

**GUIDELINES
for lecture**

«Rickets in children»

Academic discipline

«Pediatrics, including medical practice (professional training) childhood diseases»

Field of knowledge: 22 "Health care"

Specialty: 222 "Medicine"

Department of Pediatrics No 2

Approved at the meeting of the Department of Pediatrics No. 2 on August 26, 2024,
protocol No. 1

Considered and approved by: Cyclic methodological commission for pediatric
disciplines
dated 29 August 2024, protocol No 1

Competencies that are formed during the lecture:

The lecture is aimed at forming clinical thinking regarding the causes, mechanism of development, diagnosis and treatment of rickets in childhood, taking into account the international recommendations of the Global Consensus Recommendations on Prevention and Management of Nutritional Rickets (2016). The ability to determine the necessary list of laboratory and instrumental studies and evaluate their results in rickets in children. The ability to establish a preliminary and clinical diagnosis and determine the necessary tactics for managing a patient with rickets.

The purpose of the lecture:

To acquaint students with modern data on the etiology, mechanisms of development, course and diagnosis and treatment of rickets in children.

Equipment:

computer, PowerPoint presentation.

Tasks of the lecture:

1. To provide information about the causes of rickets in children and to familiarize with the modern classification of rickets and rickets in childhood.
2. To consider the mechanisms of bone system formation disorders in children with rickets.
3. To acquaint students in detail with the features of clinical and paraclinical manifestations of rickets in children at different age periods.
4. To get acquainted with the principles of diagnosis, prevention and treatment of rickets in children.
5. To get acquainted with causes, clinical presentation and diagnosis of the most common rickets-like diseases in childhood.
6. To acquaint students with the symptoms and treatment of spasmophilia and vitamin D hypervitaminosis.

Lecture plan

The name of the stage	Description of the stage	Levels of assimilation	Timing
1. The introductory part	- announcement of the plan and main issues of the lecture - motivation for studying the topic	*	5 min
2. The main stage	- teaching material, explanation, connection with practice;	* **	80 min
3. The final stage	- summing up - general conclusion; methodical advice, answers to questions; - tasks for independent work;	*	5 min

* Introductory, **Reproductive, *** Reconstructive, **** Creative levels of assimilation.

Recommended Books:

Recommended sources:

1. Nelson Textbook of Pediatrics, 2-Volume set, 21-th edition. By Robert M. Kliegman, Bonita M.D. Stanton, Joseph St. Geme and Nina F Schor. – Philadelphia, PA : Elsevier Inc., 2020 - 4264 p. (pp. 3746-3747)
ISBN-10 : 032352950X ISBN-13 : 978-0323529501
2. Pediatrics : textbook / O. V. Tiazhka, T. V. Pochinok, A. M. Antoshkina [et al.] ; edited by O. Tiazhka. – 3 rd edition, reprint. – Vinnytsia : Nova Knyha, 2018. – 544 pp. (pp. 24-35) : il. ISBN 978-966-382-690-5

Information sources:

1. Global Consensus Recommendations on Prevention and Management of Nutritional Rickets / Munns C., Shaw T., Kiely M. et al // J Clin Endocrinol Metab. 2016 Feb; 101(2): 394–415.
2. Practical guidelines for the supplementation of vitamin D and the treatment of deficits in Central Europe — recommended vitamin D intakes in the general population and groups at risk of vitamin D deficiency / Pludowski P., Karczmarewicz E., Bayer M. et al. // Endokrynol Pol 2013; 64 (4): 319–327.
3. Bilbao N.A. Vitamin D Toxicity in Young Breastfed Infants: Report of 2 Cases Glob Pediatr Health - 2017 Sep 19;4:2333794X17731695. doi: 10.1177/2333794X17731695.
4. An Overview of Rickets in Children / Rahul Chanchlani R., Nemer p., Sinha R. et al // Kidney International Reports (2020) 5, 980–990

Questions for student self-preparation for the lecture

1. Risk factors from mother's side and the child for the development of rickets in children
2. Pathogenesis of vitamin D-deficient rickets in childhood
3. Clinical and diagnostic criteria of rickets in children
4. Approaches to the prevention and treatment of rickets in children
5. Definition, clinical presentation, diagnosis and treatment of spasmophilia and hypervitaminosis D.

Questions for preparing for the current control, which the lecture material reveals:

1. What are the main sources of vitamin D for the child?
2. Algorithm for diagnosing rickets in children
3. The main pathogenetic mechanisms of the development of rickets
4. Basic principles of rickets treatment.

Methodical development is completed by

The Head of the department of pediatrics #1, professor V.S. Berezenko, as prof department of pediatrics #2 O.V. Iemets