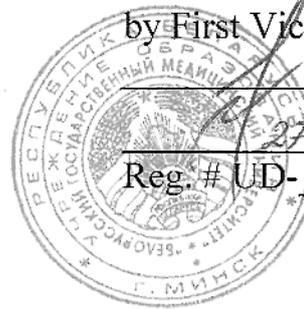


**MINISTRY OF HEALTH OF THE REPUBLIC OF BELARUS
EDUCATIONAL INSTITUTION
BELARUSIAN STATE MEDICAL UNIVERSITY**

**Контрольный
экземпляр**

APPROVED



by First Vice-Rector, Professor
S.V. Gubkin

27.06.2018
Reg. # UD- 613/1819 /edu

PEDIATRIC SURGERY

**Curriculum of higher educational institution
in the educational discipline for the specialty:**

1-79 01 01 «General Medicine»

Minsk, BSMU 2018

Curriculum is based on the standard educational program “Pediatric surgery”, approved November 09, 2017, registration # TD-L.613 / type.

COMPILERS:

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RECOMMENDED FOR APPROVAL

by the Department of Pediatric Surgery, Educational Institution “Belarusian State Medical University”

(on Mart 13, 2018, protocol # 8)

by the Methodological Commission of pediatric subjects of the Educational Institution “Belarusian State Medical University”

(on May 28, 2018, protocol # 10)

EXPLANATORY NOTE

“Pediatric surgery” is the educational discipline that contains systematic scientific knowledge about the etiology, pathogenesis, clinical manifestations, diagnostic methods, differential diagnosis, treatment and prevention of surgical diseases and injuries in newborns, children and adolescents.

The curriculum of the discipline " Pediatric surgery " is aimed at studying the surgical pathology of childhood, the latest scientific data on diagnosis and treatment methods for children with congenital malformations and surgical diseases. The obtained knowledge will allow students to navigate in the basic surgical pathology of childhood, develop clinical thinking, acquire surgical and general medical skills, improve ethical and deontological aspects of the profession of a doctor.

The purpose of teaching the discipline "Pediatric Surgery" is to develop knowledge that allows you to master the basic principles of diagnosis and treatment of surgical diseases in children.

The peculiarity of the new curriculum is to set tasks of studying and teaching the discipline aimed at developing students' academic, social, personal and professional competence.

The objectives of teaching: formation of knowledge, which will enable the students to master the basic principles of diagnosis and treatment of surgical diseases in children.

The tasks of teaching the discipline include the formation of students' social, personal and professional competences, based on the knowledge and application of:

- methods of identification, interpretation of symptoms, the differential diagnosis of surgical diseases of childhood;
- skills required for primary and specialized medical care for children with surgical diseases, injuries and urgent conditions.

The purpose of the study: acquisition of knowledge and skills to make diagnosis, differential diagnosis of major surgical diseases of childhood.

Teaching and successful learning of the discipline (name of the discipline) is carried out on the basis of the knowledge and skills previously acquired by the students in the following disciplines:

Latin language. Knowledge of Latin and Greek word-forming elements and a certain vocabulary minimum terms in Latin.

Medical and biological physics. Medical devices and instruments used in surgery.

Human anatomy. The structure of the human body, its constituent systems, organs, tissues and age characteristics of the organism.

Histology, cytology, embryology. Methods of histological and cytological studies. Bodies of hematopoiesis and immune defense (central and peripheral), structure, immunogenesis. Embryology of the esophagus, intestines, lungs.

Normal physiology. The main physiological function of organs and systems of the human body and especially in children.

Pharmacology. Basic principles of drug effect, indications and contraindications. Antibacterial and antiparasitic drugs.

Pathological anatomy. Inflammation: concept and biological essence.

Pathological physiology. The doctrine of the pathogenesis. Pathogenic effects of the environmental factors (biological factors: viruses, bacteria, protozoa). The role of the reactivity organism in case of pathology.

Microbiology, virology, immunology. Bacteriological and immunological methods for diagnosis of surgical infections. Microbiological principles of chemotherapy and antiseptics.

Topographic anatomy and operative surgery. Surgical instruments. Technique of the most common surgeries in children.

As a result of studying the discipline "Pediatric Surgery" the student should

know:

- etiology, classification, pathogenesis, clinical presentation, diagnosis and differential diagnosis, methods of prevention and treatment of the most frequent surgical diseases and injuries in infants, children and adolescents;

- methods of diagnosis, medical tactics and rules of transportation of newborns in case of the surgical pathology;

- diagnostic features, clinical and medical tactics in diseases and pathological processes in children, requiring emergency surgical care;

- the basis of preoperative preparation of children with surgical pathology;

- organization of surgical care for children and adolescents in the outpatient settings, groups of follow-up and evaluation methods of its effectiveness.

be able to:

- examine children with surgical pathology (inspection, palpation, identifying local symptoms, the interpretation of laboratory, instrumental and radiological methods of research);

- make a preliminary diagnosis of surgical diseases in children in typical situations;

- make up the diagnostic examination program on the nosological surveys disease (entities);

- determine the terms of direction the children with different surgical diseases to the surgeon;

- provide emergency medical assistance;

-carry out the necessary pathogenetic therapy aimed at prevention of complications;

-define the indications and rules of transportation of children with surgical diseases and malformations.

- the skills of organizing sanitary and hygienic education for the formation of a healthy lifestyle.

The structure of the curriculum for the discipline "Pediatric Surgery" includes four sections.

Total number of hours for the study of the discipline is 90 academic hours. Classroom hours according to the types of studies: lectures - 8 hours, practical classes - 50 hours, student independent work (self-study) – 32 hours.

Current assessment is carried out according to the syllabus of the specialty in the form of a credit (9(10) semester).

Form of higher education – full-time (*part-time*).

ALLOCATION OF ACADEMIC TIME ACCORDING TO SEMESTERS OF STUDY

Cipher, name of speciality	Semester	The number of hours of training					Independent work	The form of attestation
		training		ИЗ НИХ				
		Total	classroom	lectures	laboratory	practical		
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>
1-79 01 01 General Medicine	9 (10)	90	58	8	-	50	32	credit
Total hours	-	90	58	8	-	50	32	-

THEMATIC PLAN

Section (topic) name	Number of class hours	
	lectures	practical
1. Emergency surgery	2	25
1.1. Methods of children examination in surgical pathology	-	2
1.2. Acute appendicitis in older children	0,5	2
1.3. Acute appendicitis in children under 3 years	0.5	1
1.4. Features of clinical manifestations and course of acute appendicitis based on the location of the appendix. Differential diagnosis of appendicitis	-	4
1.5. Appendicular infiltrate, peritonitis	-	5
1.6. Acquired intestinal obstruction	1	2
1.7. Intussusception	-	2
1.8. Strangulorium hernia in children	-	1
1.9. Injuries of abdominal organs	-	2.5
1.10. Chest injuries	-	2.5
1.11. Gastrointestinal bleeding in children	-	1
2. Planned surgery	-	7
2.1. Hernia of the anterior abdominal wall in children	-	1
2.2. Megacolon	-	2
2.3. Hirschsprung's disease	-	2
2.4. Hemangioma, lymphangioma, atheroma, teratoma	-	1
2.5. Gastroesophageal reflux	-	1
3. Septic surgery	4	10
3.1. Septic-inflammatory diseases of newborns and infants	2	5
3.2. Acute and chronic hematogenous osteomyelitis in children	2	3

3.3. Bacterial destructive pneumonia in children	-	2
4. Surgery of newborns	2	8
4.1. Malformations of the esophagus and stomach	1	2
4.2. Malformations of the anterior abdominal wall	-	1
4.3. Diaphragmatic hernia	0.5	2
4.4. Congenital intestinal obstruction	0.5	2
4.5. Anorectal malformation	-	1
Total hours	8	50

CONTENT OF THE EDUCATIONAL MATERIAL

1. Emergency Surgery

1.1. Methods of children examinations in surgical pathology

Introduction. History of pediatric surgery. Development of pediatric surgery in Belarus. Deontology.

Methods of children examination of in surgical pathology. Basic examination methods: subjective (complaints, medical history and life), objective (inspection, palpation, auscultation, percussion). Features of surgical physical examination. The purpose and objectives of the main methods of examination, the causes of errors in the evaluation of results. The general idea of modern methods of diagnosis of surgical diseases. Invasive and non-invasive diagnostic methods. Invasive and non-invasive methods of diagnosis.

1.2. Acute appendicitis in older children

The urgency of the acute appendicitis in children. Etiology and pathogenesis. Classification of acute appendicitis. The clinical picture. Evaluation of the patient's condition. Subjective and objective data. Local symptoms. Clinical, laboratory and instrumental diagnosis. Diagnostic ultrasound criteria of acute appendicitis. Duration of the disease as a criterion for the adequacy of the diagnostic program "Acute Appendicitis." Modern methods of treatment of acute appendicitis in children. Complications of acute appendicitis before surgery and in the postoperative period.

Patients with acute appendicitis: collection of complaints and anamnesis of the disease; objective examination; drawing up a survey plan; interpretation of the results of laboratory and instrumental survey methods; the diagnosis; substantiation of indications for surgical intervention; preparation of an operative intervention plan; postoperative management of the patient. Writing a medical history.

1.3. Acute appendicitis in children under 3 years

Features of acute appendicitis in young children. Features of methods of examination, diagnosis and detection of local signs of acute appendicitis in young children. Substantiation of the need for preoperative preparation.

Early childhood care with acute appendicitis: collection of complaints and anamnesis of the disease; objective examination; drawing up a survey plan; interpretation of the results of laboratory and instrumental survey methods; the diagnosis; substantiation of indications for surgical intervention; preparation of an operative intervention plan; postoperative management of the patient. Writing a medical history.

Sanitary and hygienic education of the population to reduce complications and lethality in acute appendicitis.

1.4. Features of clinical manifestations and course of acute appendicitis based on the location of the appendix. Differential diagnosis of appendicitis

Urgency (frequency, complications, diagnostic difficulties). Variants of the anatomical localization of the appendix. The clinical picture and the course at retrocecal, retroperitoneal, pelvic, medial, subhepatic, left-sided location of the appendix. Semiotics. Clinical and instrumental diagnosis.

Groups of diseases (gastrointestinal, respiratory, urological, children and common infections, genital organs in boys and girls, system, blood diseases, emergency surgery), requiring diagnosis in children with acute appendicitis. Differential diagnosis of appendicitis, pneumonia, urinary tract infection, acute respiratory viral infections, mesadenitis, acute pelvic pathology in girls, the other urgent abdominal diseases.

Management of patients with acute appendicitis with various variants of anatomical localization of the appendix: collection of complaints and anamnesis of the disease; objective examination; drawing up a survey plan; interpretation of the results of laboratory and instrumental survey methods; the diagnosis; substantiation of indications for surgical intervention; preparation of an operative intervention plan; postoperative management of the patient. Writing a medical history.

1.5. Appendicular infiltrate, peritonitis.

Appendicular infiltrate. Clinical manifestations, differential diagnosis. Surgical treatment in children of different ages.

Causes of peritonitis in children, classification, pathogenesis, stages of peritonitis, the clinical picture, depending on the stage of the disease. Appendicular peritonitis: preoperative treatment program, assessment criteria of its effectiveness. Principles of surgical interventions. Minimally invasive surgery. Postoperative treatment, objective evidence of its effectiveness. Early postoperative complications, classification, diagnosis, methods of correction.

Management of patients with appendicular peritonitis and appendicular infiltration: collection of complaints and anamnesis of the disease; objective examination; drawing up a survey plan; interpretation of the results of laboratory

and instrumental survey methods; the diagnosis; substantiation of indications for surgical intervention; drawing up of the plan of operative intervention. Writing a medical history.

1.6. Acquired intestinal obstruction

Definition, classification by origin, pathogenesis, anatomic location, clinical course.

Dynamic (spastic, paralytic) ileus. Etiology, pathogenesis, clinical presentation, diagnosis, treatment.

Mechanical bowel obstruction. Etiology, pathogenesis. Adhesive intestinal obstruction in children. Basic information about the mechanism of adhesions formation in the abdominal cavity. Classification of adhesive intestinal obstruction. Clinical diagnosis and treatment principles of adhesive intestinal obstruction in children. Adhesive disease. Prevention of adhesions in the abdominal cavity.

Management of patients with acquired intestinal obstruction: collection of complaints and anamnesis of the disease; objective examination; drawing up a survey plan; interpretation of the results of laboratory and instrumental survey methods; the diagnosis; substantiation of indications for surgical intervention; drawing up of the plan of operative intervention. Writing a medical history.

1.7. Intussusception

The definition of intussusception, the relevance of the problem, the age dependent incidences. Etiology, pathogenesis, classification of intussusception in children. The clinical picture, diagnosis and differential diagnosis, complications of intussusception. Modern methods of treatment (conservative and surgical) of intussusception in children. Indications and contraindications for various therapies. The methodology of the conservative unfolding intussusception controlled by echoscopy.

Management of patients with intussusception: collection of complaints and anamnesis of the disease; objective examination; drawing up a survey plan; interpretation of the results of laboratory and instrumental survey methods; the diagnosis; substantiation of indications for surgical intervention; preparation of an operative intervention plan; postoperative management of the patient. Writing a medical history.

1.8. Strangulatorium hernia in children

Strangulated hernia. Forms and mechanisms of infringements of children (elastic, retrograde, parietal). The clinical picture, diagnosis, differential diagnosis, complications. Surgical treatment in case of emergency. Management of spontaneous violent reposition of strangulated hernia. False reduction. Principles of surgical interventions.

Management of patients with strangulated hernias: collection of complaints and anamnesis of the disease; objective examination; drawing up a survey plan; interpretation of the results of laboratory and instrumental survey methods; the diagnosis; substantiation of indications for surgical intervention; preparation of an

operative intervention plan; postoperative management of the patient. Writing a medical history.

1.9. Injuries of abdominal organs

Abdominal trauma, classification. Etiology, epidemiology of injuries. The trauma of the spleen (clinical picture, diagnostic methods, medical tactics, methods of treatment). Liver injury (clinical picture, diagnostic methods, medical tactics, methods of treatment). The trauma of the stomach, intestines. Features of clinical manifestations, diagnostic methods, treatment.

Management of patients with abdominal injuries: collection of complaints and anamnesis of the disease; objective examination; drawing up a survey plan; interpretation of the results of laboratory and instrumental survey methods; the diagnosis; substantiation of indications for surgical intervention; preparation of an operative intervention plan; postoperative management of the patient. Writing a medical history.

1.10. Chest injuries

Chest injuries, classification. Etiology. The clinical picture of lung damage, heart, esophagus, trachea, bronchi, great vessels, rib fractures. Types of pneumothorax. Medical tactics depending on the type of injury. Indications for puncture and drainage of pleural cavity. Methods for drainage of pleural cavity. Medical instrument for pleural puncture and drainage.

Management of patients with chest injuries: collection of complaints and anamnesis of the disease; objective examination; drawing up a survey plan; interpretation of the results of laboratory and instrumental survey methods; the diagnosis; substantiation of indications for surgical intervention; preparation of an operative intervention plan; postoperative management of the patient. Writing a medical history.

1.11. Gastrointestinal bleeding in children

Types and causes of bleeding from the gastrointestinal tract (GIT). Bleeding from the gastrointestinal tract, requiring surgical treatment (cause). Clinical presentation depends on the level of bleeding, source, volume and blood loss rate. Diagnosis of bleeding. Clinical and laboratory criteria and calculation of the volume of blood loss. The degree of blood loss. Treatment of bleeding. Indications for conservative and surgical treatment.

2. Planned Surgery

2.1. Hernia of the anterior abdominal wall in children

Definition. Elements of the anterior abdominal wall hernias. Anatomical features. Classification of hernias according to the origin, localization, course. Etiology, pathogenesis, clinical picture. Methods of diagnosis, treatment, prevention. Principles of surgical interventions, minimally invasive surgery. Contraindications to surgical treatment.

Clinical supervision. Organization of medical examinations, disease detection, terms of surgical treatment.

Management of patients with hernias of the anterior abdominal wall: collection of complaints and anamnesis of the disease; objective examination; drawing up a survey plan; interpretation of the results of laboratory and instrumental survey methods; the diagnosis; substantiation of indications for surgical intervention; preparation of an operative intervention plan; postoperative management of the patient. Writing a medical history.

2.2. Megacolon

Classification. Acquired megacolon. Functional megacolon. Frequency, etiology and pathogenesis. Clinical manifestations, diagnostic methods, differential diagnosis. Treatment. Clinical supervision.

Management of patients with megacolons: collection of complaints and anamnesis of the disease; objective examination; planning; interpretation of the results of laboratory and instrumental survey methods; the diagnosis; substantiation of indications for surgical intervention. Writing a medical history.

2.3. Hirschsprung's disease

Malformations of the colon. Classification. Hirschsprung's disease, the etiology and pathogenesis. The clinical picture (acute, subacute, and chronic forms). Methods of diagnosis: X-ray, sphinkteromanometry, morphological, histochemical. Treatment: conservative, surgical (principles of surgical interventions). Terms of surgical interventions. Dispensary observation of patients with Hirschsprung's disease.

Management of patients with Hirschsprung disease: collection of complaints and anamnesis of the disease; objective examination; drawing up a survey plan; interpretation of the results of laboratory and instrumental survey methods; the diagnosis; substantiation of indications for surgical intervention; drawing up of the plan of operative intervention. Writing a medical history.

2.4. Hemangioma, lymphangioma, atheroma, teratoma

Characteristics and classification of benign tumors in children. Embryology. Hemangioma, lymphangioma, pigmented spots, teratoma, atheroma - clinical manifestations, diagnosis, differential diagnosis, treatment. Clinical supervision, terms of surgical interventions.

Management of patients with hemangiomas, lymphangiomas, teratomas, atheromas: collection of complaints and anamnesis of the disease; objective examination; drawing up a survey plan; interpretation of the results of laboratory and instrumental survey methods; the diagnosis; substantiation of indications to various methods of treatment. Writing a medical history.

2.5. Gastroesophageal reflux

Gastroesophageal reflux (GER) in children. Reasons. Clinical manifestations. Methods of diagnosis: esophageal pH study, radiographic (kymography: esophagus, "water-siphon test", "provocative test"), sphincterometry, electromyography, endoscopy, histology. Complications of GERD (the esophagus, respiratory system, cardiovascular system), classification. Differential diagnosis. Conservative

treatment. Indications for surgical treatment. Principles of surgical interventions. Minimally invasive surgery.

Patients with gastroesophageal reflux: the collection of complaints and anamnesis of the disease; objective examination; drawing up a survey plan; interpretation of the results of laboratory and instrumental survey methods; the diagnosis, justification of indications for different types of treatment. Writing a medical history

3. Purulent Surgery

3.1. Septic-inflammatory diseases of newborns and infants

Necrotizing fasciitis - necrotic abscess in newborns (etiology, clinical presentation, diagnosis, complications, treatment). Mastitis (etiology, clinical features, differential diagnosis, complications, treatment). Omphalitis (etiology, clinical features, complications, treatment). Abscesses of soft tissues (etiology, clinical features, complications, treatment). Cellulitis (etiology, clinical features, complications, treatment). Paronychia (etiology, clinical features, complications). Acute paraproctitis (etiology, clinical features, diagnosis, complications). Infected birth injuries (wounds, kefelagematoma, calcification), etiology, clinical features, complications.

Principles of local and general treatment of inflammatory diseases of newborns and infants. Empirical and rational antibiotic therapy.

Counseling of newborns and infants with pyoinflammatory diseases: collection of complaints and anamnesis of the disease; objective examination; drawing up a survey plan; interpretation of the results of laboratory and instrumental survey methods; the diagnosis; substantiation of indications for surgical intervention; postoperative management of the patient. Writing a medical history.

3.2. Acute and chronic hematogenous osteomyelitis in children

Definition. Classification. Etiology. Pathogenesis. The clinical picture of acute metaphyseal and epiphyseal osteomyelitis. Features of the modern course of the disease. Complications. Methods of diagnosis. Differential diagnosis. Methods of treatment. Clinical follow up.

The causes of secondary chronic osteomyelitis. Classification, clinical picture, complications, diagnostic methods, differential diagnosis, treatment. Osteomyelitis, forms (clinical, diagnostic methods, differential diagnosis, treatment). Clinical follow up.

Counseling of patients with acute and chronic hematogenous osteomyelitis: collection of complaints and anamnesis of the disease; objective examination; drawing up a survey plan; interpretation of the results of laboratory and instrumental survey methods; the diagnosis; preparation of a treatment plan; postoperative management of the patient. Writing a medical history.

3.3. Bacterial destructive pneumonia in children

Pleural and pulmonary complications of pneumonia in children: classification, etiology, clinical picture, diagnosis, treatment methods.

Counseling of patients with complicated pneumonia: collection of complaints and anamnesis of the disease; objective examination; drawing up a survey plan; interpretation of the results of laboratory and instrumental survey methods; the diagnosis; substantiation of indications for surgical intervention; postoperative management of the patient. Writing a medical history.

4. Surgery of newborns

4.1. Malformations of the esophagus and stomach

Malformations of the esophagus. Esophageal atresia (clinical features, diagnosis, treatment). Tracheoesophageal fistula (clinical features, diagnostics, treatment). Short esophagus (clinical features, diagnostics, treatment). Malformations of the stomach. Pyloric stenosis (clinical features, diagnosis, differential diagnosis, treatment). The membrane of the stomach (clinical features, diagnostics, treatment).

Counseling patients with malformations of the esophagus and stomach: collection of complaints and anamnesis of the disease; objective examination; drawing up a survey plan; interpretation of the results of laboratory and instrumental survey methods; the diagnosis; preparation of an operative intervention plan; postoperative management of the patient. Writing a medical history.

4.2. Malformations of the anterior abdominal wall

Abnormalities of the umbilical and urinary ducts. Types of defects, clinical picture, diagnosis, differential diagnosis, treatment.

Omphalocele, clinical picture, diagnosis, differential diagnosis, treatment, depending on the size.

Gastroschisis, clinical picture, diagnosis, differential diagnosis, transportation, treatment.

Investigation of patients with malformations of the anterior abdominal wall: collection of complaints and anamnesis of the disease; objective examination; drawing up a survey plan; interpretation of the results of laboratory and instrumental survey methods; the diagnosis; preparation of an operative intervention plan; postoperative management of the patient. Writing a medical history.

4.3. Diaphragmatic hernia

Diaphragmatic hernia (classification, clinical picture, diagnosis, differential diagnosis, transportation rules, terms surgery).

Investigation of patients with diaphragmatic hernia: collection of complaints and anamnesis of the disease; objective examination; drawing up a survey plan; interpretation of the results of laboratory and instrumental survey methods; the diagnosis; substantiation of indications for surgical intervention; drawing up of the plan of operative intervention. Writing a medical history.

4.4. Congenital intestinal obstruction

High level of congenital intestinal obstruction. Anatomical variations. The clinical picture. X-ray examination. Principles of surgical treatment.

Congenital low intestinal obstruction. Anatomical variations. The clinical picture. X-ray examination. Principles of surgical treatment.

Patients with congenital intestinal obstruction: collection of complaints and anamnesis of the disease; objective examination; drawing up a survey plan; interpretation of the results of laboratory and instrumental survey methods; the diagnosis; substantiation of indications for surgical intervention; drawing up of the plan of operative intervention. Writing a medical history.

4.5. Anorectal malformations.

Defects of the anorectal area: classification, clinical picture depending on the type of defect, diagnosis, differential diagnosis, timing of surgical interventions and principles of surgical correction of defects.

Rules for the transport of newborns with malformations of the anorectal region.

Counseling patients with malformations of the anorectal area: collection of complaints and anamnesis of the disease; objective examination; drawing up a survey plan; interpretation of the results of laboratory and instrumental survey methods; the diagnosis; substantiation of indications for surgical intervention; drawing up of the plan of operative intervention. Writing a medical history.

EDUCATIONAL DISCIPLINE CURRICULAR CHART

Section number, topics	Section title, topics	Number of class hours		Self-studies	Equipment	Forms of control
		lectures	Practical classes			
1.	1.1. Methods of examination of children with surgical pathology of abdominal pathology.				1.13; 1.15; 1.17; 1.2; 2.4; 2.12.24; 2.25; 2.28	Oral form: interview, reports. Technical form: electronic tests. Written form: - writing a medical history.
	1.2. Acute appendicitis in older children	1	6	4		
	1.3. Acute appendicitis in children under 3 years					
2.	1.1.1. Gastrointestinal bleeding					
	1.4. Features of clinical manifestations and course of acute appendicitis based on the location of the appendix. Differential diagnosis of appendicitis. 1.7. Intussusception	-	6	4	1.12; 1.17; 2.1; 2.14 3.4; 3.5	Oral form: interview, reports. Technical form: electronic tests. Written form: - writing a medical history.
3.	1.5. Appendicular infiltrate, peritonitis				2.12; 2.22; 2.30	Oral form: interview, reports. Technical form: electronic tests. Written form:
	1.8. Strangulatorium hernia in children	1	6	4		

									- writing a medical history.
4.	1.9. Abdominal injuries 1.10. Chest injuries 2.4. Hemangioma, lymphangioma, atheroma, teratoma	-	6	4	2.12; 2.22; 2.30	Oral form: interview, reports. Technical form: electronic tests. Written form: - writing a medical history.			
5.	3.1. Septic-inflammatory diseases of newborns and infants 2.1. Hernia of the anterior abdominal wall in children	2	6	4	1.21; 2.8; 2.17; 2.19; 2.21; 2.29; 3.2; 3.3	Oral form: interview, reports. Technical form: electronic tests. Written form: - writing a medical history.			
6.	3.2. Acute and chronic hemalogenous osteomyelitis. 3.3. Complicated pneumonia	2	5	3	1.5; 1.9; 2.18; 2.6; 3.2; 4.2	Oral form: interview, reports. Technical form: electronic tests. Written form: - writing a medical history.			
7.	4.3. Diaphragmatic hernia. 4.2. Malformations of the anterior abdominal wall 1.6. Acquired intestinal obstruction	0,5	5	3	1.16; 2.9; 2.10; 2.11; 2.13; 2.20.	Oral form: interview, reports. Technical form: electronic tests. Written form: - writing a medical history.			

8.	<p>4.4. Congenital intestinal obstruction.</p> <p>2.5. Gas roesophageal reflux.</p> <p>4.1. Malformations of the esophagus and stomach</p>	1,5	5	3	<p>1.1; 1.7; 1.8; 1.3; 1.14; 2.5; 2.16; 2.23; 2.24; 2.25; 4.1.</p>	<p>Oral form: interview, reports. Technical form: electronic tests. Written form: - writing a medical history.</p>
9.	<p>4.5 Anorectal malformation.</p> <p>2.2 Megacoion.</p> <p>2.3 Hirschsprung's disease.</p>	-	5	3	<p>1.4; 1.6; 2.2; 2.3; 2.7.</p>	<p>Oral form: interview reports. Technical form: electronic tests. Written form: - writing a medical history.</p>
	Total of hours	8	50	32		

INFORMATION AND INSTRUCTIONAL UNIT

LITERATURE

Basic:

1. *Bruce G. Wolff*, James W. Fleshman, David E. Beck, John H. Pemberton, Steven D. Wexner. – The ASCRS Textbook of Colon and Rectal Surgery, 2007
2. *Davies S.* Annual Report of the Chief Medical Officer 2012, Our Children Deserve Better: Prevention Pays. In: Do Health, editor.: Williams Lea; 2013.
3. *Noble Chamberlain E. and Ogilvie C. M.* – Symptoms and signs in clinical medicine, 2007.
4. *Shribman S.* NHS Atlas of Variation in Healthcare for Children and Young People. 2012.

Additional:

5. *Chabner D. E.* – The language of medicine. 2011.
6. *Nair MC, M K; Choudhury SS; Kakoty SD; Webster P; Sarma UC; Knight M.* IndOSS-Assam: Investigating the feasibility of introducing a simple maternal morbidity surveillance and research system in Assam, India (under review). 2016.

LIST OF TRAINING FACILITIES:

1. Tables and radiographs:

- 1.1. Anomalies of the intestine rotation.
- 1.2. Appendectomy.
- 1.3. Esophageal atresia.
- 1.4. Atresia of the rectum.
- 1.5. Bacterial destruction of the lungs
- 1.6. Hirschsprung's disease.
- 1.7. Congenital intestinal obstruction.
- 1.8. Congenital malformations of the gastrointestinal tract.
- 1.9. Hematogenous osteomyelitis.
- 1.10. Diaphragmatic hernia.
- 1.11. Drainage of the pleural cavity.
- 1.12. Intussusception.
- 1.13. The perforation of a hollow organ.
- 1.14. Pyloric stenosis.
- 1.15. Stenosis of the esophagus.
- 1.16. Adhesive intestinal obstruction.
- 1.17. Sonograms.
- 1.18. Damage to the parenchymal organs (sonography, computer tomograms).
- 1.19. A rupture of the mesentery.
- 1.20. Inguinal hernia.
- 1.21. Necrotic phlegmon of newborns.

2. Electronic photographs and video materials:

- 2.1. Appendicitis.
- 2.2. Anorectal malformations (drawings).
- 2.3. Atresia of the rectum.
- 2.4. Atresia of bile ducts.
- 2.5. Esophageal atresia.
- 2.6. Bacterial lungs destruction.
- 2.7. Hirschsprung's disease.
- 2.8. Dropsy of the spermatic cord.
- 2.9. Gastroschisis.
- 2.10. Hemangiomas.
- 2.11. Gastroesophageal reflux.
- 2.12. Necrotizing enterocolitis
- 2.13. Diaphragmatic hernia.
- 2.14. Intussusception.
- 2.15. Lymphangioma.
- 2.16. Meckel's diverticulum.
- 2.17. Necrotic phlegmon in newborn.

- 2.18. Hematogenous osteomyelitis.
- 2.19. Omphalitis.
- 2.20. Omphalocele.
- 2.21. Inguinal hernia.
- 2.22. Peritonitis.
- 2.23. Pyloric stenosis.
- 2.24. Esophagoplasty.
- 2.25. Stenosis of the esophagus.
- 2.26. Rupture of a hollow organ.
- 2.27. Damage to the spleen, liver.
- 2.28. Portal hypertension.
- 2.29. Hernias of anterior abdominal wall.

3. Tools and Equipment:

- 3.1. The Bobrov's apparatus.
- 3.2. Types of drainage in purulent surgery.
- 3.3. Modern dressings.
- 3.4. Apparatus for measuring the activity of the internal and external rectal sphincters.
- 3.5. Apparatus for intussusception straightening.

4. Waxwork. Anatomical preparations.

- 4.1. Congenital intestinal obstruction.
- 4.2. Chronic osteomyelitis.

LIST OF AVAILABLE DIAGNOSTIC TOOLS

The following forms are used for competences assessment:

- 1. Oral form:
 - interview;
 - reports on practical exercises,
- 2. Technical form:
 - electronic tests.
- 3. Written form:
 - writing a medical history.

LIST OF PRACTICAL SKILLS

- 1. Examination of a child with acute appendicitis.
- 2. Examination of a child with acute intestinal obstruction.
- 3. Examination of a child with Hirschsprung's disease.
- 4. Examination of a child with pyoinflammatory diseases of soft tissues.
- 5. Examination of a child with omphalitis.
- 6. Examination of a child with lymphadenitis.

7. Examination of a young child with suspected osteomyelitis.
8. Examination of an older child with suspected osteomyelitis.
9. Examination of a child with suspected erysipelas, necrotic phlegmon of newborns.
10. Examination of a child with a bleeding from the digestive tract (portal hypertension).
11. Examination of a child with bleeding from the digestive tract (diverticulum of Meckel).
12. Performing conservative disinvagination.
13. Perform a siphon enema.
14. Performing a gastric lavage.
15. Irrigoscopy for suspected Hirschsprung disease.
16. Examination of a child with suspected esophageal atresia.
17. Examination of the child with diaphragmatic hernia.
18. Examination of a child with suspected gastroesophageal reflux.
19. Examination of a child with complicated pneumonia.
20. Calculation of the volume of infusion therapy for preoperative preparation for peritonitis.
21. Conducting and interpreting rectal examination.
22. Drainage of the pleural cavity (passive and active aspiration).
23. Examination of a child with suspected congenital intestinal obstruction.
24. Examination of the child with pyloric stenosis.
25. Examination of the child with anorectal defects.
26. The application of an occlusive dressing with an open pneumothorax.
27. Suture removal from postoperative wounds.
28. Interpretation of radiographs with intestinal obstruction.
29. Interpretation of X-rays in ulcerative necrotic enterocolitis.
30. Interpretation of radiographs in perforation of a hollow organ.
31. Interpretation of radiographs in osteomyelitis.
32. Interpretation of radiographs with pyotorax.
33. Interpretation of radiographs with pyopneumothorax.
34. Interpretation of radiographs with diaphragmatic hernia.
35. Interpretation of roentgenograms for intussusception of intestines.
36. Examination of children with hemangiomas.
37. Examination of children with lymphangiomas.

LIST OF LECTURES

1. Appendicitis in older children.
2. Acute appendicitis in children under 3 years.
3. Acquired intestinal obstruction.

4. Septic-inflammatory diseases of newborns and infants.
5. Acute and chronic hematogenous osteomyelitis in children.
6. Malformations of the esophagus, stomach.
7. Diaphragmatic hernia.
8. Congenital intestinal obstruction.

LIST OF PRACTICAL LESSONS

1. Methods of examining children in the surgical pathology of abdominal pathology.
2. Appendicitis in older children.
3. Acute appendicitis in young children. Bleeding from the gastrointestinal tract.
2. Features of clinical manifestations and course of acute appendicitis, depending on the localization of the appendix.
3. Differential diagnosis of appendicitis. Invagination of the intestine.
4. Appendicular infiltration, peritonitis. Injured hernia.
5. Trauma of the abdominal cavity. Chest injuries. Hemangiomas, lymphangiomas, atheromas, teratomas.
6. Purulent-inflammatory diseases of newborns and infants. Hernias of anterior abdominal wall.
7. Acute and chronic hematogenous osteomyelitis. Complicated pneumonia.
8. Diaphragmatic hernia. Malformations of the anterior abdominal wall. Acquired intestinal obstruction.
9. Congenital obstruction of the intestine. Gastroesophageal reflux. Malformations of the esophagus and stomach.
10. Defects of the anorectal region. Megacolon. Hirschsprung's disease.

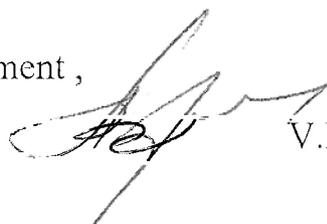
**PROTOCOL OF THE CURRICULUM APPROVAL
BY OTHER DEPARTMENTS**

The name of the related disciplines	Department, which carries out teaching of the relates disciplines	the content of the proposed changes to the curriculum	Action taken by Department of the program developer (date, protocol number)
Surgical diseases	Department of Surgical Diseases	No amendments and changes	#8 13.03.2018
Pediatrics	1st Department of Children's Diseases	No amendments and changes	#8 13.03.2018

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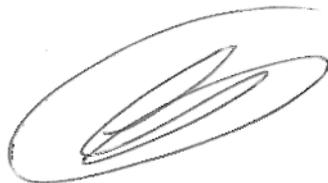


Y.G. Dzhtyarov

Curriculum content, composition and accompanying documents are complied with established requirements.

Dean of Medical Faculty of
International Students

22.06.2018



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