

INTERNATIONAL HIGHER SCHOOL OF MEDICINE

Department PEDIATRICS

SYLLABUS

Discipline DISEASES OF EARLY AGE CHILD

2022-2023 academic year
for students of medical faculty
3 course VI semester, groups ____
0,8 credits (28 h, including auditorial 16 h, independent work – 12 h)

Lecturer: Senior teacher Aikerim Chonkoeva
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Venue: by Zoom

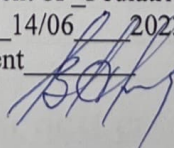
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The Syllabus is considered
at the meeting of the department of Pediatrics ____
Protocol № 8 dated 14/06 2023
Head of the department



Course Objective of Diseases of Early Age Child:

to form students' skills of diagnosis, differential diagnosis, treatment and prevention of early childhood diseases in accordance with WHO standards

After study of the discipline the student must:

Knowledge:

Etiology, pathogenesis, main clinical forms, symptoms and syndromes, features of manifestations, methods of laboratory and instrumental examination, complications, treatment and prevention in accordance with WHO standards of the followings:

- Rickets
- Iron deficiency conditions
- Malnutrition syndrome.
- Hypovitaminosis

Be able to:

- collect an anamnesis,
- conduct an examination of young children,
- assess the physical development of young children according to Centile tables,
- determine the degree of body weight deficiency,
- interpret the obtained laboratory data,
- calculate the calorie content and amounts of food,
- conduct infusion therapy,
- determine the blood group and conduct blood transfusion,
- gastric lavage and intestines,
- provide first aid to children with extreme malnutrition,
- calculate the dosages of the necessary drugs in accordance with the weight of the child.

Attitude: to inform and demonstrate understanding of questions

Pre-requisites:

- Anatomy (macro- microanatomy)
- pathological anatomy
- Topographic anatomy
- normal physiology
- pathological physiology
- Biochemistry
- Microbiology, virology and immunology
- Basic pharmacology
- Bioethics

Post-requisites:

- Childhood diseases
- Pediatric surgery
- Children's infectious diseases
- Pediatric neurology
- Family medicine
- Medical genetics
- About public health

THEMATIC PLAN OF LECTURES

| № | Lecture | Hours | Date |
|----|---------------------------------|-------|------|
| 1. | Childhood Malnutrition Syndrome | 2 | |
| 2. | Rickets | 2 | |
| 3. | Hypovitaminosis in children | 2 | |
| 4. | Deficiency anemia | 2 | |
| | Total | 8 | |

THEMATIC PLAN OF PRACTICAL CLASSES

| № | Theme of practical class | Hours | Date |
|----|---------------------------------|-------|------|
| 1. | Childhood Malnutrition Syndrome | 2 | |
| 2. | Rickets | 2 | |
| 3. | Hypovitaminosis in children | 2 | |
| 4. | Deficiency anemia UNIT #3 | 2 | |
| | Total | 8 | |

THEMATIC PLAN OF INDEPENDENT WORK OF STUDENTS

| № | Theme of independent work | Hours |
|-----|--|-------|
| 1. | Anatomic-physiological features of the Osteoarticular system in infants. | 30min |
| 2. | Regulation of calcium-phosphorus metabolism in the body | 30min |
| 3. | Definition, clinical and laboratory diagnostics of osteomalacia, osteoporosis, hyperplasia and hypoplasia of the bone tissue | 30min |
| 4. | Definition, clinical and laboratory diagnostics of osteomalacia of the bone tissue | 30min |
| 5. | Definition, clinical and laboratory diagnostics of osteoporosis of the bone tissue | 30min |
| 6. | Clinical manifestations of Rickets from the nervous, bone and muscle systems | 30min |
| 7. | Changes in CBC, of electrolyte and alkaline phosphatase in Rickets | 30min |
| 8. | Treatment of rickets in child elder than 6 months of Age | 30min |
| 9. | Treatment of rickets in child up to 6 months of Age | 30min |
| 10. | Prevention of rickets in child elder than 6 months of Age | 30min |
| 11. | Prevention of rickets in child up to 6 months of Age | 30min |

Methodological instructions for the implementation of independent work on the discipline

Each student of group must prepare project of THE ONE THEME consisting of 10 slides with less text and in view pictures, scheme, charts

The first slide should include "IHSM", "Department of pediatrics", "the theme of presentation", "the full name of the student", group, semester, "the data of teacher", the filing date, and the last slide - list of references, resources.

Assessment of Independent work includes: design, content, and answering.

Recommended reading for the discipline:

Basic:

| No | Authors | Title | The year of publishing | publishing house | Availability in the IHSM library (number) |
|----|--|--|------------------------|-------------------|---|
| 1 | Kliegman RM, Geme III JW | Nelson textbook of pediatrics. Vol.1.- 21th ed. | 2020 | 9 996 128 296 | 50 |
| 2 | Ghai OP, Paul VK, Bagga A. | Essentials of pediatrics.-8th ed. | 2013 | 978-81-239-2334-5 | 9 |
| 3 | Rafikova S., Alekseev V. | Children's Nutritional Abnormalities | 2013 | 978-9967-27-179-1 | 109 |
| 4 | Alekseev.V ., Starodubetz.U ., Isakova F. | Introduction to Pediatrics: Compendium for foreign student | 2012 | 978-9967-26-670-4 | 342 |
| 5 | Ghai OP, Paul VK, Bagga A. | Essentials Pediatrics.-6th ed. | 2005 | 81-239-1163-7 | 94 |
| 6 | Behraman RE | Nelson essentials of pediatrics. -4th ed. | 2002 | 0-7216-9406-3 | 12 |
| 7 | Nelson., Richard E. Berhman , Robert M. Kliegman | Essentials of Pediatrics | 2000 | 4th | 12 |
| 8 | A Parthasarathy | Case Scenarios in Pediatric and Adolescent Practice | 2014 | 1st edition - | http://library.ism.edu.kg/Online_Library/eBooksDetails.aspx?id=288 |
| 9 | Graham TP | Recommendations for Training in Pediatric Cardiology | 2005 | 7th -E d - | http://library.ism.edu.kg/Online_Library/eBooksDetails.aspx?id=938 |

| | | | | | |
|----|--|---|--------------|-------------|---|
| 10 | William W. Hay Jr, et al By McGraw | Current Pediatric Diagnosis & Treatment | 2002 | 16th Ed | http://library.ism.edu/kg/Online_Library/eBookDetails.aspx?id=57 |
| 11 | Kenneth B Roberts MD By Lippincott Williams & Wilkins Publishers | Manual of Clinical Problems in Pediatrics | October 2000 | 5th edition | http://library.ism.edu/kg/Online_Library/eBookDetails.aspx?id=230 |
| 12 | Pervez Akber Khan | "Basis of Pediatrics" | 2000 | 7th -E d - | https://ketabton.com/book/14837 |

Additional:

13. <http://www.merckmanuals.com>
14. <http://www.childrenshospital.org>
15. <http://emedicine.medscape.com>
16. <http://en.wikipedia.org>

Grading policy and procedures for all types of work

For the period of studying the discipline, the student gains points for the relevant parameters (per unit):

current score - 40 points

independent work - 20 points

control score (final assessment of knowledge per unit) - 40 points

Maximum score - 100 (40+20+40)

Grading system for student's achievements

| Criteria for grading for the discipline | | | | |
|---|--|--|--|--|
| Maximum score | Intervals | | | |
| | «unsatisfactory» | «satisfactory» | «good» | «excellent» |
| Current control - 40 | 0-23 | 24-30 | 31-35 | 36-40 |
| Interval Criteria | Does not complete the task, does not know and does not understand the lecture material of the lesson, which prevents further assimilation of the program; cannot apply the acquired knowledge to solving situational problems, test questions. Does not answer teacher's questions Does not have practical skills when examining a patient | Performs the task not in full, has gaps in the assimilation of lecture material, has difficulty in applying knowledge to solve situational problems, test questions; does not fully and accurately answer the questions of the teacher. When examining a patient, he has poor practical skills | Completes the task in full, knows the lecture material, but sometimes makes mistakes when solving situational problems and test questions, understands the main content of the lecture material, gives correct answers to the teacher's questions. When examining a patient, he partially possesses practical skills | Completes the task in full, easily applies knowledge and skills in solving situational problems and test questions, rarely makes mistakes, gives complete and correct answers to the teacher's questions. When examining a patient, he has full practical skills |
| Independent work - 20 | 0-11 | 12-14 | 15-17 | 18-20 |
| Interval Criteria | Presentation, report, table, situational task is missing | The content of the presentation, report, tables partially correspond to the given topic, the sequence of presentation of theoretical issues is violated: etiology, pathogenesis, | The content of the presentation, report, tables does not fully correspond to the given topic, the sequence of presentation of theoretical issues (etiology, pathogenesis, epidemiology, clinic, | The content of the presentation, report, tables correspond to the given topic, the sequence of presentation of theoretical issues (etiology, pathogenesis, epidemiology, clinic, differential diagnosis, |

| | | | | |
|-------------------|---|---|---|--|
| | | epidemiology, clinic, differential diagnosis, laboratory diagnosis, treatment and prevention. Situational tasks contain little description of a clinical case | differential diagnosis, laboratory diagnosis, treatment and prevention) is not fully preserved. Situational tasks incompletely contain a description of a clinical case | laboratory diagnosis, treatment and prevention) is fully preserved. Situational tasks contain a description of the clinical case in its entirety |
| Module - 40 | 0-23 | 24-30 | 31-35 | 36-40 |
| Interval Criteria | Does not know the answers to test questions and situational tasks | Poor knowledge of answers to test questions and situational tasks | Knows well the answers to test questions and situational tasks | Knows the answers to test questions and situational tasks |

Conduct Policy: (lateness, absence, behavior in the auditorium, late submission of work).

- Punctuality and completion of tasks.
- Mandatory attendance of classes.
- Attending class in a clean medical uniform.
- Eliminating conversations on a cell phone in the classroom.
- Active participation in the learning process.
- Doing homework on time.
- Academic detention at the time specified by the teacher.

For violations of the Conduct Policy, the total points for discipline might be reduced to 1-5 points.

Academic Ethics Policy.

- Be tolerant, respect the opinions of others.
- Formulate objections in the correct form.
- Constructively support feedback in all classes.
- Plagiarism and other forms of dishonest work are unacceptable. Plagiarism includes the following: the absence of references when using printed and electronic materials, quotes, thoughts and works of other authors or students.
- Prompting and cheating during tests, exams, classes is unacceptable as well as passing an exam for another student, unauthorized copying of materials.

For violations of the Academic Ethics Policy, the total points for the discipline may be reduced to 1-5 points.

Guidelines for the lessons of the discipline

Key questions covered in lesson #1 Childhood Malnutrition Syndrome.

1. Differential diagnosis of malnutrition clinical forms in children.
2. Clinical manifestations of malnutrition.
3. Treatment of:
 - •Hypoglycemia condition
 - •Hypothermia
 - •Dehydration
 - •Electrolyte Disorders
 - •Infections
4. Phased management, treatment and care of children with severe malnutrition.

Recommended reading for this discipline:

[1], [2], [3], [13-15]

Key questions covered in lesson #2 Rickets.

1. Epidemiology, etiology and predisposing factors for Rickets development.
2. The metabolism of calcium and phosphorus. Pathogenesis of Rickets
3. Bone changes in Rickets. Laboratory changes in Rickets.
4. Pathogenesis of rickets and its clinical forms.
5. Clinical features of Rickets
6. Methods of laboratory and instrumental examination.
7. Differential diagnosis with rickets-like diseases
8. Spasmophilia.
9. Treatment of rickets with vitamin D

10. Pharmaceutical forms of Vitamin D
11. Principles of prevention of rickets

Recommended reading for this discipline:

[1], [2], [3], [13-15]

Key questions covered in lesson #3 Hypovitaminosis in children.

1. Epidemiology, etiology and predisposing factors for hypovitaminosis in children.
2. Clinical features of hypovitaminosis in children
3. Clinical manifestations of hypovitaminosis
4. Methods of laboratory and instrumental examination
5. Daily need for vitamins in infants, release forms and ways of introduction.

Recommended reading for this discipline:

[1], [2], [3], [13-15]

Key questions covered in lesson #4 Deficiency anemia. Module

1. The main reasons for the development of iron-deficiency conditions and anemia in children.
2. Pathogenesis of iron-deficiency anemia.
3. Clinical manifestations and main syndromes of iron deficiency conditions and anemia: nervous system, epithelial, cardiovascular, muscular and secondary immunodeficiency syndromes.
4. Laboratory criteria for iron deficiency anemia
5. Iron deficiency anemia treatment guidelines
6. The metabolism and function of iron in the body. Peculiarities in childhood.
7. CBC: interpretation of the basic indexes of "red blood": the quality and quantity of Erythrocytes, Hemoglobin, Hematocrit and Color Index.
8. Laboratory indexes of iron metabolism
9. The basic principles of treatment of iron-deficient anemia. Iron preparations, release forms and methods of administration. Diet Therapy.
10. Prevention of iron-deficiency States of Iron deficiency.

Recommended reading for this discipline:

[1], [2], [3], [13-15]

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