

MINISRTY OF HEALTH OF UKRAINE
ODESSA NATIONAL MEDICAL UNIVERSITY
Department of Pediatrics №1

Syllabus of educationally selective discipline
" Emergency conditions in pediatric endocrinology "

Workload:	Total hours for discipline: 45 hours, 1.5 credits. Semester XI – XII, 6 years
Days, hours, place of study:	According to the schedule of classes. Department of Pediatrics №1. St. Ak. Vorobyova 3, Regional Children's Clinical Hospital. 9-storey building, 7th floor.
Teacher (s)	Aryaev M.L., Corresponding Member NAMSU, Doctor of Medicine, Professor, Head of the Department. Associate professors: Ph.D. Kaplina L.E., Biryukov V.S., Senkivska LI. Assistants: Ph.D. doctor of philosophy Usenko D.V. Assistants: Pavlova V.V., Selimkhanova D.S., Bishley N.O., Streltsov M.S., Talashova I.V.
Contact information	Information by phone: Kaplina Larisa Evgenievna, head teacher: 0509707163. Senkivska Liudmyla Ivanivna, responsible for organizational and educational work at the department: 0679590334 or by landline of the department: (048) 705 53 21 - laboratory assistant, Olkhovska Veronika Olexandrivna. E-mail: pediatrics50@gmail.com. Personal consultations: from 2:00 pm to 5:00 pm every Thursday and from 9:00 am to 2:00 pm every Saturday. On-line consultations: from 4:00 pm to 6:00 pm every Thursday and from 9:00 am to 2:00 pm every Saturday. A link to an online consultation is provided to each group separately during the class

COMMUNICATION

Communication will be carried out in the classroom.

During distance learning, communication is carried out through the microsoft teams platform, as well as through e-mail correspondence, through viber messengers (through groups created in viber for each group, separately through the head of the group).

ANNOTATION OF THE EDUCATIONAL DISCIPLINE

The subject of study of the selective discipline - Urgent conditions in pediatric endocrinology

Prerequisites and postrequisites of the course:

Prerequisites: Ukrainian language (for professional purposes), foreign language (for professional purposes), latin language and medical terminology, medical biology, medical

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and biological physics, medical chemistry, biological and bioorganic chemistry, human anatomy, histology, cytology and embryology, physiology, microbiology, virology and immunology, life safety; basics of bioethics and biosafety, pathomorphology, pathophysiology, pharmacology, hygiene and ecology, propaedeutics of pediatrics.

Postrequisites: pediatrics, internal medicine, surgery, obstetrics and gynecology, infectious diseases, epidemiology and principles of evidence-based medicine, oncology and radiation medicine, traumatology and orthopedics, phthisiology, anesthesiology and intensive care, emergency care and emergency care, hygiene and ecology, palliative and hospice medicine, general practice (family medicine).

Purpose: The application's acquisition of the higher education of additional knowledge and mastery of professional competencies and skills of vaccination in children and adults by a family doctor on the basis of competencies acquired in the study of previous disciplines.

Tasks of the discipline:

1. Formation of skills and abilities: differential diagnosis, the most endocrinology diseases in children.
2. Improving the skills of justifying a clinical diagnosis, drawing up a plan for laboratory and instrumental research for the most endocrinology diseases in children.
3. Mastering the ability to determine the tactics of emergency care, treatment and prevention of the most endocrinology diseases in children.

Expected learning outcomes. As a result of studying the academic discipline, the applicant of the higher education must:

Know: Algorithms of communication with the parents of a child. Algorithms for communicating with the parents of a child with complaints of delayed physical development, impaired sexual development, obesity, signs of rickets. Methods of assessment of physical and sexual development in children according to the ages and sexes. Algorithms for the diagnosis and provision of emergency care to children in critical conditions with disorders of mineral metabolism, diseases of the thyroid and parathyroid glands, diseases of the adrenal glands, and diabetes mellitus.

Be able to:

To assess the physical development of children according to the age and sex.

Assess sexual development in children according to the age and genders.

Diagnose disorders of physical development in children. Determination of further patient management tactics.

Diagnose disorders of sexual development in children. Determination of further patient management tactics.

Communicate with the child's parents, with complaints off obesity, to determine diagnostic tactics and further management of the patient.

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Conduct a survey of the child's parents according to the algorithm of communication, examination and medical management of a young child suffering from rickets and rickets-like diseases.

Diagnose adrenal gland diseases in children (adrenogenital syndrome, acute and chronic adrenal insufficiency). Determine further patient management tactics and provide medical assistance in case of emergency conditions.

Diagnose diseases of the thyroid and parathyroid glands in children (hypothyroidism, hyperthyroidism).

Determine further patient management tactics. Provide emergency care for hypercalcemic crisis in children.

Carry out differential diagnosis of emergency conditions in diabetes mellitus and provide emergency medical care in diabetic ketoacidosis, hypoglycemic coma, hyperosmolar coma, hyperlactacidemic coma.

Conduct clinical examination of children of different age group according to standard methods.

Analyze the results of laboratory, functional and instrumental research.

Carry out differential diagnosis and confirm the clinical diagnosis.

Determine tactics and provide emergency medical care in emergency situations in children.

To determine the nature and principles of treatment of children on the basis of a preliminary clinical diagnosis, observing 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 common diseases in children.

Keep medical documentation for common diseases in children

DESCRIPTION OF THE EDUCATIONAL DISCIPLINE

The discipline will be taught in the form of seminars (16 classroom hours); organizing the student's independent work (29 hours).

Teaching methods: discussion of theoretical issues, frontal survey on basic terminology, testing, role-playing games for mastering communication skills with a child or his parents, planning and carrying out preventive vaccinations for children and adults (work in a team).

The content of the elective discipline

Topic №1. Acquisition of practical skills in managing children with endocrine diseases.

Assessment of physical development of children of different age groups according to signal and centile nomograms. Evaluation of the sexual development of children of different ages and sexes according to the Tanner scale.

Topic №2. Diagnosis of disorders of physical and sexual development in children.

Differential diagnosis, substantiation of clinical diagnosis and management of children with growth and sexual development disorders. Obesity: diagnosis, treatment, prevention.

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Topic №3. Critical conditions in diseases of the thyroid and parathyroid glands. Hyperthyroidism, etiology, pathogenesis, clinic, diagnosis, emergency care in thyrotoxic crisis. Hypothyroidism, etiology, pathogenesis, clinic, diagnosis, replacement therapy. Hypercalcemic crisis, pathogenesis, clinic, diagnosis, emergency care.

Topic № 4. Critical conditions in diabetes mellitus.

The main critical conditions in diabetes mellitus: diabetic ketoacidosis, hypoglycemic coma, hyperosmolar coma, hyperlactacidemic coma. Etiology, pathogenesis, clinic, diagnosis, emergency care.

Topic №5. Features of diagnosis and treatment of adrenogenital syndrome in children.

Adrenogenital syndrome, etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, replacement therapy.

Topic №6. Critical conditions in adrenal gland diseases in children.

Acute adrenal insufficiency: etiology, pathogenesis, clinic, diagnosis, emergency care. Chronic adrenal insufficiency: etiology, pathogenesis, clinic, diagnosis, emergency care, treatment.

Topic №7. Development of communication skills when communicating with parents of children with mineral metabolism disorders. Rickets. Etiopathogenesis. classification, clinic, diagnosis, treatment of rickets.

Topic №8. Diagnosis and peculiarities of the management tactics of children with rickets-like diseases. Rickets-like diseases: differential diagnosis, treatment. Spasmophilia: clinical manifestations, differential diagnosis, emergency care.

List of recommended reading:

Basic:

1. Nelson Textbook of Pediatrics / R. M. Kliegman [et al.] ; ed. R. E. Behrman. - 21th ed. - Edinburgh [etc.] : Elsevier, 2020. - Vol. 1. – LXXV.

2. Nelson Textbook of Pediatrics [Text] / R. M. Kliegman [et al.] ; ed. R. E. Behrman. - 21th ed. - Edinburgh [etc.] : Elsevier, 2020. - Vol. 2. - LXXV.109303 SCOPUS, Quartile Q4

3. Pediatric Endocrinology | Endocrine Society

<https://www.endocrine.org/clinical-practice-guidelines/pediatric-endocrinology>

Additionally

1. EMERGENCY MEDICAL CARE: NEW CLINICAL PROTOCOL (ORDER OF THE MOH OF UKRAINE OF 05.06.2019, №1269) .
2. 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, SCOPUS, Квартиль Q1

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3. Senkivska L, Aryayev M. Compliance and barriers to growth hormone therapy in children. *Pediatrica Polska - Polish Journal of Paediatrics*. 2021;96(3). – С.181-184. DOI: <https://doi.org/10.5114/polp.2021.109303> SCOPUS, Квартиль Q4
4. Population-based approaches to childhood obesity prevention. WHO Library Cataloguing-in-Publication Data 2013 yr. -54 p. ISBN 978 92 4 150478 2
5. Guideline 00642. Rickets. A printable version of this document: <http://guidelines.moz.gov.ua/documents/2918?id=ebm00642&format=pdf>
6. Kvashnina L.V. Vitamin D in different periods of childhood: what we know, what we should remember and what we have forgotten. 25.12.2017. Access mode: <https://health-ua.com/article/32672-vtamn-D-urzn-perodi-ditinstva-sho-znamo-sho-treba-pamyatati--sho-zabuli>
7. Tsiunchyk Yu. G. Clinical significance of psycho-emotional factors in obesity in children. *Modern pediatrics*. 2016. No. 5. P. 98–101.

EVALUATION

Forms and methods of current control: oral (survey, participation in a role-playing game), practical (working with the patient and his parents), assessment of communication skills and activity in the class

EVALUATION OF KNOWLEDGE (DISTRIBUTION OF POINTS)

Forms and methods of current control: oral, written, practical.

Final control - a test

Means of diagnosing learning success: questions for current control, clinical tasks, role-playing cases, questions for final control, performance of practical skills on simulation equipment, individual tasks.

Current assessment criteria for the seminar session:

Excellent "5"	The applicant for higher education is fluent in the material, takes an active part in role games, discussing and solving a situational clinical problem, confidently demonstrates practical skills during the examination of a sick child and interpretation of clinical, laboratory and instrumental studies, expresses his opinion on the topic of the lesson, demonstrates clinical thinking.
Good "4"	The applicant for higher education is well versed in the material, participates in the role games, discussion and solution of the situational clinical problem, demonstrates practical skills during the examination of a sick child and interpretation of clinical, laboratory and instrumental studies with some errors, expresses his opinion on the topic, demonstrates clinical thinking.
Satisfactorily "3"	The applicant for higher education does not have enough material, insecurely participates in the role games, discussion and solution of the situational clinical problem, demonstrates practical skills during the examination of a sick child and interpretation of clinical, laboratory and instrumental studies with

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	significant errors.
Unsatisfactorily "2"	The applicant for higher education does not have the material, does not participate in the role games, discussion and solution of the situational clinical problem, does not demonstrate practical skills during the examination of a sick child and the interpretation of clinical, laboratory and instrumental studies.

FINAL EXAMINATION - a credit given to the applicant for higher education who has completed all sections of the educational program of a selective discipline, actively participated in seminars, has an average current grade of at least 3.0 and has no academic debt. Possibility and conditions of obtaining additional (bonus) points: not provided.

SELF-MAKE WORK OF HIGHER EDUCATION ACQUIRES

Independent work involves only preparation for each seminar.

POLICY OF THE EDUCATIONAL DISCIPLINE

Deadline and retake policy:

1. Class absences for disrespectful reasons are worked out according to the schedule of the teacher on duty.
2. Class absences for valid reasons are worked out according to the individual schedule with the permission of the dean's office.

Policy of the academic integrity:

Adherence to academic integrity by students involves:

- ♦ independent performance of educational tasks, tasks of current and final control of studying outcomes (for persons with special educational needs this requirement is applied taking into account their individual needs and capabilities);
- ♦ links to sources of information in the case of the use of ideas, developments, statements, information;
- ♦ compliance with the law on copyright and related rights;
- ♦ providing reliable information about the results of their own (scientific, creative) activities, used research methods and sources of information.

Unacceptable in educational activities for participants in the educational process are:

- ♦ use of family or business relationships to obtain a positive or higher assessment in the implementation of any form of control over learning outcomes or preferences in scientific work;
- ♦ use of prohibited auxiliary materials or technical means (cheat sheets, abstracts, headphones, telephones, smartphones, tablets, etc.) during control measures;
- ♦ passing the procedures of control of learning outcomes by fictitious persons.

For violation of academic integrity, students may be held subject to the following academic liability:

- reduction of the results of assessment of exams, tests, etc.;

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- re-assessment (exam, test, etc.);
- appointment of additional control measures (additional individual tasks, tests, etc.);

Policy of the attendance and lateness:

Dress code: a medical gown that completely covers outerwear or medical pajamas, a medical cap, a mask, changeable shoes.

Equipment: notebook, pen, stethoscope, medical latex gloves.

Health status: the applicant of the higher education suffering from acute infectious diseases, including respiratory diseases, are not allowed to study.

Start of classes: 8.30 am.

The applicant who is late for class may be present, but if the teacher put "absence" in the journal, he must work it out in the general order.

Mobile devices: can be used with the permission of the teacher, if they are needed to perform the task.

Behavior in the audience: working, calm.