**Topic:** Introduction to the structure, organization and principles of the children's hospital. Features of anamnesis collection in pediatrics. Features of caring for a child of the first year of life. Concepts of ethics and deontology in pediatrics. The main requirements for the diagnosis of diseases in children. The basic requirements for bathing, skin and mucous care in young children. Curation of patients for writing a medical history.

The purpose of the lesson: To learn knowledge of the structure of the children's hospital, the specifics of its main departments, the organization of admission of sick children and their transportation to departments, the collection of anamnesis and methods of examination of children depending on age.

# List of knowledge and practical skills:

#### The student should know:

- 1. The device of children's medical institutions and their departments;
- 2. Features of admission of a sick child to a children's hospital;
- 3. Features of anamnesis collection in young children.
- 4. Basic requirements for diagnosis in children
- 5. Anatomical and physiological features of the skin structure in children. Features of skin care.

#### The student must be able to:

- 1. Collect anamnesis from the supervised patient;
- 2. Conduct a physical examination of the child in all organs and systems, evaluate the data obtained;

### The student must own:

- 1. Methods of general clinical examination of children.
- 2. Have an understanding of ethics and deontology in pediatrics.

- 1. The structure of the children's hospital.
- 2. The main tasks of the admission department.
- 3. Features of anamnesis collection in children of different ages.
- 4. Periods of childhood.
- 5. Anatomical and functional features of childhood.
- 6. Methods of physical examination of the child by organs and systems.
- 7. Basic requirements for diagnosis in children
- 8. Anatomical and physiological features of the skin structure in children. Features of skin care. Lesson support: a chart of the medical history (published in the EIOS).

**Topic:** Patterns of weight gain and growth. Anthropometry and its features in children of different ages. Methods of evaluating anthropometric data, the concept of parametric and nonparametric assessment methods. Assessment of physical development using percentile tables

**The purpose of the lesson:** To learn how to evaluate the physical development of children and adolescents.

### List of knowledge and practical skills:

### The student must be able to:

- 1. Conduct a complete anthropometric examination of the child and obtain objective indicators of physical development in accordance with the criteria of physical development and taking into account age characteristics;
- 2. Compare the data obtained from a particular patient with the age indicators of healthy children according to reference books and tables, if deviations in physical development are detected, search for the cause by a detailed study of the anamnesis and in-depth examination of the child;
- 3. Give a conclusion about the physical development of the child.

#### The student must own:

- 1. Methods of general clinical examination of children.
- 2. The technique of anthropometry.
- 3. Interpretation of the obtained physical development data

- 1. The concept of "physical development of a child"
- 2. Patterns of weight gain and growth in different age periods
- 3. The basic laws of growth.
- 4. Factors affecting physical development.
- 5. Anthropometry, the technique of anthropometry.
- 6. Methods for assessing physical development. Centile tables.
- 7. Semiotics of physical development disorders.
- 8. The concept of hypotrophy, hypostasis, paratrophy.

**Topic:** Child feeding: natural, mixed, artificial. Types and timing of the introduction of complementary foods. The daily requirement for basic nutritional ingredients and calories. Features of feeding children with dental diseases. Artificial feeding and defects in its implementation as a cause of pathology of the dental system.

The purpose of the lesson: To learn how to make a proper diet for children of the first year of life who are on various types of feeding (natural, mixed and artificial) and children over one year old. To learn measures to combat hypogalactia of nursing mothers.

### List of knowledge and practical skills:

#### The student should know:

- 1. The definition of the main types of feeding of children in the first year of life.
- 2. Types, timing and technique of introduction of complementary foods.
- 3. Features of feeding children with dental diseases.
- 4. Defects in artificial feeding as a cause of pathology of the dental and maxillofacial system.
- 5. Indications for conversion to artificial feeding and the technique of this type of feeding (types of mixtures, features of food correction).
- 6. Methods for determining the daily amount of milk and mixtures.
- 7. The rules of control feeding and the principles of prescribing supplementary feeding.
- 8. The main types of artificial feeding products, the concept of adapted, unadapted, therapeutic mixtures.
- 9. The need for basic ingredients and calories for different types of feeding.
- 10. The principles of assigning a rational daily menu for a child of the first year of life with various types of feeding.
- 11. Fundamentals of prevention of the formation of pathology of the dental system in young children.

#### The student must be able to:

- 1. Competently collect anamnesis and evaluate the nature of feeding a child in the first year of life
- 2. Make a rational menu for the day for a child of the first year of life, depending on the type of feeding, with the calculation of the daily amount of milk and mixtures, the appointment of complementary foods, supplementary feeding, and control feeding.
- 3. Identify hypogalactia in a nursing mother and competently draw up a plan of therapeutic and preventive measures.
- 4. Make a rational menu for a child over one year old (especially under 3 years old).

#### The student must own:

- 1. The methodology of drawing up a rational menu for children of the first year of life.
- 2. The methodology of making a rational menu for children over one year old.

- 1. The concept of breastfeeding, mixed and artificial feeding of children of the first year of life.
- 2. The benefits of breastfeeding (natural). The composition of breast milk.
- 3. Contraindications to natural feeding.
- 4. Calculation of breast milk volumes, frequency of feedings, the concept of a free feeding regime.
- 5. Signs of hypogalactia, ways to identify it. Technique of control feeding. Causes of hypogalactia, agalactia, ways to stimulate lactation.

- 6. Characteristics of complementary foods, timing and technique of administration.
- 7. The composition of cow's milk.
- 8. Characteristics of artificial milk mixtures. Classification.
- 9. Additional feeding. Calculation of the amount of supplementary feeding, selection of the type of supplementary feeding, the technique of its implementation. The reasons for its appointment.
- 10. Artificial feeding. Volume calculation, selection of dairy product, artificial feeding technique. The main mistakes in this type of feeding.
- 11. Calculation of the main food ingredients for all types of feeding.
- 12. Introduction of complementary foods with mixed and artificial feeding.
- 13. Principles of nutrition for children over one year old.
- 14. Features of feeding children with dental diseases.
- 15. Principles of prevention of pathology of the dental and maxillofacial system in children through the organization of rational feeding.

**Topic:** Anatomical and physiological features of the musculoskeletal system in childhood. Rickets. Etiology, pathogenesis, clinic, diagnosis, treatment. Prevention is antenatal, postnatal, nonspecific and specific. Anatomical and physiological features of the hematopoiesis system in childhood. Deficiency anemia. Etiology, clinic, laboratory diagnostics. Principles of treatment and prevention of anemia in children.

The purpose of the lesson: To learn how to diagnose, differential diagnosis, treatment and prevention of rickets. Learn how to detect and treat D-vitamin intoxication of rickets. To learn how to diagnose and treat iron deficiency anemia in young children, plan preoperative preparation for dental interventions in children with anemia, and competently breastfeed children with anemia.

# List of knowledge and practical skills:

### The student should know:

- 1. Features of physical and psychomotor development of young children.
- 2. Features of vitamin D metabolism and regulation of phosphorus-calcium metabolism in the body: etiology, pathogenesis, classification of rickets, basic clinical, biochemical and radiological criteria for the diagnosis of rickets, preventive and curative doses of vitamin D, vitamin D preparations, methods of nonspecific prevention of rickets.
- 3. Diagnosis and treatment of D-vitamin intoxication.
- 4. The role of prevention and treatment of rickets in the physiological maturation of the dental system.
- 5. Etiology, predisposing factors, diagnosis of iron deficiency anemia in young children; the main indicators of peripheral blood and biochemical parameters of blood in deficiency anemia.
- 6. To know the basics of differential diagnosis and pathogenetic treatment of deficiency anemia.
- 7. To know the basics of dispensary supervision and preventive measures for deficiency anemia.

#### The student must be able to:

- 1. To master the technique of collecting anamnesis with clarification of pre- and postnatal risk factors for rickets and iron deficiency anemia.
- 2. To conduct an objective examination of young children with an assessment of physical, psychomotor development, skin condition, subcutaneous fat, musculoskeletal and lymphatic systems, with the identification of symptoms of rickets and deficiency anemia.
- 3. To evaluate general and biochemical blood tests, urine tests for the diagnosis of rickets and anemia; to evaluate the radiological criteria of rickets.
- 4. Formulate a clinical diagnosis of rickets according to the classification.
- 5. Prescribe non-specific and specific prevention of rickets.
- 6. Identify the symptoms of D-vitamin intoxication, prescribe treatment.
- 7. Be able to diagnose, carry out differential diagnosis, make a treatment plan for deficiency anemia, a plan of preventive measures.

- 1. Methods of examination of sick children with rickets and anemia.
- 2. Interpretation of anamnesis data and objective examination of patients with this pathology.
- 3. Interpretation of the results of laboratory and instrumental diagnostic methods for patients with rickets and anemia.
- 4. The method of reading radiographs of patients with rickets.
- 5. An algorithm for making a detailed clinical diagnosis of a patient with rickets and anemia.
- 6. The algorithm for performing therapeutic and preventive measures according to these

## nosological forms.

- 1. Vitamin D metabolism in the body.
- 2. Etiopathogenesis of rickets.
- 3. Classification of rickets.
- 4. Clinical characteristics of rickets, depending on the period, severity, and nature of the course of the disease.
- 5. Diagnosis and treatment of rickets.
- 6. Modern nonspecific and specific ante- and postnatal prevention of rickets.
- 7. The role of prevention and treatment of rickets in the physiological maturation of the dental system.
- 8. Etiology and pathogenesis of deficiency anemia.
- 9. Classification of deficiency anemia.
- 10. Clinical and hematological criteria for the diagnosis of iron deficiency anemia.
- 11. Principles of treatment of iron deficiency conditions. Criteria for the effectiveness of treatment.
- 12. Nutrition of young children with deficiency anemia.
- 13. Prevention of iron deficiency anemia.

**Topic:** Anatomical and physiological features of the respiratory organs in childhood. Respiratory diseases in children. Acute diseases of the upper and lower respiratory tract. Violation of nasal breathing, connection with the formation of pathology of the dental system. Clinical, laboratory and radiological criteria for acute bronchitis and acute pneumonia. Obstructive syndrome. Respiratory failure in children.

The purpose of the lesson: To learn how to diagnose acute respiratory diseases, acute bronchitis and acute pneumonia in young and older children, to carry out differential diagnosis of these diseases between themselves and chronic respiratory diseases. Learn how to make a treatment plan for acute respiratory tract diseases, including for the prevention of pathology of the maxillary system in case of nasal breathing disorders, a treatment plan for acute pneumonia and bronchitis; provide emergency care for croup and bronchoobstructive syndrome in children.

# List of knowledge and practical skills:

### The student should know:

- 1. Functional and morphological features of the respiratory system in children of different ages and related features of the respiratory research methodology and the specifics of age-related pathology; etiology of acute respiratory diseases, acute pneumonia and bronchitis in young and older children.
- 2. Clinical symptoms of acute respiratory diseases, acute pneumonia and bronchitis, laboratory and radiological criteria for the diagnosis of acute pneumonia, differential diagnostic criteria for acute and chronic respiratory diseases.
- 3. The role of nasal breathing disorders in the formation of pathology of the dental system in children, the principles of prevention of this pathology.
- 4. To know the clinic of stenosing laryngotracheitis (croup syndrome), obstructive bronchitis and the principles of emergency care for these conditions in children.

### The student must be able to:

- 1. Identify symptoms of respiratory failure, intoxication and toxicosis, perform percussion and auscultation of the lungs, evaluate the data obtained in accordance with the age of the child and the nature of the alleged pathology.
- 2. Evaluate the hemogram, lung X-ray.
- 3. Prescribe etiotropic and pathogenetic therapy for acute respiratory diseases, acute pneumonia and bronchitis in children, including for the prevention of pathology of the dental system.
- 4. To carry out differential diagnosis of acute and chronic respiratory diseases, to identify diagnostic criteria for acute pneumonia.
- 5. Prescribe emergency therapy for croup and obstructive syndrome.

- 1. Methods of general clinical examination of children with respiratory diseases.
- 2. Interpretation of anamnesis data and objective examination of patients with respiratory diseases.
- 3. Interpretation of the results of laboratory and instrumental diagnostic methods of supervised children.
- 4. The method of reading radiographs.
- 5. An algorithm for making a detailed clinical diagnosis for patients with respiratory diseases.
- 6. The algorithm of performing therapeutic and preventive measures in patients with respiratory diseases.

- 1. Anatomical and physiological features of respiratory organs in children, connection with pathology.
- 2. Features of the research methodology in connection with the anatomical and physiological features of the upper respiratory tract and bronchopulmonary system in children.
- 3. Disorders of nasal breathing, the connection with the formation of pathology of the dental system.
- 4. Etiology of acute respiratory diseases, acute bronchitis and acute pneumonia in children.
- 5. Classification of acute bronchitis and acute pneumonia in children.
- 6. Clinic of acute pneumonia in an early and older child.
- 7. Respiratory failure in children: definition, classification, degrees.
- 8. Criteria for the diagnosis of acute bronchitis and acute pneumonia.
- 9. Differential diagnostic signs of acute and chronic respiratory tract diseases in children, bronchial asthma in childhood, principles of diagnosis and treatment in the attack and non-attack periods.
- 10. The concept of obstructive syndrome, clinic.
- 11. Emergency treatment of obstructive syndrome in children.
- 12. Degrees of respiratory failure.

**Topic:** Anatomical and physiological features of the cardiovascular system in childhood. Pathology of the cardiovascular system in children. Rheumatism and non-rheumatic heart disease. Treatment and prevention. Congenital heart defects (DMJP, DMPP, OAP, CA, TF).

The purpose of the lesson: To learn how to identify the main clinical symptoms and syndromes of damage to the cardiovascular system in children based on knowledge of their anatomical and physiological characteristics and research methods, to analyze the data of anamnesis, clinical picture, additional research methods typical for children suffering from diseases of the cardiovascular system.

# List of knowledge and practical skills:

### The student should know:

- 1. Anatomical and physiological features of the circulatory organs in children in the age aspect; features of intrauterine circulation.
- 2. Functional indicators of the cardiovascular system in various periods of childhood;
- 3. Age-related features of an electrocardiogram in children.
- 4. Etiology, pathogenesis, classification and modern methods of treatment of congenital heart defects.
- 5. Features of the results of instrumental examination methods characteristic of carditis and various congenital heart defects.
- 6. Features of the course, clinical picture and factors predisposing to the occurrence of rheumatism in children.
- 7. Differential diagnosis of the most common diseases of the cardiovascular system in children.
- 8. The concept of circulatory insufficiency in childhood.

# The student must be able to:

- 1. To collect and evaluate the anamnesis of life and disease in the supervised patient, highlighting the features of the perinatal anamnesis in patients with congenital pathology, to identify factors predisposing to the disease.
- 2. To conduct an objective examination of children with pathology of the cardiovascular system, various types and degrees of circulatory insufficiency.
- 3.Interpret the data of ECG, Echo-KG, heart imaging in 3 projections, general blood analysis, biochemical blood tests, immune status, functional tests.
- 4. To make a clinical diagnosis of a disease of the cardiovascular system according to the classification; to outline a plan for the examination and treatment of a patient with a specific established diagnosis.

- 1. Methods of general clinical examination of children with diseases of the cardiovascular system.
- 2. Interpretation of anamnesis data and objective examination of patients with diseases of the cardiovascular system.
- 3. Interpretation of the results of laboratory, instrumental diagnostic methods, functional tests in supervised patients.
- 4. The method of reading ECG, Echo-KG, radiographs.
- 5. An algorithm for making a detailed clinical diagnosis for patients with diseases of the cardiovascular system.
- 6. The algorithm of performing therapeutic and preventive measures in patients with diseases of the cardiovascular system.

- 1. Anatomical and physiological features of the circulatory organs in children in the age aspect.
- 2. Fetal blood circulation. Hemodynamic changes in the neonatal period.
- 3. The mass and size of the heart in the age aspect, the boundaries of the heart in children.
- 4. Pulse rate by age; determination of age standards of blood pressure and heart boundaries.
- 5. Features of an electrocardiogram in children.
- 6. Functional methods of studying the cardiovascular system in children.
- 7. Nosological forms of damage to the cardiovascular system (rheumatism, non-rheumatic carditis, congenital heart defects, arterial hypertension), clinical and laboratory diagnostics, principles of therapy.
- 8. The most common forms of congenital heart defects in children. Diagnosis, characteristics.
- 9. Symptoms of circulatory insufficiency in children.

**Topic:** Anatomical and physiological features of the gastrointestinal tract in childhood. Anatomical and physiological features of the oral cavity in young children. The timing and procedure of teething. Chronic diseases of the digestive system and hepatobiliary system in children. Acute and chronic gastritis, duodenitis, peptic ulcer of the stomach and duodenum in children. Biliary dyskinesia. Acute and chronic cholecystitis, pancreatitis. Etiology, pathogenesis, clinic, diagnosis, treatment and prevention. Changes in the oral mucosa in diseases of the stomach and duodenum, pathology of the hepatobiliary system.

The purpose of the lesson: To learn the clinical diagnosis of non-infectious pathology of the upper digestive organs and the hepatobiliary system in children, to evaluate the results of laboratory, functional, X-ray and endoscopic studies. Learn how to make a plan for examination, treatment, rehabilitation, medical examination and prevention of these diseases.

# List of knowledge and practical skills:

### The student should know:

- 1. The etiology of diseases of the oral cavity, stomach and intestines of non-infectious origin.
- 2. The pathogenesis of the formation of these diseases.
- 3. Clinical diagnosis of diseases of the oral cavity, stomach and intestines.
- 4. Differential diagnosis of functional and organic lesions of the gastrointestinal tract
- 5. Basic methods of gastrointestinal tract research (laboratory, functional, X-ray, ultrasound, endoscopic).
- 6. The concept of biliary dyskinesia, types, principles of diagnosis and treatment.
- 7. Modern methods of diagnosis of this pathology.
- 8. Modern principles of therapy of non-communicable diseases of the oral cavity, stomach, intestines, hepatobiliary system.
- 9. The nature of changes in the oral mucosa in diseases of the stomach and duodenum, pathology of the hepatobiliary system.
- 10. Principles of rehabilitation and medical examination of children with diseases of the stomach and duodenum, hepatobiliary system.

### The student must be able to:

- 1. To collect anamnesis of diseases, taking into account the regime, the nature of nutrition, stress effects, previous and background diseases, to be able to collect a hereditary history.
- 2. To assess the patient's medical history and complaints differentially.
- 3. Conduct a clinical examination of the gastrointestinal tract with palpation of the abdominal organs, determination of pain points and symptoms, palpation and determination of the size of the liver and spleen.
- 4. Evaluate the nature of the stool in a child of any age.
- 5. To evaluate the results of laboratory and instrumental methods of studies of the gastrointestinal tract and the hepatobiliary system coprograms, results of liver tests, gastric and duodenal probing, ultrasound and X-ray diagnostic data, EFGDS, RRS).
- 6. Prescribe therapy for exacerbation of gastroduodenitis, duodenal ulcer, biliary dyskinesia.
- 7. Make a rehabilitation plan and follow-up of a child with this pathology.

- 1. Methods of general clinical examination of children with diseases of the gastrointestinal tract and hepatobiliary system.
- 2. Interpretation of anamnesis data and objective examination of patients with diseases of the gastrointestinal tract and hepatobiliary system.

- 3. Interpretation of the results of laboratory and instrumental diagnostic methods in supervised patients: coprograms, results of liver tests, gastric and duodenal probing, ultrasound and X-ray diagnostic data, EFGDS, RRS.
- 4. An algorithm for making a detailed clinical diagnosis for patients with diseases of the gastrointestinal tract and hepatobiliary system.
- 5. An algorithm for performing therapeutic and preventive measures in patients with diseases of the gastrointestinal tract and hepatobiliary system.

- 1. Anatomical and physiological features of the digestive organs in children in the age aspect.
- 2. Etiopathogenesis of chronic gastroduodenitis and duodenal ulcer, the role of predisposing factors and infection in the formation of chronic pathology of the upper digestive tract.
- 3. Clinical manifestations of chronic gastroduodenitis in children and adolescents, classification.
- 4. Changes in the mucous membrane of the oral cavity in diseases of the stomach and duodenum.
- 5. Modern methods of diagnosing diseases of the upper digestive organs in children.
- 6. Functional methods of gastrointestinal tract examination (gastric and duodenal probing).
- 7. Coprological syndromes.
- 8. Features of the clinic of duodenal ulcer in children and adolescents, classification.
- 9. Modern principles of treatment of chronic gastroduodenitis and duodenal ulcer.
- 10. The role of the dentist in the prevention of diseases of the gastrointestinal tract in children.
- 11. Biliary dyskinesia: types, principles of diagnosis and treatment.
- 12. Principles of rehabilitation and medical examination of children with chronic pathology of the digestive system.

**Topic:** Anatomical and physiological features of the urinary system in childhood. Kidney diseases in children. Acute and chronic glomerulonephritis. Features of the course of acute and chronic pyelonephritis in young and older children. Clinic, diagnosis, principles of treatment, prevention. Acute and chronic renal failure in children.

The purpose of the lesson: To learn how to identify the main clinical symptoms and syndromes of pyelonephritis and glomerulonephritis in children, evaluate and interpret- to analyze the results of additional research methods, to treat acute and chronic pyelonephritis, acute and chronic glomerulonephritis, to make a plan for the medical examination of children, including oral sanitation in various periods of the disease.

# List of knowledge and practical skills:

### The student should know:

- 1. Anatomical and physiological features of urinary organs in the age aspect.
- 2. Etiology, pathogenesis, classification of pyelonephritis, the concept of primary and secondary pyelonephritis, features of clinical symptoms of pyelonephritis in children of various ages, the results of laboratory and instrumental examination methods characterizing pyelonephritis.
- 3. Etiology, pathogenesis, classification of glomerulonephritis, clinical symptoms and syndromes of glomerulonephritis, features of laboratory and instrumental examination methods characteristic of glomerulonephritis.
- 4. Principles of medical examination of patients with pyelonephritis and glomerulonephritis, including the role of the dentist in the medical examination of these patients.

### The student must be able to:

- 1. To collect anamnesis from the supervised patient, identifying possible etiological factors of the disease, to conduct an objective examination of the patient with pathology of the urinary system.
- 2. Interpret the results of general urine analysis, analysis for daily and selective proteinuria, urine culture for flora, samples according to Nechiporenko, Kakovsky-Addis, qualitative leukocyturia, results of functional tests (Rehberg, Zimnitsky), biochemical blood tests, blood electrolyte composition, radioisotope and X-ray neurological examination methods.
- 3. To make a clinical diagnosis of pyelonephritis and glomerulonephritis according to the classification, to carry out a differential diagnosis.
- 4. Outline a further plan for the examination of the patient.
- 5. Prescribe therapy to the patient depending on the form and nature of the course of pyelonephritis and glomerulonephritis, taking into account diet therapy and water load.
- 6. Outline a plan for the follow-up of a child with kidney disease, determine the dentist's participation in the medical examination.

- 1. Methods of general clinical examination of children with diseases of the urinary system.
- 2. Interpretation of anamnesis data and objective examination of patients with kidney and urinary tract diseases.
- 3. Interpretation of the results of laboratory and instrumental diagnostic methods in patients with kidney disease.
- 4. An algorithm for making a detailed clinical diagnosis for patients with diseases of the urinary system.
- 5. The algorithm of performing therapeutic and preventive measures in patients with diseases of the urinary system.

- 1. Anatomical and physiological features of urinary organs in children.
- 2. Etiology and pathogenesis of primary and secondary pyelonephritis.
- 3. Classification of acute and chronic pyelonephritis in children.
- 4. The concept of primary and secondary pyelonephritis in children.
- 5. Features of the clinical picture of pyelonephritis in children of different ages. Clinical extrarenal manifestations. Dysuric syndrome in pyelonephritis.
- 6. The results of laboratory and instrumental examination methods characterizing pyelonephritis.
- 7. Determination of the degree of pyelonephritis activity.
- 8. Modern treatment regimens for pyelonephritis.
- 9. Medical examination of children with pyelonephritis, the role of a dentist in the prevention of exacerbations of pyelonephritis.
- 10. Etiology and pathogenesis of acute and chronic glomerulonephritis in children.
- 11. Classification of glomerulonephritis.
- 12. Clinical symptoms and syndromes of various forms of glomerulonephritis.
- 13.The results of laboratory examination methods characterizing various forms of glomerulonephritis, assessment of the functional state of the kidneys.
- 14. Modern methods of treatment of glomerulonephritis.
- 15. Diet therapy and drinking regimen for glomerulonephritis.
- 16. Treatment regimens for glomerulonephritis depending on the clinical variant.
- 17. Medical examination of children with glomerulonephritis, participation of a dentist.
- 18. The role of foci of chronic infection in the pathogenesis of kidney diseases.

**Topic:** Anatomical and physiological features of the coagulation system in childhood. Hemorrhagic diseases in children. The main clinical manifestations of hemophilia, hemorrhagic vasculitis, thrombocytopenic purpura, acute leukemia. Clinical manifestations on the oral mucosa in these diseases. Emergency bleeding therapy in the practice of a dentist. Dentist's tactics in the treatment of dental diseases in children with hemorrhagic diathesis.

The purpose of the lesson: To learn how to diagnose hemorrhagic diseases in children (thrombocytopenic purpura, hemorrhagic vasculitis, hemophilia), to draw up a treatment plan depending on the form, severity, anti-relapse therapy plan, and follow-up. To learn the ability to purposefully collect an anamnesis to identify hemorrhagic diathesis, to properly conduct a clinical and laboratory examination of patients with hemorrhagic manifestations in order to make an accurate diagnosis and prescribe a treatment plan depending on the characteristics of the disease and possible complications. To learn the tactics of a dentist in the treatment of dental diseases in children with hemorrhagic diathesis in order to prevent massive bleeding, and, if necessary, to provide emergency care for bleeding.

# List of knowledge and practical skills:

#### The student should know:

- 1. The method of collecting anamnesis and clinical examination of the child in order to identify possible hemorrhagic diathesis.
- 2. Laboratory criteria for the diagnosis of various variants of hemorrhagic diathesis (blood clotting, duration of bleeding, platelet count, coagulogram parameters).
- 3. Epidemiology, etiology, pathogenesis, clinical and laboratory symptoms of hemorrhagic vasculitis, thrombocytopenic purpura, hemophilia in children, differential diagnosis of hemorrhagic syndrome by clinical and laboratory symptoms.
- 4. Treatment, prevention of recurrence of thrombocytopenic purpura, hemorrhagic vasculitis, hemophilia, prevention of complications.
- 5. Principles of medical examination of children with hemorrhagic diathesis.
- 6. Features of the condition of the oral mucosa in leukemia.
- 7. Principles of emergency care for bleeding in patients with hemorrhagic diathesis.
- 8. Dentist's tactics in the treatment of dental diseases in children with hemorrhagic diathesis.

#### The student must be able to:

- 1. Competently diagnose hemorrhagic diathesis, taking into account differences in clinic and laboratory data.
- 2. To identify the etiological factors of the occurrence of hemorrhagic manifestations in the patient by purposefully collecting anamnesis, clinical and laboratory examination.
- 3. To master the features of the dentist's tactics in the treatment of dental diseases in children with hemorrhagic diathesis.
- 4. Provide emergency care for bleeding in a patient with various variants of hemorrhagic diathesis.

- 1. Methods of general clinical examination of children with hemorrhagic diseases.
- 2. Interpretation of anamnesis data and objective examination of patients with hemorrhagic diseases.
- 3. Interpretation of the results of laboratory and instrumental diagnostic methods in patients with hemorrhagic diseases.
- 4. An algorithm for making a detailed clinical diagnosis for patients with hemorrhagic diseases.

- 5. The algorithm of performing therapeutic and preventive measures in patients with hemorrhagic diseases.
- 6. Tactics of stopping bleeding in the oral cavity.

- 1. The essence of hemorrhagic diathesis, the community that includes them in one group of diseases.
- 2. Epidemiology, etiology, pathogenetic mechanisms, clinical and laboratory symptoms of hemorrhagic vasculitis, thrombocytopenic purpura and hemophilia in children.
- 3. Differential diagnosis of hemorrhagic syndrome according to clinical and laboratory symptoms.
- 4. Treatment and prevention of recurrence of thrombocytopenic purpura, hemorrhagic vasculitis, hemophilia. Prevention of complications.
- 5. Medical examination of children with hemorrhagic diathesis and prognosis of diseases.
- 6. Dentist's tactics in the treatment of dental diseases in children with hemorrhagic diathesis.
- 7. Emergency care in the treatment of dental diseases in children with hemorrhagic diathesis.

**Topic:** Anatomical and physiological features and pathology of the endocrine system in children. Clinical manifestations of congenital hypothyroidism, diffuse toxic goiter, diabetes mellitus. Specific changes in the mucous membrane in the oral cavity in diabetes mellitus

The purpose of the lesson: To learn how to interpret changes in blood sugar, glycosylated hemoglobin, serum ketone bodies, thyroid hormones in the blood, TSH; clinical and laboratory diagnostics, principles of therapy for diabetes mellitus, hypothyroidism, diffuse toxic goiter, autoimmune thyroiditis.

### List of knowledge and practical skills:

### The student should know:

- 1. Anatomical and functional features of the endocrine system in a child.
- 2. Methods of studying the endocrine system in children, their informativeness, normal test results.
- 3. Clinical and laboratory characteristics of the most common nosological forms of endocrine pathology.
- 4. Principles of therapy of the main forms of endocrine pathology.

#### The student must be able to:

- 1. To assess the clinical symptoms of the most common forms of endocrine pathology.
- 2. Evaluate and interpret laboratory tests and the results of other diagnostic methods for various endocrine pathologies.
- 3. Prescribe treatment for endocrine pathology.

### The student must own:

- 1. Methods of general clinical examination of children with endocrine diseases.
- 2. Interpretation of anamnesis data and objective examination of patients with endocrine diseases.
- 3. Interpretation of the results of laboratory and instrumental diagnostic methods in patients with endocrine diseases.
- 4. An algorithm for making a detailed clinical diagnosis for patients with endocrine diseases.
- 5. The algorithm of performing therapeutic and preventive measures in patients with endocrine diseases.

- 1. Anatomical and physiological features of the endocrine system.
- 2. The role and significance of correlative ratios of the functions of individual endocrine glands in various periods of childhood.
- 3. The main nosological forms of thyroid damage (hypothyroidism, diffuse toxic goiter, autoimmune thyroiditis), clinical and laboratory characteristics, principles of therapy.
- 4. Criteria for the degree of iodine endemia and methods of prevention and treatment.
- 5. Diabetes mellitus in children, clinical and laboratory characteristics, principles of therapy.

**Topic:** Emergency conditions in children. Hyperthermic syndrome, convulsive syndrome, anaphylactic shock, acute respiratory and cardiovascular insufficiency, acute and chronic renal failure, coma.

The purpose of the lesson: To learn the principles of emergency care for hyperthermic and convulsive syndromes, acute allergic reactions, anaphylactic shock, acute vascular insufficiency. To learn how to determine the level of assimilation of the material passed during the cycle individually for each student and the ability to clinical thinking in the protection of medical histories in the form of skills of clinical examination of sick children of different ages, evaluation of the obtained paraclinical data in order to correctly diagnose and prescribe treatment.

# List of knowledge and practical skills:

### The student should know:

- 1. Anatomical and physiological features of organs and systems of children in the age aspect.
- 2. Patterns of physical and psychomotor development of children. The principles of rational breastfeeding of infants and nutrition of children over one year old.
- 3. Etiology, pathogenesis, classification, features of clinical manifestations of various diseases (in the scope of the program) in children in the age aspect, the basic principles of diagnosis, treatment and prevention of these diseases.
- 4. To know the tactics of a dentist and the principles of medical examination in the presence of a sick child with various somatic pathologies.
- 5. To know the principles of emergency care for hyperthermic syndrome, convulsive syndrome, acute allergic reactions, anaphylactic shock, acute vascular and heart failure, acute respiratory failure, acute and chronic renal failure, coma.

### The student must be able to:

- 1. To collect anamnesis from a sick child and his parents, identifying etiological, predisposing factors and features of the course of diseases in children.
- 2. Conduct clinical examinations of a child of any age.
- 3. Interpret the obtained clinical, laboratory and instrumental data depending on the age and nature of the pathology.
- 4. To make a clinical diagnosis according to the classification, to carry out a differential diagnosis.
- 5. Outline a further plan for the examination of the patient.
- 6. Prescribe therapy depending on the severity, form and nature of the course of diseases to a sick child of any age.
- 7. Outline a plan for outpatient follow-up and determine the role of a dentist in the medical examination of a sick child with various chronic somatic pathologies.
- 8. Be able to provide emergency care to a child with hyperthermic syndrome, convulsive syndrome, acute allergic reactions, anaphylactic shock, acute vascular and heart failure, acute respiratory failure, acute and chronic renal failure, coma.

- 1. Methods of general clinical examination of children in emergency conditions.
- 2. Interpretation of anamnesis data and objective examination of patients with urgent conditions.
- 3. Interpretation of the results of laboratory and instrumental diagnostic methods in patients with emergency conditions.
- 4. An algorithm for making a detailed clinical diagnosis for patients with urgent conditions.

5. An algorithm for performing emergency care for children with hyperthermic syndrome, convulsive syndrome, acute allergic reactions, anaphylactic shock, acute vascular and heart failure, acute respiratory failure, acute and chronic renal failure, coma.

- 1. Principles of emergency care for hyperthermic syndrome in children.
- 2. Principles of emergency care for convulsive syndrome in children.
- 3. Emergency care for acute allergic reactions in children.
- 4. Emergency care for anaphylactic shock in children.
- 5. Emergency care for acute vascular and heart failure in children.
- 6. Emergency care for respiratory failure.
- 7. Emergency care for kidney failure.
- 8. Emergency care for comas.

**Topic:** Final lesson. Final control of students' knowledge. Conducting preliminary testing of students. Conducting an interim assessment in the form of a credit by interview.

**The purpose of the lesson:** Conducting an interim assessment in the form of a credit by interview

### List of knowledge and practical skills:

### The student should know:

- 1. Anatomical and physiological features of organs and systems in different age periods in children. Features of the oral cavity.
- 2.Clinical symptoms of acute respiratory diseases, acute pneumonia and bronchitis, rickets, anemia, diseases of the cardiovascular system, chronic diseases of the digestive system and hepatobiliary system, kidney diseases, hemorrhagic diseases and the endocrine system.
- 3. Functional, laboratory, radiological and other additional research methods for the diagnosis of the above diseases.
- 4. Symptoms of emergency conditions in children and methods of their relief.

#### The student must be able to:

- 1. Identify symptoms of acute respiratory diseases, acute pneumonia and bronchitis, rickets, anemia, diseases of the cardiovascular system, chronic diseases of the digestive system and hepatobiliary system, kidney diseases, hemorrhagic diseases and the endocrine system.
- 2. To evaluate functional, laboratory, X-ray and other methods of examination of organs and systems.
- 3. Prescribe etiotropic and pathogenetic therapy for acute respiratory diseases, acute pneumonia and bronchitis, rickets, anemia, diseases of the cardiovascular system, chronic diseases of the digestive system and hepatobiliary system, kidney diseases, hemorrhagic diseases and the endocrine system.
- 4. To carry out differential diagnosis of the above-mentioned diseases.

# The student must own:

- 1. Methods of general clinical examination of children.
- 2. Interpretation of anamnesis data and objective examination of patients.
- 3. Interpretation of the results of laboratory and instrumental diagnostic methods in patients.
- 4. The algorithm for making a detailed clinical diagnosis of the patient.
- 5. The algorithm for prescribing etiotropic and pathogenetic therapy for acute respiratory diseases, acute pneumonia and bronchitis, rickets, anemia, diseases of the cardiovascular system, chronic diseases of the digestive system and hepatobiliary system, kidney diseases, hemorrhagic diseases and the endocrine system.

$N_{\underline{0}}$	Questions for the interim assessment	Competencies
		to be tested
1.	The main indicators of physical development of children under one year and	OPK-1, OPK-5,
	older, modern methods of assessing the indicators of physical development	OPK-8, OPK-9,
	of children and adolescents.	OPK-13, PK-6
2.	Feeding of children of the first year of life, the main types of feeding. The	OPK-1, OPK-5,
	benefits of breastfeeding children in the first year of life. Principles of	OPK-8, OPK-9,
	successful breastfeeding and methods of evaluating its effectiveness. The	OPK-13, PK-6
	dynamics of the incidence of breastfed children, based on the materials of	
	the Volgograd region.	

3.	Mixed and artificial feeding of children of the first year of life, the concept of supplementary feeding and the rules for its introduction. Classification of	OPK-1, OPK-5, OPK-8, OPK-9,
	modern breast milk substitutes, methods of rational use.	OPK-13, PK-6
4.	Additional nutrition factors, the concept of complementary foods, timing, rules of administration. The need for basic food ingredients in children with different types of feeding. Features of the introduction of complementary foods with mixed and artificial feeding.	OPK-1, OPK-5, OPK-8, OPK-9, OPK-13, PK-6
5.	Acute pneumonia in children, clinical and laboratory diagnostics and	OPK-1, OPK-5,
	principles of treatment in accordance with clinical recommendations, Features of the course and diagnosis of new coronavirus infection in children and adolescents, principles of treatment and prevention.	OPK-8, OPK-9, OPK-13, PK-6
6.	Clinical, laboratory and instrumental diagnostics of bronchial asthma in children, the basic principles of therapy and prevention. Features of the etiopathogenesis of bronchial asthma in children of the Volgograd region.	OPK-1, OPK-5, OPK-8, OPK-9, OPK-13, PK-6
7.	Rheumatic fever in children, definition, etiopathogenesis, classification, clinical, laboratory and instrumental diagnostics, principles of therapy and prevention.	OPK-1, OPK-5, OPK-8, OPK-9, OPK-13, PK-6
8.	Non-rheumatic carditis in children, classification, features in children and adolescents, clinical, laboratory and instrumental diagnostics and principles of therapy in accordance with clinical recommendations.	OPK-1, OPK-5, OPK-8, OPK-9, OPK-13, PK-6
9.	Congenital heart defects in children, causes, classification, methods for assessing the functional state of the cardiovascular system in children.	OPK-1, OPK-5, OPK-8, OPK-9, OPK-13, PK-6
10.	Laboratory and instrumental methods of studying the cardiovascular system in children to assess functional disorders in congenital and acquired heart pathology.	OPK-1, OPK-5, OPK-8, OPK-9, OPK-13, PK-6
11.	Juvenile idiopathic arthritis in children, modern ideas about etiopathogenesis, clinical options, methods of clinical laboratory and instrumental diagnostics, basic principles of therapy in accordance with clinical recommendations.	OPK-1, OPK-5, OPK-8, OPK-9, OPK-13, PK-6
12.	Diffuse connective tissue diseases (systemic lupus erythematosus, scleroderma and dermatomyositis) in children, modern ideas about etiopathogenesis, modern methods of clinical, laboratory and instrumental diagnostics, basic principles of therapy in accordance with clinical recommendations.	OPK-1, OPK-5, OPK-8, OPK-9, OPK-13, PK-6
13.	Orphan pathology of the cardiovascular system in children. Idiopathic pulmonary arterial hypertension, clinical, laboratory and instrumental diagnostics, principles of therapy.	OPK-1, OPK-5, OPK-8, OPK-9, OPK-13, PK-6
14.	Arterial hypertension in children and adolescents. Classification, methods and algorithm of diagnosis, principles of therapy. Modern principles of organization of medical care for children and adolescents with hypertension in the Volgograd region.	OPK-1, OPK-5, OPK-8, OPK-9, OPK-13, PK-6
15.	Deficiency anemia in children. Etiology in the age aspect, pathogenesis, classification, clinical and laboratory diagnostics, prevention, principles of therapy.	OPK-1, OPK-5, OPK-8, OPK-9, OPK-13, PK-6
16.	Immune thrombocytopenic purpura in children. Etiology, pathogenesis, clinic-laboratory diagnostics, principles of therapy.	OPK-1, OPK-5, OPK-8, OPK-9, OPK-13, PK-6
17.	Hemophilia in children. Etiology, pathogenesis, classification, clinical and laboratory diagnostics, principles of therapy. Organization of medical care for patients with hemophilia (registry and school of hemophilia) in the Volgograd region.	OPK-1, OPK-5, OPK-8, OPK-9, OPK-13, PK-6
18.	Hemorrhagic vasculitis in children. Etiology, pathogenesis, classification, clinical and laboratory diagnostics, principles of therapy.	OPK-1, OPK-5, OPK-8, OPK-9, OPK-13, PK-6
19.	Leukemia in children. Classification. Modern clinical and laboratory	OPK-1, OPK-5,

	diagnostics of acute lymphoblastic leukemia in children, principles of	OPK-8, OPK-9,
20	therapy.	OPK-13, PK-6
20.	Orphan blood diseases in children. Aplastic anemia, unspecified; hereditary	OPK-1, OPK-5,
	deficiency of factors P, VP, X; Evans syndrome.	OPK-8, OPK-9,
		OPK-13, PK-6
21.	Congenital hemolytic anemia in children, etiopathogenesis, classification,	OPK-1, OPK-5,
	clinical and laboratory characteristics.	OPK-8, OPK-9,
		OPK-13, PK-6
22.	Peptic ulcer of the stomach and duodenum. Etiology, pathogenesis, clinic-	OPK-1, OPK-5,
	laboratory and instrumental diagnostics, principles of therapy	OPK-8, OPK-9,
		OPK-13, PK-6
23.	Pyelonephritis in children. Etiology, pathogenesis, classification, clinical,	OPK-1, OPK-5,
	laboratory and instrumental diagnostics, principles of therapy.	OPK-8, OPK-9,
		OPK-13, PK-6
24.	Glomerulonephritis in children. Etiology, pathogenesis, classification,	OPK-1, OPK-5,
	clinical and laboratory diagnostics, principles of therapy.	OPK-8, OPK-9,
		OPK-13, PK-6
25.	Orphan kidney pathology in children. Hemolytic-uremic syndrome, causes,	OPK-1, OPK-5,
	clinical and laboratory diagnostics, principles of therapy.	OPK-8, OPK-9,
		OPK-13, PK-6
26.	Clinical and laboratory diagnostics of acute renal failure in children.	OPK-1, OPK-5,
	Indications for hemodialysis.	OPK-8, OPK-9,
	·	OPK-13, PK-6
27.	The main syndromes of chronic renal failure in children, clinical, laboratory	OPK-1, OPK-5,
	and instrumental methods for assessing renal function in children.	OPK-8, OPK-9,
		OPK-13, PK-6
28.	Diffuse toxic goiter. Etiology, pathogenesis, clinic-laboratory diagnostics,	OPK-1, OPK-5,
	prognosis, principles of therapy.	OPK-8, OPK-9,
		OPK-13, PK-6
29.	Congenital hypothyroidism in children. Etiology, pathogenesis, clinic-	OPK-1, OPK-5,
	laboratory diagnostics, neonatal screening, prognosis, principles of therapy.	OPK-8, OPK-9,
	The role of endemic iodine deficiency in the Volgograd region in the genesis	OPK-13, PK-6
	of thyroid diseases.	- ,
30.	Diabetes mellitus in children. Clinical and laboratory diagnostics, principles	OPK-1, OPK-5,
	of therapy.	OPK-8, OPK-9,
	<b>F</b> /-	OPK-13, PK-6
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Reviewed at the meeting of the Department of Children's Diseases on May 28, 2024, Protocol No. 10

Head of the Department of Children's Diseases, MD, Professor

M.Ya. Ledyaev