

# Tasks and questions for practical lessons 6th year (11th semester)

## LESSON 1.

### ACUTE RESPIRATORY TRACT DISEASES IN CHILDREN

#### CONTROL QUESTIONS:

1. Anatomy and physiology of respiratory system in children.
2. Anatomical and physiological features of respiratory tract organs in children.
3. Cough: the role, features of diagnostics and differential diagnosis diseases, accompanied with cough.
4. Acute bronchitis: etiology, pathogenesis, clinical picture, diagnostics, differential diagnosis and treatment.
5. Acute obstructive bronchitis: etiology, pathogenesis, clinical picture, diagnostics, differential diagnosis and treatment.
6. Bronchiolitis: etiology, pathogenesis, clinical picture, diagnostics, differential diagnosis and treatment.
7. Obliterative bronchiolitis: etiology, pathogenesis, clinical picture, diagnostics, differential diagnosis and treatment.
8. Recurrence bronchitis: etiology, pathogenesis, clinical picture, diagnostics, differential diagnosis and treatment.
9. Bronchitis due to aspiration: etiology, pathogenesis, clinical picture, diagnostics, differential diagnosis and treatment.

#### TOPICS FOR REPORTS:

1. Usage of antibacterial agents in pediatrics.
2. Respiratory failure.

## LESSON 2.

### ACUTE AND CHRONIC HEART FAILURE. HEART RHYTHM DISORDERS IN CHILDREN

#### CONTROL QUESTIONS:

1. Circulatory failure: definition, etiological factors and pathogenesis.
2. Acute heart failure. Stages (degrees of severity) of acute heart failure.
3. Acute left ventricle insufficiency: clinical picture, diagnostics, and treatment.
4. Acute right ventricle insufficiency: clinical picture, diagnostics, and treatment.
5. Chronic heart failure: etiology, classification in children.
6. Treatment of chronic heart failure.
7. Tachyarrhythmias in children. Emergency help.
8. Bradyarrhythmias in children. Emergency help.

#### TOPICS FOR REPORTS:

1. Prolonged QT interval syndrome.
2. WPW-syndrome.

**LESSON 3.**  
**HYPERTHERMIC AND CONVULSIVE SYNDROME IN CHILDREN**

**CONTROL QUESTIONS:**

1. Fever in children: etiology and pathogenesis.
2. Classification of fever.
3. Fever: differential diagnosis.
4. Hyperthermic syndrome: definition.
5. Emergency help algorithm in hyperthermia in children.
6. Convulsive syndrome in children: etiology, differential diagnosis.
7. Emergency help algorithm in convulsive syndrome.

**TOPICS FOR REPORTS:**

1. Diseases, associated with subfebrile body temperature in children.

**LESSON 4.**  
**ACUTE KIDNEY INJURY AND CHRONIC KIDNEY DISEASE**

**CONTROL QUESTIONS:**

1. Acute kidney injury: definition, etiology. Classification.
2. Acute renal failure: clinical picture, laboratory findings, and treatment principles.
3. Indications to the emergency (peritoneal and hemodialysis) dialysis in acute kidney injury.
4. Chronic kidney disease: definition, etiology, classification.
5. Clinical picture, diagnostics, therapy principles of the chronic kidney disease.
6. Tubulointerstitial nephritis in children: etiology, pathogenesis, clinical picture, diagnostics, treatment principles.

**TOPICS FOR REPORTS:**

1. Diseases, associated with subfebrile body temperature in children.

**LESSON 5.**  
**NEPHROTIC SYNDROME**

**CONTROL QUESTIONS:**

1. Physiology of urinary system.
2. Urinary syndrome: types and diagnostic value.
3. Proteinuria: definition and types.
4. Nephrotic syndrome: definition and etiology.
5. Classification of nephrotic syndrome according to severity degrees and clinical course.
6. Clinical picture of the nephrotic syndrome: pathogenesis of different symptoms.
7. Laboratory and instrumental findings in nephrotic syndrome.
8. Hematuric syndrome in children: etiology, diagnostics, treatment.
9. Treatment principles of nephrotic syndrome.

**LESSON 6.**  
**HEMORRHAGIC SYNDROME IN CHILDREN**

**CONTROL QUESTIONS:**

1. Physiology of hemostasis. Mechanisms of blood coagulation.
2. Clinical and laboratory evaluation of primary and secondary hemostasis.
3. Hemorrhagic diathesis: definition and classification. Main types of the hemorrhagic rush.
4. Thrombocytopenia in children: etiology, pathogenesis, classification. Idiopathic thrombocytopenic purpura.
5. Hemophilia in children: pathogenesis, classification, clinical picture, treatment principles.
6. Hemorrhagic vasculitis: etiology, pathogenesis, clinical picture, diagnostics, therapy.

**TOPICS FOR REPORTS:**

1. von Willebrand disease.

**LESSON 7.**  
**LEUKEMIA: DIFFERENTIAL DIAGNOSTICS**

**CONTROL QUESTIONS:**

1. Age features of blood in children.
2. Diagnostic value of changes of indexes in blood leucocytic formula.
3. Leukemia: definition, risk factors.
4. Lymph proliferative syndrome in leukemia: differential diagnosis.
5. Anemic syndrome in leukemia: differential diagnosis.
6. Differential diagnosis of hemorrhagic syndrome in children.
7. Intoxication syndrome: etiology, ways of pathogenesis, differential diagnosis.
8. Common principles of the leukemia treatment.

**LESSON 8.**  
**ABDOMINAL PAIN SYNDROME: DIFFERENTIAL DIAGNOSIS**

**CONTROL QUESTIONS:**

1. Abdominal syndrome in children. Parietal and visceral pain.
2. Abdominal pain reasons depend on the location.
3. Etiology of abdominal pain depends on age of a child.
4. Abdominal pain features in stomach and duodenum diseases.
5. Features of pain in diseases of pancreas.
6. Acute cholecystitis as a reason of abdominal pain syndrome.
7. Indications for Surgeon consultation.
8. Tactics in abdominal syndrome in children.

**TOPICS FOR REPORTS:**

1. Chronic inflammatory bowel diseases in children.

## **LESSON 9.**

### **GASTROINTESTINAL TRACT DISORDERS IN HELMINTHIC DISEASES IN CHILDREN**

#### **CONTROL QUESTIONS:**

1. Helminthic diseases: definition, classification.
2. Gallbladder disorders in helminthic diseases.
3. Jaundice in children: etiology, pathogenesis depends on etiological agent.
4. Diarrhea in children: etiology, classification, therapeutical tactics.
5. Constipations in children: etiology, treatment.
6. Bowel disorders in helminthic diseases.

#### **TOPICS FOR REPORTS:**

1. Ascariosis in children.
2. Enterobiosis in children.
3. Lambliosis in children.

## **LESSON 10.**

### **DIFFERENTIAL DIAGNOSIS OF COMA. ACUTE AND CHRONIC ADRENAL GLAND INSUFFICIENCY IN CHILDREN**

#### **CONTROL QUESTIONS:**

1. Coma: definition.
2. Stages of coma development (Glasgo Coma Scale for children).
3. Main types of coma in children. Clinical symptoms and diagnostics.
4. Hyperglycemic coma: pathogenesis and diagnostics.
5. Hypoglycemic coma: pathogenesis and diagnostics.
6. Acute adrenal gland insufficiency: etiology, clinical picture, and diagnostics.
7. Chronic adrenal gland insufficiency: etiology, clinical picture, and diagnostics.
8. Treatment of adrenal gland insufficiency.

## **LESSON 11.**

### **SEPSIS. TOXICOSES IN EARLY AGE CHILDREN. INFECTIOUS AND NOXIC SHOCK.**

#### **CONTROL QUESTIONS:**

1. Systemic inflammatory response syndrome: definition, diagnostic criteria.
2. Sepsis: definition, etiology, risk factors in children.
3. Clinical picture of sepsis.
4. Organs' dysfunction criteria.
5. Laboratory tests, using for sepsis diagnostics.
6. Indications for instrumental methods of investigation (CT, MRI, X-Ray).
7. Infectious and toxic shock: definition, diagnostic criteria.
8. Toxicosis: definition and types of toxicoses.

#### **TOPICS FOR REPORTS:**

1. Intestinal toxicosis with exicosis.
2. Neurotoxicosis.