“APPROVED”
The First Pro-Rector
on scientific and academic affairs
acad. M.R. Hzhzhotskyy

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“___“ __________________ 2016

THE WORKING PROGRAM ON THE DISCIPLINE
«PEDIATRICS»
7.110101 «General Medicine»
Medical Faculty, Year 6

Discussed and endorsed at the meeting of the Department of Pediatrics #2
Protocol # ______
of “__” __________________ 2016

Approved by the Thematic methodological commission on Pediatric disciplines
Protocol # ______
of “__” __________________ 2016

Head of the Department
____________________________

Head of the Thematic methodological commission
“___“ __________________ 2016

2016
Academic curriculum for discipline "Pediatrics" for students of the medical faculties specializing in 7.12010001 - general medicine

<table>
<thead>
<tr>
<th>Structure of the educational discipline</th>
<th>Quantity of credits, hours, of which:</th>
<th></th>
<th></th>
<th></th>
<th>Type of control</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total hours/credits</td>
<td>Classroom</td>
<td>Self-education</td>
<td>Education year</td>
<td></td>
</tr>
<tr>
<td>Thematic chapters 5</td>
<td>180/6</td>
<td>108</td>
<td>72</td>
<td>VI</td>
<td>credit</td>
</tr>
</tbody>
</table>

Classroom hours – 60%; Self-education – 40%.

**PURPOSE OF LEARNING THE DISCIPLINE**

The purpose of the final stage of Pediatrics study lies in deepening the theoretical knowledge, improving and mastering practical skills, and acquiring professional level of future physicians in the specialty "medicine" to work independently.

The purpose of studying children's diseases - the ultimate goals - are based on OPP training doctor by profession, according to the block of content modules and is the basis for building the content of the discipline. Description objectives formulated through skills as targets (actions). Based on the ultimate goals for each thematic chapter defined specific goals as specific skills (actions) targets that achieve the ultimate goal of learning the discipline.

**Final goals of the discipline:**
- Identify different clinical variants and complications of the most common childhood diseases
- Determine the tactics for the patient with the most common diseases of childhood
- Demonstrate the ability to work with medical records at the clinic of childhood diseases
- Plan the examination of the sick child and interpret the results in the most common diseases of childhood
- Make differential diagnosis and put the preliminary clinical diagnosis of the most common childhood diseases
- Diagnose and provide emergency assistance in basic emergency conditions in the clinic of childhood diseases.

By the method, workshops are clinical and aimed at control of theoretical material and development of practical skills and ability to analyze and apply their knowledge to solve practical problems; they include:
- Taking history;
- Examination of a sick child;
- Planning of laboratory tests for the sick child;
- Interpretation of data of laboratory and instrumental investigations;
- Differential diagnosis of the most common diseases of childhood with their typical manifestation;
- Definition of preliminary clinical diagnosis;
- Definition of therapeutic tactics;
- Prescription of clinical nutrition;
- Provision of emergency care;
- Solving situational problems;
- Practical skills on manikins and at the bedside of a sick child;
- Keeping medical records.
Curriculum of the discipline Pediatrics

Thematic chapters:

1. Differential diagnosis of the most common respiratory tract diseases in childhood. Emergency care in common emergency conditions.
2. Differential diagnosis of the most common disease of the blood circulatory system in children. Emergency care in common emergency conditions.

Thematic chapter 1.

Differential diagnosis of the most common respiratory tract diseases in childhood. Emergency care in common emergency conditions.

Specific objectives:
- Identify different clinical variants and complications of the most common respiratory tract diseases in children.
- Determine the tactics for the patient with the most common respiratory tract diseases in children.
- Demonstrate the ability to work with medical records at the clinic of childhood respiratory tract diseases.
- Plan the examination of the sick child and interpret the results in the most common respiratory tract diseases of childhood.
- Perform differential diagnosis and put the preliminary clinical diagnosis of the most common respiratory tract childhood diseases.
- Diagnose and provide emergency assistance during emergency conditions caused by respiratory tract disease in the clinic of childhood diseases.


Leading clinical symptoms and syndromes in bronchial asthma, bronchiolitis and acute obstructive bronchitis in children. Peculiarities of asthma in children, depending on the severity and level of control. Results of laboratory and instrumental studies in bronchial asthma, bronchiolitis and acute obstructive bronchitis and its complications. Differential diagnosis of asthma and bronchial obstruction versus acute respiratory infections in children of all ages. Setting of the preliminary diagnosis. Treatment of patients with different clinical variants of obstructive syndrome and its complications in children. Providing emergency assistance in an asthma attack and status asthmaticus. Prevention of asthma and bronchial obstruction syndrome against acute respiratory infections in children of all ages.


Thematic chapter 2.

Differentail diagnosis of the most common disease of the blood circulatory system in children.

Emergency care in common emergency conditions.

Specific objectives:

• Identify the different clinical variants and complications of the most common diseases of the blood circulatory system in children
• Determine the tactics for the patient with the most common diseases of the blood circulatory system in children
• Demonstrate the ability to work with medical records at the clinic of sick children with disorders of the blood circulatory system
• Plan the inspection of a sick child and interpret results in the most common diseases of the blood circulatory system
• Perform Differential diagnosis and put the preliminary clinical diagnosis of the most common diseases of the blood circulatory system
• Diagnose and provide emergency assistance during emergency conditions caused by diseases of the blood circulatory system in children


Leading clinical symptoms and syndromes in extrasystole, paroxysmal tachycardia, atrial fibrillation, complete atrioventricular block. Clinical variants of the course of paroxysmal

**Topic 7. Differential diagnosis of systemic connective tissue disease and systemic vasculitis in children.**


**Thematic chapter 3.**

**Differential diagnosis of the most common disease of the digestive tract in children. Emergency care for common emergency conditions.**

Specific objectives:
- Identify the different clinical variants and complications of the most common disorders of the digestive system in children
- Determine the tactics for the patient with the most common diseases of the digestive system in children
- Demonstrate the ability to work with medical records of sick children with disorders of the digestive system
- Plan the inspection of a sick child and interpret the results in the most common diseases of the digestive system
- Perform differential diagnosis and put the preliminary clinical diagnosis of the most common diseases of the digestive system
- Diagnose and provide emergency assistance during emergency conditions caused by diseases of the digestive system in children.


**Topic 10. Differential diagnosis of the hepatic, biliary system and pancreas in children.**

**Syndrome of portal hypertension.**

**Topic 11. Drug and Food Allergy in children.**

**Thematic chapter 4.**

**Differential diagnosis of the most common diseases of the urinary tract in children.**

**Emergency care in common emergency conditions.**
Specific objectives:
- Identify the different clinical variants and complications of the most common disorders of the urinary system in children
- Determine tactics for the patient with the most common diseases of the urinary system in children
- Demonstrate the ability to work with medical records of sick children with disorders of the urinary system
- To plan the inspection of a sick child and interpret the results in the most common diseases of the urinary system
- To perform Differential diagnosis and put the preliminary clinical diagnosis of the most common diseases of the urinary system in children
- Diagnose and provide emergency assistance during emergency conditions caused by diseases of the urinary system in children.

**Topic 12. Differential diagnosis of infectious and inflammatory disease of the urinary system in children.**

**Differential diagnosis of hereditary disease of the urinary system in children.**
Leading clinical symptoms and syndromes in inflammatory diseases of the urinary system (urinary system infections, urethritis, cystitis, pyelonephritis) dysmetabolic nephropathy, hereditary tubulopathy (phosphate diabetes, Syndrome Debre-de Toni-Fanconi, renal diabetes insipidus, renal tubular acidosis) and interstitial nephritis in children. Clinical variants of the course and complications of infectious diseases of the urinary system, interstitial nephritis, nephropathy and hereditary dysmetabolic tubulopathy in children. The results of the laboratory and instrumental studies at the most common inflammatory diseases of the urinary system, interstitial nephritis, dysmetabolic nephropathy and hereditary tubulopathy in children. Differential diagnosis of the most common infectious diseases of the urinary system, interstitial nephritis, nephropathy and


**Topic 14. Acute and chronic renal failure in children.**

**Thematic chapter 5.**

**Clinical supervision of healthy and sick children in a polyclinic. Emergency care in common emergency conditions.**
Specific objectives:
• Identify the different clinical variants and complications in the clinical supervision of healthy and sick children in the clinic
• Determine the tactics of children under medical observation for healthy and sick children in the clinic
• Demonstrate the ability to conduct pediatric medical records in the clinic
• Plan an investigation of children and interpret the results of the clinical supervision of healthy and sick children in the clinic
• To conduct a Differential diagnosis and put the preliminary clinical diagnosis of children who are on clinical supervision in the clinic
• To diagnose and provide emergency assistance to children who are on clinical supervision in the clinic

**Topic 15. Medical supervision of children in the first three years of life in the polyclinic setting.**
Procedure for obligatory preventive examinations of children under three years old. Efficient feeding and nutrition of the child under three years old. Evaluation of physical and psycho-motor development of children up to three years. Tactics of the general practitioner in violation of physical and neuropsychological development of children during the first three years of life. Principles of effective counseling. Differential diagnosis and prevention of the most common deficient states (rickets, iron deficiency) in infants. Prophylactic vaccination of children up to three years.


**Topic 17. Integrated management of childhood illnesses.**
The strategy of integrated management of childhood illness and its purpose. Common signs of danger for the child. Evaluation, classification, treatment, consultation and follow-up for coughing, difficulty in breathing, diarrhea, problems with the ear, sore throat, fever, malnutrition and anemia, the presence of HIV infection in children from 2 months to 5 years. Evaluation, classification, treatment, consultation and follow-up of children under the age of 2 months with jaundice, diarrhea, feeding problems and low birth weight, very severe illnesses and local bacterial infection.

**Topic 18. Features of medical supervision of adolescents. Differential diagnosis of arterial hypertension.**
**STRUCTURE OF THE EDUCATIONAL DISCIPLINE PEDIATRICS**

<table>
<thead>
<tr>
<th>Topic</th>
<th>Lectures</th>
<th>Workshops</th>
<th>Self-education</th>
<th>Individual work</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Thematic chapter 1. Differential diagnosis of the most common respiratory tract diseases in childhood. Emergency care in common emergency conditions.</strong></td>
<td></td>
<td></td>
<td></td>
<td>Analysis of clinical cases, working with the archive material in the clinic, preparation of literature review on the clinical cases, which have a difficult differential diagnosis and/or treatment</td>
</tr>
<tr>
<td>Topic 3. Differential diagnosis of hereditary, congenital, and chronic disease of the bronchopulmonary system in children.</td>
<td></td>
<td>6</td>
<td>4</td>
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</tr>
<tr>
<td><strong>Thematic chapter 2. Differential diagnosis of the most common disease of the blood circulatory system in children. Emergency care in common emergency conditions.</strong></td>
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</tr>
<tr>
<td>Topic 4. Differential diagnosis of cardiomegaly in children.</td>
<td></td>
<td>6</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Topic 7. Differential diagnosis of systemic connective tissue disease and systemic vasculitis in children.</td>
<td></td>
<td>6</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td><strong>Thematic chapter 3. Differential diagnosis of the most common disease of the digestive tract in children. Emergency care in common emergency conditions.</strong></td>
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<tr>
<td>Topic 8. Differential diagnosis of functional and organic disease of the stomach and duodenum in children.</td>
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<td>6</td>
<td>4</td>
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</tr>
<tr>
<td>Topic 11. Drug and food allergy in children.</td>
<td></td>
<td>6</td>
<td>4</td>
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</tr>
<tr>
<td><strong>Thematic chapter 4. Differential diagnosis of the most common diseases of the urinary tract in children. Emergency care in common emergency conditions.</strong></td>
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</tr>
<tr>
<td>Topic 14. Acute and chronic kidney failure. Treatment tactics and emergency care.</td>
<td></td>
<td>6</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td><strong>Thematic chapter 5. Clinical supervision of healthy and sick children in a polyclinic. Emergency care in common emergency conditions.</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Topic 15. Medical supervision of children in the first three years of life in the polyclinic setting. Well child visits.</td>
<td></td>
<td>6</td>
<td>4</td>
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</tbody>
</table>
### THEMATIC PLAN OF WORKSHOPS ON PEDIATRICS FOR 6 YEAR STUDENTS IN GENERAL MEDICINE

<table>
<thead>
<tr>
<th>№</th>
<th>Topic</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.</td>
<td>Differential diagnosis of hereditary, congenital, and chronic disease of the bronchopulmonary system in children.</td>
<td>6</td>
</tr>
<tr>
<td>4.</td>
<td>Differential diagnosis of cardiomegaly in children.</td>
<td>6</td>
</tr>
<tr>
<td>7.</td>
<td>Differential diagnosis of systemic connective tissue disease and systemic vasculitis in children.</td>
<td>6</td>
</tr>
<tr>
<td>8.</td>
<td>Differential diagnosis of functional and organic disease of the stomach and duodenum in children.</td>
<td>6</td>
</tr>
<tr>
<td>11.</td>
<td>Drug and food allergy in children</td>
<td>6</td>
</tr>
<tr>
<td>14.</td>
<td>Acute and chronic kidney failure. Treatment tactics and emergency care.</td>
<td>6</td>
</tr>
<tr>
<td>15.</td>
<td>Medical supervision of children in the first three years of life in the polyclinic setting. Well child visits</td>
<td>6</td>
</tr>
<tr>
<td>17.</td>
<td>Integrated management of childhood illnesses.</td>
<td>6</td>
</tr>
<tr>
<td>18.</td>
<td>Features of medical supervision of adolescents. Differential diagnosis of arterial hypertension.</td>
<td>6</td>
</tr>
</tbody>
</table>

Self-education of the student
Analysis of clinical cases, working with the archive material in the clinic, preparation of literature review on the clinical cases, which have a difficult Differential diagnosis and/or treatment

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<tr>
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</thead>
<tbody>
<tr>
<td>108</td>
<td>72</td>
<td></td>
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</tr>
</tbody>
</table>

Total hours 108
Independent work of a student - one of organizational forms of learning, regulated by the working curriculum and performed by the student independently outside the classroom. Possible types of independent work (self-work): preparation for workshops and study topics listed in self-learning schedule and study of additional literature, algorithms, structure, logic, writing cases, synopses, literature reviews. Organization of independent work in pediatric hospital departments must be ensured by teachers.

THEMATICAL PLAN OF INDEPENDENT WORK

<table>
<thead>
<tr>
<th>№ п/п</th>
<th>Topic</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.</td>
<td>Differential diagnosis of hereditary, congenital, and chronic disease of the bronchopulmonary system in children.</td>
<td>4</td>
</tr>
<tr>
<td>4.</td>
<td>Differential diagnosis of cardiomegaly in children.</td>
<td>4</td>
</tr>
<tr>
<td>6.</td>
<td>Differential diagnosis of abnormal cardiac rhythm and conduction in children. Emergency care in paroxysmal rhythm disturbances and Morgan-Adam Stokes syndrome.</td>
<td>4</td>
</tr>
<tr>
<td>7.</td>
<td>Differential diagnosis of systemic connective tissue disease and systemic vasculitis in children.</td>
<td>4</td>
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<td>14.</td>
<td>Acute and chronic kidney failure. Treatment tactics and emergency care.</td>
<td>4</td>
</tr>
<tr>
<td>15.</td>
<td>Medical supervision of children in the first three years of life in the polyclinic setting. Well child visits</td>
<td>4</td>
</tr>
<tr>
<td>16.</td>
<td>Differential diagnosis of jaundice in a newborn. Follow-up of children with perinatal pathology of the central nervous system.</td>
<td>4</td>
</tr>
<tr>
<td>17.</td>
<td>Integrated management of childhood illnesses.</td>
<td>4</td>
</tr>
<tr>
<td>18.</td>
<td>Features of medical supervision of adolescents. Differential diagnosis of arterial hypertension.</td>
<td>4</td>
</tr>
</tbody>
</table>

Analysis of clinical cases, working with the archive material in the clinic, preparation of literature review on the clinical cases, which have a difficult differential diagnosis and/or treatment

Type of control Current control during workshops

Total 72
Methods of teaching

Workshops are clinically oriented and directed to control theoretical material and development of practical skills and ability to analyze and apply knowledge to solve practical problems. Workshops mostly held in the children's departments of clinical facilities of the department.

• Each session begins with the 15-25 min test control conducted to assess initial knowledge and determine the degree of readiness of students to workshop. The teacher identifies the purpose of lesson and creates a positive cognitive motivation; answers the students’ questions that arose during learning of individual work.
• For 90-120 minute students personally examine their own pre-selected sick children, take medical history, examine children, and perform diagnostic manipulation and more. After that, the teacher performs clinical round, when students report about their patients and about the results of their independent work. Control of the main stage of the workshop conducts via evaluation of student practical skills, ability to solve typical case studies. The teacher discusses and gives an explanation highlights the features of the disease in the individual child, focuses on more efficient conduct of examination methods.
• On the final stage, to assess the level of mastering the topic, teacher offers to solve the case studies. The teacher sums up the lesson gives students tasks for independent work, points to key questions following topics and offers a list of recommended books for independent reading.

During the course of the workshop, the following educational technologies, modes of transmission and assimilation of knowledge and skills are used: lecture, simulation technology, clinical practice session, playing educational games, case method, multimedia presentations, and educational videos.

Evaluation of the "Pediatrics"

Types of monitoring and evaluation system implemented to comply with the discipline and instruction of the system of evaluation of educational activity of students in credit-transfer process.

Evaluation of current educational activity. In evaluating the mastering of each topic for current educational activity the student score for the 4-point scale (traditional) scale on the basis of approved evaluation criteria for the discipline. This takes into account all types of work, provided in the curriculum. The student must obtain an assessment of each topic. Forms of assessment of current educational activity should be standardized and include control of theoretical and practical training.

The methodology of the current control. Traditional scores are recorded in the academic chart. Practical exercises in "Pediatrics" are structured and provide a comprehensive assessment of all learning activities (learning tasks), that students perform during practical classes:

• Student answers 10 MCQ questions (tests according to the topic, format A, from database Spet-2).
• Answers standardized questions, answers to which are necessary for the understanding of the current topic.
• Demonstrates knowledge and practical skills according to the topic of the workshop.
• Solves situational tasks according to the topic of the workshop.
Criteria of marks of current educational activity

Excellent («5») – student answers correctly 90-100% MCQ tests (from database «Step-2»). Correctly, accurately, and logically answers all the standardized questions of the current topic. Closely links theory with practical knowledge and properly demonstrates practical skills. Analyzes the results of the lab/instrumental investigations without problems, and has proper methods of examination of the patient. Performs differential diagnosis. Solves situational tasks with elevated level of difficulty and knows how to compile the material.

Correctly, accurately, and logically answers all the standardized questions of the current topic. Closely links theory with practical knowledge and properly demonstrates practical skills. Analyzes the results of the lab/instrumental investigations without problems, and has proper methods of examination of the patient. Performs differential diagnosis. Solves situational tasks with elevated level of difficulty and knows how to compile the material.

Correctly answers all the standardized questions of the current topic. Demonstrates knowledge of practical skills. Correctly uses theoretical knowledge to solve practical tasks, Differential diagnosis. Knows how to solve easy and of medium difficult situational tasks. Contains the necessary practical knowledge and techniques and their uses, in excess of the required minimum.

Satisfactory («3») - student correctly answers 50-69% MCQ tests (from database «Step-2»). Incomplete, with the help of additional questions answers all the standardized questions on the current topic. Cannot independently form a clear logical answer. While the student is answering and demonstrating practical knowledge he makes mistakes. Can solve only the easiest situational tasks. Has knowledge of only the minimum methods of investigations.

Unsatisfactory («2») – student correctly answers 50% of MCQ tests (from database «Step-2»). Doesn’t know the material of the current topic, cannot formulate a logical answer, cannot answer additional questions, doesn’t understand the content of the topic. While the student is answering and demonstrating practical skills, makes significant mistakes.

Evaluation of independent work students in preparation for classroom workshops carried out during the current control topics at the classroom.

Types of control – current
Type of final assessment - credit

For disciplines to which the form of the final control is the credit: the maximum number of points that a student can obtain for current educational activity at the study course is 200 points. The minimum number of points that a student must collect for current educational activity for enrollment course is 120 points. Calculating the number of points received is based on the traditional student ratings scale in the study disciplines during the semester, by calculating the arithmetic mean (AM), rounded to two decimal places. The resulting value is converted into points by multi-score scale as follows:

$$ x = \frac{CA \times 200}{5} $$

Scores are converted regardless of discipline both in scale ECTS, and 4-point scale. Score scale ECTS 4-point scale not converted and vice versa. Scores of students enrolled in one specialty, are ranked as follows.
<table>
<thead>
<tr>
<th>Scores in 200 scale</th>
<th>Score according to the four-point scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>From 170 to 200</td>
<td>5</td>
</tr>
<tr>
<td>From 140 to 169</td>
<td>4</td>
</tr>
<tr>
<td>From 139 to minimum number of points, which the student should acquire in the discipline</td>
<td>3</td>
</tr>
<tr>
<td>Lower than the minimum number of points that the student should attain in the discipline</td>
<td>2</td>
</tr>
</tbody>
</table>

Mark of ECTS in the traditional four-point scale is not converted, since the ECTS and four-point scale are independent.

REFERENCES