MINISTRY OF HEALTH OF UKRAINE

ODESSA NATIONAL MEDICAL UNIVERSITY

Department of Pediatrics No. 1

APPROVE

Acting pro-rector for scientific and educational work

prof. _____ **Svitlana KOTHUZHYNSKA**

"_01_" _____09_____ 2022

EDUCATIONAL PROGRAM OF THE DISCIPLINE "PEDIATRICS"

Higher education level: second (master's)

Field of knowledge: 22 "Health Care"

Specialty: 222 "Medicine"

Educational and professional program: Medicine

2022

The working program is compiled on the basis of the educational and professional program "Medicine", the training of specialists of the second (master's) level of higher education in the specialty 222 "Medicine" of the field of knowledge 22 "Health care", approved by the Academic Council of ONMedU, dated Jun 23, 2022, protocol No. 9.

Developers: head of the department, Corresponding Member of NAMS of Ukraine, DSc, Prof. Aryayev M.L., head teacher of the department, PhD, assoc. of professor Kaplina L. E., Senkivska L.I, assistant of the department, PhD Usenko D.V.

The working program was approved at the meeting of the Department of Pediatrics No. 1

Protocol No. _21__ dated Jun 29, 2022

Head of the department, Corresponding Member of NAMS of Ukraine,

DSc, Prof. Mykola Aryayev

Agreed with the guarantor of the EPP _____

_____(Valeria MARICHEREDA)

(signature) *(Name SURNAME)*

The program was approved at the meeting of the subject cycle commission for pediatric disciplines of ONMedU

Protocol No. _6_____ dated "__30___" _____06_____ 2022____ y.

Head of the subject cycle methodical commission for pediatric disciplines, professor

_____ (Natalia KOTOVA)

Reviewed and approved at the meeting of the Department of Pediatrics No. 1 _____

Protocol No. ___ dated "___" _____ 20__ y.

Head of the department _____(Mykola ARYAYEV)

(signature) *(Name SURNAME)*

Reviewed and approved at the meeting of the Department of Pediatrics No. 1 _____

Protocol No. ___ dated "_____" _____ 20____ y.

Head of the department _____(Mykola ARYAYEV)

(signature) *(Name SURNAME)*

1. The description of the educational discipline:

The name of indicators	Field of knowledge, specialty, specialization, level of higher education	Characteristic of the educational discipline
Total amount: Credits: 3 Hours: 90 Content modules: 3	Field of knowledge 22 "Health Care" Specialty 222 "Medicine" Higher education level second (master's)	Full-time education
		Year of education: 5
		Semester IX - X
		Lectures (6 hours)
		Seminars (0 hours)
		Practical (68 hours)
		Laboratory (0 hours)
		Self-make work (16 hours)
		including individual tasks (0 hours)
		Form of final control – differential credit

2. The purpose and tasks of the educational discipline, competences, program learning outcomes.

Purpose: The application's acquisition of the higher education of knowledge and formation of elements of professional competences in the field of pediatrics, subdivisions: neonatology, children's endocrinology, children's hematology and improvement of skills and competences acquired during the study of previous disciplines

Tasks:

1. Formation of skills and professional competences in neonatology, pediatric endocrinology, pediatric hematology.
2. Improving interviewing skills, justifying clinical diagnosis, drawing up a plan for laboratory and instrumental research in neonatal, endocrine and hematological diseases in children.
3. Mastering the ability to determine the tactics of treatment and prevention of neonatal, endocrine and hematological diseases in children.

The process of studying the discipline is aimed at forming elements of the following competencies:

Integral competency of the master's degree (IC)

- IC – Ability to solve typical and complex problems, including those of a research and innovation nature in the field of medicine. Ability to continue learning with a high degree of autonomy

General (GC):

- GC1 – Ability to abstract thinking, analysis and synthesis.
- GC3 – Ability to apply knowledge in practical situations.
- GC4 – Knowledge and understanding of the subject area and understanding of professional activity.
- GC5 – Ability to adapt and act in a new situation.
- GC6 – Ability to make informed decisions.
- GC7 – Ability to work in a team.
- GC8 – Ability to interpersonal interaction.
- GC11 – Ability to search, process and analyze information from various sources.
- GC12 – Determination and perseverance regarding the assigned tasks and assumed responsibilities.
- GC13 – Awareness of equal opportunities and gender issues.

- **Special (SC):**

- SC1 – Ability to collect medical information about the patient and analyze clinical data.

- SC2 – Ability to determine the necessary list of laboratory and instrumental studies and evaluate their results.
- SC3 – Ability to establish a preliminary and clinical diagnosis of the disease.
- SC5 – Ability to determine the nature of nutrition in the treatment and prevention of diseases.
- SC6 – Ability to determine the principles and nature of treatment and prevention of diseases.
- SC7 – Ability to diagnose emergency conditions.
- SC8 – Ability to determine tactics and provide emergency medical assistance.
- SC10 – Ability to perform medical manipulations.
- SC11 – Ability to solve medical problems in new or unfamiliar environments in the presence of incomplete or limited information, taking into account aspects of social and ethical responsibility.
- SC13 – Ability to carry out sanitary and hygienic and preventive measures.
- SC16 – Ability to maintain medical documentation, including electronic forms.
- SC24 – Compliance with ethical principles when working with patients and laboratory animals.
- SC26 – Ability to determine the management tactics of persons to outpatient supervision.

Program learning outcomes (PLO):

- PLO1 – To have thorough knowledge of the structure of professional activity. To be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, the ability for further professional training with a high level of autonomy.
- PLO2 – Understanding and knowledge of basic and clinical biomedical sciences, at a level sufficient for solving professional tasks in the field of health care.
- PLO3 – Specialized conceptual knowledge, which includes scientific achievements in the field of health care and is the basis for conducting research, critical understanding of problems in the field of medicine and related interdisciplinary problems.
- PLO4 – Identify and identify leading clinical symptoms and syndromes (according to list 1); according to standard methods, using the previous data of the patient's history, the data of the patient's examination, knowledge about the person, his organs and systems, establish a preliminary clinical diagnosis of the disease (according to list 2).
- PLO5 – Collect complaints, history of life and illness, assess the psychomotor and physical development of the patient, the state of the organs and systems of the body, based on the results of laboratory and instrumental studies, evaluate information regarding the diagnosis (according to list 4), taking into account the age of the patient.
- PLO6 – To establish the final clinical diagnosis by making a reasoned decision and analyzing the received subjective and objective data of clinical, additional examination, carrying out differential diagnosis, observing the relevant ethical and legal norms, under the control of the managing physician in the conditions of a health care institution (according to list 2).7
- PLO7 – Prescribe and analyze additional (mandatory and optional) examination methods (laboratory, functional and/or instrumental) (according to list 4) of patients with diseases of systems of the body for differential diagnosis of diseases (according to list 2).
- PLO8 – Determine the main clinical syndrome or symptom that determines the severity of the condition of the victim/injured (according to list 3) by making a reasoned decision about the person's condition under any circumstances (in the conditions of a health care facility, outside its borders) including the conditions of an emergency and hostilities, in field conditions, in conditions of lack of information and limited time.
- PLO9 – Determine the nature and principles of treatment (conservative, operative) of patients with diseases (according to list 2), taking into account the age of the patient, in the conditions of the health care facility, outside its borders and at the stages of medical evacuation, including in field conditions, on the basis of a preliminary clinical diagnosis, observing the relevant ethical and legal norms, by making a reasoned decision according to existing algorithms and standard schemes, in case of the need to expand the standard scheme, be able to substantiate personalized recommendations under the control of the head physician in the conditions of a medical institution.
- PLO10 – Determine the necessary regime of work, rest and nutrition on the basis of the final clinical diagnosis, observing the relevant ethical and legal norms, by making a reasoned decision according to existing algorithms and standard schemes.

- PLO12 – To assess the general condition of a newborn child by making a reasoned decision according to existing algorithms and standard schemes, observing the relevant ethical and legal norms.
- PLO13 – Assess and monitor the child's physical and psychomotor development, provide recommendations on feeding and nutritional features depending on age.
- PLO14 – Determine tactics and provide emergency medical care in emergency situations for neurological diseases (according to list 3) in limited time in accordance with existing clinical protocols and standards of treatment.
- PLO17 – Perform medical manipulations (according to list 5) in the conditions of a medical institution, at home or at work based on a previous clinical diagnosis and/or indicators of the patient's condition by making a reasoned decision, observing the relevant ethical and legal norms.
-PLO 18. Determination of the state of functioning and limitations of a person's vital activities and the duration of incapacity for work with the preparation of relevant documents, in the conditions of a health care institution, based on data about the disease and its course, peculiarities of a person's professional activity, etc. Maintain medical documentation regarding the patient and the contingent of the population based on regulatory documents
- PLO21 – Search for the necessary information in the professional literature and databases of other sources, analyze, evaluate and apply this information.
- PLO 29. Planning, organising and carrying out measures for the specific prevention of infectious diseases, including by the National calendar of preventive vaccinations, both mandatory and recommended. Managing vaccine residues, and organization of additional vaccination campaigns, including immunoprophylaxis measures.
- PLO30 – Determine the management tactics of persons to outpatient supervision (children, pregnant women, workers whose professions require mandatory medical examination).

As a result of studying the educational discipline, the applicant of higher education must:

Know: Etiology, pathogenesis, clinic, diagnosis, differential diagnosis, treatment, prevention of neonatal, endocrine, hematological diseases in children.

Be able:

- Communicate with the child and her parents, collect complaints, life history and illness.
- Assess the physical and psychomotor development of children; provide recommendations on feeding and nutritional features depending on age.
- Conduct clinical examination of children of different ages according to standard methods.
- Analyze the results of laboratory, functional and instrumental research.
- Carry out differential diagnosis and substantiate the clinical diagnosis.
- Determine tactics and provide emergency medical care in emergency situations in children.
- To determine the nature and principles of treatment of sick children on the basis of a preliminary clinical diagnosis, observing the relevant ethical and legal norms, by making a reasoned decision according to existing algorithms and standard schemes.
- Perform medical manipulations (according to list 5) for neonatal, endocrine and hematological diseases in children.
- Keep medical documentation for common diseases in children.

3. The content of the study discipline

Topic 2. Asphyxia of a newborn. Birth trauma.

Asphyxia of a newborn: etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis. Primary resuscitation of newborns.

Birth trauma: etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis.

Topic 3. Diseases of respiratory organs.

Respiratory distress syndrome of newborns: etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis. Pneumonia of newborns: etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis.

Topic 4. Hemolytic disease of newborns (HDN). Hemorrhagic disease of newborns.

Hemolytic disease of newborns: etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis.

Hemorrhagic disease of newborns: etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis.

Topic 5. Intrauterine infections.

TORCH-infections of newborns: etiology, pathogenesis, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis.

Topic 6. Bacterial infections and sepsis of newborns.

Purulent-inflammatory diseases of the skin and subcutaneous fat of newborns, diseases of the umbilical cord, umbilical wound and umbilical vessels: classification, etiology, pathogenesis, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis. Neonatal sepsis: definition, classification, etiology, pathogenesis, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis.

Content module 2. Diseases of the blood system in children

Topic 7. Anemia in children.

Anemias in children (deficiency, posthemorrhagic, hemolytic, due to impaired hematopoiesis): definition, etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis.

Topic 8. Hemorrhagic diseases in children.

Coagulopathies (hemophilia): in children: etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis. Thrombocytopenia (thrombocytopenic idiopathic purpura) in children: etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis. Hemorrhagic vasculitis in children: etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis. Emergency care for bleeding in children.

Topic 9. Leukemias and lymphomas in children.

Leukemia in children: etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis, palliative care.

Lymphomas in children: etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis, palliative care.

Content module 3. Diseases of the endocrine system in children

Topic 10. Diabetes mellitus in children.

Diabetes mellitus in children: definition, etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis. Acute and chronic complications of diabetes mellitus in children. Hyperglycemic ketoacidotic and hypoglycemic coma in children: causes, pathogenesis, clinic, diagnosis, differential diagnosis, emergency care, prevention.

Topic 11. Diseases of the thyroid gland and hypothalamic-pituitary system in children.

Classification of diseases of the thyroid gland in children. Etiology, pathogenesis, clinic, diagnosis, differential diagnosis, treatment, prevention and prognosis of diffuse toxic goiter, hypothyroidism, autoimmune thyroiditis, endemic goiter in children. Emergency care for thyrotoxic crisis in children. Diseases of the hypothalamic-pituitary system in children. Etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis.

Topic 12. Diseases of gonads and adrenal glands in children. Obesity in children.

Diseases of gonads (delay and acceleration of sexual development, undetermined gender) and adrenal glands in children (adreno-genital syndrome, chronic adrenal insufficiency). Etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis. Obesity in children. Definition, etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis.

4. Structure of the educational discipline

Topics	Number of hours					
	Total	including				
		lectures	seminars	practical	laboratory	self-make work
	9	2	0	6	0	1
Topic 2. **Asphyxia of a newborn. Birth trauma.]**	7	0	0	6	0	1
Topic 3. **Diseases of respiratory organs** of newborns.	7	0	0	6	0	1
Topic 4. **Hemolytic disease of newborns (HDN). Hemorrhagic disease of newborns.**	9	2	0	6	0	1
Topic 5. **Intrauterine infections.**	7	0	0	6	0	1
Topic 6. **Bacterial infections and sepsis of newborns.**	7	0	0	6	0	1
Together by content module 1	46	4	0	36	0	6
Content module 2. Diseases of the blood system in children						
Topic 7. **Anemia in children.**	5	0	0	4	0	1
Topic 8. **Hemorrhagic diseases in children.**	7	0	0	6	0	1
Topic 9. **Leukemias and lymphomas in children.**	7	0	0	6	0	1
Together by content module 2	19	0	0	16	0	3
Content module 3. Diseases of the endocrine system in children						
Topic 10. **Diabetes mellitus in children.**	9	2	0	6	0	1
Topic 11. **Diseases of the thyroid gland and hypothalamic-pituitary system in children.**	7	0	0	6	0	1
Topic 12. **Diseases of gonads and adrenal glands in children. Obesity in children.**	5	0	0	4	0	1
Together by content module 3	21	2	0	16	0	3
Individual tasks	4	0	0	0	0	4
Total hours	90	6	0	68	0	16

5. Topics of lectures / seminars / practical / laboratory classes

5.1. Topics of the lectures

No.	Topic	The number of hours
1.	Organization of neonatal care in Ukraine. Medical care for a healthy newborn baby. Premature babies. Peculiarities of feeding and raising premature babies. Children with intrauterine growth retardation. Emergency care for the main emergency conditions in premature newborns: hypothermia, respiratory failure, hypoglycemia. Issues of bioethics in modern neonatology.	2
2.	Hemolytic disease of newborns (HDN). Hemorrhagic disease of newborns.	2
3.	Diabetes mellitus in children.	2
	Total	6

5.2. Topics of seminar classes.

Seminar classes are not provided.

5.3. Topics of practical classes

No.	The title of the topic	The number of hours
1.		2
2.		2
3		2
4.	**Topic 2. Practical lesson 4.** Asphyxia of a newborn: etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis.	2
5.	**Topic 2. Practical lesson 5.** Asphyxia of a newborn. Primary resuscitation of newborns	2
6.	**Topic 2. Practical lesson 6.** Birth injury: etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis.	2
7.	**Topic 3. Practical lesson 7.** **Diseases of respiratory organs in newborn children.** Respiratory distress syndrome of newborns: etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis.	2
8.	**Topic 3. Practical lesson 8.** **Diseases of respiratory organs in newborn children.** Pneumonia of newborns: etiology, pathogenesis, classification, clinic, diagnosis.	2
9.	**Topic 3. Practical lesson 9.** **Diseases of respiratory organs in newborn children.** Pneumonia of newborns: differential diagnosis, treatment, prevention, prognosis.	2

10.	**Topic 4. Practical lesson 10.** Hemolytic disease of newborns: etiology, pathogenesis, classification, clinic, diagnosis.	2
11.	**Topic 4. Practical lesson 11.** Hemolytic disease of newborns: differential diagnosis, treatment, prevention, prognosis.	2
12.	**Topic 4. Practical lesson 12.** Hemorrhagic disease of newborns: etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis.	2
13.	**Topic 5. Practical lesson 13.** **Intrauterine infections.** TORCH-infections of newborns: etiology, pathogenesis, clinic.	2
14.	**Topic 5. Practical lesson 14.** **Intrauterine infections.** TORCH-infections of newborns: diagnosis, differential diagnosis.	2
15.	**Topic 5. Practical lesson 15.** Intrauterine infections: treatment, prevention, prognosis.	2
16.	**Topic 6. Practical lesson 16.** **Bacterial infections and sepsis of newborns.** Purulent-inflammatory diseases of the skin of newborns: classification, etiology, pathogenesis, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis.	2
17.	**Topic 6. Practical lesson 17.** . **Bacterial infections and sepsis of newborns.** Diseases of the umbilical cord, umbilical wound and umbilical vessels: classification, etiology, pathogenesis, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis.	2
18/	**Topic 6. Practical lesson 18. Bacterial infections and sepsis of newborns.** Neonatal sepsis: definition, classification, etiology, pathogenesis, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis.	
19.	**Topic 7. Practical lesson 19.** **Anemia in children.** Anemias in children (deficiency, posthemorrhagic: definition, etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis.	2
20.	**Topic 7. Practical lesson 20.** **Anemia in children.** Anemias in children (hemolytic due to impaired hematopoiesis): definition, etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis.	2
21.	**Topic 8. Practical lesson 21.** **Hemorrhagic diseases in children.** Coagulopathies (hemophilia): in children: etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis., prognosis.	2
22.	**Topic 8. Practical lesson 22.** Thrombocytopenia (thrombocytopenic idiopathic purpura) in children: etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, prevention	2
23	**Topic 8. Practical lesson 23.** **Hemorrhagic diseases in children.** Hemorrhagic vasculitis in children: etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis. Emergency care for bleeding in children.	2
24.	**Topic 9. Practical lesson 24.** **Leukemias and lymphomas in children.**	2

	Leukemia in children: etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis.	
25.	**Topic 9. Practical lesson 25.** **Leukemias and lymphomas in children.** Leukemia in children: treatment, prevention, prognosis, palliative care.	2
26.	**Topic 9. Practical lesson 26.** **Leukemias and lymphomas in children.** Lymphomas in children: etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis, palliative care.	2
27.	**Topic 10. Practical lesson 24.** **Diabetes in children.** Diabetes mellitus in children: definition, etiology, pathogenesis, classification, clinic, diagnosis.	2
28.	**Topic 10. Practical lesson 28.** **Diabetes in children.** Diabetes in children: differential diagnosis, treatment, prevention, prognosis. Chronic complications of diabetes in children.	2
29.	**Topic 10. Practical lesson 29**. **Diabetes in children.** Diabetes in children: Acute complications Hyperglycemic ketoacidotic and hypoglycemic coma in children: causes, pathogenesis, clinic, diagnosis, differential diagnosis, emergency care, prevention.	2
30.	**Topic 11. Practical lesson 30.** **Diseases of the thyroid gland in children.** Classification of diseases of the thyroid gland in children. Etiology, pathogenesis, clinic, diagnosis, differential diagnosis of diffuse toxic goiter, hypothyroidism, autoimmune thyroiditis, endemic goiter in children.	2
31.	**Topic 11. Practical lesson 31.** **Diseases of the thyroid gland in children.** Treatment, prevention and prognosis of diffuse toxic goiter, hypothyroidism, autoimmune thyroiditis, endemic goiter in children. Emergency care for thyrotoxic crisis in children.	2
32.	**Topic 11. Practical lesson 32.** **Diseases of the hypothalamic-pituitary system in children.** Etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis.	2
33.	**Topic 12. Practical lesson 33.** **Diseases of gonads and adrenal glands in children.** Diseases of gonads (delay and acceleration of sexual development, undetermined gender) and adrenal glands in children (adreno-genital syndrome, chronic adrenal insufficiency). Etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis.	2
34.	**Topic 12. Practical lesson 34.** **Obesity in children.** Definition, etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis.	2
	Total	68

5.4. Topics of laboratory classes

Laboratory classes are not provided.

6. Self-made work of the application of higher education

No.	The title of the topic / types of tasks	The number of hours
1.	Topic 1. Preparation for practical classes 1-3	1
2.	Topic 2. Preparation for practical classes 4-6	1
3.	Topic 3. Preparation for practical classes 7-9	1
4.	Topic 4. Preparation for practical classes 10-12	1
5.	Topic 5. Preparation for practical classes 13-15	1
6.	Topic 6. Preparation for practical classes 16-18	1
7.	Topic 7. Preparation for practical classes 19-21	1
8.	Topic 8. Preparation for practical classes 21-23	1
9.	Topic 9. Preparation for practical classes 24-26	1
10.	Topic 10. Preparation for practical classes 27-29	1
11.	Topic 11. Preparation for practical classes 30-32	1
12.	Topic 12. Preparation for practical classes 33-34	1
13.	Educational history of the illness of a newborn	4
	Total	**16**

7 Methods of studying

Lectures

Practical classes: conversation, solving of clinical situational tasks, practicing patient examination skills, demonstrating and practicing the skills of performing manipulations according to list 5, instruction and practicing skills on simulation dummies, training exercises on the diagnosis of the most neonatal, endocrine and hematological diseases in children.

Self-make work: self-make work with the textbook, self-make work with the database of test tasks Step-2, self-make solving of clinical tasks, assessment of physical development of children, writing medical history of a newborn child.

8. Control methods and criteria for evaluating learning outcomes

Current control: oral survey, testing, assessment of performance of practical skills, solution of situational clinical tasks, assessment of activity in class.
Final control: testing, differential credit.

The structure of the current assessment at the practical class:

1. Evaluation of theoretical knowledge of the topic of lesson:
- methods: survey, solving a situational clinical tasks, test tasks;
- maximum grade – 5, minimum grade – 3, unsatisfactory grade – 2.
2. Evaluation of practical skills and manipulations of the topic of lesson:
- methods: assessment of the correctness of the performance of practical skills

- maximum grade – 5, minimum grade – 3, unsatisfactory grade – 2.
3. Evaluation of work with the patient of the topic of lesson:
- methods: assessment of: a) communication skills of communicating with the patient and his parents, b) clinical examination methods; c) the correctness of the appointment and assessment of laboratory and instrumental studies, d) compliance with the differential diagnosis algorithm, e) justification of the clinical diagnosis, e) making a treatment plan
- maximum grade – 5, minimum grade – 3, unsatisfactory grade – 2.
The grade for the lesson is the arithmetic average of all components and can only have an integer value, namely 5, 4, 3, 2. The grade for the lesson is the arithmetic average of all components and can only have an integer value, namely 5, 4, 3, 2.

Current assessment criteria for the practical class:

Grade	Structure
"5"	The applicant of higher education is fluent in the material, takes an active part in the role-playing game, confidently demonstrates practical skills during the examination of a sick child and the interpretation of clinical, laboratory and instrumental research data, expresses his opinion on the subject of the lesson, demonstrates clinical thinking.
"4"	The applicant of higher education has a good command of the material, takes part in a role-playing game, demonstrates practical skills during the examination of a sick child and the interpretation of clinical, laboratory and instrumental research data with some errors, expresses his opinion on the topic of the lesson, demonstrates clinical thinking.
"3"	The applicant of higher education does not have sufficient knowledge of the material, performs his role in the role-play without confidence, demonstrates practical skills during the examination of a sick child and the interpretation of clinical, laboratory and instrumental research data with significant errors.
"2"	The applicant of higher education does not master the material, does not take part in a role-playing game, does not demonstrate practical skills during the examination of a sick child and the interpretation of clinical, laboratory and instrumental research data.

The structure of the assessment of self-make individual work - the educational history of the illness of a newborn child:

1. Evaluation of work with the patient:

- a) communicative skills of conversation with the patient and his parents, b) the correctness of the algorithm of the clinical examination of a sick child, c) appointment and assessment of laboratory and instrumental studies, d) compliance with the algorithm of differential diagnosis, e) justification of the clinical diagnosis, e) making a treatment plan and feeding a child;

- maximum grade – 5, minimum grade – 3, unsatisfactory grade – 2.
2. Evaluation of medical documentation management: e) quality and consistency of the medical history of a newborn child

- maximum grade – 5, minimum grade – 3, unsatisfactory grade – 2.
The grade for medical history is the arithmetic mean of all components and can only have an integer value, namely 5, 4, 3, 2.

Criteria for the current evaluation of individual self-make work - educational history of a newborn child:

Grade	Structure
«5»	The applicant of higher education fully reflected the complaints, medical and life history, data of the child's clinical examination and correctly interpreted the data of clinical, laboratory and instrumental studies, made a complete plan for the child's examination, demonstrated clinical thinking during the justification of the clinical diagnosis, made a treatment plan with the definition of the name of the drug, dose, duration of treatment.
«4»	The applicant of higher education reflected complaints, medical history and life history, clinical examination data of the child, interpreted the data of clinical, laboratory and instrumental studies, drew up a plan for the examination of the child, demonstrated clinical thinking during the substantiation of the clinical diagnosis, drew up a treatment plan specifying the name of the drug, dose, duration of treatment, with some errors.
«3»	The applicant of higher education reflected the complaints, medical and life history, data of the child's clinical examination, interpreted the data of clinical, laboratory and instrumental studies, made a plan for the child's examination, substantiated the clinical diagnosis, made a treatment plan, with significant errors.
«2»	The applicant of higher education did not reflect the complaints, medical and life history, data of the child's clinical examination, did not interpret the data of clinical, laboratory and instrumental studies, did not make a plan for the child's examination, did not substantiate the clinical diagnosis, did not make a treatment plan, or did not write a medical history at all.

The medical history grade is a component of the arithmetic mean grade for the current activity.

A student is admitted to differential credit provided that he meets the requirements of the educational program and if he received at least 3.00 points for the current educational activity.

Evaluation of learning results during the final control

The content of the activity evaluation	Quantity
Solving of clinical tasks	1
The answer to theoretical questions	1

The structure of differential credit assessment:

Criteria for evaluating the learning outcomes of students on differential credit:

Grade	Structure
Excellent	The applicant of higher education correctly, accurately and completely completed all the tasks received, clearly and logically answered the questions. Thoroughly and comprehensively knows the content of theoretical issues, fluent in professional and scientific terminology. Thinks logically and constructs an answer, freely uses acquired theoretical knowledge when analyzing practical tasks. When solving a clinical problem, he correctly interpreted the anamnesis

	data, the results of clinical, laboratory and instrumental studies, answered all the questions correctly and convincingly substantiated his point of view, could propose and justify an alternative version of the decision on individual issues. When solving a practical task, he correctly demonstrated the implementation of practical skills, strictly followed the algorithm of their implementation.
Good	The applicant of higher education completed all the tasks received, answered the questions clearly and logically. He knows the content of theoretical issues deeply and comprehensively, and has professional and scientific terminology. Thinks logically and constructs an answer, uses acquired theoretical knowledge when analyzing practical tasks. But when teaching some questions, there is not enough depth and argumentation, it makes insignificant mistakes, which are eliminated by the applicant himself when the examiner points them out. When solving a clinical problem, he assumed insignificant errors or inaccuracies in the interpretation of anamnesis data, the results of clinical, laboratory and instrumental studies, answered all the questions without significant errors, fully substantiated his point of view, but the proposal of an alternative option caused difficulties. When solving a practical task, he made minor mistakes in the algorithm and technique of performing skills, which were corrected at the teacher's direction.
Satisfactorily	The applicant of higher education incompletely completed all the tasks received, the answers to additional and leading questions are vague and vague. Possesses a basic amount of theoretical knowledge, uses professional and scientific terminology inaccurately. Experiences significant difficulties in constructing an independent logical answer, in applying theoretical knowledge in the analysis of practical tasks. There are significant errors in the answers. When solving a clinical problem, he interpreted the anamnesis data, the results of clinical, laboratory and instrumental studies with errors, did not know individual details, allowed inaccuracies in the answers to questions, did not sufficiently justify his answers and interpret the wording correctly, experienced difficulties in completing tasks and offering alternative options. When solving a practical task, significant errors were made in the algorithm and skill performance technique.
Unsatisfactorily	The applicant of higher education didn’t complete the tasks received, in most cases did not answer the additional and leading questions of the examiners. He did not master the basic amount of theoretical knowledge, he showed a low level of mastery of professional and scientific terminology. Answers to questions are fragmentary, inconsistent, illogical, cannot apply theoretical knowledge when analyzing practical tasks. There are a significant number of gross errors in the answers. When solving a clinical problem, he could not interpret the received data from the anamnesis, the results of clinical, laboratory and instrumental studies, answer the questions, or made significant mistakes in the answers; could not justify his decisions or did it unconvincingly. He did not offer alternative options. When solving a practical task, he did not demonstrate or made gross errors and mistakes in the algorithm and skill performance technique.

9. Distribution of points received by applications of higher education

The grade for the discipline consists of 50.0% of the grade for current performance and 50.0% of the grade for differential credit.

The average grade for the discipline is translated into a national grade and converted into points on a multi-point scale (200-point scale).

The conversion of a traditional grade for a discipline into a 200-point grade is carried out by the information and computing center of the university using the "Contingent" program according to the formula:

Average performance score (current performance in the discipline) x 40

Table of conversion of a traditional grade into a multi-point grade:

National grade for the discipline	The amount of points for the discipline
«5»	**185 – 200**
«4»	**151 – 184**
«3»	**120 – 154**
«2»	**Below 120**

According to the ECTS rating scale, the achievements of students in the educational component who study in the same course of the same specialty are evaluated, according to the points they received, by ranking, namely:

Conversion of the traditional grade from the discipline and the amount of points on the ECTS scale

Grade on the ECTS scale	Statistical indicator
A	The best 10% of applicants
B	The next 25% of applicants
C	The next 30% of applicants
D	The next 25% of applicants
E	The next 10% of applicants

10.Methodological support:

- The working program of the educational discipline
- Syllabus of the educational discipline
- Multimedia presentations
- Situational clinical tasks
- Methodical development of practical classes
- Electronic database of test tasks by subdivisions of the discipline

Books:

1. Nelson textbook of pediatrics, 2 volume set. Edition: 21st, 2019. PDF format. http://pediacalls.com/e-books/nelson-textbook-of-pediatrics-21st-edition/
2. Nelson Pediatric Abx 2022 URL: https://apps.apple.com/ru/app/nelson-pediatric-abx-2022/id1611269134
3. Vinod K Paul, Arvind Bagga. Ghai Essential Pediatrics, 8th edition, 2013. PDF format.

11. Questions for preparing for the test:

1. Organization of neonatal care in Ukraine. Issues of bioethics in modern neonatology.

2. Medical care for a healthy newborn child.
3. Premature children. Criteria for determining prematurity. Peculiarities of adaptation of prematurely born children. Etiological factors of prematurity. Anatomical and physiological features. Classification of premature babies according to birth weight and the ratio of physical development and gestational age.
4. Premature children. Assessment of morphological and neuro-functional maturity of prematurely born children (according to the Ballard scale).
5. Premature children. Principles of raising premature babies. Peculiarities of feeding premature babies.
6. Emergency care for the main emergency conditions in premature newborns: hypothermia, respiratory failure, hypoglycemia.
7. Intrauterine development delay: causes, postnatal diagnosis, features of early neonatal adaptation.
8. Asphyxia of a newborn: etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis.
9. Asphyxia of a newborn. Primary resuscitation of newborns.
10. Birth trauma: etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis.
11. Respiratory distress syndrome of newborns: etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis.
12. Pneumonia of newborns: etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis.
13. Hemolytic disease of newborns: etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis.
14. Hemorrhagic disease of newborns: etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis.
15. TORCH-infections of newborns: etiology, pathogenesis, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis.
16. Bacterial infections of newborns. Purulent-inflammatory diseases of the skin and subcutaneous fat of newborns, diseases of the umbilical cord, umbilical wound and umbilical vessels: classification, etiology, pathogenesis, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis.
17. Bacterial infections of newborns. Neonatal sepsis: definition, classification, etiology, pathogenesis, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis.
18. Anemias in children (deficiency, posthemorrhagic, hemolytic, due to hematopoiesis disorders): definition, etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis.
19. Hemorrhagic diseases in children. Coagulopathies (hemophilia): in children: etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis.
20. Hemorrhagic diseases in children. Thrombocytopenia (thrombocytopenic idiopathic purpura) in children: etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis.
21. Hemorrhagic diseases in children. Hemorrhagic vasculitis: in children: etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis. Emergency care for bleeding in children.
22. Leukemia in children: etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis.
23. Lymphomas in children: etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis.
24. Diabetes in children: definition, etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis. Acute and chronic complications of diabetes in children.
25. Diabetes in children. Hyperglycemic ketoacidotic and hypoglycemic coma in children: causes, pathogenesis, clinic, diagnosis, differential diagnosis, emergency care, prevention.

26. Classification of thyroid diseases in children. Etiology, pathogenesis, clinic, diagnosis, differential diagnosis, treatment, prevention and prognosis of diffuse toxic goiter, hypothyroidism, autoimmune thyroiditis, endemic goiter in children. Emergency care for thyrotoxic crisis in children.
27. Diseases of the hypothalamic-pituitary system, gonads and adrenal glands in children. Etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis.
28. Obesity in children. Definition, etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis.

12. Recommended literature:

Basic:

1. Nelson textbook of pediatrics, 2 volume set. Edition: 21st, 2019. PDF format. http://pediacalls.com/e-books/nelson-textbook-of-pediatrics-21st-edition/.
2. Nelson Pediatric Abx 2022 URL: https://apps.apple.com/ru/app/nelson-pediatric-abx-2022/id1611269134
3. Vinod K Paul, Arvind Bagga. Ghai Essential Pediatrics, 8th edition, 2013. PDF format.

Additionally:

1. Aryayev M, Senkivska L and Lowe JB (2021) Psycho-Emotional and Behavioral Problems in Children With Growth Hormone Deficiency. Front. Pediatr. 9:707648. doi: 10.3389/fped.2021.707648
2. Senkivska L, Aryayev M. Compliance and barriers to growth hormone therapy in children. Pediatria Polska - Polish Journal of Paediatrics. 2021;96(3). – C.181-184. doi: https://doi.org/10.5114/polp.2021.109303
3. Nelson Essentials of Pediatrics E-Book 8th Edition / Karen Marcdante, Robert M. Kliegman. 2018. - 178 pages
4. Blueprints Pediatrics (Blueprints Series) 7th Edition / Wolters Kluwer Health; 7th edition/ 2019. - 416 pages
5. Case Files Pediatrics, Fifth Edition (LANGE Case Files) 5th Edition / Eugene C. Toy, Robert J. Yetman, Mark D. Hormann. 2017. - 577 pages
6. Nelson Pediatrics Board Review E-Book: Certification and Recertification 1st Edition / Jr. Terry Dean, Louis M Bell. 2018. - 782 pages
7. BRS Pediatrics (Board Review Series) 2nd Edition / Lloyd J. Brown, Ryan Coller, Lee Todd Miller. 2018. - 540 pages

13. Electronic information resources

1. https://www.pediatrics.od.ua/
2. http://moz.gov.ua
3. https://moz.gov.ua/article/ministry-mandates/nakaz-moz-ukraini-vid-14092021--1945-pro-zatverdzhennja-unifikovanogo-klinichnogo-protokolu-pervinnoi-medichnoi-dopomogi-integrovane-vedennja-hvorob-ditjachogo-viku
4. http://pediacalls.com/e-books/nelson-textbook-of-pediatrics-21st-edition/
5. https://www.ama-assn.org/about
6. https://www.facebook.com/AmericanMedicalAssociation/
7. www.who.int
8. https://www.dec.gov.ua/mtd/home/
9. https://www.dec.gov.ua/mtd/home/
10. http:// bma.org.uk
11. http:// www.gmc-uk.org
12. http://www.bundesaerztekammer.de
13. International Pediatric Association (IPA) https://www.who.int/workforcealliance/members_partners/member_list/ipa/en/