: 6B10115 “Medicine”
Number of teaching hours/credits: 180 hours (6 credits)
Course and semester of study: 3rd course, V semester
The amount of independent work: 17/103 hours

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Guidelines for independent work of students have been developed in accordance with the working curriculum (syllabus) of the discipline "Gastrointestinal and Endocrine System in Pathology" and discussed at the department meeting

Protocol No. 10 from "31" 05 2024

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***Department of "Propaedeutics of Internal Diseases"***

1. Topic №11: Preparation and methodology for the conduct of instrumental and laboratory methods of research in patients with diseases of the digestive and hepatobiliary systems. Laboratory methods for determining Helicobacter pylori. Daily pH-metry.

2. Objective: Familiarize students with the basic methods of instrumental and laboratory research, identify a number of diagnostic signs that serve as criteria for the pathological process of the digestive and hepatobiliary systems.
3. Assignments: indicated at the end
4. Form of performance/evaluation: presentation, practical skills execution
5. Criteria for the execution of SRO (requirements for task execution): specified at the end.
6. Submission deadlines: 4-day
7. Literature: the main, additional indicated in the last page of Sillabus
8. Control (questions, tests):
Questions:
1. What changes can be detected during an endoscopic examination of the stomach and duodenum?
2. What contrast substances are used in radiological examination?
What additional instrumental diagnostic methods can be used in gastrointestinal tract and hepatobiliary system pathologies?
What methods are used in colonoscopy?
5. What information does an abdominal ultrasound provide?
6. What other instrumental diagnostic methods can be used in diseases of the gastrointestinal system?

Test questions:
1. A 40 -year -old woman complains of growing weakness, pain in the epigastric region, especially on an empty stomach and at night, constipation, dizziness, dry skin, heart pain, not associated with load. Previously, she was not sick, recently there was an unpleasant conflict at work. To confirm the diagnosis, a diagnostic study is necessary:
a. Fibrogastroscopy
b. Electrocardiography
c. Sigmoidoscopy
d. Consultation with a neurologist
e. Clinical blood analysis
2. Patient N, 46 years old, sought medical attention with complaints of pain behind the sternum, radiating to the interscapular area, intensifying when lying down; belching sour gas, vomiting. According to clinical symptoms, your diagnostic approach for verification of diagnosis:

a. esophagogastroduodenoscopy
b. 24-hour pH-metry
c. intragastric manometry
d. Ultrasound of abdominal organs
e. Test with a proton pump inhibitor
3. The main method of diagnosing peptic ulcer disease is:
a. FGDs
b. patient interview
c. patient examination
d. blood analysis
e. urine analysis
4. Examination of the esophageal mucosa – this is...:
a. esophagoscopy
b. rectal sigmoidoscopy
c. laparoscopy
d. gastroscopy
e. duodenoscopy
5. A 45 -year -old woman is worried about pains behind the sternum immediately after eating, intensifying at
Tilts of the body forward, weakening after belching, vomiting, taking antispasmodics. At X -ray examination revealed the displacement of the foundation of the stomach in
The chest cavity and deformation of the contours of the stomach at the level of the esophagus
diaphragm. Informative research method:
a. esophagogastroduodenoscopy
coloscopy
irrigoscopy
d. esophageal manometry
e. mediastinal tomography
6. In the endoscopic picture of chronic esophagitis IV degree. Probably detection:
a. Erosion throughout the esophagus, bleeding, edema, hyperemia of the mucous membrane
B. single erosion against the background of edema and hyperemia of the mucosa
C. edema, linear erosion, bleeding of the esophagus mucosa
d. individual erosions in the distal part, edema, thickening of folds
e. edema, mucosal erythema, a large amount of mucus
7. The manometry of the esophagus allows you to measure the pressure in the upper and lower esophageal sphincters. This technique is very informative at:
a. Achalasia of the esophagus
b. Barrett's esophagus

c. mediastinal tomography
e. sabotage of the esophagus
8. A 45 -year -old woman is worried about the pain after the sternum immediately after eating, intensifying at
forward bending of the body, weakening after belching, vomiting, and administration of spasmolytics. In
radiological examination, displacement of the fundal part of the stomach to
thoracic cavity and deformation of the stomach contours at the level of the esophageal opening
diaphragm. Informative method of research:
a. esophagogastroduodenoscopy
b. colonoscopy
c.irrigoscopy
d.esophageal manometry
e.thoracic tomography
9. If the patient shows symptoms of dyspepsia, it is advisable to carry out:
a. esophagogastroduodenoscopy
b. colonoscopy
c.cesophageal pH-metry
d.duodenal probing
e.gastrointestinal X-ray with barium swallow
10. Patient O., 45 years old, has chest pain immediately after eating, exacerbated by forward tilts of the body, subsiding after belching, vomiting, or intake of spasmolytics. In radiological examination, displacement of the fundal part of the stomach was detected in thoracic cavity and deformation of the stomach contours at the level of the esophageal opening diaphragm. Informative method of investigation:
a. esophagogastroduodenoscopy
b. colonoscopy
c. irrigationscopy
d. esophageal manometry
e. Tomography of the mediastinum
11. A research method that allows you to determine intestinal digestion:
a. faecal occult blood test
b. intestinal radiography
c.Colonoscopy
d.Microflora determination of the intestines
e.intestinal irrigation examination
12.A research method allowing for targeted biopsy of the initial part
colon:
a. colonoscopy

b. colonic irrigation
c. rectoscopy
d. rectal sigmoidoscopy
e. Fibroptic gastroscopy and duodenoscopy
13. A research method that allows you to determine the state of the direct and sigmoid gut:
a. rectal examination
b. radiotelemetry
c. abdominal X-ray examination
d. irrigation examination
e. Fibrogastroscopy
14. A method that is better documenting a symptom of a niche or a defect of the stomach:
a. X-ray examination
b. X-ray fluoroscopy
c. Electro -gastricography
d. Fibrogastroscopy
e.abdominal ultrasound
15.Among the main research methods allowing to verify the diagnosis
Chronic gastritis, include:
a. Histological examination of targeted biopsies of the mucosa
stomach:
b. Radioscopy
c. Gastroscopy
d. Analysis of gastric juice
e. pH – meter
16. A reliable method of diagnosing non-specific ulcerative
Colitis is:
a. Colonoscopy followed by histological examination of the biopsy
b. Rectal palpation
c. Microscopic examination of feces
d. Laparoscopy
e. Radiological examination
17. A 30 -year -old man complains of painful abdominal pain,
intensifying before the act of defecation and decreasing after the chair; Die stench up to 50 times a day with mucus, pus, and blood admixture; severe weakness, malaise.
Prescribe a suitable method of investigation:
a. irrigationscopy
b. contrast radiography
c. Esophagogastroduodenoscopy
d. Ultrasound of the abdominal organs

e. Sprayer radiography of the abdominal cavity

18. A 34 -year -old patient suffered acute dysentery 2 weeks ago. Currently The aching pains in the lower abdomen are worried, intensifying 5-7 hours after food; diarrhea after receiving dairy products. Diagnostic research method for verification of the diagnosis:

a. fecal occult blood test
b. hidden blood in feces analysis
c.colonoscopy
d.ultrasound of abdominal organs
e.Radiological examination of the intestine

19. Patient N, 46 years old, referred with complaints of pain behind the sternum, radiating to the interscapular area, intensified in the supine position; belching Acidic, vomiting. According to clinical symptoms, your diagnostic approach for verifying the diagnosis:

a. esophagogastroduodenoscopy
b. 24-hour pH-metry
c. intragastric manometry
d. Abdominal ultrasound
e. Test with a proton pump inhibitor

20. A man, 26 years old, went to the doctor with the following complaints: pain in the epigastrium,
arising after 1-1.5 hours after eating, belching, heartburn. On examination: the language is wet, covered with white plaque, the stomach is soft, moderate soreness in the epigastric. At FGDS: diffuse hyperemia of the gastric mucosa, surface defects of the mucous membrane of the antrum of the gastric of the stomach up to 0, 5 cm. Your alleged diagnosis:

a. chronic atrophic gastritis with erosions
b. chronic atrophic gastritis
c. gastric ulcer
d. reflux gastritis
e. Functional non -legal dyspepsia

21. A woman of 40 years old complains of growing weakness, pain in the epigastrium, especially on an empty stomach and at night, constipation, dizziness, dry skin, pain in the heart, not related to load. I had no time before, recently there was an unpleasant conflictat work. A diagnostic study is required to confirm the diagnosis:

a. Fibrogastroduodenoscopy
b.Electrocardiography
c.Sigmoidoscopy
d. Neurologist consultation
e. Clinical blood analysis

22. A 32-year-old man complains of the onset of pain in the epigastric area 30 minutes after eating or drinking alcohol
compressive pain, accompanied by severe heartburn, which diminishes after
Soda intake. Has been sick for 2 years, has not been treated. Generally: the tongue is coated with a white film, upon deep palpation there is diffused pain in the epigastrium. Endoscopy findings: gastric mucosa erythematous, edematous, in the antral department - solitary hemorrhages.
Informative method of investigation:
a. Helicobacter pylori test
b. 24-hour pH-metry
c.endoscopic pH-metry
d.electrogastrographic method
e. investigation of gastric secretion
23. A 22-year-old woman has a duodenal ulcer in the antral part of the stomach diagnosed during EGD.
First of all, it is necessary to appoint:
a. cytological examination with urease test
b. computer tomography
c. Endoscopic pH metrics
d. Study of gastric juice
e. Ultrasound of the abdominal organs
24. A 49-year-old man complains about pressing pains and a sense of heaviness in the epigastria after 40-60
minutes after eating, heartburn, belching with air, weakness, irritability. Has been ill for 3-4 years. A year ago, surgical treatment was offered for a gastric polyp. Objective: tenderness in the epigastric area. In blood tests: hypochromic anemia, hypoalbuminemia. Radiologically: giant folds were found along the greater curvature and in the area of the gastric sinus, prolapsing into the pylorus.
Informative diagnostic method:
a. FGDS with targeted biopsy
b. gastroscopy
c. irrigation endoscopy
d. rectocele endoscopy
e.colonoscopy with biopsy
25. A 26-year-old woman complains of oppressive pain in the epigastric area after 30-40 minutes
After eating, frequent heartburn, subsiding after taking a Rennie tablet. Objective: tongue coated with a white film, diffuse tenderness in the epigastrium upon deep palpation. Endoscopy: the mucosa of the gastric antrum is erythematous, edematous, with single erosions. Order a research method:

a. research for Helicobacter pylori
b. electrogastricography
c. intragastric pH-metry
d. fractional analysis of gastric juice
e. determination of acidity

26. Patient O., 32 years old complains about pressing pains in the submarine area after spicy food or alcohol 30 minutes after eating, painful heartburn that decreases after taking soda. I was sick for 3 years, was not treated. Objectively: the tongue is covered with a white raid, with deep palpation, spilled soreness in the epigastria. EFGDS: mucous membrane
The stomach is hyperemic, edematous, in the anthral section single hemorrhages. Informative examination method:
a. Helicobacter pylori respiratory urease test
b. Helicobacter pylori immunofluorescence assay
c. intragastric pH-metry
d. microbiological study
e.biopsates study of gastric secretion by the gastric test method

27. Patient J., 32 years old, complains about the appearance half an hour after eating or alcohol of pressing pain in the submarine; painful heartburn, decreasing after taking soda. I was sick for 2 years, not treated. O-but: the tongue is covered with a white raid, with deep palpation, spilled soreness in the epigastria. On EFGDS: the gastric mucosa is hyperemic, swollen, in the anthraal section - single hemorrhages. Informative research method:
a. Helicobacter pylori research
b. 24-hour pH-metry
c. Endoscopic pH-metry
d. electrogastric recording method
e. stomach secretion research using the gastrotest method

28. In the patient G., 22 years old at EFGDS, an ulcer of the antrum of the stomach was installed.
First, the queue should be appointed:
a. cytological examination with urease test
b. endoscopic pH-metry
c. Stomach juice research
d. Abdominal organ ultrasound
e. CT scan

29. A 48-year-old man presented with complaints of pain in the epigastric area, occurring 1.5-2 hours after eating; belching. During EGD, the mucosa in the antrum of the stomach is hyperemic and edematous, resembling "semolina." An informative method of examination:
a. cytological examination for Helicobacter pylori

b. chromoendoscopy
c.gastroscopic examination
d.intragastric pH-metry
e. electrogastrographic method
30. A 26-year-old woman complains of oppressive pain in the epigastric region 30-40 minutes after eating, frequent heartburn, which subsides after taking Renny tablets. Objective: the tongue is coated with a white film, there is diffuse tenderness in the epigastric region upon deep palpation. Endoscopy findings: the gastric antrum mucosa is hyperemic, edematous, with isolated erosions. Appropriate method of investigation:
a. research on Helicobacter pylori
b. electrogastrography
c. intravenous pH metrics
d. fractional study of gastric juice
e.Ion exchange resin for acidity determination

1. Topic 2:Midterm control №1
2. Objective: Evaluate students' knowledge in integrated control of learning achievements, including the execution of practical skills and the use of control teaching cases, situational tasks, and testing.
3. Tasks: indicated at the end
4. Form of execution/evaluation: Checklist (verbal answer to theoretical questions and situational tasks, demonstration of practical skills and defense of the student's clinical history)
5. Execution criteria: specified at the end.
6. Submission deadlines: 8-day
7. Literature: indicated on the last page of the syllabus
8. Control (tickets from theoretical questions, situational tasks for the development of practical skills): the list is attached.

1. Topic 3: Laboratory and instrumental methods of research in patients with endocrine system diseases. Endocrine forms of obesity, classification, risk factors.
2. Objective: Familiarize students with laboratory and instrumental research methods in endocrine system diseases, about the risk factors for the development of obesity. Identify a number of diagnostic signs and forms of obesity.
3. Tasks: specified at the end
4. Execution/Evaluation Form: presentation, performance of practical skills
5. Performance Criteria of SRO (requirements for task execution): indicated at the end.
6. Submission deadlines: 12th day
7. Literature: main and supplementary literature is indicated on the last page of the syllabus
8. Control (questions, tests):

Questions:
1. What is BMI and how is it determined?
2. What risk factors lead to endocrine obesity?
3. What diagnostic signs of obesity do you know?

Test questions:
1. Fat metabolism imbalance:
a. Cushing's disease
hypofunction of sex glands
Syndrome disease
abuse of fatty foods
genital organ dystrophy
2. Blood sugar level in a healthy person mmol/l:
a. 5.6-7.5
b. 3,3-5,5
c. 4,4-6,0
d. 2,2-3,2
e.6.0-8.0
3. Insulin action is not related to:
a. enhancement of fatty acid formation
b. enhancement of glucose utilization
c. enhancement of glycogen formation
d. enhancing amino acid utilization
e. enhancing protein synthesis
4. Body Mass Index corresponding to III degree obesity:
a. 40 and over
b. 35-39.9
c. 27.6-29.9
d. 30-34,9
e.20-27.5
5. Medications for the treatment of patients with hypothyroid obesity:
a. thyroid hormones
b. anorectic
c. biguanides
d. sulfanilamides
e. diuretics
6. The girl is 19 years old and suffers from significant obesity. Weight - 116 kg, height - 172 cm.

What percentage does the excess body mass represent, if it is known that the patient is in the third
level of obesity?
a. 50-99%
b. <10% >
c.10-29%
d. 30-49%
e. 100% and>
7. All the listed factors contribute to the development of obesity,
except:
a. excessive consumption of plant food;
b. frequent caloric nutrition in small portions;
c.excessive consumption of easily digestible carbohydrates;
d.excessive consumption of fats;
e. 2-3 times consumption of high-calorie food in large quantities.
8. In hypothalamic obesity, the determining pathogenetic factor
Body weight gain is:
a. Increased insulin secretion
b. Decrease of insulin secretion
c. Increase of glucagon secretion
d. Decrease in prolactin secretion
e. Glucose tolerance disorder
9. A woman of 25 years old treated a doctor with complaints of excess weight, periodic Thirst. Growth -160 cm, weight -70 kg, excess weight 29%. Glycemia on an empty stomach - 5.1 mmol/l. Test on
tolerance to glucose: fasting blood glucose - 5.5 mmol/L, 2 hours after loading - 7.0 mmol/L. Your probable diagnosis:

1. Topic 4: Midterm control №2
2. Objective: Evaluate students' knowledge of integrated control of academic achievements through the performance of practical skills and the use of control teaching cases, situational tasks, and testing.
3. Tasks: specified at the end
4. Execution/Evaluation Form: Checklist (oral answers to theoretical questions and situational tasks, demonstration of practical skills, and defense of the study case history)
5. Execution Criteria: listed at the end.
6. Submission deadlines: 16th day
7. Literature: indicated on the last page of the syllabus
8. Control (tickets from theoretical questions, situational tasks for the development of practical skills): the list is attached .

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