

**MEDICAL UNIVERSITY-PLOVDIV**  
**FACULTY OF MEDICINE**

**SYLLABUS**

**IN**

**Pediatrics**

**for medical students**

**Accepted by Departmental Council on 4.5.2022 (Protocol No9)**

**Approved by Faculty Council - Protocol №6/15.06.2022**

**Pediatrics**  
**Syllabus**

Discipline	Final exam/ semester	Auditorium classes				ECTS non-auditorium classes	ECTS total	Academic hours in years and semesters	
		Total	Lectures	Practices	ECTS			5 <sup>th</sup> year	
Pediatrics	X					4.0	11.0	IX	X
		210	90	120	7.0			45/60	45/60

**DISCIPLINE:** „Pediatrics”

**TYPE OF DISCIPLINE ACCORDING TO THE UNIFORM STATE**

**REQUIREMENTS:** Mandatory

**LEVEL OF QUALIFICATION:** Master’s /M/

**FORMS OF TRAINING:** Lectures, practicals, self-preparation.

**YEAR OF TRAINING:** Fifth

**DURATION OF TRAINING:** Two semesters

**ACADEMIC HOURS:** 90 hours of lectures, 120 hours of practicals

**TECHNICAL EQUIPMENT APPLIED IN THE TRAINING:** Multimedia presentations, discussions, demonstration of clinical cases, solving clinical tasks, periodic verification of knowledge with tests.

**FORMS OF EVALUATION:** Ongoing assessment by colloquiums and tutors, practical and theoretical examination at the end of the training.

**EVALUATION CRITERIA:**

- The tutor's opinions based on the students’ knowledge, activity and regular attendance during practicals.
- Grades from the tests conducted at the end of each of two chapters in pediatrics.
- Grades from the semestrial exam.

**ASPECTS OF EVALUATION CRITERIA:** Knowledge, practical skills, discipline, regular preparation for practicals, participation in discussions, solving tests.

**SEMESTER EXAM:** It consists of MCQ test and practical examination on a clinical case and an oral exam.

**STATE EXAM:** It has the same structure as the semestrial exam, but with a greater focus on practical knowledge and skills, differential diagnosis and treatment.

**LECTURERS:** Professors and associate professors who are specialists in pediatrics and profile pediatric specialties at the Department of Pediatrics and Medical Genetics.

**DEPARTMENT:** Pediatrics and Medical Genetics

### **ANNOTATION**

Pediatrics is a discipline that deals with the main biological features children, antenatal pathology, characteristics of the newborn and diseases of the newborn, birth trauma, jaundice and infections. The main focus is on the growth and development of the child, its feeding and nutrition-related diseases. Medical students also study diseases of the respiratory, digestive, cardiovascular, genito- urinary system, endocrine and nervous systems in children, blood disorders, malignancies, immunity and immunodeficiency disorders, allergy in children as well as preventative medicine.

### **BASIC AIMS OF THE DISCIPLINE**

#### ***OBJECTIVES OF DISCIPLINE:***

1. Learning the basic theoretical knowledge related to growth, development, prevention, nutrition and diseases in children.
2. Learning the PRACTICAL skills for objective examination of the child. .
3. **Acquiring** skills for interpreting laboratory studies in different age groups.
4. Learning the basic theoretical knowledge of diseases in children, physiology in different age periods, nutrition and disease prevention.
5. Building skills for logical diagnosis and differential diagnosis.
6. Learning the basic principles of treatment in children

### **EXPECTED RESULTS**

After completing the training, students must have the following:

- knowledge of the physiology, prophylaxis and nutrition of children.
- skills to perform a physical examination of a child, regardless of age, and interpret laboratory tests
- ability to formulate syndromes and hence differential diagnosis and diagnosis of the sick child
- knowledge of the basic principles of children's treatment
- knowledge of the algorithms for management of a critically ill child

## CURRICULUM

<i>Form of teaching</i>	<i>Workload</i>				ECTS
	<i>Weekly</i>	<i>IX Sem.</i>	<i>X Sem.</i>	<i>Total</i>	
<i>Lectures</i>	3	45	45	90	7.0
<i>PRACTICALLY PRACTICAL</i>	4	60	60	120	
<i>Total</i>	<i>7 hours</i>	<i>105 hours</i>	<i>105 hours</i>	<i>210 hours</i>	

## LECTURES PROGRAMME

### V year, IX semester

N in order	Lecture topic	Hours
1.	General biological features of the child. The scope of pediatrics. Periods in childhood. Childhood morbidity and mortality.	3
2.	Rational feeding. Malnutrition. Obesity. Calcium-phosphorus metabolism in childhood. Rickets. Osteoporosis.	3
3.	Neurodevelopment – morphological basis, signs, disorders. Intellectual deficit. Autism spectrum disorder. Nurturing care.	3
4.	Newborns at risk. Hypoxic-ischemic encephalopathy. Neonatal convulsions. Birth trauma. Adaptation syndrome.	3
5.	Congenital and acquired infections in the newborn.	3
6.	Differential diagnosis of jaundice in the neonatal period. <i>Colloquium on growth, development, nutrition, rickets.</i>	3
7.	Characteristics of immunity in childhood. Immunodeficiency disorders - general diagnosis and most common diseases.	3
8.	Anatomical and physiological features of the respiratory system in infancy and childhood. Acute infections of the upper respiratory tract – etiology, presentation, treatment.	3
9.	Bronchitis, bronchiolitis, foreign body in the respiratory tract. Acute pneumonias – bacterial, viral, mycoplasmal, etc.	3
10.	Chronic pneumonias. Cystic fibrosis. Tuberculosis. <i>Colloquium on Neonatology</i>	3
11.	Allergic diseases in childhood. Bronchial asthma.	3
12.	Congenital and acquired cardiopathies. Heart failure in childhood.	3
13.	Joint syndrome. Connective tissue diseases. Vasculitides. DD of fever.	3
14.	Pediatric diagnosis in the era of evidence-based medicine. Principles of treatment in pediatrics. Antibiotics in pediatrics.	3
15.	Clinical lecture – building a diagnosis in pediatrics.	3

### V year, X semester

N in order	Lecture topic	Hours
1.	Congenital anomalies of the urinary system. Urinary tract infections.	3

2.	DD of hematuria and arterial hypertension in childhood. Acute and chronic nephritis. Acute kidney injury. <i>Colloquium on pulmonology and cardiology.</i>	3
3.	DD of edema in children. Nephrotic syndrome.	3
4.	DD of vomiting, abdominal pain and constipation in childhood.	3
5.	DD of chronic diarrhoea.	3
6.	DD of seizure. Epilepsy.	3
7.	Motor disorders in childhood - cerebral palsy, acute and chronic flaccid paralysis. <i>Colloquium on nephrology and gastroenterology.</i>	3
8.	Encephalitis and encephalopathies in childhood. Hydrocephalus.	3
9.	Diabetes mellitus. Other common disorders of the endocrine glands.	3
10.	Abnormal pubertal development. DD of short stature.	3
11.	Anemias – types, pathogenesis, clinical presentation and treatment. <i>Colloquium on neurology and endocrinology</i>	3
12.	DD of bleeding disorders.	3
13.	Leukemias and lymphomas. Solid tumors.	3
14.	Dehydration. Fluid resuscitation. Principles of drug therapy in childhood.	3
15.	Poisonings and other accidents in childhood.	3

**Total: 90 hours**

## PRACTICAL PROGRAMME

### V year, IX semester

1. Specifics of history taking in childhood
2. Specifics of physical examination in children.
3. Anatomical and physiological characteristics and examination of the respiratory system.
4. Anatomical and physiological characteristics and examination of the cardiovascular system.
5. Anatomical and physiological characteristics and examination of the digestive and endocrine system.
6. Anatomical and physiological characteristics and examination of the excretory and hematopoietic system.
7. Anatomical and physiological characteristics and examination of the nervous system.
8. Neuro-development.
9. Growth and physical development. Acceleration.
10. Breastfeeding and weaning.
11. Formula feeding and mixed feeding.
12. Eating disorders.
13. Calcium and phosphorus metabolism. Rickets and rickets-like disorders.
14. **Colloquium** – Feeding of infants and toddlers, physical development and neuro-development. Calcium-phosphorus metabolism disorders.
15. Infections of the newborn - congenital.
16. Infections of the newborn - acquired

17. DD of jaundice in the newborn and infant.
18. Birth injuries of the newborn.
19. Colloquium – Neonatology.
20. Acute infections of the upper respiratory tract.
21. Acute infections of the lower respiratory tract.
22. Pneumonias – characteristics of the clinical presentation in regard to the causative agents.
23. Destructive pneumonias.
24. Cystic fibrosis.
25. Chronic pneumonias. Foreign body in the respiratory tract.
26. Tuberculosis in childhood.
27. Bronchial asthma.
28. Treatment of diseases of the respiratory system
29. Preparation for colloquium on diseases of the respiratory system.
30. Prophylaxis in childhood.

### **V year, X semester**

1. Physical examination of the cardiovascular system. Transition from fetal to adult blood circulation.
2. Congenital left-to-right shunt cardiopathies
3. Congenital cardiopathies with right-to-left shunt.
4. Congenital cardiopathies without shunt. Heart failure.
5. Myocarditis, pericarditis, arrhythmias in children.
6. DD of joint syndrome in children
7. Connective tissue disorders and vasculitides. DD of fever.
8. Urinary tract infections. Anomalies of the urinary system
9. DD of hematuria. Acute renal damage.
10. DD of edema. Nephrotic syndrome
11. DD of vomiting.
12. DD of abdominal pain and constipation.
13. DD of chronic diarrhea
14. DD of seizures. Features of neuroinfections in infants.
15. Comatose conditions in childhood
16. Cerebral palsy. Neuro-developmental delay and intellectual deficit.
17. DD of muscle hypotonia.
18. Diabetes mellitus
19. Diseases of the thyroid gland.
20. Normal puberty. Pathology of pubertal development.
21. DD of short stature.
22. DD of anemia
23. DD of bleeding disorders.
24. Leukemia.
25. Solid tumors. DD of lymphadenomegaly.
26. DD of hepatosplenomegaly.
27. Dehydration. Fluid resuscitation.
28. Emergency conditions – poisonings and other accidents
29. Children's Emergency Department
30. Well-baby clinic

**Total: 120 hrs.**

### ***LECTURE COURSE PROGRAM***

***LECTURE No1 – 3 hours: Biological features of infants and children. Major issues in pediatrics. Periods in childhood. Infant mortality.***

1. Terminological definition and importance of pediatrics.
2. Basic tasks of pediatrics.
3. A historical overview of the development of pediatrics in the world and in our country.
4. Social aspects of pediatrics and modern problems.
5. Environmental problems.
6. Definition of infant mortality, general pediatric mortality, miscarriage, stillbirth and live birth.
7. Trends in infant mortality in Bulgaria.
  - a. Factors determining infant mortality.
  - b. Analysis of the structure of infant mortality.
  - c. Causes of infant mortality by age group.
  - d. Prophylactic measures to reduce infant mortality.
8. Concept definition of growth and development.
  - a. Factors determining growth and development – endogenous and exogenous.
  - b. Indicators for assessment of physical development – growth and maturation.
  - c. Acceleration.
9. Periods of childhood and their characteristics.

***LECTURE No2 – 3 hours: Nutrition in childhood. Malnutrition. Obesity. Calcium-phosphorus metabolism. Rickets. Osteoporosis..***

1. Definition of 'rational / age-appropriate nutrition'.
2. Nutritional needs of the child and factors that determine them. Energy needs, essential nutrients.
3. Types of infant feeding – breastfeeding, mixed, formula feeding.
4. Advantages of breast milk over other milks.
5. Formula milk.
6. Feeding of children from 1 to 3 years old.
7. Nutrition-related disorders.
  - a. Hypothrophy
  - b. Specific forms of dystrophy: flour dystrophy, adipose dystrophy, kwashiorkor
  - c. Obesity.
  - d. Anorexia
8. Calcium and phosphorus metabolism

9. Definition of rickets. Etiology and pathogenesis. Predisposing factors.
10. Clinical presentation of rickets
11. Spasmophilia.
12. Prevention and treatment for rickets.
13. Vit.D resistant rickets (endogenous rickets – forms).
14. Hypervitaminosis D.
15. Diseases of the parathyroid glands
16. Osteoporosis

***LECTURE No3 – 3 hours: Neuropsychological development - morphological bases, signs, disorders. Intellectual deficit. Autism spectrum disorder. Nurturing care.***

1. Neuropsychological development - definition, morphological basis, domains, milestones
2. Types of developmental delays, screening and diagnostic tools, diseases.
3. Intellectual deficit - definition, grades, causes.
4. Autism spectrum disorder - signs, criteria, causes.
5. Nurturing care - meaning, requirements for proper care, education and upbringing

***LECTURE No4 – 3 hours: High risk newborns. Hypoxic-ischemic encephalopathy. Neonatal seizures. Birth injuries. Adaptation syndrome in newborn.***

1. Concept definition of high risk newborns.
2. Anatomical and biological features of the newborn – term and preterm newborns.
3. Premature children – anatomical and physiological characteristics, causes of prematurity, characteristic pathology of newborns.
4. Care of premature newborns.
5. Late pathology of premature children.
6. Prognosis and development of premature newborns.
7. Other high risk newborn.
8. Hypoxic-ischemic encephalopathy.
9. Neonatal seizures.
10. Adaptation after birth and its most common disorders.
11. Clinical characteristics of adaptation conditions by systems and organs.

***LECTURE No5 – 3 hours: Congenital and acquired infections of the newborn.***

1. Definition of congenital infection.
2. Mechanisms for fetal infections.
3. Classification of congenital infections.
4. Clinical presentation of the most common congenital infections: toxoplasmosis, cytomegaly, herpes simplex infections, congenital lues, congenital rubella, etc.
5. Diagnosis of congenital infections.
6. Treatment of congenital infections.
7. Prevention.



8. Predisposition to infections in the newborn - immunological features.
9. Predisposing conditions for infecting the newborn.
10. Hospital-acquired infections.
11. Sepsis in the newborn.
12. Infections of the skin, respiratory system, digestive and nervous system.
13. Prevention and treatment of infections in the newborn.

***LECTURE No 6 - 3 hours: DD of jaundice.***

1. Features of bilirubin metabolism in the newborn.
2. Classification of jaundice.
3. Clinical characteristics of the main types of jaundice and clinical characteristic and diagnosis of the most common disorders, causing jaundice

***LECTURE No7 – 3 hours: Characteristics of immunity in children. Immunodeficiency disorders.***

1. Physiology of child's immune system – structure, factors of immune defense (specific and nonspecific immunity). Development of immunity and major morphological features of the immune system in childhood
2. Immunodeficiency disorders – classification, diagnosis, clinical presentation and management.
3. Congenital (inherited) immunodeficiency disorders.
4. Acquired immunodeficiency syndrome (AIDS).
5. Secondary immunodeficiency disorders in childhood.

***LECTURE No8 – Anatomical and physiological characteristics, examinations and semiotics of the respiratory system in childhood. Acute upper respiratory tract infections: Etiology. Clinical presentation. Treatment.***

1. To acquaint students with the anatomical and functional features of the respiratory system in different age periods.
2. Etiology, pathogenesis, clinical presentation, diagnosis and treatment of rhinitis, sinusitis, ethmoiditis, otitis media, tonsillitis, laryngitis.

***LECTURE No9 – 3 hours: Pneumonias. Acute respiratory failure in childhood.***

1. Acute bronchitis, obstructive bronchitis, bronchiolitis.
2. Foreign body in the respiratory tract.
3. Etiology, pathogenesis, clinical presentation, diagnosis and treatment of pneumococcal, viral, mycoplasmal, pneumocystic pneumonia.
4. Destructive pneumonias - staphylococcal, gram-negative - clinical features, complications, treatment.
5. Definition of respiratory failure by clinical and pathophysiological features.
6. Causes of respiratory failure.

7. Clinical presentation and laboratory studies in respiratory failure. Grades of respiratory failure by clinical and blood gas indicators.
8. Management of respiratory failure in children.

***LECTURE No10 – 3 hours: Chronic pneumonias. Cystic fibrosis. Tuberculosis.***

1. Chronic pneumonia – clinical, morphological and functional criteria. Changes in functional performance and types of respiratory failure.
2. Predisposing factors for chronic pneumonias in children. Criteria and methods of establishing the most common causes.
3. Management. Importance of respiratory rehabilitation.
4. Etiology and pathogenesis of foreign bodies in the respiratory tract.
5. Prevalence and significance of cystic fibrosis – genetic defect – morphological changes in the respiratory and digestive systems – complications – early and late – clinical picture – methods of diagnosis - management – prenatal diagnosis and prevention.
6. Tuberculosis - global trends in prevalence, efficacy of BCG vaccination, epidemiology, clinical and radiology presentation of the various forms of pulmonary TBC, treatment, importance of primary and secondary resistance of current strains.

***LECTURE No11 – 3 hours: Allergic diseases in childhood. Bronchial asthma.***

1. Significance of allergic disorders in current times.
2. Genetic factors for the development of allergic diseases.
3. Recommendations for primary prophylaxis.
4. The most common allergic diseases in childhood. Importance of environmental factors and other exogenous triggers (viral infections, physical exertion, etc.) on the development and course of allergic diseases in children, mainly-respiratory allergic diseases.
5. Definition of BA – clinico-morphological. Major pathophysiological changes in BA.
6. Clinical presentation and DD with other diseases causing recurrent bronchial obstruction.
7. Treatment of bronchial asthma.

***LECTURE No12 – 3 hours: Congenital and acquired cardiopathies. Heart failure in childhood.***

1. Anatomical and physiological characteristics of the cardiovascular system.
2. Clinical significance of the characteristics in childhood.
3. Classification of congenital cardiopathies.
4. Clinical presentation of congenital heart malformations with right-to-left shunt
5. Clinical presentation of congenital cardiac malformations with left-to-right shunt.
6. Clinical presentation of congenital cardiac malformations without shunt.
7. Functional studies of the cardiovascular system in view of the diagnosis of congenital heart defects.
8. Treatment of congenital cardiopathies.
9. Etiology and pathogenesis of acute myocarditis.
10. Clinical manifestations of myocarditis. Evidence of myocardial damage.

11. DD of myocarditis.
12. Treatment.
13. Endocarditis – etiology, pathogenesis, clinical presentation.
14. Pericarditis – etiology, clinical presentation. Management in tamponade of the pericardium.
15. Cardio-vascular failure – definition.
16. Pathogenesis and etiology of acute cardiovascular failure.
17. Clinical manifestations of cardiovascular failure.
18. Urgent behavior in acute cardiovascular failure.
19. Prognosis of cardio-vascular failure.

***LECTURE No13 – 3 hours: Joint syndrome. Connective tissue diseases. Vasculitis. DD of fever.***

1. Definition of joint syndrome.
2. Examination of joints in children.
3. Differential diagnosis of joint syndrome in childhood.
4. Connective tissue diseases- classification.
5. Most common disorders:
  - a. Acute rheumatic fever – features in childhood. Treatment and prevention of rheumatic disease.
  - b. LED,
  - c. rheumatoid arthritis,
  - d. Dermatomyositis
  - e. Scleroderma
6. Types of vasculitis.
  - a. Kawasaki disease
  - b. Panarteritis nodosa
  - c. Schoenlein-Henoch purpura.
7. DD of prolonged fever.
8. Principles of treatment for autoimmune and autoinflammatory diseases.

***LECTURE No 14 – 3 hours. Pediatric diagnosis in the era of evidence-based medicine. Principles of treatment in pediatrics. Antibiotics in pediatrics.***

1. Methodology of clinical thinking - symptoms, syndromes, differentiation diagnosis, working diagnosis, investigations, management and follow-up.
2. Characteristics in pediatrics - generalization, dynamics, age-specific pathology.
3. Key skills in history taking, clinical examination, investigations and determination of therapeutic approach.
4. Treatment principles in pediatrics.
5. Antibiotics – types, indications, doses, specificities in various age groups.

***LECTURE No 15 – 3 hours. Clinical cases.***

1. Using appropriate clinical case, stages of clinical diagnosis are presented. The importance and characteristics of the history the physical examination are discussed.
2. Methodology for solving test tasks with clinical cases.

***LECTURE No16 – 3 hours: Congenital abnormalities of the urinary system. Urinary tract infections.***

1. Physiological characteristics of the urinary system in different age groups.
2. Methods of examination of the urinary system in childhood – history, functional and laboratory.
3. Congenital abnormalities of the urinary system
4. Etiology and pathogenesis of urinary tract infections.
5. Clinical features of urinary tract infections – cystitis, pyelonephritis.
6. Laboratory and microbiological diagnosis.
7. DD of urinary tract infections.
8. Principles of treatment and prognosis.
9. Night enuresis

***LECTURE No. 17 – 3 hours: Differential diagnosis of hematuria and arterial hypertension in childhood. Acute and chronic nephritis. Acute kidney injury.***

1. Definition on hematuria and DD of hematuria.
  - a. Nephritic syndrome.
  - b. Acute glomerulonephritis.
  - c. Chronic glomerulonephritis.
  - d. Nephroblastoma
  - e. Renal stones
2. Arterial hypertension - DD in childhood.
3. Acute kidney injury.
  - a. Hemolytic-uremic syndrome.

***LECTURE No18 – 3 hours: Differential diagnosis of edema in childhood. Nephrotic syndrome.***

1. Types of edema – pathogenetic mechanisms.
2. Definition of nephrotic syndrome.
3. Classification of nephrotic syndrome.
4. Pathogenesis.
5. Clinical variants of nephrotic syndrome and their differentiation.
6. Prognosis of nephrotic syndrome depending on morphological variants.
7. Principles of treatment of nephrotic syndrome.
8. DD of edema. Treatment.

***LECTURE No19 – 3 hours: Vomiting, abdominal pain and constipation in childhood.***

1. Significance of vomiting, as one of the most common symptoms in childhood – depending on the age of the child.
2. Diseases in which vomiting is a major or a leading symptom.
3. DD of vomiting depending on its characteristic.
4. Management of vomiting.
5. Significance of abdominal pain, as one of the most common symptoms in childhood – depending on the age of the child.
6. Diseases in which abdominal pain is a major or a leading symptom.
7. DD of abdominal pain, depending on its characteristic.
8. Management of abdominal pain
9. Childhood constipation - DD

***LECTURE No20- 3 hours: Chronic diarrhea.***

1. Definition of chronic diarrhea.
2. Maldigestion syndromes and malabsorption.
3. Chronic diarrhea - DD
4. Management of chronic diarrhea
5. Chronic colitis

***LECTURE No21 – 3 hours: DD of seizures in childhood. Epilepsy.***

1. Definition of paroxysm, epileptic and non-epileptic attack and seizure.
2. Classification of epileptic and non-epileptic seizures.
3. Neonatal convulsions - types, diagnostic tests and management.
4. Diagnosis and DD of the most common epileptic seizures in childhood.
5. Differential diagnosis with common nonepileptic seizures.
6. Epilepsy – definition, classification
7. Common epileptic syndromes
8. Management of seizures and status epilepticus.
9. Epilepsy treatment.

***LECTURE No22 – Motor disorders in childhood – cerebral palsy, acute and chronic flaccid palsy.***

1. Anatomy and physiology of motor control.
2. Differentiation of central from peripheral paresis.
3. Cerebral palsy - types, etiology, manifestations.
4. Spinal muscular atrophy.
5. Duchenne's disease.
6. Myasthenic syndromes
7. Guillain-Barre syndrome.

***LECTURE No23 – 3 hours: Encephalitis and encephalopathies in childhood. Hydrocephalus.***

1. Encephalopathy - definition, types. Acute encephalitis syndrome.
2. Herpesvirus encephalitis
3. Other encephalitis
4. Acute encephalopathies associated with viral infections.
5. Congenital metabolic diseases.
6. Diseases of accumulation
7. Leukodystrophy
8. Other genetic encephalopathies
9. Hydrocephalus and DD macrocrania

***LECTURE No24 – 3 hours: Diabetes. Other most common endocrinopathies..***

1. Classification of diabetes by WHO.
2. Etiology of childhood diabetes. The importance of genetic factors.
3. Pathogenesis of diabetes.
4. Clinical features of diabetes at different ages.
5. Diagnostic criteria.
6. Complications of diabetes mellitus.
7. Diabetic coma
8. Hypoglycemic coma - DD.
9. Treatment of diabetes mellitus
10. Treatment of diabetic ketoacidosis.
11. Metabolic syndrome and type 2 diabetes mellitus
12. Most common disorders of the thyroid gland.
  - a. Hypothyroidism. Hyperthyroidism. Clinical manifestations. Congenital hypothyroidism.
  - b. Thyroiditis and enlargement of the thyroid gland.
13. Acute adrenal insufficiency – etiology, clinical presentation, treatment.
14. Congenital adrenal hyperplasia – causes, clinical presentation, diagnosis, treatment.

***LECTURE No25 – 3 hours: Puberty. Short stature.***

1. Physiology of puberty.
2. Normal puberty. Gender characteristics.
3. Early and premature puberty – etiology, clinical presentation, management.
4. Late puberty – etiology, clinical presentation, management.
5. Disorders of sexual differentiation- short overview.
6. Growth factors – genetic, hormonal, alimentary, environmental, social, etc.
7. Short stature – classification
8. Short stature - DD.

***LECTURE No 26 - 3 hours: Anatomical and physiological characteristics of the hematopoiesis in children. Anemia.***

1. Age-related anatomical and physiological characteristics.
2. Classification of anemias.
3. Deficiency anemias – etiology, clinical presentation, diagnosis and treatment
4. Hypo- and aplastic anemias – etiology, clinical presentation, diagnosis and treatment
5. Hemolytic anemias, acute and chronic – etiology, clinical presentation, diagnosis and treatment.

***LECTURE No27 – 3 hours: Bleeding disorders.***

1. Definition of bleeding disorders.
2. Components of normal hemostasis and their abnormalities. Classification of bleeding disorders.
3. Differential diagnosis of the main types of hemorrhagic diseases.
4. Management of a child with hemorrhagic diathesis.

***LECTURE No28 – 3 hours: Malignancies. Malignant hemopathies. Solid tumors.***

1. Prevalence and significance of malignancies in childhood. Age characteristics.
2. Leukemias - classification, clinical manifestations, diagnostic tests, principles of treatment, current-day prognosis.
3. The most common solid tumors in childhood – Hodgkin and Non-Hodgkin lymphoma, neuroblastoma, nephroblastoma, osteosarcoma, Ewing's sarcoma, rhabdomyosarcoma, brain tumors.
4. Modern methods of treatment of malignant diseases in childhood.

***LECTURE No29 – 3 hours: Dehydration. Fluid resuscitation. Principles of drug therapy in childhood.***

1. Water and salt homeostasis in childhood.
2. Types of dehydration- pathophysiology, etiology and clinical manifestations.
3. Rehydration methods. An algorithm for conducting them.
4. Principles of drug therapy in childhood.

***LECTURE No30 – 3 hours: Emergencies in childhood. Accidents and poisonings***

1. Poisoning: general characteristics, incidence, age aspects, principles of diagnosis and treatment.
2. The most common poisoning in childhood- clinical manifestations, antidotes.
3. Causes, clinical presentation and management of the most common non-surgical emergency conditions in pediatrics – shock, drowning, heat and sun stroke, electrocution.

***PROGRAMME OF PRACTICALS***

***PRACTICAL No1 – 2 hours: Characteristics of history taking in childhood.***

Taking history– from the mother or close relatives and from the persons caring for the child.

Pregnancy. Birth. Course of the postpartum period. Eating. Development. Past diseases. Prophylaxis. Vaccinations and immunizations. Epidemiological history: in the family, nursery, school, neighborhood, village. Family history. Socio-economic conditions. Current disease.

***PRACTICAL No2 – 2 hours: General status. Characteristics of physical examination.***

Overview of: general condition of the child, skin, lymph nodes, head, neck, chest, spine, limbs and joints. Physical examination of: respiratory, cardiovascular, digestive, excretory and nervous systems.

***PRACTICAL No3 – 2 hours: Anatomical and physiological characteristics and examination of the respiratory system.***

Morphological and physiological characteristics of the lungs in a newborn. Physical examination of the respiratory system. Laboratory and imaging studies.

***PRACTICAL No4 – 2 hours: Anatomy and physiology and examination of the cardiovascular system.***

Independent taking of history, physical examination of the CVS in children and discussion of the specific patients. Discussion of ECG, echocardiography, blood gas, X-ray and other studies of CVS. Summary of the most important diagnostic criteria in CVS according to age.

***PRACTICAL No5 – 2 hours: Anatomy and physiology and examination of the digestive and endocrine system.***

Objective examination: abdomen – inspection, palpation, percussion, auscultation; liver and spleen; oral cavity. Examination of the feces of a breast fed and formula fed infant.

*Endocrine system* - Role of the thyroid gland, parathyroid glands, pituitary, adrenal gland, sex glands according to age.

***PRACTICAL No6 – Anatomy and physiology and examination of the excretory and hematopoietic system.***

Clinical study of the urinary system. Laboratory and functional kidney tests, discussing urinary changes in various kidney diseases. Instrumental tests.

Hematopoietic system. Age characteristics of blood count and differential blood count - explanation, clinical significance, reference ranges.

***PRACTICAL No7 – 2 hours: Anatomy, physiology and examination of the nervous system.***

Anatomical and physiological characteristics of the nervous system: morphological independence; functional immaturity.

Characteristics of neurological status in the first months after birth and up to about 2 years of age. Features of the cerebro-spinal fluid in the first weeks after birth.

Major syndromes and disorders of neurological status - quantitative and qualitative changes in consciousness, Glasgow coma scale, syndrome of increased intracranial pressure, meningo-radicular irritation, pyramid, extrapyramidal and flaccid palsy syndrome; paleo- and neocerebellar syndrome; disorders of cranial nerves; sensory and pelvic incontinence disorders; higher cortical functions.

***PRACTICAL No8 – 2 hours: Neurodevelopment.***



Definition of neuro-development. Main aspects of neuro-development. Age-dependent neurodevelopmental indicators. Factors that determine normal neuro-development. Scales for evaluation of neuro-development up to 1, 3 and 6 years of age. Neurodevelopmental history and assessment.

***PRACTICAL No9 – 2 hours: Physical development. Acceleration.***

Getting to know PRACTICALLY how to determine the individual indicators of development. Self-determination of growth in patients and calculation of deviation from the norm. Discuss the time frames and significance of tracking the physical development of each child.

***PRACTICAL No10 – 2 hours: Breastfeeding and weaning.***

Independent history taking in breast-fed and weaned infants. Determine if there are errors in nutrition. Determination if the infant is getting enough breast milk. Determination of the amount of breast milk and the intervals of feeding in a specific case. History taking in a weaned infant and determining whether the weaning is adequate. Compiling sample feeding schemes for infants of different ages.

***PRACTICAL No11 – 2 hours: Formula and mixed feeding.***

Definition of the concepts of mixed and formula feeding. Indications for mixed and formula feeding. Difference between cow's and breast milk. Quantitative and qualitative needs of the infant. Weaning: definition, causes, technique, time frame. Formula milks. Compilation of diets in formula fed infants of different ages (number of feeds, type of food, quantity, intervals).

***PRACTICAL No12 – 2 hours: Eating disorders.***

Causes of hypotrophy: nutritional, infectious, constitutional, poor care. Degrees of hypotrophy, clinical picture. Kwaschiorker. Milky and flour dystrophy. Principles of treatment in hypotrophic children. Prevention of dystrophy. Anorexia: pathogenetic explanation, clinical manifestations. Obesity - etiology at different ages, manifestations, risks, management.

***PRACTICAL No13 – 2 hours: Calcium-phosphorus metabolism. Rickets and rickets-like diseases.***

Physiology and pathology of calcium-phosphorus metabolism. Diseases of the parathyroid glands or the effects of parathormone. Vitamin D-deficient rickets. Treatment and prevention, complex treatment, therapeutic doses of vit.D depending on the severity of the disease. Clinical presentation and treatment of spasmophilia. Ricket's-like diseases – pathogenesis, clinical presentation, treatment.

***PRACTICAL No14 – 2 hours: Colloquium – nutrition, growth and neuro-development. Calcium-phosphorus metabolism disorders.***

***PRACTICAL No15 – 2 hours: Infections in the newborn – congenital.***

Demonstrations of various cases of infants with congenital infections and building a DD plan according to clinical manifestations, presumed etiology and gestational age in infection.

***PRACTICAL No16 – 2 hours: Infections in the newborn – acquired.***

Demonstration of cases with early and late sepsis of the newborn, meningoenephalitis, skin infections, conjunctivitis, rhinitis, pneumonia, necrotizing enterocolitis, etc.

***PRACTICAL No17 – 2 hours: DD of the jaundice in the newborn and infant.***

Demonstrating children with different types of jaundice and discussing DD - type of jaundice, etiology, laboratory confirmation. Independent history taking and examination of jaundiced infants. Establishing an algorithm for management in an infant with jaundice.

***PRACTICAL No18 – 2 hours: Birth traumas.***

Demonstration of the most common birth injuries in the newborn, their clinical and imaging diagnosis, predisposing factors, treatment and prognosis - brachial nerve palsy, fracture of the clavicle, hematoma of m. sternocleidomastoideus, cephalhematoma, etc. The PRACTICAL can be partly conducted in the newborn sector at the Department of Obstetrics.

***PRACTICAL No19 – 2 hours: Colloquium: Infections, jaundice and birth injuries in the newborn.***

***PRACTICAL No20 – 2 hours: Acute upper respiratory tract infections.***

Demonstration of patients with the most common infections of upper respiratory tract – rhinitis, sinusitis, otitis media, pharyngitis, tonsillitis, laryngitis. Highlighting the specific symptoms. By an appropriate choice of patients to understand and learn the clinical picture, paraclinical characteristics and treatment of this very common childhood pathology.

***PRACTICAL No21 – 2 hours: Acute infections of the lower respiratory tract.***

Demonstration of cases with infection of lower respiratory tract – tracheitis, bronchitis, obstructive bronchitis, bronchiolitis. Differentiation of disease based on clinical manifestations.

***PRACTICAL No22 – 2 hours: Acute pneumonias.***

Demonstration of patients of different age groups with different etiology, localization and course acute pneumonias - pneumococcal lobular, lobar, mycoplasma, pneumocystic-comparison of the clinical picture and X-ray image, choice of treatment and determination of the prognosis of the disease.

***PRACTICAL No23 – 2 hours: Destructive pneumonias.***

Staphylococcal pneumonia – entry point, features, complications, laboratory tests, course and prognosis. Principles of treatment. Prevention. Gram-negative bacterial causative agents.

***PRACTICAL No.24 - 2 hours: Cystic fibrosis.***

Demonstration of patients with cystic fibrosis - with focus on pneumopathy, pancreatic and liver dysfunction, other manifestations, physical development. Maintenance treatment and treatment of exacerbations.

***PRACTICAL No25 – 2 hours: Chronic pneumonias. Foreign body in the respiratory tract.***

Age features of chronic pneumonies. Foreign body in the respiratory tract – predisposing factors – data from history– clinical picture and evolution over time – diagnosis of a foreign body in the airways. Treatment – principles. Prevention of chronic pneumonies.

***PRACTICAL No26 – 2 hours: Features of tuberculosis in childhood. Tuberculosis diagnostics.***

Demonstration of cases of tuberculosis in childhood. Diagnostic methods. Training in performing and interpreting tuberculin diagnostics.

***PRACTICAL No27 – 2 hours: Bronchial asthma.***

Demonstration of cases with bronchial obstruction. Differential diagnosis. Diagnostic criteria for bronchial asthma. Features of bronchial asthma in infants. Treatment of asthma attack and status asthmaticus. Prevention.

***PRACTICAL No28 – 2 hours: Treatment of diseases of the respiratory system.***

Antibiotic treatment. Bronchodilators. Cough medications. Nasal decongestants. Antipyretics. Indications for hospitalization.

***PRACTICAL No29 – 2 hours: Preparation for colloquium on diseases of the respiratory system.***

***PRACTICAL No30 – 2 hours: Prophylaxis in childhood. Measures for improving general health and resistance to infections.. Education.***

A demonstration of counseling parents for proper raising of the infant. Methods for improving general health and resistance to infections. Principles of education.

***PRACTICAL No31 – 2 hours: Physical examination of the cardiovascular system. Transition from fetal to adult blood circulation.***

Examination of the cardiovascular system of a newborn, infant and an older child. Manifestations of persistent fetal circulation in a newborn. Role of echocardiography. Medications for maintaining or closing the arterial canal. Features of ECG in childhood.

***PRACTICAL No32 – 2 hours: Congenital cardiopathies – left-to-right shunt.***

Demonstration of cases with defect of the atrial septum, with defect of the ventricular septum, with a persistent arterial canal, with pronounced heart failure with a discussion of therapeutic management. Echocardiographic criteria for overload and heart failure, case demonstration. Discussion of natural evolution, current management and prognosis.

***PRACTICAL No33 – 2 hours: Congenital cardiopathies with right-to-left shunt***

Demonstration of cases with tetralogy of Fallot, transposition of the great arteries or other CHD with right-to-left shunt. Differential diagnosis in the presence of cyanosis. Radiology image of pulmonary hypovolemia. Discussion of natural evolution, current management and prognosis.

***PRACTICAL No34 – 2 hours: Congenital cardiopathies without shunt. Heart failure.***

Demonstration of a case with pulmonary valve stenosis, with coarctation of the aorta, with aortic stenosis. Clinical manifestations of heart failure. ECG changes in ventricular systolic overload. Echocardiographic images - demonstration, criteria for overload. Treatment of heart failure.

***PRACTICAL No35 – 2 hours: Myocarditis, pericarditis, endocarditis, arrhythmia in pediatrics.***

Demonstration of cases with myocarditis or cardiomyopathy – clinical presentation, ECG, X-ray and Echocardiography manifestations. Clinical and ECG data on rhythm and conduction disorders. Demonstration of pericarditis and endocarditis cases. DD of syncope. Management.

***PRACTICAL No.36 - 2 hours: DD of joint syndrome.***

Demonstration of cases with joint syndrome and their discussion – rheumatoid arthritis, reactive arthritis, septic arthritis, acute rheumatic fever. Involvement of other organs and systems in children with joint syndrome. DD of joint syndrome. Principles of treatment in the most common joint diseases.

***PRACTICAL No.37 - 2 hours: Connective tissue disorders and vasculitides. DD of fever.***

Demonstration of cases of various collagenoses : systemic-onset juvenile idiopathic arthritis, LED, panarteritis nodosa , Kawasaki's disease. Fever of unknown origin at different ages.

***PRACTICAL No38 – 2 hours: Urinary tract infections. Anomalies of the urinary system.***

Presentation of an infant with urinary tract infection. Presentation of a child with secondary pyelonephritis. Presentation of a child with chronic pyelonephritis. Presentation of an older girl with cystitis. Clinical interpretation of pathological leukocyturia and significant bacteriuria. Indications for echographic and radiological examination. Differential diagnosis of urinary tract infections. Presentation of cases and imaging studies in congenital abnormalities of the urinary system. Treatment of urinary tract infections.

***PRACTICAL No.39 - 2 hours: DD of hematuria. Nephritis.***

Plan for the study of a patient with hematuria. Diagnostic discussion of acute and chronic glomerulonephritis. Treatment of acute poststreptococcal glomerulonephritis and chronic glomerulonephritis. Acute renal damage - manifestations, causes, management. Presentation of a patient with acute glomerulonephritis, with nephrolithiasis, with congenital uropathy, with neoplastoma, rhabdomyosarcoma, hemolytic-uremic syndrome.

***PRACTICAL No.40 - 2 hours: DD of edema. Nephrotic syndrome.***

Demonstration of an infant with edema. Demonstration of a child with glomerulonephritis, with nephrotic syndrome, with heart disease, with allergic edema, with localized edema, with inflammatory edema, with edema due to liver dysfunction and hypoalbuminemia. DD plan and treatment.

***PRACTICAL No41 – 2 hours: DD of vomiting in childhood.***

Demonstration of children of different ages with vomiting with discussion of the major points for building a differential diagnosis - from the history, objective examination, laboratory and imaging studies. Management of vomiting.

***PRACTICAL No42– 2 hours: DD of abdominal pain and constipation in childhood.***

Demonstration of patients with acute or chronic abdominal pain of different age groups. Discussion, general principles of management. Algorithm for management of a child with abdominal pain. Demonstration of cases with constipation - Hirschsprung disease, ileus, encephalopathies, functional constipation. Encopresis.

***PRACTICAL No43 – 2 hours: DD of chronic diarrhea.***

Demonstration of a case or examination of notes of a patient with coeliac disease or coeliac-like syndrome, cystic fibrosis, lactase deficiency and other chronic diarrhea. DD approach in malabsorption. Specific treatment for certain diseases. Cases with chronic colitis - HUC, Crohn's.

***PRACTICAL No44 – 2 hours: DD of seizures. Features of neuroinfections in infants.***

Demonstration of a case with seizure – history , physical examination, tests, management. Frequent epileptic syndromes and non-epileptic seizures in different age groups. Clinical manifestations of neuroinfections in newborns and infants. Management of seizures, incl. Febrile and status epilepticus.

***PRACTICAL No45 – 2 hours: Comatose conditions.***

Examination of a patient in a comatose state. Determination of the severity of the coma. Focal symptoms Control of vital functions in coma. DD of coma.

***PRACTICAL No46 – 2 hours:Cerebral palsy. Neurodevelopmental delay and intellectual deficit. Micro- and macrocephaly - DD.***

Demonstration of cases with cerebral palsy - quadriparetic, diplegic, hemiparetic, choreoatetotic, hypotonic form. Presence of concomitant pathology - disorders in neurodevelopment or intellect, epilepsy, microcephaly, visual and auditory deficiency, behavioral disorders. Imaging and electrophysiological studies. Treatment and prognosis. Microcephaly and craniostenosis. Hydrocephalus and DD with idiopathic macrocrania.

***PRACTICAL No47 – 2 hours: DD of muscle hypotonias.***

Demonstration of cases with muscular hypotonias and weakness - Guillain-Barre syndrome, spinal muscular atrophy, progressive muscular dystrophy, congenital myasthenia, muscle hypotonia without weakness.

***PRACTICAL No48 – 2 hours: Diabetes mellitus.***

Examination of cases with type I diabetes mellitus. Main laboratory tests in the diagnosis of diabetes. Treatment and control. Diagnosis and treatment of diabetic ketoacidosis. Case with metabolic syndrome and type 2 diabetes mellitus.

***PRACTICAL No49 – 2 hours: Diseases of the thyroid gland.***

Demonstration of cases with Hashimoto's disease, thyrotoxicosis, congenital hypothyroidism. Hormonal, ultrasound and scintigraphy diagnosis. Treatment of hypothyroidism and thyrotoxicosis.

***PRACTICAL No50 – 2 hours: Puberty. Pathology of pubertal development.***

Demonstration of cases of both sexes with normal puberty development. Evaluation of Tanner puberty development. Classification and DD of early puberty. Late puberty – criteria, causes, diagnosis, treatment. Demonstration by patients' notes of abnormal pubertal development.

***PRACTICAL No51 – 2 hours: DD of Short stature***

Demonstration of cases with low stature - constitutional delay in growth and puberty, hyposomatotropism, hypothyroidism, syndromes with proportionate and disproportionate delay in height and physical development. Methods of diagnosis and control of treatment.

***PRACTICAL 52 - 2 hours: DD of anemia.***

Demonstration of cases with iron deficiency, acute and chronic hemolytic, hypoplastic and post-bleeding anemia. DD of anemic syndrome. Principles of treatment for specific anemic syndromes.

***PRACTICAL No.53 - 2 hours: DD of bleeding disorders***

Main paraclinical indicators of hemostasis. Clinical manifestation of bleeding disorders - DD plan. Diseases of platelets– thrombocytopenias, thrombocytopathies. Congenital coagulopathies. DIC syndrome. Vasopathies – Schonline-Henoch – Schonlein purpura.

***PRACTICAL No.54 - 2 hours: Leukemia.***

Demonstration of cases – features of the history , initial clinical manifestations, the path to diagnosis. Classification. Principles of treatment. Risks of cytostatic therapy.

***PRACTICAL No55 – 2 hours: Solid tumors. DD of enlarged lymph nodes in childhood.***

Demonstration of cases with a solid tumor - Hodgkin and non-Hodgkin lymphoma, neuroblastoma, nephroblastoma, osteosarcoma, Ewing's sarcoma, rhabdomyosarcoma, brain tumors. Demonstration of cases with local or generalized enlarged lymph nodes of inflammatory and non-inflammatory nature.

***PRACTICAL No.56 - 2 hours: DD on hepatosplenomegaly.***

Diagnosis of hepatomegaly and splenomegaly. Causes of hepatosplenomegaly. DD approach - case demonstration.

***PRACTICAL No57 – 2 hours: Dehydration. Principles of fluid rehydration.***

Clinical demonstration of a child with dehydration – discussion of the clinical and paraclinical characteristics of different types of dehydration. Principle of rehydration. Types of rehydration fluids and the content of the electrolytes in them. Determination of the rate of infusion of different fluids. A PRACTICAL example of the calculation of electrolytes, fluids, the rate of infusion in a child with grade II dehydration.

***PRACTICAL No58 – 2 hours: Poisoning and other accidents.***

A demonstration of a patient with acute poisoning. General management in poisoning. Demonstration of gastric lavage, administration of activated charcoal, laxatives, antidotes. Psycho-social aspects of suicide attempts.

***PRACTICAL No59 – 2 hours: Children's emergency department***

Getting to know the functions of a children's emergency department. Triage of sick children.

***PRACTICAL No60 – 2 hours: Prophylaxis in childhood. “Well-child “clinic***

Tasks of the children's prophylaxis and well-child clinics. Promotion of physical and mental health in children. Risk groups of children. Primary and secondary prophylaxis.

## **SOURCES OF SELF-PREPARATION**

1. Lectures and practicals for medical students in MS Office 365/Share point.
2. Illustrated textbook of Paediatrics. T. Lisauer, W. Carroll, A. Craft, 2018.
3. Textbook of Pediatrics for Medical Students. I. Litvinenko (ed.).  
Arbilis, Sofia, 2020.

## **CONSPECTUS**

### **for end of course exam for 5th -year medical students**

1. Growth and development of children. Periods in childhood. Factors determining growth and development.
2. Normal neuro-development: main stages of neuro-development – gross motor skills, vision and fine motor skills, hearing, speech, social, emotional and behavioral development. Developmental delay. Intellectual deficit. Autism spectrum disorder.
3. Infant mortality
4. Nutrition
5. Diseases related to nutrition – faltering growth, malnutrition
6. Diseases associated with nutrition - obesity.
7. Calcium-phosphorus metabolism disorders..
8. Jaundice in the newborn.

9. Congenital infections in the newborn and infants.
10. Acquired infections of the newborn.
11. Birth injuries.
12. Hypoxic-ischemic encephalopathy. Convulsions of the newborn.
13. Hemorrhagic disease of the newborn. Prevention with vit. K
14. Allergic diseases.
15. Infections of the upper respiratory tract. DD of stridor.
16. Lower respiratory tract infections. Bronchiolitis.
17. Acute pneumonias.
18. Chronic pneumonias. Cystic fibrosis.
19. Tuberculosis.
20. Bronchial asthma
21. Respiratory failure
22. DD of vomiting
23. DD of acute and chronic abdominal pain
24. DD of chronic diarrhea
25. DD of constipation
26. Anatomy and physiology of the CVS. Circulatory changes after birth.
27. Congenital heart defects with left-to-right shunt
28. Congenital heart defects with right-to-left shunt
29. CHD with obstruction in the outlet of the ventricles
30. Arrhythmias and conduction disorders in childhood
31. Acquired diseases of the heart: infectious endocarditis, myocarditis, pericarditis, cardiomyopathies.
32. Arthritis - juvenile idiopathic arthritis, acute rheumatic fever, reactive, septic.
33. Connective tissue disorders and vasculitides - SLE, dermatomyositis, scleroderma, Schonlein-Henoch purpura, polyarteritis nodosa, Kawasaki disease
34. Urinary tract infections, Vesico-ureteric reflux.
35. Nephrotic syndrome. DD of edema.
36. Acute and chronic glomerulonephritis.
37. DD of hematuria
38. Acute renal damage. Hemolytic-uremic syndrome.
39. DD of arterial hypertension.
40. Anemias due to insufficient production of erythrocytes /Fanconi anemia/ and ineffective erythropoiesis /iron deficiency anemia, anemia in folate deficiency/.
41. Anemias due to increased destruction of erythrocytes – hemolytic anemias /hereditary spherocytosis, glucose 6- phosphate dehydrogenase deficiency, thalassemia/
42. DD of bleeding disorders. Coagulopathies. Haemophilia and von Willebrand disease. Other coagulopathies.
43. DD of bleeding disorders. Thrombocytopenia – immune, other platelet pathologies.
44. Leukemias
45. Lymphomas - Hodgkin's disease, non-hodgkin lymphomas
46. Solid malignant tumors - Wilms tumor, neuroblastoma
47. Diabetes mellitus
48. Diseases of the thyroid gland – hypothyroidism and hyperthyroidism.
49. Diseases of the adrenal gland - congenital adrenal hyperplasia, Cushing syndrome, Addison disease
50. Physiology of puberty.
51. Short stature
52. Premature sexual development. Late puberty.

53. Paroxysmal conditions in childhood - epileptic and nonepileptic seizures. Febrile seizures. Common epileptic syndromes.
54. Diseases of the central motor neuron. Cerebral palsy
55. Diseases of the peripheral motor neuron: spinal muscular atrophy, polyradiculoneuritis of Guillain – Barre, Duchenne muscular dystrophy .
56. Acute encephalitis and encephalopathies.
57. Hydrocephalus. Inborn errors of metabolism. Leukodystrophies. Other encephalopathies.
58. Accidents.
59. Poisonings
60. Immunodeficiency disorders.

**CONSPECTUS**  
**for state exam in pediatrics for medical students**

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