

**Thematic plan of seminar-type classes
in discipline «Pediatric surgery»
for students of 2020 year of admission
under the educational programme
31.05.01 General Medicine,
profile General Medicine
(Specialist's degree),
form of study full-time
for the 2025-2026 academic year**

№	Thematic blocks	Hours (academic) ³
1.	Acute appendicitis in children. ¹ Etiology, clinical presentation, diagnosis, complications, treatment. Simulation module. Patient interaction. ²	6
2.	Congenital malformations and surgical diseases of the respiratory system in children. ¹ Types of lung malformations: agenesis, hypoplasia, congenital cysts, emphysema, pulmonary sequestration. Diaphragmatic malformations. Clinical features, diagnostic methods. Timing of surgery. Classification of bronchopleural abscesses. Diagnostic puncture of pleura. Treatment options: conservative (antibiotics, immunotherapy, bronchoscopy); surgical (puncture, drainage, lavage, radical sanation). ²	6
3.	Obstructive uropathies. ¹ Main syndromes (urinary, pain-dysuria, hypertensive). Laboratory tests: urine analysis according to Nechiporenko, leukocyte activity detection, Zimnitsky's test. Instrumental examination techniques. Indications and methodology of bladder catheterization, ureteroscopy, cystochromo-cystoscopy. Preparation for X-ray examinations. Overview and excretory urography: indications, contraindications. Infusion urography. Micturating cystography. Angiography, radioisotope studies. Examination of children with urinary tract trauma. Differential diagnosis using excretory and micturating urography. Urethral anomalies: hypospadias, epispadias (forms, diagnosis, operative treatment); stricture of urethra and bladder neck contracture (diagnostic and therapeutic measures). Bladder malformations (diverticula, extrophy). Hydronephrosis, polycystic kidney disease, megaureter (primary and secondary). Vesico-renal reflux (active and passive types): clinical features, diagnosis, grading from I to	6

	V degrees. Surgical management: pyeloplasty with neoureter implantation (Heineke-Mikulicz technique), anti-reflux operations (Gregoir, Cohen, Politano-Leadbetter procedures). Follow-up after genitourinary organ surgeries. ²	
4.	Features of pediatric traumatology. ¹ Prevention of child injuries. Craniocerebral injury in children. Typical fractures in children ("greenstick fracture," subperiosteal fractures, epiphysiolysis, osteoepiphysiolysis). Birth-related clavicle, humerus, femur fractures. Reasons for shorter bone healing periods in children. Symptoms, diagnosis, differential diagnosis of long-bone fractures. Immobilization duration depending on age. Principles of treating tubular bone fractures: first aid (splints, analgesics); closed reduction; plaster casts (specificities for neonates); adhesive tape traction, skeletal traction; compression-distraction, internal fixation. Pathological fractures in children (rickets, primary brittle bones, osteomyelitis, tuberculosis, tumors). Hemarthrosis, dislocations. Rehabilitation of patients with mechanical injuries. Head trauma classification (open/closed, concussion, contusion, cerebral compression, subdural hemorrhage, intracranial hematomas). Diagnosis (X-ray, MRI, ultrasound neurosonography, EEG, lumbar puncture). Need for cranial imaging following head trauma. Conservative vs. surgical treatments. Complications and residual effects. Birth-related craniocerebral trauma. Cephalhematoma: symptoms, diagnosis, treatment. Rehabilitation of children who have sustained head trauma. ²	6
5.	Orthopedic conditions in childhood. ¹ Hip dysplasia, clubfoot, torticollis. Osteochondropathy in children. Causes and epidemiology of orthopedic diseases in children. Hip joint dysplasia. Clinical manifestations, diagnosis. Radiographic evaluation systems (Hilgenreiner, Putti, Ombrédante et al.). Conservative therapy (Vilensky splint, Mirzoyeva brace, TSO braces, Pavlik harness, Freika pillow, plaster casting). Stages of treatment. Open reduction. Rehabilitation of children with congenital hip dislocation. Muscular torticollis. Clinic, differential diagnosis. Treatment (duration of conservative therapy, surgical interventions such as Ghagentorn–Mikulowicz procedure). Bony forms of torticollis (cervical vertebrae synostosis (Klippel–Feil syndrome), wedge-shaped additional vertebrae, cervical ribs, winged neck, Grisel's disease). Clubfoot. Osteochondropathies (Legg–Calvé–Perthes disease, Osgood–Schlatter disease, Scheuermann–Mauduit	6

	disease, Calve disease, Köhler type I, II). Clinical-radiological characteristics and principles of treatment. ²	
	Total	30

¹ – topic

² – essential content

³ – one thematic block includes several classes, the duration of one class is 45 minutes, with a break between classes of at least 5 minutes

Considered at the department meeting of the Department of Pediatric Surgery, protocol of «02» June 2025 г. № 12.

Head of the Department



A.I. Perepelkin