

MINISTRY OF HEALTH OF UKRAINE
ODESA NATIONAL MEDICAL UNIVERSITY

Faculty: international
(*faculty name*)

Department of Pediatrics
(*name of department*)

APPROVED
Vice-rector for scientific and educational work
Eduard BURIACHKIVSKYI
"01" 09 2024

METHODICAL RECOMMENDATION
FOR PRACTICAL LESSON
FROM THE EDUCATIONAL COMPONENT

Faculty international, course 6

Educational component "PEDIATRICS"

Approved:
Meeting of the Department of Pediatrics _____
Odesa national medical university

Protocol № 1 of " 29 " 08 2024

Head of the department _____ (Mykola ARYAYEV)
(*signature*) (name, surname)

Перезатверджено:

Засідання кафедри педіатрії

Одеський національний медичний університет

Протокол № 1 від 26 08 2025 р.

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Methodical recommendations for a practical class in the educational component "Pediatrics" of the educational and professional program "Medicine" of the ONMedU of the department of Pediatrics

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Note. In the case of publication of methodical developments as a self-published work, the academic council of the faculty provides a recommendation for publication in the presence of two reviews, one of which is external — from a reviewer of another institution of higher education

Practical lessons.

Content module 3 “Differential diagnosis the most common diseases of the circulatory system in children. Emergency care for major emergencies”.

Practical lesson № 34-36

Topic 10. Differential diagnosis of cyanosis, shortness of breath, cardiomegaly in inflammatory and non-inflammatory diseases of the cardiovascular system in children. Emergency care for acute heart failure.

Practical lesson № 37-39

Topic 11. Differential diagnosis of cyanosis, shortness of breath, cardiomegaly in congenital and acquired heart defects in children. Treatment of chronic heart failure.

Practical lesson № 40-42

Topic 12. Differential diagnosis of heart rhythm and conduction disorders in children. Emergency care for paroxysmal rhythm disturbances and Morgana-Adams-Stokes syndrome.

Practical lesson № 43-45

Topic 13. Differential diagnosis of systemic connective tissue diseases and systemic vasculitis in children.

Purpose: Acquisition by the applicant of higher education of knowledge and formation of elements of professional competences in the field of pediatrics from the division of cardiology.

Topic 10. Differential diagnosis of cyanosis, shortness of breath, cardiomegaly in inflammatory and non-inflammatory diseases of the cardiovascular system in children. Emergency care for acute heart failure.

Topic 11. Differential diagnosis of cyanosis, shortness of breath, cardiomegaly in congenital and acquired heart defects in children. Treatment of chronic heart failure.

Topic 12. Differential diagnosis of heart rhythm and conduction disorders in children. Emergency care for paroxysmal rhythm disturbances and Morgana-Adams-Stokes syndrome.

Topic 13. Differential diagnosis of systemic connective tissue diseases and systemic vasculitis in children.

Basic concepts:

Topic 10. Leading clinical symptoms and syndromes of inflammatory and non-inflammatory diseases of the cardiovascular system in children, accompanied by cardiomegaly (acute rheumatic fever, carditis, cardiomyopathy). Data of laboratory and instrumental studies in inflammatory and non-inflammatory heart diseases. Patient management tactics for inflammatory and non-inflammatory diseases, congenital and acquired heart defects in children. Emergency care for acute heart failure. Treatment and prevention of chronic heart failure. Dispensary observation.

Topic 11. Leading clinical symptoms and syndromes of diseases of the cardiovascular system in children, accompanied by cardiomegaly (congenital and acquired heart defects). Data of laboratory and instrumental studies in congenital and acquired heart defects in children. Differential diagnosis of cyanosis, shortness of breath, cardiomegaly in congenital and acquired heart defects in children. Patient management tactics for congenital and acquired heart defects in children. Treatment and prevention of chronic heart failure. Dispensary observation.

Topic 12. Leading clinical symptoms and syndromes in heart rhythm disorders: extrasystole, paroxysmal tachycardia, atrial fibrillation, complete atrioventricular block. Clinical variants of the course of paroxysmal tachycardia and atrial fibrillation in children. Instrumental research data for extrasystole, paroxysmal tachycardia, atrial fibrillation, complete atrioventricular block. Differential diagnosis of extrasystole, paroxysmal tachycardia, atrial fibrillation and complete atrioventricular block. Patient management tactics for heart rhythm and conduction disorders in children. Providing emergency care for paroxysmal tachycardia, atrial fibrillation, Morgana-Adams-Stokes syndrome in children. Prevention of heart rhythm and conduction disorders in children.

Topic 13. Leading clinical symptoms and syndromes in juvenile idiopathic arthritis, systemic lupus erythematosus, acute rheumatic fever, dermatomyositis, scleroderma, Kawasaki disease, polyarteritis nodosa and other systemic vasculitis in children. Clinical variants of the course and complications of systemic connective tissue diseases and systemic vasculitis in children. Data of laboratory and instrumental studies in systemic connective tissue diseases and systemic vasculitis in children. Differential diagnosis of systemic connective tissue diseases and systemic vasculitis in children. Differential diagnosis of arthritis in children. Tactics of managing patients with systemic connective tissue diseases and systemic vasculitis in children. Primary and secondary prevention of acute rheumatic fever in children. Dispensary observation.

Equipment: a multimedia presentation on the theme, laptop, a set of electrocardiograms with acute heart failure in children, video film about circulatory disorders, x-ray images of chest organs with various pathologies, collection of auscultatory noises, clinical cases.

The duration of each lesson is 2 hours.

Plan

1. Organizational moment (greeting, checking attendees, reporting the topic, goals of the lesson, motivation of applicants to study the topic).

2. Control of basic knowledge:

Topic 10. Leading clinical symptoms and syndromes of inflammatory and non-inflammatory diseases of the cardiovascular system in children, accompanied by cardiomegaly (acute rheumatic fever, carditis, cardiomyopathy). Data of laboratory and instrumental studies in inflammatory and non-inflammatory heart diseases. Patient management tactics for inflammatory and non-inflammatory diseases, congenital and acquired heart defects in children. Emergency care for acute heart failure. Treatment and prevention of chronic heart failure. Dispensary observation.

Topic 11. Leading clinical symptoms and syndromes of diseases of the cardiovascular system in children, accompanied by cardiomegaly (congenital and acquired heart defects). Data of laboratory and instrumental studies in congenital and acquired heart defects in children. Differential diagnosis of cyanosis, shortness of breath, cardiomegaly in congenital and acquired heart defects in children. Patient management tactics for congenital and acquired heart defects in children. Treatment and prevention of chronic heart failure. Dispensary observation.

Topic 12. Leading clinical symptoms and syndromes in heart rhythm disorders: extrasystole, paroxysmal tachycardia, atrial fibrillation, complete atrioventricular block. Clinical variants of the course of paroxysmal tachycardia and atrial fibrillation in children. Instrumental research data for extrasystole, paroxysmal tachycardia, atrial fibrillation, complete atrioventricular block. Differential diagnosis of extrasystole, paroxysmal tachycardia, atrial fibrillation and complete atrioventricular block. Patient management tactics for heart rhythm and conduction disorders in children. Providing emergency care for paroxysmal tachycardia, atrial fibrillation, Morgana-Adams-Stokes syndrome in children. Prevention of heart rhythm and conduction disorders in children.

Topic 13. Leading clinical symptoms and syndromes in juvenile idiopathic arthritis, systemic lupus erythematosus, acute rheumatic fever, dermatomyositis, scleroderma, Kawasaki disease, polyarteritis nodosa and other systemic vasculitis in children. Clinical variants of the course and complications of systemic connective tissue diseases and systemic vasculitis in children. Data of laboratory and instrumental studies in systemic connective tissue diseases and systemic vasculitis in children. Differential diagnosis of systemic connective tissue diseases and systemic vasculitis in children. Differential diagnosis of arthritis in children. Tactics of managing patients with systemic connective tissue diseases and systemic vasculitis in children. Primary and secondary prevention of acute rheumatic fever in children. Dispensary observation.

3. Formation of professional internships, beginners (renewal by first-timers of communication, clinical examination, design of the scheme of rejuvenation, laboratory follow-up, then)

1. Mastering communication skills and clinical examination of a patient with cyanosis, dyspnea, cardiomegaly in diseases of the cardiovascular system.
2. Evaluation the list of clinical, laboratory and instrumental studies and their assessment during the diagnosis and treatment of children with diseases of the cardiovascular system, accompanied by cyanosis, shortness of breath, cardiomegaly.
3. Formation of the skill to establish a preliminary and clinical diagnosis in a child with a disease of the cardiovascular system.
4. Formation of the ability to determine the principles of treatment, the necessary regimen and the nature of the diet of a child with diseases of the cardiovascular system, accompanied by cyanosis, shortness of breath, cardiomegaly.
5. Formation of the ability to diagnose acute and chronic heart failure in diseases of the cardiovascular system in children.
6. Formation of the ability to determine tactics and provide emergency medical care in acute heart failure and other emergency conditions in children with diseases of the cardiovascular system.
7. The ability to determine the tactics of managing persons subject to dispensary observation for diseases of the cardiovascular system.
8. Requirements for work results, incl. for registration: substantiation of a clinical diagnosis based on complaints, data from anamnesis of illness and life, clinical examination, laboratory and instrumental studies.
9. Determination of management tactics, including the provision of emergency care (drugs, doses, frequency of administration, route of administration).
10. Mastering communication skills and clinical examination of a patient with heart rhythm and conduction disorders.
11. Mastering the skills of determining the required list of clinical, laboratory and instrumental studies and their assessment during the diagnosis and treatment of a child with heart rhythm and conduction disorders.
12. Formation of the skill to establish a preliminary and clinical diagnosis in a child with heart rhythm and conduction disorders.
13. Formation of the ability to determine the principles of treatment, the necessary regimen and the nature of the diet of a child with heart rhythm and conduction disorders.
14. Formation of the ability to diagnose emergency conditions in case of cardiac rhythm and conduction disorders in children.
15. Mastering communication skills and clinical examination of a patient with systemic connective tissue disease and systemic vasculitis.
16. Mastering the skills of determining the required list of clinical, laboratory and instrumental studies and their assessment during the diagnosis and treatment of a child with systemic connective tissue disease and systemic vasculitis.
17. Formation of the skill to establish a preliminary and clinical diagnosis in a child with systemic connective tissue disease and systemic vasculitis.
18. Formation of the ability to determine the principles of treatment, the necessary regimen and the nature of the diet of a child with systemic connective tissue disease and systemic vasculitis.
19. Formation of the ability to diagnose emergency conditions in systemic connective tissue diseases and systemic vasculitis in children.
20. Formation of the ability to determine tactics and provide emergency medical care in case of emergency conditions in children with systemic connective tissue diseases and systemic vasculitis.
21. The ability to determine the tactics of managing children who are subject to dispensary observation for systemic connective tissue diseases and systemic vasculitis.
22. Requirements for work results, incl. for registration: substantiation of a clinical diagnosis based on complaints, data from anamnesis of illness and life, clinical examination, laboratory and instrumental studies. Determination of management tactics, including the provision of emergency care (drugs, doses, frequency of administration, route of administration).

- 4. Summarizing the results:** control materials for the final stage of the lesson: solving two clinical problems on the topic of the lesson, answering 50 tests from the cardiology section (if necessary). testing, structured exam (at the end of the module).

4. List of recommended literature (basic, additional, electronic information resources):

Basic:

1. Nelson Textbook of Pediatrics, 2-Volume Set, 22nd Edition, 2024. Robert M. Kliegman, Joseph W. St. Geme III, Nathan J. Blum, et al.
2. Nelson Textbook of Pediatrics / R. M. Kliegman [et al.]; ed. R. E. Behrman. - 21th ed. - Edinburgh [etc.]: Elsevier, 2020. - Vol. 1. – LXXV.
3. Nelson Textbook of Pediatrics [Text] / R. M. Kliegman [et al.]; ed. R. E. Behrman. - 21th ed. - Edinburgh [etc.]: Elsevier, 2020. - Vol. 2. - LXXV.
4. Nelson textbook of pediatrics, 2 volume set. Edition: 21st, 2019. PDF format. <http://pediacalls.com/e-books/nelson-textbook-of-pediatrics-21st-edition/>
5. Nelson Textbook of Pediatrics. Expert Consult Premium Edition. Enhanced Online Features and Print 19th Edition ISBN-13: 978-1437707557 https://www.amazon.com/s?i=stripbooks&rh=p_27%3ARobert+M.+Kliegman+MD&s=relevancera nk&text=Robert+M.+Kliegman+MD&ref=dp_byline_sr_book_1
6. Pediatrics. Differential diagnosis. Emergencies. ML Aryaev, NV Kotova, OO Zelinsky [etc.]; edited by Aryaeva ML, Kotova NV Odessa: ONMedU. - 2017. - 280 p.

Additional:

1. Emergency medical care: new clinical protocol (order of the moh of Ukraine of 05.06.2019, №1269). <https://moz.gov.ua/article/ministry-mandates/nakaz-moz-ukraini-vid-05062019--1269-pro-zatverdzhennja-ta-vprovadzhenja-mediko-tehnologichnih-dokumentiv-zi-standartizacii-ekstrenoi-medichnoi-dopomogi>
3. Diagnostics, treatment and prevention of arterial hypertension in children and adolescents (second revision). - 2019. Mode of access : <http://abbottgroth.ru/files/articles/6036/1277806886711.pdf> .

Electronic information resources:

1. <http://moz.gov.ua>– Міністерство охорони здоров'я України
2. www.ama-assn.org – Американська медична асоціація / American Medical Association
3. www.oapn.od.ua- ГО "Одеська Асоціація лікарів-педіатрів та неонатологів"
4. www.who.int – Всесвітня організація охорони здоров'я
5. www.dec.gov.ua/mtd/home/ - Державний експертний центр МОЗ України
6. <http://bma.org.uk>– Британська медична асоціація
7. www.gmc-uk.org- General Medical Council (GMC)
8. www.bundesaerztekammer.de – Німецька медична асоціація
9. https://www.who.int/workforcealliance/members_partners/member_list/ipa/en/ - Міжнародна асоціація педіатрів / International Pediatric Association (IPA).
10. https://ginasthma.org/wp-content/uploads/2024/05/GINA-2024-Strategy-Report-24_05_22_WMS.pdf GINA Global Initiative For Asthma. 2024
11. https://kdigo.org/wp-content/uploads/2017/02/KDIGO-2021-Glomerular-Diseases-Guideline_English_LN-2024-Update.pdf KDIGO 2021 Clinical Practice Guideline for the Management of Glomerular Diseases
12. <https://aamsmedacademy.com/> American Academy of Medical Sciences (AAMS)
13. <https://nam.edu/> The National Academy of Medicine (NAM)

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14. <https://cutt.ly/utqqt7I> Підручник Нельсона з педіатрії - електронна книга Elsevier на VitalSource, 21-ше видання
15. <https://www.amazon.com/Averys-Neonatology-Pathophysiology-Management-Pathophysiology/dp/1451192681>