

**FEDERAL STATE BUDGET EDUCATIONAL
HIGHER EDUCATION INSTITUTION
"ROSTOV STATE MEDICAL UNIVERSITY"
MINISTRY OF HEALTH OF THE RUSSIAN FEDERATION**

FACULTY OF TREATMENT AND PREVENTION

Appraisal Fund
in the discipline "Pediatric surgery"

Specialty 05/31/01 General Medicine

1. Form of intermediate certification (test, differentiated test (test with assessment), exam).

Semester 12 – test.

2.Type of intermediate certification

Semester 12 – intermediate assessment in the form of a test is issued based on the results of the current control.

3. List of competencies formed by the discipline or in formation which discipline is involved

professional (PC)

Code and name of professional competence
PC-6 - the ability to determine in patients the main pathological conditions, symptoms, disease syndromes, nosological forms in accordance with the International Statistical Classification of Diseases and Related Health Problems - X revision, adopted by the 43rd World Health Assembly, Geneva, 1989
PC-8 - ability to determine tactics for managing patients with various nosological forms
PC – 11 - readiness to participate in the provision of emergency medical care to children in conditions requiring urgent medical intervention.

4. Stages of developing competencies in process of mastering the discipline

Sections of the discipline	Codes of formed competencies		
	PC 6	PC8	PC 11
Semester 12	+	+	+

5. Types of assessment materials in accordance with the competencies being developed

Name indicator achievements (ID) competencies	Types of assessment materials
	Current certification
PC 6	Oral questioning, interview, situational tasks, tests, abstract

	(SRS)
PC 8	Oral survey, interview, situational tasks, tests, abstract (SRS)
PC 11	Oral survey, interview, situational tasks, tests, abstract (SRS)

6. Current control

Interview.

The questions presented below for current control are grouped by nosological units, each question reveals PC 6, PC 8 and PC 11 of the student for a specific disease.

1. Classifications of intestinal obstruction, types, causes. Dynamic intestinal obstruction - parietic, causes. High intestinal obstruction, causes. Clinical picture of pyloric atresia of the stomach. Clinic of small intestinal atresia. Clinic of incomplete high intestinal obstruction. Clinic of incomplete low intestinal obstruction. Differential diagnosis and prognosis of high and low intestinal obstruction. Ladd's syndrome, intestinal incomplete rotation syndrome. Additional methods for diagnosing congenital intestinal obstruction. X-ray semiotics of various types of intestinal obstruction. Indications for surgical treatment for congenital intestinal obstruction. Pyloric stenosis - etiology, clinical picture, additional diagnostic methods, differential diagnosis, treatment according to Federal clinical guidelines. Congenital obstruction of the duodenum: forms. Clinical picture of duodenal obstruction depending on the level of atresia. X-ray semiotics of duodenal obstruction. Ring-shaped pancreas. Anomalies in the development of blood vessels in the upper floor of the abdominal cavity, leading to the development of duodenal obstruction. Preoperative preparation of children, principles of surgical interventions.
2. Intussusception in childhood – causes of development, forms. Clinical symptoms of intussusception. Additional research methods for suspected intussusception. Differential diagnosis of intussusception in children. Indications and contraindications for surgical treatment of intussusception. Principles of conservative straightening of intussusception. Principles of surgical removal of intussusception according to Federal clinical guidelines. Adhesive intestinal obstruction - classification, pathogenesis of various forms, clinical picture, additional diagnostic methods, differential diagnosis, treatment according to Federal clinical guidelines.
3. Anatomy and physiology of the appendix, normal and atypical positions. Classification of acute appendicitis in childhood, characteristics of various forms. Features of the clinical course of acute appendicitis in children under 3 years of age. Features of the clinical course of acute appendicitis in children over 3 years of age. Features of the clinical course of acute appendicitis with atypical location of the appendix. Additional methods for diagnosing acute appendicitis. Laboratory diagnosis of acute appendicitis. Differential diagnosis of acute appendicitis. Indications for surgical treatment of acute appendicitis, timing and methods of surgical interventions. Early and late complications of acute appendicitis according to Federal clinical guidelines.
4. Types of respiratory failure, classification, severity. Esophageal atresia - classification, esophageal atresia with fistulas into the trachea. Clinical picture of esophageal atresia, principles of transportation of patients with suspected esophageal atresia. Additional diagnostic methods for suspected esophageal atresia are contrast studies of the esophagus, Elephant test. Determining the possibility of one-stage reconstruction of the esophagus. Principles of staged treatment of esophageal atresia, timing and types of surgical interventions in accordance with Federal clinical guidelines. Congenital

lobar emphysema clinic, x-ray picture, principles of treatment. Congenital false diaphragmatic hernia - classification, clinical picture. Additional diagnostic methods. Principles and timing of surgical correction.

5. Acute hematogenous osteomyelitis of newborns - etiology, routes of infection and spread of infection, risk groups. Clinic, features of the clinical picture in cases of damage to the metaepiphyses of long tubular bones. Additional diagnostic methods are x-ray and ultrasound. Conservative complex treatment. Indications for surgical treatment, timing and types of surgical interventions. Complications of CSO, their prevention and treatment. Osteomyelitis in older children - variants of the course, clinical picture, additional diagnostic methods. Conservative complex treatment, indications for surgical treatment, timing and types of surgical interventions in accordance with Federal clinical guidelines. Complications of CSO, their prevention and treatment. Atypical forms of osteomyelitis - abscess of Brody, Garre, Ollier. Suppurative diseases of soft tissues of newborns - necrotic phlegmon of newborns, gangrene of newborns - etiology, clinic, diagnosis, principles of surgical treatment. Adenophlegmon - clinical picture, differential diagnosis, complications, surgical treatment. Purulent-inflammatory diseases of the hand - paronychia, felon - classification, forms, diagnosis and differential diagnosis, principles of surgical treatment, dangers and complications.
6. Acute purulent pneumodestruction - routes of infection, etiology. Forms, clinic, additional diagnostic methods. Pulmonary complications of OGD - bullae, abscesses, X-ray semiotics, clinical picture, principles of treatment. Extrapulmonary complications - pyothorax, pleural empyema, pyopneumothorax, mediastinitis, emphysema (subcutaneous and mediastinal) - clinical picture, additional diagnostic methods, principles of treatment. Pyopneumothorax - non-tension and tension, clinic, diagnosis, first aid, levels of puncture and drainage of the pleural cavity. Search broncho-occlusion.
7. Anatomy of the hip joints in the age aspect. Hip dysplasia - forms. Features of the structure and development of the hip joints depending on the form of dysplasia. Clinical manifestations of dysplasia in newborns. Additional research methods for suspected dysplasia - radiography and ultrasonography, terms of implementation, levels of their information content. Methodology for assessing radiographs of the hip joints. Clinic of dysplasia in children over one year of age, additional examination methods, their diagnostic value. Treatment algorithms for children in the first year of life, depending on the form of dysplasia and age (0-3 months, 3-6 months, 6-9 months, 9-12 months). Treatment of children aged 1-2 years, over the age of 2 years. Congenital clubfoot - etiology, classifications. Elements of clubfoot. Ponseti method - timing, content, scope of main stages. Flat feet - classifications. Clinic, additional diagnostic methods (screening and accurate). Posture - concept, classification. Physiological curves of the spine and stages of their formation. Normal posture, factors ensuring it. Factors influencing the formation of correct posture. Posture disorders in the sagittal plane - clinical picture, diagnosis, conservative treatment. Poor posture in the frontal plane - clinical picture, diagnosis, conservative treatment. Scoliosis, classification of scoliosis by severity, type and location of the scoliotic curve. Clinical manifestations, additional diagnostic methods. Principles of conservative treatment of children with scoliosis.

8. Anatomical and physiological features of the musculoskeletal system in childhood: the structure of long tubular bones, features of the pancreas and ligamentous apparatus. Characteristics of injuries: types. Mechanisms of injury (direct, indirect). Displacement of bone fragments - types, mechanisms of occurrence. Features of bone fractures in children: epiphysiolysis, osteoepiphysiolysis, greenstick fractures, subperiosteal fractures, apophysiolysis. Examination of children with suspected fracture - rules for x-ray examination. Principles of conservative treatment of fractures in childhood (plaster immobilization, types of plaster casts). Skeletal traction – possibilities, principles of application. Closed one-stage manual reduction. Indications for surgical treatment of fractures in childhood. Types of metal osteosynthesis.

List of abstract topics:

1. Single-row suture in abdominal anastomoses in children.
2. Modern possibilities for early diagnosis of acute hematogenous osteomyelitis in children and effective treatment of patients.
3. Modern possibilities for the treatment of acute hematogenous osteomyelitis in children.
4. Therapeutic tactics for closed injuries of parenchymal organs in children.
5. Ultrasonography as a screening diagnostic method in pediatric surgery.
6. The state of the hemostatic system in children with portal hypertension.
7. Diagnosis and treatment of acute hematogenous osteomyelitis in newborns.
8. Diagnosis and treatment of chronic constipation in children.
9. Differentiated approach to the choice of surgical tactics in children with Hirschsprung's disease.
10. Differentiated approach to surgical tactics in children with inguinal hernias.
11. Changes in hemostasis and the effectiveness of their correction in various forms of Hirschsprung's disease in children.
12. Follow-up of children who underwent correction of congenital malformations of the gastrointestinal tract during the neonatal period.
13. Cystic focal liver lesions in children: differential diagnosis and surgical treatment.

Tests.

1. The child is 8 months old. vomit. Paroxysmal pain in the abdomen. On palpation there is a rounded formation in the right iliac region. Rectal examination revealed heavy bleeding. The duration of the disease is 10 hours. Most likely diagnosis:

A) acute appendicitis

B) intussusception

- C) appendicular infiltrate
- D) intestinal infection
- E) abdominal tumor

2. The main reason for the development of intussusception in children is:

A) age-related incoordination of peristalsis

- B) change in diet
- C) dyspepsia
- D) respiratory viral infection
- E) organic cause (diverticulum, polyp, tumor, hemorrhage)

3. A 10-month-old child has paroxysmal abdominal pain and occasional vomiting. The temperature is normal. A round tumor-like formation is palpated in the right iliac region. A rectal examination revealed no pathology. The presumptive diagnosis is intussusception. The clinical picture should be regarded as:

A) initial period

- B) period of vivid clinical manifestations
- C) period of intestinal obstruction
- D) phenomena of peritonitis
- E) period of complications

4. The main advantage of colonoscopy for intussusception is:

- A) refusing an x-ray examination
- B) in the visual diagnosis of intussusception
- C) in visual control of the expansion of intussusception
- D) the ability to identify the organic cause of intussusception
- E) the ability to resolve the issue of indications for surgical treatment, regardless of the duration of the disease**

5. An examination method that makes it possible to resolve the issue of the need for surgical intervention for intussusception, regardless of the timing of the disease:

- A) laparoscopy
- B) colonoscopy**
- C) irrigography with air
- D) irrigography with barium mixture

E) palpation of the abdomen under anesthesia

6. The child was diagnosed with intestinal intussusception, the disease was 11 hours old, conservative measures were ineffective. When the intussusception is located in the right iliac region, the most preferable:

- A) midline laparotomy
- B) transverse laparotomy
- C) incision in the right iliac region**
- D) pararectal access
- E) Pfannenstill incision

7. At what age is intussusception most common?

- A) newborn
- B) chest**
- C) preschool
- D) school

8. In a child with intussusception, the disease was 12 hours old, conservative measures were ineffective. The intussusception is palpated in the epigastric region. In this case it is preferable:

- A) midline laparotomy**
- B) transverse laparotomy
- C) incision in the right iliac region
- D) pararectal access
- E) incision in the right hypochondrium

9. The child has been diagnosed with intussusception. The duration of the disease is more than 24 hours. The picture of intestinal obstruction is pronounced. You need to do:

- A) midline laparotomy**
- B) transverse laparotomy
- C) incision in the right iliac region
- D) pararectal access on the left
- E) pararectal access on the right

10. A child undergoing surgery for advanced intussusception was found to have necrosis of the distal ileum and questionable

viability of the overlying sections of the ileum for 50 cm. The surgeon's tactics include:

- A) resection of an obviously necrotic part of the intestine, ileostomy, planned relaparotomy after 12 hours**
- B) resection of the entire ileum, ileostomy
- C) resection of the ileum, small-colic anastomosis
- D) removal of the changed part of the intestine onto the skin with a loop
- E) resection of the necrotic area of the intestine, intestinal anastomosis

7. Interim certification

Interim certification in the form of a test is issued based on the results of current control.

Situational tasks

Task 1.

Immediately after birth, the child experiences periodic attacks of respiratory failure, which worsen after feeding. Noteworthy is the asymmetry of the chest due to the bulging of the intercostal spaces on the left. The abdominal cavity is small, the abdomen is scaphoid.

- 1) Formulate a diagnosis;
- 2) plan of diagnostic measures;
- 3) principles of surgical treatment;
- 4) what are the immediate and long-term complications?
- 5) what determines the severity of postoperative management of patients?

Sample answer:

- 1) Congenital diaphragmatic hernia on the left;
- 2) percussion, auscultation, plain radiography of the chest organs;
- 3) laparotomy, identification of a defect in the dome of the diaphragm, reduction of organs abdomen from the pleural cavity to the abdominal cavity, suturing the defect in the dome of the diaphragm, resolving the issue of viscerio-abdominal disproportion;
- 4) dehiscence of the sutures placed on the dome of the diaphragm with recurrence of the hernia, adhesive intestinal obstruction;
- 5) the severity of the patient's condition in the near future after surgery is due to intra-abdominal compression of the abdominal organs on v. cava inf.

Task 2.

The child has been vomiting with bile for 2 days after each feeding. A plain radiograph reveals 2 horizontal levels of fluid; twice there was only meconal stool.

- 1) Formulate a diagnosis;
- 2) is additional research needed?
- 3) should the operation be emergency or urgent?
- 4) principles of surgical treatment;

5) features of the course of the postoperative period.

Sample answer:

- 1) Congenital atresia of the duodenum;
- 2) no additional research is needed;
- 3) the operation must be urgent;
- 4) in case of Ladd syndrome, dissection of embryonic adhesions and reversal are performed intestines, with a membrane, the membrane is excised, with an annular pancreas – duodenoduodenoanastomosis is applied; in case of true atresia, duodenoduodenoanastomosis is also applied;
- 5) the peristalsis of the duodenum is restored for a long time.

Task 3.

A 6-year-old child was hit by a car and was delivered 30 minutes later. in hospital. Complains of pain in the right side of the chest. Upon examination, the right half of the chest lags behind in the act of breathing; upon palpation of the ribs, pain is determined along the posterior axillary line of the IV and V ribs. On percussion there is tympanitis on the right; breathing on the right from the second rib downwards is not audible.

- 1) Formulate a diagnosis;
- 2) give an interpretation of the symptoms;
- 3) what should be the surgical tactics?
- 4) what is Petrov's test?
- 5) principles of surgical treatment.

Sample answer:

- 1) Closed injury of the thoracic cavity with fracture of the ribs and intrathoracic bleeding;
- 2) sharp pain of the IV and V ribs along the posterior axillary line gives rise to suspect a fracture of these ribs, changes in percussion data indicate a lung rupture and hemothorax on the right;
- 3) pleural puncture and Petrov's test should be performed;
- 4) blood from a syringe obtained during pleural puncture is transfused into a test tube that is centrifuged, based on the nature of the boundary between the blood serum and the sediment, it is judged whether bleeding continues or has stopped;
- 5) when bleeding has stopped - drainage of the pleural cavity, when continued bleeding - thoracotomy with revision of the thoracic cavity organs, intercostal spaces, mediastinum.

8. Description of indicators and criteria for assessing competencies at the stages of their formation, description of assessment scales

	Levels of competency development		
	<i>Threshold</i>	<i>Sufficient</i>	<i>High</i>

Criteria	Competence formed. Demonstrated threshold, satisfactory sustainable level practical skill	Competence formed. Demonstrated enough level independence, sustainable practical skill	Competence formed. Demonstrated high level independence, high adaptability practical skill
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Competency assessment indicators and rating scales

Grade "unsatisfactory" (not accepted) or lack of maturity competencies	Grade "satisfactorily" (passed) or satisfactory (threshold) level of development competencies	Rated "good" (passed) or sufficient level mastering competence	Excellent rating (passed) or high level development competencies
failure to student on one's own demonstrate knowledge when solving assignments, lack independence in application of skills. Absence availability confirmation formation competencies indicates negative development results academic discipline	student demonstrates independence in application of knowledge skills and abilities to solve educational tasks in full According to sample given teacher, by tasks, solution of which there were shown teacher, it should be considered that competence formed on satisfactory level.	student demonstrates independent application of knowledge, skills and abilities when deciding tasks, tasks similar samples that confirms Availability formed competencies for higher level. Availability such competence on sufficient level indicates sustainable fixed practical skill	student demonstrates ability to full independence in choosing a method solutions non-standard assignments within disciplines with using knowledge, skills and skills, received as in development progress of this discipline, and adjacent disciplines should count competence formed on high level.

Evaluation criteria for the test

Mark	Descriptors		
	strength of knowledge	ability to explain the essence of phenomena, processes, do conclusions	logic and subsequence answer
passed	solid knowledge of the basic processes of the studied subject area, answer	ability to explain essence, phenomena, processes, events,	logic and subsequence answer

	differs in depth and completeness of the topic; possession terminological apparatus	draw conclusions and generalizations, give reasoned answers, give examples	
not accepted	insufficient knowledge subject matter being studied areas, unsatisfactory disclosure of the topic; weak knowledge of the basic issues of theory. Allowed serious mistakes in content of the answer	weak analysis skills phenomena, processes, events, inability give reasoned answers given the examples are wrong	lack of logic and consistency answer

Criteria for evaluating forms of control:

Interviews:

Mark	Descriptors		
	strength of knowledge	ability to explain the essence of phenomena, processes, do conclusions	logic and subsequence answer
Great	strength of knowledge, knowledge of basic processes subject matter being studied areas, the answer differs in depth and completeness disclosure of the topic; possession terminological apparatus; logic and consistency answer	high skill explain the essence phenomena, processes, events, draw conclusions and generalizations, give reasoned answers, give examples	high logic and subsequence answer
Fine	solid knowledge of the basic processes of the studied subject area, differs in depth and completeness of the topic; possession terminological apparatus; free mastery of monologue speech, but one or two inaccuracies in the answer are allowed	ability to explain essence, phenomena, processes, events, draw conclusions and generalizations, give reasoned answers, give examples; however one or two inaccuracies in the answer are allowed	logic and subsequence answer
satisfactory really	satisfactory process knowledge subject matter being studied areas, answer, different insufficient depth and completeness of the topic; knowledge of basic theoretical issues. Several are allowed errors in content	satisfactory ability to give reasoned answers and provide examples; satisfactorily formed analysis skills phenomena, processes. Several are allowed errors in content	satisfactory logic and subsequence answer

	answer	answer	
will not satisfy really	poor knowledge of the subject area being studied, shallow opening Topics; poor knowledge basic theoretical issues, poor analysis skills phenomena, processes. Serious errors in content answer	inability to give reasoned answers	lack of logic and consistency answer

Test control grading scale:

percentage of correct answers	Marks
91-100	Great
81-90	Fine
71-80	satisfactorily
Less than 71	unsatisfactory

Situational tasks:

Mark	Descriptors			
	understanding Problems	analysis situations	skills solutions situations	professional thinking
Great	complete implication problems. All requirements, submitted to adania, completed	high benefit analyze situation, draw conclusions	high benefit select method solutions problems faithful solution skills situation	high level professional thoughts
Fine	complete implication problems. All requirements, submitted to adania, completed	benefit analyze situation, draw conclusions	benefit select method solutions problems faithful solution skills situation	residual level professional thoughts. drops one or two precision in the answer
satisfactory really	astatic implication problems. majority requirements declared to adania, completed	satisfactory 1st ability analyze situation, draw conclusions	satisfactory e skills solutions situation	residual level professional thoughts. falls more a bunch of inaccuracies in reply
will not satisfy really	misunderstanding problems. legs requirements,	izkaya benefit analyze situation	insufficient solution skills situation	missing

	submitted to I hope not completed. No Tveta. Did not have experiments to solve hello			
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Presentations/reports

Mark	Descriptors			
	Disclosure Problems	Performance	Decor	Answers to questions
Great	Problem revealed fully. Analysis carried out problems with involving additional literature. conclusions justified.	Represented information systematized consistent and logically connected. Used <small>more than 5</small> professional terms.	Necessary and sufficient usage information technologies for visibility representation information. None errors in represented information.	Answers to questions complete with ghost examples and/or explanations.
Fine	Problem revealed. Analysis carried out no problems attracting additional literature. Not all conclusions made and/or justified.	Represented information systematized and consistent. Used <small>more than 2</small> professional terms.	Necessary and sufficient usage information technologies for visibility representation information. Not more than 2 errors in the submitted information	Answers to complete questions and/or partially full
Satisfactorily	Problem not disclosed fully. <small>The conclusions are not</small> made and/or <small>conclusions are not</small> justified.	Represented no information systematized and/or not consistent. Used 1-2 professional term.	Insufficient usage information technologies for visibility representation information. Accepted 3-4 errors in represented information.	Only answers to elementary questions.
Unsatisfactory	The problem is not revealed. None conclusions.	Represented information logically not connected.	Insufficient usage information technologies for visibility representation information. More allowed 4 errors in represented information.	No answers to questions.