

**MEDICAL UNIVERSITY – PLOVDIV**  
**FACULTY OF MEDICINE**

**SYLLABUS**

**IN**

**PEDIATRIC SURGERY**

**Approved by the Department Council on 17.05.2022**

**Confirmed by the Faculty Council - Protocol №7/13.07.2022**

**PROGRAMME OF LECTURES & PRACTICAL CLASSES**

Discipline: PEDIATRIC SURGERY

Speciality: MEDICINE

Course and Semesters of education: IV course-8th semester (II stream) и V course-9th semester (I stream)

Exam: after 9th semester

Hours of auditorium classes: 24 hours (8 hours lectures and 16 hours practical classes)

Lecturers: Professor Penka Steffanova, M.D., Ph.D.

Professor Alexander Yonkov, M.D., Ph.D.

Associate Professor Evgenii Moshekov, M.D., Ph.D.

**PLAN OF EDUCATION**

Form of classes	Hours of auditorium classes				Credits
	Week	8 <sup>th</sup> semester	9 <sup>th</sup> semester	Total	
Lectures	2	8	8	16	
Practical classes	4	16	16	32	
Total	6	24	24	48	

**ANNOTATION:** Pediatric surgery is an independent surgical discipline. The education in Pediatric surgery includes the most often diseases in infancy and childhood like congenital anomalies of oesophagus and diaphragm, congenital hypertrophic pyloric stenosis, congenital anomalies of small and large bowels, acute abdomen in children, acute inflammatory diseases, congenital anomalies of the abdominal wall, major tumors in infancy and childhood.

**OBJECT OF DISCIPLINE:** Theoretical and practical mastering of knowledges in the main pediatric surgical diseases and their treatment.

**TASKS OF DISCIPLINE:**

- Get acquaintance with the most often diseases in Pediatric surgery: etiology, pathogenesis, pathology, clinical presentation.

- Mastering of the diagnostic methods of examination in different nosologic units and their practical application.
- Get acquaintance and mastering of principals of treatment of pediatric surgical diseases.

#### METHODS OF EDUCATION:

- Practical classes at patient's bed, manipulation room, dressing room, operation hall.
- Lecture course

TECHNICAL MEANS USED IN EDUCATION: PPT presentations, tables, schemes, graphics and pictures, operational atlases, X- rays, photos, movies.

#### CONTROL AND EVALUATION:

- Current control – oral examination, colloquiums in sections;
- Final control - written exam, discussion with the examiner.

#### METHODS FOR KNOWLEDGE CONTROL:

- tests

#### OBLIGATORY COMPETITIONS:

##### 1. Theoretical knowledge:

- Presentation of esophageal atresia and pyloric stenosis, methods for diagnosis and principles in operative treatment.
- Most common nosological entities leading to acute abdomen.
- Presentation and X-ray characteristics of pneumothorax and pyothorax
- Recognition of the meaning of prenatal diagnosis in newborn anomalies.
- Recognition of the features in transportation of children with congenital anomalies.
- Recognition of the terms for operative treatment of congenital anomalies.

##### 2. Practical skills:

- Placement of nasogastric tube
- Performing of diaphanoscopy
- Performing of rectal exam

- Performing of thoracentesis
- Ablation of the foreskin
- Realization of preoperative preparation in prehospital dehydration and intoxication.

## **PROGRAMME OF THE LECTURE COURSE IN PEDIATRIC SURGERY**

**LECTURE N1 – 2 hours. HISTORY OF PEDIATRIC SURGERY. DISEASES OF ESOPHAGUS AND STOMACH.**

1. Pediatric surgery as a detached surgical discipline.
2. Anatomophysiological features in children's age and their importance for surgical pathology
3. History of Pediatric surgery
4. History of Pediatric surgery in Bulgaria
5. Relations of Pediatric surgery with other medical branches
6. Esophageal atresia
7. Congenital pyloric stenosis

**LECTURE N 2 – 2 hours. ACUTE ABDOMEN IN CHILDREN – ACUTE APPENDICITIS, INTUSSUSCEPTION, INCARCERATED INGUINAL HERNIA.**

1. Acute appendicitis in children
2. Intussusception
3. Incarcerated inguinal hernia in children

**LECTURE N 3 – 2 hours. ANORECTAL MALFORMATIONS.**

1. Forms of anorectal malformations.
2. Presentation and diagnosis.
3. Principles and stages of non operative and operative treatment. Algyrthm of conduct.

**LECTURE N 4 – 2 hours. MOST COMMON CONGENITAL ANOMALIES IN CHILDHOOD.**

1. Congenital diaphragmatic hernia.
2. Classification of congenital intestinal atresia, presentation, diagnosis and treatment.
3. Meconium ileus.
4. Gastrointestinal duplications.

## **PROGRAM OF OF PRACTICAL CLASSES IN PEDIATRIC SURGERY**

### **PRACTICAL CLASS N1 – 2 hours. CONGENITAL DISEASES OF ESOPHAGUS AND DIAPHRAGM.**

1. Esophageal atresia.
2. Congenital tracheoesophageal fistula
3. Congenital esophageal stenosis
4. Esophageal diverticulum
5. Chyloecy of the cardia
6. Achalasia of the cardia

### **PRACTICAL CLASS N2 – 2 hours. CONGENITAL DISEASES OF THE ABDOMINAL WALL.**

1. Omphalocele – presentation, diagnosis, differential diagnosis, treatment.
2. Gastroschisis– presentation, diagnosis, treatment.
3. Hernias– presentation, diagnosis, treatment.
4. Urinary bladder extrophy– presentation, diagnosis, treatment.

### **PRACTICAL CLASS N 3 – 2 hours. CONGENITAL DISEASES OF THE STOMACH AND GERD.**

1. Congenital hypertrophic pyloric stenosis.
2. Gastroesophageal reflux– presentation, diagnosis, conservative and operative treatment.

### **PRACTICAL CLASS N4 – 2hours. CONGENITAL DISEASES OF THE SMALL INTESTINE.**

1. Congenital diseases of the duodenal segment with symptoms of complete and incomplete bowel obstruction.
2. Congenital disease – atresias and stenoses of the small intestine.
3. Surgical complications of Meckel’s diverticulum.
4. Meconium ileus.

### **PRACTICAL CLASS N5 – 2 hours. CONGENITAL DISEASES OF THE LARGE INTESTINE.**

1. Congenital disease – atresias and stenoses of the large intestine
2. Hirshsprung’s disease
3. Anorectal anomalies

**PRACTICAL CLASS N6 – 2 hours. ACUTE ABDOMEN IN CHILDHOOD – ACUTE APPENDICITIS, INTUSSUSCEPTION, INCARCERATED INGUINAL HERNIA.**

1. Definition. Criteria.
2. Classification of the diseases in “Acute abdomen” group.
3. Features of acute abdomen in childhood
4. Presentation.
5. Laboratory studies of acute abdomen.
6. Imaging studies of acute abdomen.
7. Disguises of acute abdomen.
8. Treatment – non operative and operative.

**PRACTICAL CLASS N7 – 2 hours. ACUTE INFLAMMATORY DISEASES IN CHILDHOOD – NECROTIC PHLEGMON, ANAEROBIC INFECTION, EMPYEMA, ACUTE OSTEOMYELITIS.**

1. Definition
2. Agents – characteristics
3. Presentation – syndrome characteristics.
4. Methods of treatment
5. Features of acute haematogenous osteomyelitis in childhood – principles of early diagnosis, most common mistakes, X-ray, principles of treatment.

**PRACTICAL CLASS N8 – 2hours. TUMORS IN CHILDHOOD.**

1. Wilms’s tumor.
2. Neuroblastoma.
3. Rhabdomyosarcoma.

**SYNOPSIS - PEDIATRIC SURGERY**

1. Esophageal atresia
2. Congenital diaphragmatic hernia
3. Hypertrophic pyloric stenosis
4. Congenital impassability of the duodenum
5. Congenital impassability of the small intestine
6. Hirschsprung’s disease
7. Anorectal malformations
8. Intussusception
9. Meckel’s diverticulum and its complications
10. Acute appendicitis in childhood

11. Bacterial destructive lung disease
12. Acute osteomyelitis in childhood
13. Congenital anomalies of the abdominal wall
14. Solid tumors in childhood

#### LITERATURE:

1. Ръководство по хирургия с атлас, том XIII-Детска хирургия, под редакцията на проф. О. Бранков, Академично издателство „Проф. М. Дринов”, София, 2011 г.
2. Учебник по Детска хирургия, под редакцията на проф. Ив. Иванчев, Медицина и физкултура, София 1988г.
3. Учебник по Детска хирургия, под редакцията на проф. д-р Д. Арнаудов, Медицина и физкултура, София ,1978г.
4. Internet – Pediatric surgery, 6<sup>th</sup> edition, Jay Grosfeld et all, Mosby, 2006.
5. Internet – Pediatric surgery, P. Puri, M. Hollwarth ed. Springer, 2006.

The programme is actualized on February 2022 and accepted on a chair meeting. The education programme is considered with students' suggestions.

КС №4/17.05.22