

**PARACLINICAL METHODS OF INVESTIGATION AND
SEMEIOLOGY OF THE CARDIOVASCULAR SYSTEM
DISEASES IN CHILDREN**

Academic discipline «Pediatric Propedeutics»

Teacher's guide for the 3rd year

English medium students

**ПАРАКЛІНІЧНІ МЕТОДИ ОБСТЕЖЕННЯ ТА
СЕМІОТИКА УРАЖЕНЬ СЕРЦЕВО-СУДИННОЇ
СИСТЕМИ У ДІТЕЙ**

З дисципліни «Пропедевтика педіатрії»

***Методичні розробки для викладачів до аудиторної
роботи студентів 3-го курсу
медичного факультету***

МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ
Харківський національний медичний університет

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Compiled by: Klymenko V.A.
Sirenko T.V.
Plakhotna O.M.

Параклінічні методи обстеження та семіотика уражень серцево-судинної системи у дітей: метод. розр. для викладачів до аудит. роботи студентів 3 курсу медичних факультетів / упор. В.А.Клименко, Т.В. Сіренко, О.М. Плахотна. – Харків, ХНМУ, 2016. – 16 с.

Упорядники: Клименко В.А.
Сіренко Т.В.
Плахотна О.М.

Amount of educational hours: self-dependent work – 4;
practical training – 4.

Contents

Semeiology of the cardiovascular system affection: dyspnoea, pain in the heart region, heart hump, cyanosis of skin, lips, nails, vessels pulsation, systolic trembling (vibration), heart rhythm disorders (tachyarrhythmia, bradyarrhythmia, change of rhythm's leader, extrasystole, blockade of conductivity, paroxysmal tachycardia, ciliary arrhythmia). Change of heart borders, displacement of heart borders. Change of intensity of heart sounds – weak, slightly dulled, dulled, accentuated heart sounds, heart murmurs (systolic, diastolic, pericard friction rub), change of pulse (pulse of poor volume, abrupt pulse, hard, irregular, running, small, tense, thready, weak, etc.).

Syndromes of cardiovascular insufficiency (acute, chronic), signs of circulatory disturbance: circulatory insufficiency in systemic (greater) circulation, pulmonary (lesser) circulation. Pathology of the cardiovascular system in children.

Specific goals:

- to appoint the number of laboratory investigations in case of the cardiovascular system diseases in children.
- to appoint the number of instrumental investigations in case of the cardiovascular system diseases in children
- to provide syndrome-based diagnosis of the cardiovascular system diseases in children.

To know:

- The main clinical signs of cardiovascular system disorders in children (cyanosis, bradycardia, tachycardia, etc.).
- Semeiology of congenital and acquired the cardiovascular disease in children.
- Features ECG and PCG in healthy children of different ages.
- Echocardiography.

Be able to:

to appoint the laboratory investigations in case of the cardiovascular system diseases in children.

- to appoint the instrumental investigations in case of the cardiovascular system diseases in children
- to provide syndrome-based diagnosis of the cardiovascular system diseases in children

Providing an initial level of knowledge-abilities

To apply the materials of the guidelines for independent extra-curricular activities of students to the topic 13.

Materials needed for methodological support:

1. Case history of children with cardiovascular system pathology, tables, ECG.

The technological card of the lesson

№	Stage of the lesson	Study time (min)	Tutorials		Place of the lesson
			Learning tools	Equipment	
1.	Determination of the initial level of knowledge	20	Testing	Tests	Classroom
2.	Determination of the main positions of the topic	25	Quiz, discussion	Graphical structure of the topic, examples of the functional responsibilities of nurses.	Classroom
3.	Break	10			
4.	Solution for the training tasks of the topic	45	Independent work of a student under the guidance of a teacher - training of practical skills	Premises and equipment of the hospital	Departments of the hospital
5.	Break	30			
6.	Solution for the training tasks of the topic	45	Independent work of a student under the guidance of a teacher - training of practical skills.	Premises and equipment of the hospital	Departments of the hospital
7.	Break	10			
8.	Determination of the output level of skills readiness.	20	Checking of the practical skills of a student while work in the departments.	Premises and equipment of the hospital	Departments of the hospital
9.	Determination of the output level of knowledge and skills readiness.	15	Solving and discussion of situational assignments.	Situational tasks	Classroom
10.	Summation of the lesson. Assignment to the next lesson.	10	Quiz, discussion		Classroom

The estimated basis of the action in performance of the learning objectives of the topic (sections 4, 6):

1. The anamnesis taking, physical examination of the cardiovascular system (inspection , palpation of the chest, heart boards percussion, puls and arterial pressure) in children with age features.
2. Self-training in newborn, infant, pulmonology , allergology departments - conducting history taking, physical examination of the cardiovascular system (inspection , palpation of the chest, heart percussion) in children with age features. Interpretation of the data.

Assignments for testing the final level of knowledge
Situational tasks

Task №1

An examination of a newborn child is diagnosed open arterial duct. What vessels are combine this duct in uterus ?

Answer : the aorta and pulmonary trunk.

Task № 2

During pregnancy the mother of a newborn child suffered from rubella. What is the cardiovascular system disorder may have a child in this case?

Answer: congenital heart defect .

Task № 3

In child of 2-month-old in examination wasn't closed the foramen ovale was found. How is this condition call?

Answer: open foramen ovale.

Task № 4

Mother's complain to the doctor is the rapid pulse of her 1 -month-old child. During examination pediatrician found that the child's heart beet rate is 140 bpm. What is the normal pulse rate?

Answer. Pulse 140 beats a minute is normal for this age.

Task № 5

A 10 -year-old child is complaining of occurrence of edema in the lower extremities , which appears at the end of the day, the morning swelling is not market available. What is the most common cause of edema?

Answer : disease of the cardiovascular system.

The **maximum number of points** which may be consequently obtained by students is 200 points; this includes 120 points for current educational activity and 80 points for the final lesson.

Current educational activity of students is controlled during practical classes according to specific goals in the course of each practical class as well as during self-training in the hospital department. It is recommended to apply the following means of diagnostics of the students' level of readiness: control of practical skills, solving cases and test control of theoretical knowledge.

The current assessment of students on respective topics is conducted in the traditional 4-point grade scale ("excellent", "good", "satisfactory" and "unsatisfactory") with further conversion into a multiscore scale.

The grade "Excellent" is given when the student knows the program in toto, illustrating the answers with various examples; gives clear and comprehensive answers without any hints; delivers the material without any inaccuracies or errors; performs practical tasks of a different degree of complexity.

The grade "Good" is given when the student knows the whole program and understands it well, gives correct, consistent and structured but not completely comprehensive answers to questions, although he is able to answer additional questions without mistakes; solves all cases and performs practical tasks experiencing difficulties only in the most complex situations.

The grade "Satisfactory" is given to the student based on his satisfactory level of knowledge and understanding of the entire subject. The student is able to solve modified tasks with the help of hints; solves cases and applies practical skills experiencing difficulties in simple cases; is unable to deliver a consistent answer, but answers direct questions correctly.

The mark "Unsatisfactory" is given when the student's knowledge and skills do not meet the requirements of the grade "satisfactory".

Given the number of practical classes the grades are converted into the multiscore scale as follows:

The mark "Excellent" – 72-80 scores

The mark "Good" – 60-71 scores

The mark "Satisfactory" – 50-59 scores

The mark "Unsatisfactory" – 0 scores

Навчальне видання

**Параклінічні методи обстеження та семіотика уражень серцево-судинної системи
у дітей**

Упорядники: Клименко Вікторія Анатоліївна
Сіренко Тетяна Вадимівна
Плахотна Ольга Миколаївна

Відповідальний за випуск: Клименко В.А.

Комп'ютерна верстка

Ум. друк. арк. ____ . Тираж ____ прим. Зам. № ____ .
