

**Ministry of Health of the Republic of Belarus
Education Institution
"Gomel State Medical University"**

Department of Pediatrics with the course of the Faculty of Advanced Training and Retraining

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METHODOLOGICAL GUIDELINES

for a practical exercise
by a teacher with students
6th year of the Faculty of foreign students,
trainees in speciality 1-790101 in the discipline of pediatrics

**Topic: Abdominal pain syndrome. Differential diagnosis of
Pain syndrome in children.**

Time: 7 hours

Approved at the meeting of the Department of Pediatrics with the Course of the
Faculty of Advanced Training and Retraining
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LEARNING AND EDUCATIONAL GOALS, OBJECTIVES, MOTIVATION FOR MASTERING THE TOPIC

Educational objective:

- Formation of students' basic professional competence in the study of the discipline of pediatrics according to the curriculum;
- Formation of students' scientific knowledge about diseases with painful abdominal syndrome and prospects of their use in professional activity; abilities and skills necessary to work with patients of different age, knowledge of the clinical manifestations of the disease, treatment and diagnostic measures, the basics of rehabilitation and prevention.

Educational objective:

- Fostering in students a sense of professional responsibility of the future worker of medicine;
- Formation of professionally important and socio-psychological qualities of the doctor personality in the system of doctor-nurse-patient relations;
- formation of students' responsible attitude to their future professional activity.
- Formation of academic and work discipline, discussion of disciplinary issues (attendance of lectures and practical classes, unexcused absences, tardiness, debts on missed classes).

Objectives:

As a result of the study session, the student should

know:

- anatomical and physiological features of the organs of the digestive system;
- causes of abdominal pain depending on the age of the child;
- diseases occurring with abdominal pain syndrome;
- examination algorithm for children with abdominal pain;
- principles of treatment of diseases with abdominal pain syndrome.

be able to:

- objectively assess the state of the digestive system and identify the main syndromes;
- by the method of careful collection of anamnesis, selection of information from the history of development to establish a correlation relationship of the identified changes with the occurrence of abdominal pain;
- determine the group of nosologies for differential diagnosis;
- make an algorithm for diagnosing diseases occurring with abdominal pain;
- interpret the results of the examination, establish their natural relationship.

know:

- methods of objective (palpation, percussion, auscultation) and additional (measuring, laboratory, instrumental, histological, immunological, etc.) examination;

- communicate with patients of different age and their parents, medical personnel.

MATERIAL EQUIPMENT

Tables on the theme of the lesson, medical records of hospital patients, a set of blood and urine tests, ultrasound protocols of the abdominal cavity, kidneys, pelvic organs, a set of X-rays, tonometers, phonendoscopes, scales, stadiometer; a bank of tasks for independent work; selection of thematic patients in the hospital departments.

CONTROL QUESTIONS FROM RELATED DISCIPLINES

1. "Human Anatomy:
 - Structure of the human body, its constituent systems, organs, tissues, sex and age features of the child's body.
2. "Normal Physiology":
 - Physiological features of human organs and systems in normal.
 - Basic principles of formation and regulation of physiological functions.
- 3 "Pathological Anatomy:
 - Morphological changes in the organs and tissues of the human body in various diseases.
4. "Pathological Physiology:
 - General patterns of occurrence and mechanisms of development of pathological processes, mechanisms of compensation for disorders of functions and structures of different organs and systems of the human body.
5. "Pharmacology":
 - Principles of pharmacodynamics and pharmacokinetics of drugs.
 - Factors determining the therapeutic efficacy, side effects and toxicity of drugs.

CONTROL QUESTIONS ON THE TOPIC OF THE CLASS.

1. Acute and chronic abdominal pain.
2. Types of abdominal pain. Causes of pain syndrome depending on the age of the child.
3. Differential diagnosis of diseases occurring with abdominal pain syndrome.
4. Algorithm of examination of children with pain syndrome.
5. Emergency care, treatment of diseases with abdominal pain syndrome.

PROCESS OF THE STUDY

Theoretical part.

Abdominal pain is one of the most common complaints made by children and/or their parents to doctors of various specialties. The complaint of abdominal pain can only come from a child of a certain age. In children of the first years of life, painful sensations are indicated by crying, restlessness, and the child twitching his or her legs. This may "hide" about 100 surgical diseases, many of which require emergency specialized care. It is important to determine whether the abdominal pain is a manifestation of acute surgical pathology, an organic disease, or has a functional nature.

Chronic diseases of the digestive organs are among the most frequent diseases of childhood. Their prevalence now exceeds 100 per 1000 of children population.

In recent years, there has been a worldwide increase in inflammatory bowel disease in both adults and children and adolescents. Crohn's disease and ulcerative colitis occur at young age, in 10-15% of cases they have the similar clinical picture and are accompanied by severe complications.

Questions of diagnostics and treatment of pancreatic diseases in children belong to the most complicated part of clinical gastroenterology. The variety of this pathology at different age periods leads to numerous diagnostic and tactical errors.

Biliary tract diseases have age-specific features of clinical picture, which must be taken into account at differential diagnostics.

Helminth infections are ubiquitous diseases. Enterobiasis is on the first place according to frequency of detection. Poor sanitary and hygienic conditions and non-observance of personal hygiene rules contribute to the spread of helminths and related diseases.

All the above said dictates the necessity for every doctor to know the diseases accompanied by abdominal pain syndrome.[8]

Practical part

The students are instructed on labor protection, fire safety. The selection of patients is carried out in accordance with the topic of the class. During practical work the student must carry out:

- collection of complaints and anamnesis of the disease,
- clinical examination of the child,
- making a preliminary diagnosis and drawing up an examination plan,
- interpretation of the results of laboratory and instrumental methods of investigation,
- Formulation of the final clinical diagnosis,
- Formulation of a treatment and rehabilitation plan,
- Writing prescriptions for medications.

Control of assimilation of the topic

1. Demonstration of case studies with analysis of clinical cases:

- abdominal pain in diseases of the digestive organs,
- abdominal pain in kidney disease,
- abdominal pain with worm-parasitic infestations,
- abdominal pain from autonomic dysfunctions.

2. Interpretation of blood tests (general, biochemical), urine, stool.

3. Solution of situational tasks

Task 1.

A 15-year-old boy was delivered to the emergency room of a children's hospital complaining of severe abdominal pain. Past medical history: he had been sick for two years, three times underwent hospital treatment for peptic ulcer: peptic

ulcer of the 12th duodenum. Pain in the abdomen, more often on an empty stomach, sometimes "night pains"; sometimes vomiting, heartburn, belching acid.

On examination in the emergency room, the patient repeatedly vomited, "coffee grounds" type vomit, increased abdominal pain, was pale, covered with cold sweat, became lethargic, complained of dizziness and tinnitus. Cardiac auscultation: tachycardia, heart rate 112 bpm, systolic murmur at the apex, BP 80/55 mm Hg.

The OAC was performed: Er. - Nb - 120 g/l, CP - 0.9, reticulocytes - 6‰, L - $15.1 \times 10^9/l$, platelets - $420 \times 10^9/l$, sed rate - 32 mm/hour.

After 3 hours of the OAC: Er. - L - 62 g/l, CP - 0.7, reticulocytes - 18‰, L - $14.9 \times 10^9/l$, platelets - $410 \times 10^9/l$, sed rate - 44 mm/hour, Hst 0.20.

Questions:

1. Your presumptive diagnosis?
2. Differential diagnosis.
3. Make an examination plan (interpret blood tests).
4. Your treatment tactic between the two blood tests?
5. Make a treatment plan (write prescriptions for suggested medications).

Task 2.

A 13-year-old girl was admitted to the pediatric department of a children's hospital with complaints of abdominal pain, nausea, and sometimes vomiting, bringing relief. The patient had been sick for 2 years. Heredity was aggravated: her father had peptic ulcer; her older sister had chronic gastroduodenitis. Allergoanamnesis was normal.

On examination: correct build, satisfactory nutrition. The skin was clean, of normal color. Pharynx - mucosa clean and moist. Tongue was moist, covered with white plaque. On auscultation: vesicular breathing in the lungs, BP 18 per min, heart tones loud, regular rhythm, heart rate 80 beats per minute. BP 120/80 mm Hg. The abdomen was soft, painful on palpation in the pyloroduodenal area. The liver and spleen were not enlarged. Urination was not disturbed. The stool was daily or once in 2 days, clear, without pathological impurities.

Blood count: Er. - He had a blood count $4.2 \times 10^{12}/l$, Hb - 140 g/l, CP - 1.0, reticulocytes - 1%, L - $6.3 \times 10^9/l$ (B-0%, E-3%, N-3%, S-48%, L-38%, m-8%), platelets $320 \times 10^9/l$, sed rate - 12 mm/hr.

UAM: c/g, clear, acidic, protein - negative, glucose - negative, squamous epithelium - 3-4 in p/zr, leukocytes - 2-3 in p/zr.

Stool analysis for helminth eggs, giardia cysts - not found.

EFGDS - Conclusion: erythematous gastropathy, erosive bulbitis. DGR.

Biopsy of the mucous membrane of the gastric antral region - Conclusion: chronic, moderately expressed, grade 2 activity, Hp (+).

Questions:

1. What is your presumptive diagnosis?
2. Differential diagnosis.
3. Make an examination plan (interpret blood tests).
4. Make a treatment plan (write prescriptions for the suggested medications).

Task 3.

A boy, 14 years old, was brought to the emergency room of the children's hospital with complaints of severe abdominal pain. Past medical history: he had been sick for two years, three times underwent hospital treatment for gastroduodenitis; he was burdened by heredity for peptic ulcer disease. Pains in the stomach, more often on an empty stomach, sometimes "night pains", sometimes vomiting, heartburn, belching acid.

On examination, the condition was of moderate severity. The skin was clean, the face was pale. The oral mucosa was clean and moist. Tongue was moist, covered with white plaque. On auscultation: vesicular breathing in the lungs, in all sections, no rales; heart tones loud, regular rhythm, heart rate 80 bpm, BP 110/70 mm Hg. The abdomen was regular in shape, not swollen, soft on palpation, painful in the epigastrium and pyloroduodenal area. The liver and spleen were not enlarged. Urination was not disturbed. There were no stools during a day.

The OAC was performed: Er. - His blood count was $4.0 \times 10^{12}/l$, Hb - 122 g/l, CP - 0.9, reticulocytes - 6‰, L - $9.1 \times 10^9/l$, platelets - $320 \times 10^9/l$, sed rate - 12 mm/hr.

Questions:

1. Your presumptive diagnosis?
2. Differential diagnosis.
3. Make an examination plan.
4. What changes detected during laboratory and instrumental examinations will confirm your diagnosis?
5. Make a treatment plan (write prescriptions for suggested medicines).

METHODOLOGICAL RECOMMENDATIONS FOR ORGANIZING AND PERFORMING THE SIW

The time allotted for independent work is used by students for:

- working through the topics (issues) assigned for independent study;
- problem solutions;
- Fulfillment of research and creative assignments;
- preparing thematic reports, presentations;
- completing practical assignments;
- designing information and demonstration materials (stands, posters, charts, tables, newspapers, etc.)
- making a thematic selection of literary sources, Internet-sources;
- performing duties in health care organizations;
- compiling a review of scientific literature on the issues of the class;
- drawing up situational tasks on the topic of the class.

The main methods of organizing independent work:

- making a report;
- study of topics and problems not covered in the classroom;
- preparation and participation in active forms of learning.

The list of tasks of the SIW:

- study of clinical recommendations (examination and treatment protocols for children) with pathology of the digestive system;
- drawing up situational tasks on the topic of the class:

- Gastrointestinal motility disorders (GER, DGR, DZVP, IBS),
- chronic gastritis, gastroduodenitis,
- peptic ulcer (stomach, 12 duodenum),
- ulcerative colitis,
- Crohn's disease,
- non-infectious hepatitis,
- pancreatitis,
- giardiasis,
- worm infestation,
- write prescriptions for the main groups of drugs used in gastroenterology;
- performing research work on the topic of the class.

METHODOLOGICAL RECOMMENDATIONS ON THE ORGANIZATION AND IMPLEMENTATION OF THE SIW

The recommended forms of GSSS organization are:

1. preparation of essays on proposed topics;
2. solving situational problems on the topic of the class;
3. tests on the subject of the lesson.

List of ESS tasks:

1. Prepare an essay on the proposed topic:

- Gilbert's syndrome;
- Barrett's esophagus;
- Eosinophilic esophagitis;
- Whipple's disease.

2. Solution of situational problems:

Task 1

An 11-year-old girl was admitted to the pediatric department of a children's hospital with complaints of infrequent abdominal pain, nausea, decreased appetite, increased fatigue, and decreased body weight. The patient had been sick for a year. Heredity was not aggravated. Allergoanamnesis: milk intolerance in early childhood. On follow-up examination at the endocrinologist for AIT.

On examination: correct physique, undernourished. Skin was clean, pale. Pharynx - clean, moist mucosa. Tongue was dry, covered with white plaque. On auscultation: vesicular breathing in the lungs, BP 20 rpm; heart sounds loud, regular rhythm, heart rate 88 bpm, BP 110/70 mm Hg. The abdomen is soft, painful on palpation in the perineal area. The liver at the edge of the rib cusp, the spleen was not palpable. Urination was not disturbed. Daily stools up to 3 times, regularized or mushy, with admixture of mucus.

Blood count: Er. - He had $3.6 \times 10^{12}/l$, Hb - 101 g/l, CP - 0.84, reticulocytes - 4‰, L - $9.8 \times 10^9/l$ (b-1%, e-6%, n-8%, s-36%, l-44%, m-5%), platelets $200 \times 10^9/l$, sed rate - 37 mm/hr.

Blood water: yellow, clear, acidic, protein - 0.033 g/l, glucose - negative, squamous epithelium - single in n/a, leukocytes - 1-2 in n/a.

Stool analysis for helminth eggs, giardia cysts - not found.

Questions:

1. What is your supposed diagnosis?

2. Differential diagnosis.
3. Make an examination plan.
4. What changes detected during laboratory and instrumental examinations will confirm your diagnosis?
5. Make a treatment plan (write prescriptions for the suggested medicines).

Task 2

A boy, 1 year 8 months old, is admitted to the pediatric department of a children's hospital. His mother complains of restlessness (associates it with stomach pains), loose stools, refusal to eat, lack of weight gain. Heredity: maternal grandfather died of colon cancer. Allergoanamnesis: atopic dermatitis since 6 months of age.

On examination: correct physique, undernourished. Body temperature 37.2°C. The skin was pale and dry. The elasticity of the skin was reduced, and the turgor of the soft tissues was reduced. Tongue was dry, covered with white plaque. On auscultation: vesicular breathing in the lungs, BP 28 per min; heart tones loud, regular rhythm, heart rate 124 beats per minute, systolic murmur at the apex, at the 5th point. BP 90/50 mm Hg. The abdomen is "obstructed" by deep palpation, responding painfully to palpation in the perineal, left iliac region. The liver is +2 cm, the spleen is not palpable. Urination was not disturbed. Stools up to 10 times a day (during the last week), thin, with blood and mucus.

Blood count: Er. - Blood count was $3.4 \times 10^{12}/l$, Hb-95 g/l, CP - 0.84, reticulocytes - 4‰, L - $14.3 \times 10^9/l$ (b-0%, e-7%, n-10%, s-47%, l-30%, m-6%), platelets $200 \times 10^9/l$, sed rate - 32 mm/hr.

UEM: yellow, clear, acidic, protein - negative, glucose - negative, squamous epithelium - single in p/zr, leukocytes - 0-1 in p/zr.

Bacteriological analysis of feces - negative.

Questions:

1. What is your presumptive diagnosis?
2. Differential diagnosis.
3. Make an examination plan.
4. What changes detected during laboratory and instrumental examinations will confirm your diagnosis?
5. Make a treatment plan (write prescriptions for suggested medicines).

Task 3

A 17-year-old girl was admitted to the pediatric department of the children's hospital complaining of severe abdominal pain, more often in the morning, thin stools; after defecation the pain was relieved. The patient had been sick for half a year. Heredity was not aggravated. Allergoanamnesis is normal. Emotionally labile.

On examination: correct build, satisfactory nutrition. The skin was clean and of normal color. Pharynx - mucous membrane clean and moist. The tongue was moist, clean. On auscultation: vesicular breathing in the lungs, BP 18 per min; heart tones loud, regular rhythm, heart rate 78 bpm, BP 110/70 mm Hg. The abdomen is soft, painful on palpation in the perineal area. The liver at the edge of the rib cusp, the spleen was not palpable. Urination was not disturbed. Stools up to 4 times daily

within an hour after awakening, regularized or mushy, without pathological impurities.

Questions:

1. What is your presumptive diagnosis?
2. Differential diagnosis.
3. Make an examination plan.
4. What changes detected during laboratory and instrumental examinations will confirm your diagnosis?
5. Make a treatment plan (write prescriptions for the suggested medicines).

Task 4.

A boy, 14 years old, became acutely ill two hours after eating meat patties bought at a street vendor. He had epigastric pain, vomited up to 6 times, body temperature increased to 38.6°C. There were three times liquid stools. On examination: lethargic, pale skin. Tongue was thickly covered with white plaque. Heart tones were muffled, heart rate 118 bpm. The abdomen was swollen, painful on palpation, a rumbling sigmoid colon was detected. He urinated.

Questions:

1. What is your presumptive diagnosis?
2. Differential diagnosis.
3. Make an examination plan.
4. What changes detected during laboratory and instrumental examinations will confirm your diagnosis?
5. Make a treatment plan (write prescriptions for suggested medicines).

Task 5.

A 4-year-old boy consulted his local pediatrician with complaints of stool delay of up to 5 days. Appetite was reduced. Before defecation he complained of abdominal pain, anxiety, "afraid of the potty". From his medical history: since the age of 3.5, he started going to kindergarten. From the diseases he had: Acute respiratory infections infrequent. The heredity was not aggravated, and his allergic anamnesis had no features.

Questions:

1. What is your supposed diagnosis?
2. Differential diagnosis.
3. Make an examination plan.
4. What changes detected during laboratory and instrumental examinations will confirm your diagnosis?
5. Make a treatment plan (write prescriptions for the suggested medicines).

Task 6.

A 6-year-old girl came to the emergency room of a children's hospital with complaints of abdominal pain without clear localization, refusal to eat, and restlessness for 2 hours after returning from school.

On examination: correct build, satisfactory nutrition, answers questions adequately. The skin was clean, of normal color, the pharynx had no features, the tongue was moist, moderately covered with white plaque at the root. Lungs, heart without any peculiarities. The abdomen was of usual shape, not swollen, palpable,

painful in the epigastric and perineal areas. The liver and spleen were not enlarged. Urination was not disturbed. The stool was in the morning, clear, without pathological impurities.

Questions:

1. What is your presumptive diagnosis?
2. Differential diagnosis.
3. Make an examination plan (what do you need to clarify in collecting your anamnesis?).
4. What changes detected during laboratory and instrumental examinations will confirm your diagnosis?
5. Make a treatment plan (write prescriptions for the suggested medicines).

3. test control

1. The development of diseases of the gastrointestinal tract predispose:
 - a) low enzymatic activity of saliva;
 - b) low enzymatic activity of gastric juice;
 - c) high permeability of gastric mucosa;
 - d) helminthiasis;
 - e) all variants are correct.
2. Most often chronic inflammatory diseases of the gastrointestinal tract are diagnosed at the age of:
 - a) 6-8 months of age;
 - b) 1-2 years of age;
 - c) 7-10 years of age;
 - d) 11-13 years old;
 - e) 14-18 years old.
3. An increase in diseases of the digestive system contributes to:
 - (a) Allergic diathesis;
 - b) hypokinesia;
 - c) surgical interventions on the gastrointestinal tract;
 - d) artificial feeding in the first year of life;
 - e) all options are correct.
4. Factors of "aggression" in the development of inflammatory diseases of the stomach include:
 - a) mucin, sialic acids;
 - b) bile;
 - c) prostaglandins;
 - d) bicarbonates;
 - e) antroduodenal acid brake.
5. Factors contributing to the development of diseases of the stomach and 12 duodenum include:
 - (a) Irrational intake of medications;
 - b) diseases of the endocrine system;

- c) chronic foci of infection;
 - d) psycho-emotional stress;
 - e) all variants are correct.
6. Methods of *Helicobacter pylori* diagnosis include:
- a) bacterioscopic;
 - b) histological;
 - c) serological;
 - d) respiratory;
 - e) all variants are correct.
7. The main methods of diagnosing diseases of the stomach and duodenum include:
- a) FGDS with targeted biopsy of mucosa of the stomach and 12 duodenum;
 - b) ultrasound of abdominal organs;
 - c) glucose tolerance test;
 - d) total blood count;
 - e) coprogram.
8. What gastric juice pH values are typical for a newborn baby?
- a) 1,5-2,0;
 - б) 3,0-4,0;
 - в) 2,0-3,0;
 - г) 5,0-6,0;
 - д) 4,0-5,0.
9. Gastrointestinal mucosal repellents:
- a) gastrofarm;
 - b) pentoxyl;
 - c) riboxin;
 - d) solcoseryl;
 - e) all variants are correct.
10. Antichelicobacterial quad therapy includes:
- a) amoxicillin, alumag, omeprazole, de nol;
 - b) amoxicillin, motilium, omeprazole, de-nol;
 - c) amoxicillin, clarithromycin, omeprazole, de-nol;
 - d) amoxicillin, alumag, motilium, de-nol;
 - e) clarithromycin, alumag, omeprazole, de-nol.
11. In which parts of the gastrointestinal tract is enterokinase formed?
- a) esophagus;
 - b) stomach;
 - c) small intestine;
 - d) large intestine;
 - e) gallbladder.
12. The protective factors of the stomach are:
- a) the mucosal barrier;
 - b) sufficient blood supply;

- c) active regeneration;
- d) antroduodenal acid brake;
- e) all options are correct.

13. The pancreas secretes:

- a) hydrochloric acid;
- b) pepsin;
- c) enterokinase;
- d) lipase;
- e) bile.

14. Examination plan for a patient with peptic ulcer disease does not include:

- a) general blood test;
- b) colonoscopy;
- c) study of secretory function of the stomach;
- d) EFGDS with investigation of *Helicobacter pylori*;
- e) examination of fecal occult blood.

15. Which drugs belong to the group of histamine H₂-receptor blockers:

- a) sucralfate;
- b) clemastine;
- c) famotidine;
- d) cetirizine;
- e) gastal.

16. Carbohydrates are broken down in the following parts of the gastrointestinal tract:

- a) oral cavity, small intestine;
- b) stomach, large intestine;
- c) small intestine, large intestine;
- d) oral cavity, large intestine;
- e) stomach.

17. Protein breakdown occurs in the following parts of the gastrointestinal tract:

- (a) oral cavity, stomach;
- b) oral cavity, small intestine;
- c) stomach, large intestine;
- d) stomach, small intestine;
- e) small intestine, large intestine.

18. Proteins are broken down by the action of:

- a) chymosin;
- b) pepsin;
- c) trypsin;
- d) gastrin;
- e) all options are correct.

19. Name the factors that play a role in the mechanism of pain in peptic ulcer disease:

- a) increased tone of the vagus nerve;

- b) increase of tone of smooth muscle fibers of stomach;
- c) decrease of threshold of pain sensitivity;
- d) increase of intragastric pressure;
- e) all answers are correct.

20. Complication of peptic ulcer disease is not:

- a) bleeding;
- b) perforation;
- c) deformation of the bulb of 12 fistulas;
- d) penetration;
- e) stenosis.

21. Size of a large ulcer of the bulb of the 12th bowel:

- a) 1.0-1.5 cm;
- b) up to 1.0 cm;
- c) up to 0.5 cm;
- d) 0,5-1,0 cm;
- e) more than 1.5 cm.

22. In which parts of the gastrointestinal tract trypsin is formed:

- a) esophagus;
- b) stomach;
- c) pancreas;
- d) duodenum; e) small intestine;
- e) small intestine.

23. A child with complicated peptic ulcer disease and/or duodenal ulcer is taken off the medical record in remission:

- a) within 2 years;
- b) within 3 years;
- c) within 5 years;
- d) is not removed from the dispensary registration;
- e) within 4 years.

24. At which values of gastric juice pH the greatest activity of proteolytic enzymes is observed:

- a) 1,5-2,0;
- б) 2,0-3,0;
- В) 4,0-5,0;
- г) 6,0-7,0;
- e) all answers are correct.

25. Does not apply to nematodoses:

- (a) Ankylostomiasis;
- b) giardiasis;
- c) trichinellosis;
- d) toxocariasis;
- e) trichocephaliasis.

26. Common nematodiasis in children:
(a) ankylostomiasis;
(b) enterobiasis;
(c) trichinellosis;
(d) toxocarosis;
(e) trichocephaliasis.
27. Common protozoal infestation of humans:
(a) enterobiasis;
(b) ascariasis;
(c) trichocephaliasis;
(d) giardiasis;
(e) all variants are correct.
28. Diagnostic methods for giardiasis:
(a) coprological;
(b) blood tests: general, biochemical;
(c) EFGDS with biopsy of gastric mucosa;
(d) urine tests general, by Nechiporenko;
(e) all variants are correct.
29. A drug to treat giardiasis in children:
(a) albendazole;
(b) nifuratel;
(c) metronidazole;
(d) furazolidone;
(e) all variants are correct.

Answers: 1 - e; 2 - d; 3 - e; 4 - b; 5 - e; 6 - e; 7 - a; 8 - d; 9 - e; 10 - c; 11 - c; 12 - e; 13 - d; 14 - b; 15 - c; 16 - a; 17 - d; 18 - e; 19 - a; 20 - c; 21 - d; 22 - c; 23 - d; 24 - a; 25 - b; 26 - b; 27 - d; 28 - a; 29 - e.

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