METHODICAL RECOMMENDATIONS FOR THE PRACTICAL CLASSES

Name of discipline: «Propaedeutics of childhood diseases-1»
Code of discipline: PChD-3205-1
Name of EP: 6B10101 «General Medicine»
Amount of training hours /credits: 120h. (4 credits)
Course and semester of study: 3 course, V semester
Practical classes: 15

Shymkent 2023y.

Methodical recommendations for practical classes are designed in accordance with the syllabus « Propaedeutics of childhood diseas » and discussed at the meeting of the Department.

Protokol № 11 of 23.06.2023y.

Head of the Department, PhD **K.S. Kemelbekov**

№1

1. Theme: Questioning, examination, palpation of the chest of sick children of different age groups with respiratory system pathology. Diagnostic value.

2. Purpose: to explain to students the method of collecting complaints and anamnesis, examination and palpation of the chest in children of different age groups with pathology of the respiratory system

3. Learning objectives:

The student should know:

- method of questioning a patient with respiratory diseases: major, minor complaints, their pathogenesis;
- features of disease and life history: the role of predisposing factors in the development of diseases of the respiratory system;
- methods of examination of patients with lung pathology: pathogenesis and diagnostic significance of the detected changes;
- features of examination of the chest in children. Chest shape: normosthenic, hypersthenic, asthenic;
- methodology definition of type of breathing: thoracic, abdominal, mixed. Symmetry of respiratory movements, participation in breathing auxiliary muscles. Number of breaths per minute, depth and rhythm of breathing;
- chest palpation technique in children;
- rules and techniques palpation (position of the doctor and the sick child, determine the soreness of the chest);
- the technique of carrying out resistance of the chest. Define voice tremor;
- diagnostic value of changes in palpation and resistance of the chest.

The student should be able to:

- make inquiries, identify complaints of patients with respiratory diseases: cough, chest pain, shortness of breath, suffocation, etc.;
- to examine the patient, noting the color of the skin, the shape of the chest, its symmetry, participation in the act of breathing, deformation of the chest and other signs;
- palpate the chest and assess the diagnostic value of the changes detected;
- determine the type of breathing and symmetry of respiratory movements, participation in breathing auxiliary muscles count the number of breaths per minute;
- palpate the chest;
- to determine the resistance of the thorax and voice tremor;
- correctly evaluate the findings on palpation and chest resistance;
- issue a report on the lesson and report the results of the study.

4. Main questions of the topic:

1. Anatomical and physiological features of the respiratory system in children.
2. Types of history. Features of anamnesis collection depending on age.
3. Methods of clinical examination of a patient with respiratory pathology:

a) questioning of a sick child or parent with respiratory diseases: the main, minor complaints, their pathogenesis.;

b) features of disease and life history: the role of predisposing factors in the development of diseases of the respiratory system.

c) features of examination: cyanosis, difficult nasal breathing, participation of auxiliary respiratory muscles, shape and symmetry of the chest;

e) characteristics of breathing: types, character, depth, rhythm; counting the respiratory rate;
j) features of palpation: sickness and elasticity of thorax, voic tremor;
g) features determine the resistance of the chest in the norm and pathology

5. The main forms/methods/technologies of training to achieve the final result of the discipline: discussion of the lesson topic, mastering practical skills

6. Types of control to assess the level of achievement of the final result of the discipline: Checklist of oral survey, mastering practical skills

7. Literature:

Basic:

1. Mazurin, A. V. Propaedeutics of childhood diseases. 1 volume [: textbook / - Almaty: "Evero", 2017. - 144 p
2. Mazurin, A. V. Propaedeutics of childhood diseases. 2 volume]: textbook / - Almaty: "Evero", 2017. - 172 p.
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8. Issayeva, L. A. Childhood diseases. IV part [: textbook / - Almaty: "Evero" , 2017. - 185 p.

Additional:

1.Karen J. marcdante. Robert M. Kligeman. Nelson “Essential of Pediatrics” 7th edition 2015.
2.Joseph J.Zorc Schwartz`s “ Clinical Handbook of Pediatrics” fifth edition 2013.

Electronic resources:

1. Karen J. marcdante. Robert M. Kligeman. Nelson “Essential of Pediatrics” 7th edition 2015. el disc (CD-ROM).

8. Control:

questions:

1. What are the main signs of a normal chest shape?
2. What are the main signs of the pathological form of the chest?
3. What is the significance of static and dynamic chest examination?
4. What causes chest asymmetry?
5. What are the types of normal breathing?
6. What types of pathological breathing are known?
7. What are the rules of palpation of the chest?
8. What is the voice tremor, the mechanism of its occurrence and the technique of determination?

№2

1. Theme: Lung percussion is normal and pathological in children of different age groups. Diagnostic value.

2.Purpose: to explain to students the method of lung percussion in norm and pathology in children of different age groups and its diagnostic value.

3. Learning objectives:

The student should know:

- methods of examination of patients with lung pathology: pathogenesis and diagnostic significance of the detected changes;

- chest percussion technique in children of different age groups;
- percussion as a research method, types of percussion, basic percussion sounds, physical substantiation of percussion;
- rules and technique of percussion (the position of the doctor and the patient, the position of pleximeter and hammer, what is the strength of percussion strike);
- problems of comparative lung percussion, methods and techniques;
- tasks of topographic lung percussion, methods and techniques of its implementation;
- external topography of the chest (lung boundaries, topography of lobes and segments, their projection on the chest) ;
- the value of changes in the lower borders of the lungs, the height of standing of the tops of the lungs, the active mobility of the lower pulmonary edge.

The student should be able to:

- make inquiries, identify complaints of patients with respiratory diseases: cough, chest pain, shortness of breath, suffocation, etc.
- to examine the patient, noting the color of the skin, the shape of the chest, its symmetry, participation in the act of breathing, deformation of the chest and other signs;
- perform comparative chest percussion and evaluate the diagnostic value of the changes detected;
- conduct topographic percussion of the chest;
- define the lower border of the lungs;
- determine the upper limits of the lungs front and rear;
- to determine active mobility of the lower pulmonary margin;
- correctly evaluate the data obtained by topographic percussion;
- issue a report on the lesson and report the results of the study.

4. Main questions of the topic:

1. Definition of percussion method.
2. Physical foundations of percussion.
3. Percussion techniques.
4. Basic rules of percussion.
5. Basic percussion sounds, their characteristics.
6. Methods of comparative lung percussion.
7. Technique of topographic percussion of the lungs.
8. Determination of height of standing of lung apex and margin of Kreniga.
9. Determination of the lower border of the lungs.
10. Determination of the lower pulmonary margin.

5. The main forms/methods/technologies of training to achieve the final result of the discipline: discussion of the lesson topic.

6. Types of control to assess the level of achievement of the final result of the discipline: Checklist of oral survey, mastering practical skills

7. Literature:

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8. Control:

a) questions:

1. What are the rules and what is the technique of lung percussion?
2.What are the goals and objectives of comparative and topographic percussion?
3.What should be the force of percussion in the comparative percussion of the lungs?
4.What should be the force of percussion in topographic percussion of the lungs?
5.What is the physical characteristic of clear pulmonary sound?
6. What determines the physiological difference in the height of the tops of the lungs on the right and left?
7. What should be the position of the finger-plessimeter in determining the lower border of the lungs?
8.What lines determine the lower border of the lungs on the left and right?
9.What is the projection of the boundaries between the right and left lobes of the lungs on the chest?
10.How is the active and passive mobility of the lower edge of the lung determined?

b) situational tasks:

Task 1

During the clinical examination of the child, the following changes were revealed on the side of the chest: it is short and wide (enlarged anteroposterior and transverse size), the ribs are arranged horizontally, a limited excursion of the chest. What is the shape of the chest? Can this form be considered normal? If not, for what diseases are such changes in the chest?

Task 2

During the clinical examination of the child, the following changes in the chest were revealed: a decrease in all sizes, atrophy of the respiratory muscles, a sharp inclination of the ribs downwards, an acute abdominal angle, lagging of the shoulder blades. What is the shape of the chest? Can this form be considered normal? If not, for what diseases are such changes in the chest?

Task 3

When conducting a comparative percussion, a child will hear a loud percussion sound with a timpanic tinge like a boxed one. Percussion sound is carried out equally over the symmetrical parts of the chest. What are the causes of boxed percussion sound? For which diseases is boxed sound characteristic?

Task 4

When conducting a comparative percussion, a 7-year-old child has a shortened, dull percussion sound below the angle of the scapula on the right side along the back surface of the chest. On the left, above the symmetrical part of the chest, there is a percussion sound - clear, pulmonary. What causes the shortened percussion sound? What disease characteristic for such a percussion picture?

Answers:

Task 1

This chest is called “barrel”. This form of the chest is pathological. These changes are typical for diseases of the respiratory system, such as asthma, obstructive bronchitis, emphysema.

Task 2

This chest is called “paralytic”. This form of the chest is pathological. These changes are typical for chronic bronchopulmonary diseases.

Task 3

Box percussion sound appears in children when the elasticity of the lung tissue decreases and its ventilation increases. Box sound characteristic of emphysema, bronchial asthma, obstructive bronchitis.

№3

1.Theme: Auscultation of the lung is normal and pathological in children. Diagnostic value.

2.Purpose: to give students the concept of methods of physical study of the respiratory system, rules and techniques of auscultation in children of different age groups. To master the technique and technique of auscultation of the lungs, to learn to recognize the main respiratory noises in the norm and pathology.

3. Learning objectives:

The student should know:

- features of disease and life history: the role of predisposing factors in the development of diseases of the respiratory system;
- methods of examination of patients with lung pathology: pathogenesis and diagnostic significance of the detected changes;
- the technique of palpation of the chest;
- auscultation as a method of research, types of auscultation, the main auscultatory sounds, the physical basis of auscultation;
- rules and techniques of auscultation of the lungs (the position of the doctor and the patient, the position of the stethoscope) ;
- change value by using auscultation of lung sounds and their types.

The student should be able to:

- make inquiries, identify complaints of patients with respiratory diseases: cough, chest pain, shortness of breath, suffocation, etc.;
- to examine the patient, noting the color of the skin, the shape of the chest, its symmetry, participation in the act of breathing, deformation of the bone and joint system and other signs;
- palpate the chest and assess the diagnostic value of the changes detected;
- identify auscultation lung sounds;
- to correctly estimate obtained by auscultation lung sounds data;

- issue a report on the lesson and report the results of the study.

4. Main questions of the topic:

1. Methods of lung auscultation in children of different ages.
2.Methods of comparative lung auscultation.
3. Characteristics of the main respiratory noise in children depending on age:
- causes of weakening and strengthening of vesicular respiration;
- difference the hard-breathing from puerile.
4. Semiotics of hard breathing
5. Conditions necessary for the appearance of pathological bronchial respiration.
6. Amphoric breathing, the mechanism of its occurrence
7. Varieties and mechanism of dry and wet wheezing
8. Mechanism of crepitation
9. Pleural friction noise, mechanism of occurrence. Unlike wet finely wheezing from crepitate and pleural friction rub.
10. The concept of bronchophony.

5. The main forms/methods/technologies of training to achieve the final result of the discipline: Discussion of the lesson topic, mastering practical skills.

6. Types of control to assess the level of achievement of the final result of the discipline: Checklist of oral survey, mastering practical skills. Testing.

7. Literature:

Basic:

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8. Control:

a) questions:

1. What are the rules of auscultation of the lungs?
2.What are the main respiratory noises?
3.What is the difference between hard breathing and enhanced vesicular breathing?
4.What is bronchial respiration, the mechanism of its occurrence?
5.What are dry and wet wheezes, their varieties and mechanism of occurrence?
6.What is crepitation, the mechanism of its occurrence?
7.Than moist rales differ from crepitate and pleural friction rub?

8. What is the auscultative picture with increased airiness of the lung tissue?
9. What is the auscultatory pattern when sealing the lung tissue?
10. What is the auscultative picture with narrowing of the bronchial lumen?
11. What is the auscultative picture in the lung above the cavity communicating and not communicating with the bronchi.
12. What is the auscultative picture in the presence of liquid contents in the bronchi?
13. What is the auscultative picture in inflammation of the alveoli?
14. What is the auscultative picture in the presence of fluid or air in the pleural cavity?

b) situational tasks:

Task 1

When conducting comparative percussion in a child of 7 years below the angle of the scapula on the right side on the back surface of the chest, a shortened, blunted percussion sound is observed. To the left above the symmetrical section of the chest percussion sound-clear, pulmonary. What are the causes of shortened percussion sound? For what disease is characteristic of such a percussion picture.

Task 2

The pulmonology Department received a girl of 8 years with complaints of fever, wet cough, shortness of breath. When carrying out auscultation against the background of hard breathing on the right side in the axillary area of the chest at the end of the inhalation phase, a sound phenomenon is heard, which is similar to the crackle of dry hair, if it is rubbed between the fingers around the ear. These wheezes do not depend on changes in the body, coughing. What are these extraneous breathing noises called? What is the cause of their occurrence? In what diseases of the respiratory system can be observed such sound phenomena?

Answers:

Task 1

The pulmonology Department received a girl of 8 years with complaints of fever, wet cough, shortness of breath. When carrying out auscultation against the background of hard breathing on the right side in the axillary area of the chest at the end of the inhalation phase, a sound phenomenon is heard, which is similar to the crackle of dry hair, if it is rubbed between the fingers around the ear. These wheezes do not depend on changes in the body, coughing. What are these extraneous breathing noises called? What is the cause of their occurrence? In what diseases of the respiratory system can be observed such sound phenomena?

Task 2

These extraneous breathing noises are called " crepitation." Crepitation occurs in the presence of exudate in the alveoli during their separation. Crepitation is very characteristic of pneumonia, especially croup. It can be observed in pulmonary tuberculosis, pulmonary infarction.

№4

1.Theme: Questioning, examination, palpation of the chest of sick children of different age groups with pathology of the cardiovascular system. Diagnostic value.

2. Purpose: to teach methods of collecting complaints and anamnesis of a sick child and a parent with a disease of the cardiovascular system, as well as methods of research of the cardiovascular system

3. Learning objectives:

The student should know:

- anatomical and physiological features of the cardiovascular system in children;
- method of questioning a patient with diseases of the cardiovascular system;
- peculiarities of disease and life history;
- methods of examination of patients with cardiac pathology: pathogenesis and diagnostic significance of the detected changes;
- methods of palpation of the apical impulse in children of different age groups;
- the methodology of palpation of the cardiac impulse, the causes of;
- methodology determination of epigastric pulsation, causes;
- methods of palpation of the great vessels in children of different age groups;
- methods of investigation of arterial pulse in children;
- method of measuring blood pressure by N. S. Korotkov;
- normal blood pressure in children of different age groups;
- methods of measuring blood pressure on the feet of children.

The student should be able to:

- make inquiries, identify complaints of a sick child or parent with diseases of the cardiovascular system;
- to examine the patient, noting the color of the skin, the shape of the chest, its symmetry, deformation of the bone and joint system and other signs;
- perform palpation of the apical impulse in children of different age groups;
- conduct palpation of the heart, the causes of;
- determine the epigastric pulsation, the causes of;
- perform palpation of the great vessels in children of different age groups;
- determine the arterial pulse in children;
- determine the respiratory rate, pulse, their ratio;
- measure blood pressure by N. S. Korotkov;
- measure blood pressure on the feet of children
- issue a report on the lesson and report the results of the study.

4. Main questions of the topic:

1. Fetal circulation. Mechanisms and timing of embryonic pathways of circulation (of aranziv duct, oval hole, botallov duct) after birth.
2. Anatomical and physiological features of the heart and blood vessels in children (changes in weight, volume, ratio of chambers of the heart, blood vessels in the age aspect). Features of the conductive system of the heart. Pulse, shock and minute blood volume, blood flow rate, VCS, blood pressure.
3.Methods of clinical examination of a sick child with pathology of the cardiovascular system.
4. Palpation of the heart in children of different age groups.
5. Palpation of the great vessels in children.
6. Methods of investigation of arterial pulse in children.
7. Characteristics of various types of pulse (thready, microtechnique, alternating, intermittent, paradoxical, heart rate and bigeminy). The causes of these types of pulse.
8. Method of palpation of the apical impulse. Detailed characteristic of the apical push. It changes with different pathologies.
9. Palpation technique of cardiac impulse, causes.
10. Methods for determining epigastric pulsation, causes.
11. Method of measuring blood pressure by N. S. Korotkov.

12. Normal blood pressure in children of different age groups. Measurement of blood pressure on the feet.

5. The main forms/methods/technologies of training to achieve the final result of the discipline: discussion of the lesson topic, mastering practical skills.

6. Types of control to assess the level of achievement of the final result of the discipline: Checklist of oral survey, mastering practical skills. Testing

7. Literature:

Basic:

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Electronic resources:

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8. Control:

tests:

1. At which age there is an intense increase and differentiation of the myocardium?
A. up to 1 year
B. in the first 2 years of life
C. at 5 years
D. 6-10 years
E. in the first 6 months
2. When does the anatomic closure of the arterial duct occur?
A. by 6 months
B. to 1 year
C. for 3 years
D. to 2 months
E. by age 6
3. What is the pulse rate of a healthy newborn baby?
A. 120 beats / min
B. 80 beats / min
C.100 beats / min
D. 140 beats / min
E. 60 beats / min
4. Mitral valve of the heart is heard:
A.in the lower edge of the sternum

B. In 2 intercostal space on the left
C.in 2 intercostal space on the right
D. in the apex of the heart
E. in between paddle space
5. What communication connection performs the automatism function of the 1st order?
A. atomic ventral connection
B. sinus node
C. bundle of Giissa
D. Purkinje fibers
E. Guiss beam
6. The pulse rate in children aged 5 years is:
A. 120 beats / min
B. 80 beats / min
C.100 beats / min
D. 140 beats / min
E. 60 beats / min
7. What are the indicators of systolic blood pressure in a child 3-7 years old?
A. 70-75 mm Hg.
B. 80-90 mm Hg.
C. 100-110 mm Hg.
D. 90-100 mm Hg.
E.60-70 mm Hg.
8. Which auscultatory changes are characterized by VSD (ventricular septal defect)?
A. with soft systolic murmur in 3-4 intercostal spaces on the left
V. systolic murmur in 2 intercostal space on the right
C. Coarse systolic murmur in 2 intercostal space on the left
D. diastolic noise in the left 3-4 intercostal spaces
E. Coarse systolic murmur in the left 3-4 intercostal spaces
9. What are the auscultatory changes in the open arterial duct?
A. Coarse systolic murmur in the 3-4 intercostal space on the left
B. systolic-diastolic car noise in 2 intercostal space on the left
C. rough diastolic murmur in 2 intercostal space on the left
D. systolic murmur in 2 intercostal space on the right
E. systolic murmur in 2 intercostal space on the left
10. What caused the instability rhythm in the fetus and newborn?
A. High sensitivity to acetylcholine
B. High sensitivity to noradrenaline
C. imbalance of the autonomic nervous system
D. small contents of mitochondria in the sinus node
E. activity of ectopic cores
11. The apical push is due to:
A. contraction of the right ventricle
B. hitting the top of the heart against the chest wall
C. increased volume of the left ventricle during its diastole
D. impact of the right ventricle on the anterior chest wall during its contraction
E. stretching of the aortic mouth with the release of blood from the left ventricle
12. Negative cardiac impulse is observed at:
A. the pressure in the aorta

B. left atrial hypertrophy
C. left ventricular hypertrophy and dilatation
D. right ventricular hypertrophy and dilatation
E. increased pulmonary artery pressure
13. Negative epigastric pulsation due to:
A. transmission of the pulsation of the abdominal aorta
B. the true pulsation of the liver
C. contraction of the right ventricle
D. left ventricular hypertrophy
E. pulsation of the ventral trunk
14. To determine the boundaries of the heart use the following power percussion:
A. the relative stupidity of the weak, absolute – medium strength
B. relative stupidity is a strong, absolute weak
C. relative and absolute dullness-weak percussion
D. relative and absolute dullness-medium strength percussion
15. The waist of the heart is:
A. transverse size of relative dullness in III intercostal space
B. the diameter of absolute stupidity
C. distance from the median line to the boundaries of relative dullness in the IV intercostal space on the left
D. width of the vascular bundle
E. the distance from the anterior median line to the border of relative dullness of the heart in the III intercostal space on the left
16. Under the mitral configuration understand:
A. expansion of the left border of the heart due to the left ventricle
B. reducing the size of the heart waist
C. expansion of the vascular bundle boundaries
D. expansion of the left border of the heart due to the left atrium

Answer tests:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
B	D	D	D	B	C	D	E	B	C	B	D	C	B	E	D

№5

1. Theme: Heart percussion in children of different age groups. Diagnostic value.

2. Purpose: to explain to students the boundaries of the heart in children in norm and pathology, methods and techniques of heart percussion in children of different age group.

3. Learning objectives:

The student should know:

- anatomical and physiological features of the cardiovascular system in children;
- method of questioning a patient with diseases of the cardiovascular system;
- peculiarities of disease and life history;
- methods of examination of patients with cardiac pathology: pathogenesis and diagnostic significance of the detected changes;
- methodology for determining the boundaries of relative dullness of the heart (RDH) in children of different age groups;
- methodology determination of the right border of relative dullness of the heart;
- methodology determination of the left border of relative dullness of the heart;

- method of determining the upper limit of relative dullness of the heart;
- methodology determination of the diameter of the RDH. Normal performance in children of different age groups;
- methodology for determining the boundaries of absolute dullness of the heart (ADH) in children;
- method of determining the width of the vascular bundle in children;
- method of determining the configuration of the heart in children.

The student should be able to:

- make inquiries, identify complaints of a sick child or parent with diseases of the cardiovascular system;
- to examine the patient, noting the color of the skin, the shape of the chest, its symmetry, deformation of the bone and joint system and other signs;
- determine the limits of relative heart dullness (RDH) in children of different age groups;
- determine the right border of relative dullness of the heart;
- determine the left border of relative dullness of the heart;
- determine the upper limit of relative dullness of the heart;
- determine the diameter of the RDH;
- determine the limits of absolute dullness of the heart (ADH) in children;
- determine the width of the vascular bundle in children;
- determine the configuration of the heart in children;
- issue a report on the lesson and report the results of the study.

4. Main questions of the topic:

1. Heart percussion technique in children of different age groups.
2. Definition of "relative dullness of the heart".
3. Method of determining the right border of relative dullness of the heart. The right border of the relative dullness of the heart in children of different ages.
4. Method of determining the left border of relative dullness of the heart. The left border of the relative dullness of the heart in children of different ages.
5. Methods of determining the upper limit of relative dullness of the heart. The upper limit of the relative dullness of the heart in children of different ages.
6. Method of determining the diameter of the RDH. Normal performance in children.
7. Methods of determining the boundaries of absolute dullness of the heart. The limits of absolute dullness of the heart in children of different ages.
8. Technique for determining the width of the vascular bundle. Vascular beam width is normal.
9. Methods for determining the configuration of the heart.

5. The main forms/methods/technologies of training to achieve the final result of the discipline: discussion of the lesson topic.

6. Types of control to assess the level of achievement of the final result of the discipline: Checklist of oral survey, mastering practical skills. Testing.

7. Literature:

Basic:

1. Mazurin, A. V. Propaedeutics of childhood diseases. 1 volume [: textbook / - Almaty : "Evero" , 2017. - 144 p
2. Mazurin, A. V. Propaedeutics of childhood diseases. 2 volume] : textbook / - Almaty : "Evero" , 2017. - 172 p.

3. Mazurin, A. V. Propaedeuutics of childhood diseases. 3 volume [: textbook / - Almaty : "Evero" , 2017. - 140 p.
4. Mazurin, A. V. Propaedeutics of childhood diseases. 4 volume: textbook / - Almaty : "Evero" , 2017. - 120 p.
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7. Issayeva, L. A. Childhood diseases. III part [: textbook / - Almaty : "Evero" , 2017. - 140 p.
8. Issayeva, L. A. Childhood diseases. IV part [: textbook / - Almaty : "Evero" , 2017. - 185 p.

Additional:

1.Karen J. marcdante. Robert M. Kligeman. Nelson “Essential of Pediatrics” 7th edition 2015.
2.Joseph J.Zorc Schwartz`s “ Clinical Handbook of Pediatrics” fifth edition 2013.

Electronic resources:

1. Karen J. marcdante. Robert M. Kligeman. Nelson “Essential of Pediatrics” 7th edition 2015. el disc (CD-ROM).

8.Control:

a)questions:

1. Percussion what force is used in defining the limits of the RDH?
2. What part of the heart formed the right border of the RDH? Where is the normal right border of relative dullness of the heart?
3. What part of the heart formed the left border of the RDH? Where normally is the left border of relative dullness of the heart?
4. What is the upper bound of the RDH formed by? Where is the normal upper limit of relative dullness of the heart?
5. Tell the normal values of the diameter of the RDH in children of different ages.
6. Percussion what force is used in defining the boundaries of ADH?
7. What part of the heart is formed by ARH? Where normal is located the border of the absolute dullness of the heart?
8. What is included in the vascular bundle? Width of the vascular bundle in norm.

b) situational tasks:

Task № 1

Boy K., 1 year, was admitted to the hospital with complaints of lagging in physical development, the presence of shortness of breath and cyanosis of the nasolabial triangle, which increase with physical or emotional stress, restless night sleep.

When viewed objectively: State of moderate severity. The skin is pale with a marble pattern, cyanosis of the nasolabial triangle. Respiration is vesicular. BR 48 in min heart rate 140 /min. the heart Area is not visually changed. The boundaries of relative cardiac dullness: left - on the left midclavicular line, right - 0.5 cm from the right parasternal line, upper-II intercostal space. Heart tones are sonorous and clear, the rhythm is correct, systolic murmur of medium intensity on the left at the sternum with an epicenter in the 2nd intercostal space, 2 tone is amplified in the 2nd intercostal space on the left. Peripheral arterial pulsation is distinct. No swelling.

Task to task:

Evaluate the results of the border of relative cardiac dullness

Task № 2

A 10-year-old girl was admitted to the hospital with complaints of shortness of breath, palpitations and cough with little exercise, increased fatigue, periodic abdominal pain, rarely headaches, pain in the legs. Syncopation is not noted.

Objectively on admission: a serious Condition. The skin is pale in color, moist, cyanotic blush, lips bright. Mucous membranes clean. In the supine position there is a moderate swelling of the

cervical veins. Moderate shortness of breath, BH 24 / min. In the lungs breathing hard, moist rales. The heart-borders are expanded across, the left-to the anterior axillary line. Heart sounds muffled, systolic murmur at the V point, at the apex. The rhythm is irregular, individual beats standing and lying in 1-2 min, HR -90 min, BP -90/60 mm Hg there was no Edema.

Task to task:
Evaluate the results of the border of relative cardiac dullness.
Answers:
Task1. hypertrophy of the right heart
Task 2. mitral configuration of the heart

№ 6
1. Theme: Auscultation of the heart and blood vessels is normal in children of different age groups. Diagnostic value.
2. Purpose: to teach students the methodology and technique of auscultation of the heart in children of different age groups.
3. Learning objectives:
The student should know:
- anatomical and physiological features of the cardiovascular system in children;
- method of questioning a patient with diseases of the cardiovascular system;
- peculiarities of disease and life history;
- methods of examination of patients with cardiac pathology: pathogenesis and diagnostic significance of the detected changes;
- the technique of auscultation of the heart (the position of the doctor and the patient, the position of the stethoscope, the main and additional points of auscultation);
- phases of cardiac activity, intracardiac hemodynamics during systole and diastole;
- mechanism of formation of 1,2,3,4 tones in normal;
- rules of auscultation of the heart;
- point of auscultation of the heart and the sequence of the hearing (two ways);
- characteristics of the basic heart tone in children: the difference between tone I and II;

The student should be able to:
- make inquiries, identify complaints of a sick child or parent with diseases of the cardiovascular system;
- to examine the patient, noting the color of the skin, the shape of the chest, its symmetry, deformation of the bone and joint system and other signs;
- properly perform the technique of auscultation of the heart, all stages of auscultation, be able to differentiate the 1st and 2nd tones;
- distinguish between normal and abnormal heart tones, detect changes in volume, frequency, tone ratio;
- correctly describe the results of auscultation of the heart and draw up a Protocol of auscultation.

4. Main questions of the topic:
1. Features of auscultation of the heart in children.
2. Methods of auscultation of the heart in children of different ages.
3. The main position of patients with auscultation of the heart.
4. The main and additional points of auscultation.

5. Phases of cardiac activity, intracardiac hemodynamics during systole and diastole.
6. The mechanism of formation of 1,2,3,4 tones normal.
7. The main component of the first tone and the place of listening.
8. The main component of the second tone and the place of listening.
9. Unlike auscultatory features of I heart sound II.
10. Mechanism of formation of III and IV heart tones
11. Features of phonocardiogram in children.

5. The main forms/methods/technologies of training to achieve the final result of the discipline: Discussion of the lesson topic. TBL

6. Types of control to assess the level of achievement of the final result of the discipline: Checklist of oral survey

7. Literature:

Basic:

1. Mazurin, A. V. Propaedeutics of childhood diseases. 1 volume [: textbook / - Almaty : "Evero" , 2017. - 144 p
2. Mazurin, A. V. Propaedeutics of childhood diseases. 2 volume] : textbook / - Almaty : "Evero" , 2017. - 172 p.
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7. Issayeva, L. A. Childhood diseases. III part [: textbook / - Almaty : "Evero" , 2017. - 140 p.
8. Issayeva, L. A. Childhood diseases. IV part [: textbook / - Almaty : "Evero" , 2017. - 185 p.

Additional:

1.Karen J. marcdante. Robert M. Kligeman. Nelson “Essential of Pediatrics” 7th edition 2015.
2.Joseph J. Zorc Schwartz`s “ Clinical Handbook of Pediatrics” fifth edition 2013.

Electronic resources:

1. Karen J. marcdante. Robert M. Kligeman. Nelson “Essential of Pediatrics” 7th edition 2015. el disc (CD-ROM).

8.Control:

questions:

1. Places and order of listening to the heart of children?
2. In what period of the cardiac cycle occurs the first heart tone?
3. List the phases of systole. In which phase there is the first heart tone?
4. What are the components of the first heart tone? What does each component mean?
5. Give the frequency and time characteristic of the first heart tone. At what point of auscultation is the first heart tone characterized?
6. In what period of the cardiac cycle there is a second heart tone?
7. List the phases of diastole. In which phase there is the second heart tone?
8. What are the components of the second heart tone? What does each component mean?
9. Give the frequency and time characteristic of the second heart tone. At what points of auscultation is the second heart tone characterized?
10. In what phase of the diastole occurs the third tone of the heart? Give the frequency and time characteristic of the third heart tone. The physiological third tone of the heart.
11. In what phase of diastole does the fourth tone of the heart occur? Give the frequency and time characteristic of the fourth heart tone.

№ 7

1. Theme: Auscultation of the heart and blood vessels in the pathology of children. Diagnostic value.

2. Purpose: to explain to students the technique of auscultation of the heart in the pathology of children of different age groups and its diagnostic value.

3. Learning objectives:

The student should know:

- method of questioning a patient with diseases of the cardiovascular system;
- peculiarities of disease and life history;
- methods of examination of patients with cardiac pathology: pathogenesis and diagnostic significance of the detected changes;
- the technique of auscultation of the heart (the position of the doctor and the patient, the position of the stethoscope, the main and additional points of auscultation);
- rules of auscultation of the heart;
- the mechanism of attenuation and amplification of sound I heart;
- the mechanism of attenuation and amplification II heart;
- semiotics functional and organic heart murmurs and extracardial murmurs;
- the mechanism of pericardial rub and the contrast of pleural friction rub.

The student should be able to:

- make inquiries, identify complaints of a sick child or parent with diseases of the cardiovascular system;
- to examine the patient, noting the color of the skin, the shape of the chest, its symmetry, deformation of the bone and joint system and other signs;
- properly perform the technique of auscultation of the heart, all stages of auscultation, be able to differentiate the 1st and 2nd tones;
- distinguish between normal and abnormal heart tones, detect changes in volume, frequency, tone ratio;
- distinguish the change of rhythm, tones, ternary rhythms (the rhythm of "quail", click the opening of mitral valve, splitting, and split tones);
- correctly describe the results of auscultation of the heart and draw up a Protocol of auscultation.

4. Main questions of the topic:

1. Features of auscultative phenomena of the heart in children: sonority of tones, rhythm, frequency, presence of III tones, splitting of II tones on the pulmonary artery, respiratory arrhythmia in the age aspect. Heart murmur. BP in children.
2. The mechanism of weakening and strengthening of the I heart tone.
3. The mechanism of weakening and strengthening II heart tone.
4. Classification of heart murmurs.
5. Semiotics of functional and organic murmurs of the heart and extracardiac noise.
6. Mechanism of occurrence and characteristic of pericardial friction noise.
7. Mechanism of occurrence and characteristics of pleuropericardial noise.
8. The difference between a pericardial rub from a pleural friction rub.
9. The mechanism of occurrence of double tone Traube.
10. The mechanism of double tone of Vinogradova — Durose.

5. The main forms/methods/technologies of training to achieve the final result of the discipline: discussion of the lesson topic

6. Types of control to assess the level of achievement of the final result of the discipline: Checklist of oral survey, mastering practical skills. Testing

7. Literature:

Basic:

1. Mazurin, A. V. Propaedeutics of childhood diseases. 1 volume [: textbook / - Almaty : "Evero" , 2017. - 144 p
2. Mazurin, A. V. Propaedeutics of childhood diseases. 2 volume] : textbook / - Almaty : "Evero" , 2017. - 172 p.
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8. Issayeva, L. A. Childhood diseases. IV part [: textbook / - Almaty : "Evero" , 2017. - 185 p.

Additional:

1.Karen J. marcdante. Robert M. Kligeman. Nelson “Essential of Pediatrics” 7th edition 2015.
2.Joseph J.Zorc Schwartz`s “ Clinical Handbook of Pediatrics” fifth edition 2013.

Electronic resources:

1. Karen J. marcdante. Robert M. Kligeman. Nelson “Essential of Pediatrics” 7th edition 2015. el disc (CD-ROM).

8. Control:

questions:

1. What is the mechanism of occurrence, splitting and bifurcation of the I heart tone, in which places it is heard?
2. What is the mechanism of occurrence, splitting and bifurcation of the II heart tone, in which places it is heard?
3.What kind of noise occurs when the bicuspid valve is insufficient, in which places it is better listened to, how it is carried out, in which phase of breathing is amplified?
4.What noise occurs when the aortic valve insufficiency, in which places it is heard, how is it carried out?
5. What kind of noise occurs when the tricuspid valve insufficiency, in which places it is heard, how it is carried out, in which phase of breathing increases?
6.What noise occurs when narrowing the mouth of the pulmonary artery, in which place it is heard?
7.What is the mechanism of occurrence and characteristics of pericardial friction noise, in which places it is heard?
8. What is the mechanism of occurrence and characteristics of pleuropericardial noise, in which places it is heard?

№ 8

1. Theme: Research methods of sick children of different age groups with pathology of digestive system. Diagnostic value.

2. Purpose: to teach students methods of research of sick children of different age groups with pathology of digestive system and its diagnostic value.

3. Learning objectives:

The student should know:

- the method of questioning a patient with a disease of the digestive system;
- peculiarities of disease and life history;
- methods of carrying out examination of the tongue and mouth;
- methods of examination of the abdomen (shape, scars, striae, hernias, dilation of the saphenous veins, participation in the act of breathing);
- method of determination of free fluid in the abdominal cavity (ascites): method of fluctuation, percussion;
- technique for determining the lower border of the stomach (percussion, ausculto affriction method, "splash noise" method);
- method surface appoximate palpation of the abdomen;
- the method of determining the degree of divergence of the rectus abdominis;
- the technique of carrying out of Shchetkin-Blumberg symptom;
- the method of deep sliding methodical palpation by Obraztsova-Strazhesko;
- methodology of conducting of palpation of sigmoid and cecum according to the method of V. P. Obraztsov and N. D. Strazhesko;
- methodology to conduct palpation of the transverse, ascending and descending colon by the method of V. P. Obraztsov and N. D. Strazhesko;

The student should be able to:

- conduct questioning, correctly assess the complaints of patients with diseases of the digestive system, highlight the main complaints and minor;
- collect anamnesis of disease and life, to identify the cause of diseases, to find out the role of working and living conditions, bad habits in the development of diseases of the digestive system;
- master the technique of examination of patients with diseases of the stomach and intestines;
- conduct tongue and oral cavity examination techniques;
- conduct a physical examination of the abdomen;
- conduct methods for the determination of ascites;
- conduct surface tentative palpation;
- conduct deep methodical sliding palpation according of Obraztsova-Strazhesko;
- perform percussion and auscultation of the abdomen;
- issue a report on the lesson and report the results of the study.

4. Main questions of the topic:

1. Anatomical and physiological features of the digestive system in children of all ages and their clinical significance.
2. The method of questioning a patient with a disease of the digestive system.
3. Topographic lines of the abdomen. Projections of internal organs on these areas.
4. Examination of the tongue and mouth.
5. Examination of the abdomen (shape, scars, striae, hernias, dilation of the saphenous veins, participation in the act of breathing)
6. Method of determination of free fluid in the abdominal cavity (ascites): method of fluctuation, percussion.
7. Technique for determining the lower border of the stomach (percussion, ausculto affriction method, "splash noise"method). The location of the lower border of the stomach is normal.
8. Methods of surface indicative palpation of the abdomen. Rules palpation. The objectives of the superficial indicative palpation of the abdomen.
9. Method of determining the degree of divergence of the rectus abdominis. Characteristics are normal.

10. Technique of Shchetkin-Blumberg symptom. Objectives.
11. Technique of palpation of sigmoid and cecum according to the method of V. P. Obraztsov and N. D. Strazhesko.
12. Technique of palpation of the transverse, ascending and descending colon by the method of V. P. Obraztsov and N. D. Strazhesko.

5. The main forms/methods/technologies of training to achieve the final result of the discipline: discussion of the lesson topic, mastering practical skills

6. Types of control to assess the level of achievement of the final result of the discipline: APS/silent formula. Testing.

7. Literature:

Basic:

1. Mazurin, A. V. Propaedeutics of childhood diseases. 1 volume [: textbook / - Almaty : "Evero" , 2017. - 144 p
2. Mazurin, A. V. Propaedeutics of childhood diseases. 2 volume] : textbook / - Almaty : "Evero" , 2017. - 172 p.
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7. Issayeva, L. A. Childhood diseases. III part [: textbook / - Almaty : "Evero" , 2017. - 140 p.
8. Issayeva, L. A. Childhood diseases. IV part [: textbook / - Almaty : "Evero" , 2017. - 185 p.

Additional:

1.Karen J. marcdante. Robert M. Kligeman. Nelson “Essential of Pediatrics” 7th edition 2015.
2.Joseph J.Zorc Schwartz`s “ Clinical Handbook of Pediatrics” fifth edition 2013.

Electronic resources:

1. Karen J. marcdante. Robert M. Kligeman. Nelson “Essential of Pediatrics” 7th edition 2015. el disc (CD-ROM).

8.Control:

tests:

1. What is the volume of the stomach has a child age of 12 months?
A.80-100 ml.
B.300 ml.
C.500 ml.
D.800 ml.
E.700 ml.
2. The relationship between the length of the intestine and body in newborns:
A. 2: 1
B.5,4: 1
C.1: 1
D.8,3: 1
E.3: 1
3. The peculiarities of stomach of children of the 1st life include:
A. the mucous membrane is relatively thick and there are few gastric glands
B. the number of gastric glands has reached the level of adults
C. the mucous membrane is relatively thin and the gastric glands are relatively larger
D. glands have reached morphological maturity but are functionally immature

E. glands are both morphologically and functionally Mature
4.What are the features of the absorption processes in young children in the small intestine?
A. water, vitamins, minerals are absorbed
B. absorbed a small amount of salt, water, glucose
C. vitamins and glucose are absorbed
D. absorbed hydrolysis products of proteins, fats, carbohydrates
E. only water and minerals are absorbed
5.What are the features of intestinal microflora in newborns?
A. E. coli dominates
B. dominated by coccal flora
C. dominated by lactobacilli
D. dominant fungal flora
E. dominates the bifidum flora
6. When examining the oral cavity of a child aged 2 years, attention is drawn to the Islands of white plaque on the mucous membrane of the tongue and gums. Islands of plaque are easily removed with a spatula, bleeding from the mucous membrane is not noted. What pathology should you think about before everything?
A. thrush
B. diphtheria of the oropharynx
C. polyhypovitaminosis
D. catarrhal stomatitis
E. aphthous stomatitis
7. The causes of intussusception in children are the following, except:
A. the Great length of the intestine
B. high mobility of the intestines
C. Presence of antiperistaltic movements
D. the length of the seal
E. Retrocecal location of the Appendix
8. The situation of a sick child in bed inactive, with those given to the stomach feet; a pained expression (Hippocratic face), been vomiting, delay of stool and gases; stomach flat as a Board, painful on palpation, the muscles of the anterior abdominal wall tense; the positive symptom Shotkina-Blumberg. What syndrome is taking place?
A. gastroenterocolitis
B. acute abdomen
C. malabsorption
D. peptic ulcer
E. pyloric stenosis
9. Breastfed baby stool
A. mushy and has an acid reaction
B. dense consistency and has an alkaline reaction
C. dense consistency
D. contains a lot of fat
E. mushy and has an alkaline reaction

Answer tests:

1.	2.	3.	4.	5.	6.	7.	8	9
B	D	A	D	E	A	E	B	A

№ 9

1. Theme: Research methods of sick children of different age groups with pathology of hepatobiliary system. Diagnostic value.

2. Purpose: teach students to palpate the abdomen, liver and spleen in children of different age groups.

3. Learning objectives:

The student should know:

- method of questioning patients with liver disease, spleen;
- peculiarities of disease and life history;
- methodology and technique of liver palpation;
- the technique of palpation of the gallbladder;
- methodology and technique of liver percussion by Kurlov;
- the method of determining the size of the absolute dullnes of the liver by the method of M. G. Kurlov. Liver size is normal. Changes in pathology;
- technique for palpation of pain points of the anterior abdominal wall: the point of Kera, Mayo-Robson, Desjardin, Boas, Openchowski;
- definition of gallbladder symptoms: methods of behavior of symptoms: Kera, Ortner, Mussi-Georgievsky;
- technique of palpation of the spleen;
- technique of spleen percussion. Normal sizes in children.

The student should be able to:

- make inquiries, identify complaints of a sick child or parent with digestive diseases;
- correctly assess the patient's complaints, highlight the main complaints and minor;
- to master the methods of examination, palpation, percussion of the liver with the determination of the size of hepatic dullness by Kurlov;
- determine the size of splenic dullness, palpate the spleen;
- conduct palpation of pain points of the anterior abdominal wall: the point of Kera, Mayo-Robson, - Desjardins, Boas, Openchowski;
- to determine the symptoms of Murphy, Georgievsky, Mussi, Ortner-Grekov, Lepine, Mendel, the presence of free fluid in the abdominal cavity;
- conduct an auscultation of the abdomen;
- issue a report on the lesson and report the results of the study

4. Main questions of the topic:

1. Anatomical and physiological features of the hepatobiliary system in children of different ages and their clinical significance.
2. Method of questioning a patient with liver disease, spleen.
3. Method of determining the size of the absolute dullness of the liver by the method of M. G. Kurlov.
4. Liver size is normal. Changes in pathology.
5. Methods of palpation of the liver in children.
6. The technique of palpation of the gallbladder.
7. Symptoms of the gallbladder: methods of symptoms: Kera, Ortner, Mussi-Georgievsky.
8. The technique of percussion of the spleen. Normal size.
9. Methods of palpation of the spleen.
10. Technique for palpation of pain points of the anterior abdominal wall: the point of Kera, Mayo-Robson, - Desjardins, Boas, Openchowski.

5. The main forms/methods/technologies of training to achieve the final result of the discipline: discussion of the lesson topic, mastering practical skills

6. Types of control to assess the level of achievement of the final result of the discipline: Checklist of oral survey, mastering practical skills. Testing

7. Literature:

Basic:

1. Mazurin, A. V. Propaedeutics of childhood diseases. 1 volume [: textbook / - Almaty : "Evero" , 2017. - 144 p
2. Mazurin, A. V. Propaedeutics of childhood diseases. 2 volume] : textbook / - Almaty : "Evero" , 2017. - 172 p.
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Additional:

1.Karen J. marcdante. Robert M. Kligeman. Nelson “Essential of Pediatrics” 7th edition 2015.
2.Joseph J.Zorc Schwartz`s “ Clinical Handbook of Pediatrics” fifth edition 2013.

Electronic resources:

1. Karen J. marcdante. Robert M. Kligeman. Nelson “Essential of Pediatrics” 7th edition 2015. el disc (CD-ROM).

8. Control:

a) clinical situations tasks:

1. A child is 1 month old. Periodically after feeding, regurgitating with a small amount of food is noted. It is on breast feeding. In the body mass gained 650 grams in the first month. What are the possible causes of regurgitation? What measures are needed to prevent regurgitation in this child?
2. The mother of a child of 3 months turned to the pediatrician with complaints of increased drooling in the child. No teeth. What causes this symptom?
3. During the physical examination of the child at the age of 8 months, the district pediatrician revealed that the lower edge of the child’s palpation and percussion is protruding from the hypochondrium 3 cm, elastic consistency, painless, obese, rounded. What should be the tactics of a doctor

b)tests:

1.In healthy children, the lower edge of the liver comes out from under the right edge of the costal arch to…:
A. 5 – 7 years
B. 3 – 5 years
C. 7 – 9 years
D. 9 – 11 years
E. 11 – 13 years
2. The features of the liver of young children include:
A. the value is relatively small
B. relatively large value and relatively large value of the left lobe
C. relatively large right lobe
D. contains coarse fiber connective tissue

E. sizes are appropriate for adults
3. The features of the pancreas of children 1 year of life include:
A. high activity endocrine function
B. to the birth of an immature endocrine function
C. to birth more immature exocrine function, enzyme activity is low
D. sufficient enzyme activity
E. high activity of exocrine function
4. What percussion sound is characteristic of ascites:
A. blunt
B. tympanic
C. boxed
D. blunting-tympanic
5. Pain on palpation at the Mayo-Robson point is characteristic of the lesion:
A. the tail of the pancreas
B. the head of the pancreas
C. the gallbladder
D. 12 duodenal ulcer
E. lesions of the small intestine
6. Sharp pain with irradiation in the back after errors in the diet are characteristic of...
A. pancreatitis
B. cholecystitis
C. peptic ulcer disease
D. biliary dyskinesia
E. hepatitis
7. Paroxysmal pains in the right hypochondrium indicate of...
A. peptic ulcer 12 duodenal ulcer
B. biliary dyskinesia by hypokinetic type
C. acute gastritis
D. acute pancreatitis
E. biliary dyskinesia in hyperkinetic type
8. Pulling pains in the right hypochondrium indicate of...
A. ulcerative colitis
B. biliary dyskinesia in hyperkinetic type
C. acute gastritis
D. acute pancreatitis
E. biliary dyskinesia by hypokinetic type

Answers:
Task 1. Anatomical and physiological features-insufficient development of the cardiac sphincter of the stomach, aerophagy. The duration of feeding is not more than 20 minutes, after feeding it is necessary to hold the child vertically for 5-7 minutes, so that the air comes out of the stomach.

Task 2. The child has physiological salivation due to the opening of the ducts of the salivary glands, irritation of the trigeminal nerve with teeth that will begin to erupt from 6 months and the inability of children to swallow saliva.

Task 3. In this case there is a physiological norm

Tests:

1	2	3	4	5	6	7	8
A	B	C	Д	A	A	E	E

№ 10

1. Theme: Research methods of sick children of different age groups with pathology of the genitourinary system. Diagnostic value.

2. Purpose: to teach students the methods of collecting complaints and anamnesis of a sick child and a parent with a disease of the urinary system, as well as methods of physical examination of the urinary system in children.

3. Learning objectives:

The student should know:

- anatomical and physiological features of the urinary system in children of different ages and their clinical significance;
- method of questioning a patient with a disease of the genitourinary system;
- peculiarities of disease and life history;
- methodology and technique of palpation of the kidneys;
- method of determination of free fluid in the abdominal cavity;
- methodology and technique of palpation of the bladder;
- the technique of percussion to determine the state of filling the bladder;
- method of determining the upper and middle points of ureteral tenderness;
- methodology for determining the symptom of Pasternatsky.

The student should be able to:

- make inquiries, identify complaints of patients with diseases of the urinary system: pain in the lumbar region, dysuric phenomena, swelling, etc.;
- palpate the kidneys;
- determine the free fluid in the abdomen;
- perform palpation of the bladder;
- perform percussion to determine the state of bladder filling;
- determine the upper and middle points of pain of the ureters;
- identify the symptom of Pasternatsky;
- identify peripheral edema;
- measure blood pressure;
- issue a report on the lesson and report the results of the study.

4. Main questions of the topic:

1. Anatomical and physiological features of the urinary system in children of all ages and their clinical significance.
2. Method of questioning a patient with a disease of the genitourinary system.
3. Methods and techniques of palpation of the kidneys.
4. Method of determination of free fluid in the abdominal cavity.
5. Methods and techniques of palpation of the bladder.
6. Percussion technique to determine the state of the bladder filling.
7. Methods for determining the upper and middle points of ureteral soreness.
8. Method of determining the symptom of Pasternatsky

5. The main forms/methods/technologies of training to achieve the final result of the discipline: discussion of the lesson topic, TBL

6. Types of control to assess the level of achievement of the final result of the discipline:
Checklist of oral survey
7. Literature:
Basic:
1. Mazurin, A. V. Propaedeutics of childhood diseases. 1 volume [: textbook / - Almaty : "Evero" , 2017. - 144 p
2. Mazurin, A. V. Propaedeutics of childhood diseases. 2 volume] : textbook / - Almaty : "Evero" , 2017. - 172 p.
3. Mazurin, A. V. Propaedeuutics of childhood diseases. 3 volume [: textbook / - Almaty : "Evero" , 2017. - 140 p.
4. Mazurin, A. V. Propaedeutics of childhood diseases. 4 volume: textbook / - Almaty : "Evero" , 2017. - 120 p.
5. Issayeva, L. A. Childhood diseases. I part [: textbook / - Almaty : "Evero" , 2017. - 144 p
6. Issayeva, L. A. Childhood diseases. II part] : textbook / - Almaty : "Evero" , 2017. - 170 p.
7. Issayeva, L. A. Childhood diseases. III part [: textbook / - Almaty : "Evero" , 2017. - 140 p.
8. Issayeva, L. A. Childhood diseases. IV part [: textbook / - Almaty : "Evero" , 2017. - 185 p.
Additional:
1.Karen J. marcdante. Robert M. Kligeman. Nelson “Essential of Pediatrics” 7th edition 2015.
2.Joseph J.Zorc Schwartz`s “ Clinical Handbook of Pediatrics” fifth edition 2013.
Electronic resources:
1. Karen J. marcdante. Robert M. Kligeman. Nelson “Essential of Pediatrics” 7th edition 2015. el disc (CD-ROM).
8.Control:
Tests:
1. Until what age do children have a lobular structure of the kidneys?
A. by the 1st year
B. to 2 years
C. to 3 years
D. up to 10 years
E. under 14
2. The mass of kidneys in a newborn child in relation to body mass is:
A. 1:50
B. 1:80
C. 1: 100
D. 1: 150
E. 1: 200
3. Specific gravity (density) of urine of a newborn baby:
A. 1006-1012
B. 1002-1006
C. 1012-1020
D. 1020-1025
E. 1025-1030
4. The diameter of the glomerular glomerulus in children of the 1st year of life is:
A. 45 microns
B. 88 microns
C. 150 microns
D. 190 microns
E. 210 microns

5. The ratio of the thickness of cork and brain layers of the kidneys in a newborn is:
A. 1/2
B. 1/3
C. 1/4
D. 1/5
E. 1/10
6. At which age the construction of the glomerulus is the same as that of an adult:
A. in 1 year
B. in 2 years
C. at 5 years
D. at 10 years
E. at 14
7. What does not meet the anatomical features of the kidneys of newborns:
A. relatively large size (compared to adults)
B. lobular structure
C. relatively high location
D. weak fixation
E. Insufficient development of cork reservoir
8. The diameter of the glomerular glomerulus in adolescents is:
A. 45 microns
B. 88 microns
C. 150 microns
D. 190 microns
E. 210 microns
9. The capacity of the bladder in a newborn is:
A. 30 ml.
C. 80 ml.
C. 100 ml.
D. 200 ml.
E. 1000 ml.
10. The number of urinations (how many times) in children during the day in the first month of life:
A. 4-6 times
B. 6-10 times
C. 10-15 times
D. 15-20 times
E. 20-25 times
11. The average volume of urine in a day for 10 n year old child is:
A. 500-1000 cm3
B. 1000-1200 cm3
C. 1300-1500 cm3
D. 2000-2500 cm3
E. 1500-2000 cm3
12. At a glomerulonephritis it is characteristicly observed:
A. elevation of systolic blood pressure
C. increased pulse pressure
D. Increased blood pressure
E. decrease in central venous pressure

Answer tests:

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
B	C	A	B	C	C	C	D	A	E	E	A

№11

1. Theme: Methods of laboratory research of sick children of different age groups with pathology of urinary system. Diagnostic value.

2. Purpose: explain to the students the role of laboratory and instrumental methods of diagnostics of diseases of urinary and reproductive system, the indications and protivopokazanie for their use in children of different age groups.

3. Learning objectives:

The student should know:

- assessment of the daily amount of urine excreted by the child, the volume of the bladder, the frequency of urination, depending on the age;
- concept of anuria, oliguria, polyuria, hyposthenuria;
- general analysis of urine, methods of quantitative determination of shaped elements in urine, determination of the degree of bacteriuria and evaluation of Zimnitsky's sample;
- concept of daily oxaluria, indicators of oxalates, urates;
- serum biochemical parameters characterizing renal function: total protein and fractions, cholesterol, creatinine, urea, sodium, potassium, residual nitrogen, uric acid;
- methods of instrumental diagnostics of urinary and reproductive system pathology in children.

The student should be able to:

- to interpret the urine test: General urine analysis, Nechiporenko urine analysis, Zemnitsky urine analysis, Kakovsky-Addis urine analysis, Amburger urine analysis, bacterial urine seeding to determine the sensitivity of microorganisms to antibiotics;
- interpret blood serum biochemical parameters: total protein and protein fractions, cholesterol, creatinine, urea, sodium, potassium, uric acid, residual nitrogen;
- interpret the results of instrumental methods of research in diseases of the urinary system;
- issue a report on the lesson and report the results of the study.

4. Main questions of the topic:

1. Methods of investigation of the functional state of the kidneys in children.
2. Characteristics of the general analysis of urine: macro -, microscopic examination. Normal readings.
3. Methods of quantitative determination of shaped elements in urine, determination of bacteriuria, evaluation of Zimnitsky's sample.
4. The concept of anuria, oliguria, polyuria, hyposthenuria. The concept of daily oxaluria, indicators of oxalates, urates.
5. Biochemical parameters of blood serum: total protein and protein fractions, cholesterol, creatinine, urea, sodium, potassium, uric acid, residual nitrogen.
6. Instrumental methods of research in diseases of the urinary system in children.

5. The main forms/methods/technologies of training to achieve the final result of the discipline: discussion of the lesson topic

6. Types of control to assess the level of achievement of the final result of the discipline: Checklist of oral survey, mastering practical skills. Testing

7. Literature:

Basic:

1. Mazurin, A. V. Propaedeutics of childhood diseases. 1 volume [: textbook / - Almaty : "Evero" , 2017. - 144 p
2. Mazurin, A. V. Propaedeutics of childhood diseases. 2 volume] : textbook / - Almaty : "Evero" , 2017. - 172 p.
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6. Issayeva, L. A. Childhood diseases. II part] : textbook / - Almaty : "Evero" , 2017. - 170 p.
7. Issayeva, L. A. Childhood diseases. III part [: textbook / - Almaty : "Evero" , 2017. - 140 p.
8. Issayeva, L. A. Childhood diseases. IV part [: textbook / - Almaty : "Evero" , 2017. - 185 p.

Additional:

1.Karen J. marcdante. Robert M. Kligeman. Nelson “Essential of Pediatrics” 7th edition 2015.
2.Joseph J.Zorc Schwartz`s “ Clinical Handbook of Pediatrics” fifth edition 2013.

Electronic resources:

1. Karen J. marcdante. Robert M. Kligeman. Nelson “Essential of Pediatrics” 7th edition 2015. el disc (CD-ROM).

8.Control:

a)questions:

1.Tell us about the physical properties of urine: quantity, color, smell, density, pH, Zimnitsky test, diagnostic value.
2. What is proteinuria?
3. Tell us the causes of glucosuria.
4. How to conduct a urine test on Addis-Chukovskomu, Nechiporenko and sample of Rehberg?
5. What instrumental methods of research to conduct to determine kidney disease?

b) tests:

1. Hematuria is…:
A) the appearance of protein in the urine
B) the appearance of red blood cells in the urine
C) the appearance of leukocytes in urine
D) the appearance of urine cylinders
E) the appearance of sugar in the urine.
2. Uremia develops when…:
A) acute pyelonephritis
B) chronic glomerulonephritis
C) acute glomerulonephritis
D) urolithiasis
E) cystitis
3. Relative contraindications for the Zimnitsky test is ..:
A) significant glycosuria
B) heart defects
C) diuretics
E) high blood pressure
E) antacids
4. Specify the function of the kidneys, which reflects a sample of the Zimnidsky:
A) concentration
B) participation in hematopoiesis

C) secretarial
D) hormonal
E) detoxification
5. For patients with pyelonephritis, the main complaints do not include:
A) swelling
B) frequent urination
C) temperature rise
D) lumbar pain
E) painful urination
6. The signs of urinary tract infection does not apply:
A) dysuria
B) hematuria
C) pollakiuria
D) fever with chills
E) leukocytosis with a shift of the formula to the left
7. Specify the features of renal edema:
A) begin with the lower extremities
B) appear in the evening
C) begin with the face
D) tight
E) cyanotic
8. Nocturia is…:
A) urinary retention
B) the predominance of night diuresis above day
C) reduction of urine specific gravity
D) urine excretion in small portions
E) urinary incontinence
9. Izostenuriya is…:
A) the same amount of different portions of urine
B) reducing the specific weight of urine
C) monotonically reduced specific gravity of urine
D) increasing the specific gravity of urine
E) urinary incontinence
10. Functional breakdown in kidney disease is:
A) Addis Ababa sample
B) the sample Nechiporenko
C) test of Zimnitsky
D) three-Cup sample
E) Thompson sample
11. Excretory urography is contraindicated in ..:
A) acute pyelonephritis
B) chronic pyelonephritis
C) chronic renal failure
D) urolithiasis
E) cystitis
12. Concentration function of the kidneys can be determined by …:
A) urine analysis by Nechiporenko
B) General urine analysis

C) Zimnitsky urine test
D) Thompson samples
E) bacterial seeding
13. Renal concentration function is assessed by …:
A) Thompson's three-shot
B) analysis of Nechiporenko
C) test of Zimnitsky
D) General urine analysis
E) sugar analysis
12. Concentration function of the kidneys can be determined by …:
A) urine analysis by Nechiporenko
B) General urine analysis
C) Zimnitsky urine test
D) Thompson samples
E) bacterial seeding
13. Renal concentration function is assessed by …:
A) Thompson's sample
B) analysis of Nechiporenko
C) test of Zimnitsky
D) General urine analysis
E) sugar analysis

Answer tests:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
B	B	C	A	A	B	C	B	C	C	C	C	C	A	B

№12

1. Theme: Methods of laboratory studies of sick children of different age groups with hematopoietic system pathology. Diagnostic value.

2. Purpose: explain to students the methodology of clinical examination of sick children with hematopoietic pathology, especially laboratory research.

3. Learning objectives:

The student should know:

- anatomical and physiological features of the hematopoietic system in children;
- method of questioning the patient with diseases of the blood;
- features of the history of the disease and the life of a sick child with hematopoietic system pathology;
- technique of palpation of peripheral lymph nodes;
- technique of palpation and percussion of the spleen;
- technique of percussion in order to detect pain in percussion on flat tubular bones;
- laboratory and instrumental methods of blood system research.

The student should be able to:

- examine the patient:

a) position in bed, physical development of the patient;
b) the presence of changes in skin color, dryness;
c) the presence of changes in the mucous membranes;
d) changes in the state of the skin appendages;

e) the presence of deformities and other changes in the joints
- palpate peripheral lymph nodes;
- palpate the spleen;
- palpate the liver;
- detect fluctuations in the joints;
- to carry out the percussion on a flat tubular bones to detect pain;
- interpret the results of laboratory research methods;
- issue a report on the lesson and report the results of the study.

4. Main questions of the topic:

1. Anatomical and physiological features of the blood system in children of different ages and their clinical significance.
2. Blood coagulation system: primary and secondary hemostasis
3. Myelogram of a healthy child.
4. Methods of clinical examination of a patient with pathology of the blood system:

a) survey
b) inspection features: position in bed, skin color and mucous membranes
membranes; assessment of skin appendages, detection of bone deformation and
joints; the shape of the stomach;
c) palpation of peripheral lymph nodes.
d) palpation of the spleen;
e) palpation of the liver;
j) the appearance of fluctuations in the joints;
g) percussion on flat and tubular bones.

5. Rules and techniques of taking material for research
6. Evaluation of laboratory results.

5. The main forms/methods/technologies of training to achieve the final result of the discipline: discussion of the lesson topic

6. Types of control to assess the level of achievement of the final result of the discipline: Checklist of oral survey, mastering practical skills.

7. Literature:

Basic:

1. Mazurin, A. V. Propaedeutics of childhood diseases. 1 volume [: textbook / - Almaty : "Evero" , 2017. - 144 p
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6. Issayeva, L. A. Childhood diseases. II part] : textbook / - Almaty : "Evero" , 2017. - 170 p.
7. Issayeva, L. A. Childhood diseases. III part [: textbook / - Almaty : "Evero" , 2017. - 140 p.
8. Issayeva, L. A. Childhood diseases. IV part [: textbook / - Almaty : "Evero" , 2017. - 185 p.

Additional:

1.Karen J. marcdante. Robert M. Kligeman. Nelson “Essential of Pediatrics” 7th edition 2015.
2.Joseph J.Zorc Schwartz`s “ Clinical Handbook of Pediatrics” fifth edition 2013.

Electronic resources:

1. Karen J. marcdante. Robert M. Kligeman. Nelson “Essential of Pediatrics” 7th edition 2015. el disc (CD-ROM).

8.Control:

a)questions:

1. Tell us the main complaints made by children of different ages with hematological diseases.
2. Tell the change in the skin, mucous membranes (pallor, jaundice), tongue, nails in hematological pathology and their causes.
3. What are the pathological changes detected during the General examination of the child with the pathology of the blood system from the bone, cardiovascular systems?
4. Tell us the technique of palpation and percussion of the spleen in children.
5. Tell us about the instrumental and laboratory methods of research in the pathology of the blood system.

b)tests:

1. The main organ of blood formation in the postnatal period
A. spleen
B. liver
C. lymphoid clusters
D. bone marrow
E. reticuloendothelial system
2. The main organ of blood formation from III to V month of intrauterine development
A. spleen
B. yellow bag
C. liver and spleen
D. bone marrow
E. lymph nodes
3. Indicators of red blood in newborns in the first hours after birth:
A. Hb – 120 g / l, e-4.0 T / l
B. Hb – 180 - 220 g / l, e - 5.4-7.2 T / l
C. Hb – 110 g / l, e-3.0 T / l
D. Hb – 80 g / l, e-2.7 T / l
E. Hb – 260 g / l, e-9.1 T / l
4. The number of leukocytes in the peripheral blood of children in the first 5 days of life
A. 15-20 g / l
B. 5-6 g / l
C. 8-10 g / l
D.30-33 g / l
E. 3-4 g / l
5. Leukocyte formula of newborns aged 5-6 days
A. Neutrophils - 60, lymphocytes - 30%
B. Neutrophils - 26, Lymphocytes - 60%
C. Neutrophils - 44, lymphocytes - 45%
D. Neutrophils - 36, lymphocytes - 51%
E. Neutrophils - 53, lymphocytes - 35%
6. In the neonatal period, a CI is 0.9. It has a name:
A. Hypochronicia
B. normohromia
C. Hyperchromia
D. erythrocytosis

E. reticulocytosis
7. In acute lymphoblastic leukemia in the peripheral blood can be:
A. industrial myelocy
B. segmented neutrophils
C. esinophils
D. Myeloblasts
E. young neutrophils
8. Eosinophilic leukocytosis is characteristic, except for:
A. sepsis
B. helminthiasis
C. Kinetke library
D. anaphylactic shock
E. serum sickness
9. Hyperchromic anemia indicates:
A. acute post-hemorrhagic anemia
B. Chronic post-hemorrhagic anemia
C. Acquired hemolytic anemia
D. Violation of hemoglobin synthesis
E. Macrocytosis
10. Causes of hemolytic anemia, with the exception of:
A. transfusion of grouped blood
B. Inheritance of hemoglobinosis
C. malaria
D. Vitamin B12 deficiency
E. severe burns
11. Name the leading triad with hemolytic anemia:
A. Idiness, toothache, fever
B. Lesser, hepatosplenomegaly, yellow skin
C. Degree, fever, septic foci
D. Traction, fever, bleeding
E. Legacity, weakness, erroneous taste
12. In the implementation of the immune response, the functional role of the B-lymphocytes primarily includes:
A. activation of non-specific protection factors.
B. synthesis of antibodies to plasma cells
C. destruction of T-lymphocytes
D. macrophage Activation
E. neutrophil activation
13. Which subpopulation of T-lymphocytes performs a cytotoxic function?
A.T-Killery
B.T-Helperi
C.T-Supresori
D.T-Effektori
E.T-Amplifieri
14. Main function of the immune system:
A. manufacture of specific antibodies
B. Preparation of antiviral immunity
C. infection protection

D. Recognition and destruction of genetically alien cells
E. Protection of Genetically Foreign Agents
15. Which of the subpopulations of T-Lymphocytes primarily reacts to the penetration of foreign agents?
A.T-Lymphocytes
B.T-Lymphocyte suppressor
C.T-Lymphocyte Helperi
D.T-Lymphocytes active
E.T-lymphocyte killer cells

Answer tests:

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.
D	C	B	D	C	B	E	A	E	D	B	B	A	E	C

№13

1. Theme: Research methods of sick children of different age groups with endocrine system pathology. Diagnostic value.

2. Purpose: to teach students the methods of collecting complaints and anamnesis of a sick child and a parent with endocrine system pathology, as well as the methods of examination of sick children with endocrine system disease.

3. Learning objectives:

The student should know:

- development of the human endocrine system in the prenatal period and in different periods of childhood;
- characteristics of endocrine hormones. Knowledge of the principles of action of hormones on metabolism in the body;
- features of the structure of the pancreas and thyroid gland;
- basic principles of hormone production regulation;
- method of questioning a patient with diseases of the endocrine system: the main, minor complaints, their pathogenesis;
- features of disease and life history: the role of predisposing factors in the development of diseases of the endocrine system
- the technique of palpation of the thyroid gland;

The student should be able to:

- make inquiries, identify complaints of patients with diseases of the endocrine system: obesity, growth disorders, etc.;
- to carry out examination of the patient, general examination with assessment of physical development, proportionality of a Constitution and other signs;
- palpate the thyroid gland;
- assess sexual development in children;
- issue a report on the lesson and report the results of the study.

4. Main questions of the topic:

1. Anatomical and physiological features of the endocrine system in children of different ages and their clinical significance.
2. Methods of clinical examination of patients with endocrine system pathology:
a) survey;

b) features of inspection: general inspection with an assessment of physical development, proportionality of a Constitution, a condition of skin, inspection of the person, inspection of a neck, inspection of a thorax, inspection of genitals;
c) palpation of the pulse and its characteristics;
d) palpation of the thyroid gland;
e) evaluation of sexual development: girls - hair of the axillary fossa, pubis, development of mammary glands, the nature of menstrual function; boys-facial hair, axillary fossa, pubis; Adam's Apple formation, age-related voice changes, penis size, testicular size;
e) determination of blood pressure, age standards;
3. Study of blood glucose: fasting, glycemic profile. Glucose tolerance test. Clinical significance.

5. The main forms/methods/technologies of training to achieve the final result of the discipline: discussion of the lesson topic

6. Types of control to assess the level of achievement of the final result of the discipline: Checklist of oral survey, mastering practical skills. Testing

7. Literature:

Basic:

1. Mazurin, A. V. Propaedeutics of childhood diseases. 1 volume [: textbook / - Almaty : "Evero" , 2017. - 144 p
2. Mazurin, A. V. Propaedeutics of childhood diseases. 2 volume] : textbook / - Almaty : "Evero" , 2017. - 172 p.
3. Mazurin, A. V. Propaedeuutics of childhood diseases. 3 volume [: textbook / - Almaty : "Evero" , 2017. - 140 p.
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7. Issayeva, L. A. Childhood diseases. III part [: textbook / - Almaty : "Evero" , 2017. - 140 p.
8. Issayeva, L. A. Childhood diseases. IV part [: textbook / - Almaty : "Evero" , 2017. - 185 p.

Additional:

1.Karen J. marcdante. Robert M. Kligeman. Nelson “Essential of Pediatrics” 7th edition 2015.
2.Joseph J.Zorc Schwartz`s “ Clinical Handbook of Pediatrics” fifth edition 2013.

Electronic resources:

1. Karen J. marcdante. Robert M. Kligeman. Nelson “Essential of Pediatrics” 7th edition 2015. el disc (CD-ROM).

8.Control:

a)tests:

1. What hormone determines the level of metabolism in the body?
A. ACTG
B. Thyroxin
C. Cortisol
D. LG
E. FSH
2. What hormone stimulates the growth and function of the thyroid gland?
A.STG
B. ACTG
C.TTG
D. LG
E.FSH

3. What hormone is produced by pancreatic ß-cells?
A. glucagon
B. insulin
C. somatostatin
D. thyroxin
E. somatomedin
4. In violation of the secretion of what hormone does diabetes insipidus develop?
A.TTG
B. ACTG
C.ADH
D. FSH
E. LG
5. What damage of the endocrine gland leads to the development of gigantism?
A. pancreas
B. hypothalamus
C. hypophysis
D. Sex glands
E. thymus
6. What hormone is produced by α-cells of the pancreas?
A. glucagon
B. insulin
C. somatostatin
D. thyroxin
E. somatomedin
7. What hormone is produced by γ-cells of the pancreas?
A. glucagon
B. insulin
C. somatostatin
D. thyroxin
E. somatomedin
8. With a lack of synthesis of the hormone T4 develops:
A. hyperthyroidism
B. hypopituitarism
C. hypothyroidism
D. hypophysial Nanism
E. hypocorticism
9. What hormones are synthesized by the back of the pituitary gland?
A. vazopresin, oxytocin
B. MSG
C. STG, ACTH
D. TSH, FSH
E. ACTH, STH, FSH
10. What hormone is synthesized by the middle part of the pituitary gland?
A. vazopresin, oxytocin
B. MSG
C. STH, ACTH
D. TSH, FSH
E. ACTH, STH, FSH

11. What hormone deficiency leads to the development of pituitary animism?
A. ACTH
B. STG
C. TTG
D. LH
E. FSH
12. What hormone is responsible for the development of diabetes insipidus?
A. ACTH
B. STG
C. TTG
D. ADH
E. oxytocin
13. The mechanism of action parathyroid hormone?
A. enhances the absorption of calcium in the intestine
B. reduces the absorption of calcium in the intestine
C. increases the output of calcium in the urine
D. reduces calcium leaching from bones
E. reduces the output of phosphorus in the urine
14. How many stages of sexual development according to Tanner are allocated to girls?
A. 2 studt
B. 7 stages
C. 10 stages
D. 5 stages
E. 4 stages
15. An insulin antagonist is:
A. TTG
B. androgen
C. cortisone
D. aldosterone
E. glucagon

Answer tests:

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.
B	C	B	C	C	A	C	C	A	B	B	D	A	D	E

№14

1. Theme: Research methods of sick children of different age groups with pathology of the musculoskeletal system. Diagnostic value

2. Purpose: to teach students the methods of collecting complaints and anamnesis of a sick child and a parent with musculoskeletal pathology, as well as the peculiarities of the method of examination of sick children with musculoskeletal pathology**.**

3. Learning objectives:

The student should know:

- age anatomical and physiological features of the musculoskeletal system in children;
- regulation of osteogenesis processes and variants of its violation;
- procedure and terms of eruption of milk and permanent teeth;
- timing of suture and Fontanelle closure;

- main mechanisms of osteoporosis and bone hyperplasia;
- methods of palpation of the musculoskeletal system in children of different ages;
- methodology of conducting of palpation of the skull bones, the presence of a benevolent, measurement of its size;
- technique of palpation of joints;
- mechanisms of disorders of the muscular system in children.

The student should be able to:

- purposefully collect and evaluate anamnesis with the allocation of risk factors for the development of pathology of the musculoskeletal system;
- carry out examination, palpation of the musculoskeletal system in children of different ages;
- determine muscle strength, soft tissue turgor, muscle tone, trophic condition and soreness of individual muscles;
- conduct palpation of the skull bones, the presence of a benevolent, measurement of its size;
- palpate the joints;
- evaluate the biochemical analysis of blood (calcium, phosphorus in blood serum);
- issue a report on the lesson and report the results of the study.

4. Main questions of the topic:

1. Anatomical and physiological features of the musculoskeletal system in children of different ages and their clinical significance.
2. Methods of clinical examination of a patient with pathology of the musculoskeletal system:

a) questioning;

b) features of inspection: estimation of proportion of separate parts of body and body, consistent inspection of skull, trunk, upper and lower extremities (estimation of their sizes, shapes, identifying different strains), assessment of teeth, feature of bite, inspection of configuration of joints, the volume of movable joints, assessment of physical activity of the child, determination of the degree of development of muscles, volume of active motor activity

c) Features of palpation:

- assessment of the degree of muscle development, determination of muscle strength, soft tissue turgor, muscle tone, trophic condition and soreness of individual muscles;
- palpation of the skull bones, the presence of a benevolent, measure its size, palpation of thorax (form, direction of ribs, intercostal spaces vyrazhennosti, epigastralny corner), spine (revealing the deviation of its axis in different departments), extremities;
- measuring the size of the large crown: from one side of the rhombus to the other side (that is, between the parallel sides of the rhombus);
- palpation of joints (fever, soreness, swelling, active and passive movements).

3. Methods of investigation of the bone system: x-ray; biochemical study of blood (calcium, phosphorus, alkaline phosphatase) and urine (calcium, phosphorus); densitometry.

5. The main forms/methods/technologies of training to achieve the final result of the discipline: discussion of the lesson topic

6. Types of control to assess the level of achievement of the final result of the discipline: Checklist of oral survey, mastering practical skills. Testing.

7. Literature:

Basic:

1. Mazurin, A. V. Propaedeutics of childhood diseases. 1 volume [: textbook / - Almaty : "Evero" , 2017. - 144 p
2. Mazurin, A. V. Propaedeutics of childhood diseases. 2 volume] : textbook / - Almaty : "Evero" , 2017. - 172 p.

3. Mazurin, A. V. Propaedeuutics of childhood diseases. 3 volume [: textbook / - Almaty : "Evero" , 2017. - 140 p.
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5. Issayeva, L. A. Childhood diseases. I part [: textbook / - Almaty : "Evero" , 2017. - 144 p
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8. Issayeva, L. A. Childhood diseases. IV part [: textbook / - Almaty : "Evero" , 2017. - 185 p.

Additional:

1.Karen J. marcdante. Robert M. Kligeman. Nelson “Essential of Pediatrics” 7th edition 2015.
2.Joseph J.Zorc Schwartz`s “ Clinical Handbook of Pediatrics” fifth edition 2013.

Electronic resources:

1. Karen J. marcdante. Robert M. Kligeman. Nelson “Essential of Pediatrics” 7th edition 2015. el disc (CD-ROM).

8.Control:

a)tests:

1. At what age does the replacement of milk teeth with permanent ones begin?
A. from 3-4 years of age
B. from 4-5 years of age
C. from 5-6 years of age
D. from 6-7 years of age
E. from 7-8 years of age
2. What is the age at which children have hypertonus in the upper limbs?
A. 2-3 weeks
B. 3-4 weeks
C. 6-8 weeks
D. 2-3 months
E. 5-6 months
3. At what age after birth does muscle hypertension in the lower extremities disappear?
A. from 1 to 2 months
B. from 2 to 3 months
C. from 3 to 4 months
D. from 8 to 10 months
E. from 9 to 10 months
4. What are the features of the skull of a newborn?
A. advantage of brain over facial
B. advantage of facial over brain
C. wide bridge
D. macrognathia
E. closed sutures of the skull
5. What symptoms do not respond to the symptoms of scoliosis?
A. Asymmetry of the shoulder girdle
B. asymmetry of the blades
C. Asymmetry of the clavicle
D. foot asymmetry
6. When examining the baby's oral cavity, the doctor revealed 8 incisors. What age is most appropriate for this formula?
A. 8 months

B. 10 months
C. 12 months
D. 16 months
E. 20 months.

7.Specify the average size of a large theme in a newborn baby.
A. 1.2 × 1.7 cm
B. 5.0 × 3.5 cm.
C. 2.0 × 4.0 cm
D. 3.2 × 4.0 cm
E. 2.0 × 2.5 cm

8. At what age is the closure of the big crown?
A. at 8 months
B. at 10 months
C. From 12 to 18 months
D. from 15 to 24 months
E. from 9 to 12 months

9. What symptom is not characteristic of spasmophilia?
A. laryngism
B. carpopedal spasm
C. craniotabes
D. Tail symptom
E. symptom lust

10. Specify the formula for determining the number of milk teeth:
A. n - 4
B. n - 3
C. 5 + n
D. 4n - 20
E. 7n - 4

Answer tests:

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
C	D	C	A	D	C	E	C	C	A

б)situation tasks:

1. Child 10 months. From the first pregnancy with nephropathy. During pregnancy, the mother of the child lived in the north. A child up to 2 months arrived on breastfeeding, from 2 months - on artificial feeding, after 4 months of feeding, mainly cereals. The child often had acute respiratory infections, was rarely in the open air. Sick with 1.5 months, when there was anxiety, sweating, poor sleep, appetite deteriorated. Lags behind in psycho-motor development. Objectively: the body weight is 8200, height is 71 cm. The child does not sit well with support; it is not worth it. The mucous membranes are pale, teeth - 2, with defects of enamel. Reduced tissue turgor and muscle tone, expressed frontal and parietal bumps, the "Olympic" forehead. Craniotabes. Large temechko 3.5 x 3 cm, the edges are soft. Chest deformity - chicken, expressed Harrison furrow, "rachitic rosary." When you try to plant a child, spinal deformity appears (rachitic kyphosis). Rachitic bracelets, an X-like tibial distortion, are defined.
Your diagnosis. What are the causes of the disease?

2. During a follow-up examination of a month-old child, an orthopedic surgeon evaluated the function of the hip joint. For this purpose: he bent the child's legs at the knees and hip joints at an

angle of 90%, then he returned the legs to the depths, then turned it outside and felt the characteristic “chirping”.
What does this indicate? What symptom was evaluated by the doctor?
3. When conducting a dispensary examination of a 12-year-old girl, an orthopedic surgeon revealed: the asymmetry of the shoulders, collarbone and shoulder blades. The shoulder blades are lagging behind the chest, one arm fits snugly to the body. The asymmetry of the triangle waist.
What pathology should I think about?

Answers:
1. Rickets. Pregnancy with nephropathy. Living in the North. Early artificial feeding porridge. Often acute infections.
2. On congenital dislocation of the femoral head in the hip joint.
Symptom Ortolani positive.
3. Scoliosis.

№15
1. Theme: The scheme of filling the neurological status in children according to the periods of development.
2. Purpose: teach students to evaluate neuropsychiatric development and the scheme of filling the neurological status of children according to the periods of development.
3. Learning objectives:
The student should know:
- development of the human nervous system in the prenatal period and in different periods of childhood;
- methods of examination of neurological status in children of different age groups;
- parameters NDP child 1,2,3 year of life;
- regularities of formation of motor activity, auditory, visual analyzers, skills, speech;
- technique of lumbar puncture;
- know the composition of the liquor in the normal and pathological in different age periods.

The student should be able to:
- examine a child with nervous system disorders: position in bed, coordination of movements and walking, etc.;
- assess the neurological status of a sick child with a pathology of the nervous system;
- evaluate the main criteria and indicators of psychomotor development of children of different ages;
- assess the child's NDP 1,2,3-th year of life;
- evaluate physiological reflexes in children 1 year of life;
- to be guided in such research methods as EEG and Echocardiography;
- issue a report on the lesson and report the results of the study.

4. Main questions of the topic:
1. Anatomical and physiological features of the nervous system in children of different ages and their clinical significance.
2. Formation of motor activity. Violation and malformations of the Central nervous system.
3. Methods of clinical neurological examination of the child
4. Evaluation of reflex activity, muscle tone, motor activity, study of cranial nerve function, sensitivity.

5. Indicators NDP child 1,2,3-th year of life.
6. Radiographic methods, electrophysiological (EEG, REG, Echocardiography).
7. Additional methods of CNS research in children.

5. The main forms/methods/technologies of training to achieve the final result of the discipline: discussion of the lesson topic, mastering practical skills

6. Types of control to assess the level of achievement of the final result of the discipline: Checklist of oral survey, mastering practical skills. Testing.

7. Literature:

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8.Control:

Situation tasks:

***Task** 1*

A child cries loudly, sleeps about 22 hours a day, taking fetal position, if it expands well expressed innate unconditioned reflexes of support, crawl, automatic walking, grasping, pestilence, Galante, Perez. Name the age of the child.

***Task** 2*

Child 7 months. My mother's pregnancy was accompanied by early and late toxicosis. The child was born full-term, asphyxiated. To breast attached on 3-and clock. Breasts sucked slowly. Head starters keep in 4 mo. learns his mother's voice, reacts differently to their own and someone else's name, freely takes the toy for a long time engaged in it, shifts from one hand to another, happy second child, reaching for it, holding the head, from back flips to the stomach, but Gaivota on the back will not roll over, crawl, whatever rests on legs with support under the armpits, pronounces random syllables, with a Cup of not drinking, but eating with a spoon eat. To the question " where?” not react. Evaluate the psychomotor development of the child and give recommendations to the mother.

***Task** 3*

To assess the neuropsychiatric development of the child, age 1 year and 6 months, the scale of assessment of the level of mental development. The data obtained during the survey on the

development of the child are included in the table. What is the prognosis? Give recommendations to mother.

Lines of development	***Proper values, per month.***	***Actual values, in months.***
Understanding of the language	18	12
Active speech	18	12
Sensory development	18	11
Game and actions with objects	18	12
General movement	18	11
Habits and skills in processes	18	11

Answers:

Task 1

Newborn child

Task 2

1. Evaluation of indicators:

Lines of development	***Proper values, per month.***	***Actual values, in months.***
Visual approximate reactions	7	6
Suharyanto reaction	7	5
Emotions and social behavior	7	6
Hand movements and actions with objects	7	5
General movement	7	6
Preparatory stages of active language development	7	6
Habits and skills in processes	7	6

2. Calendar age of the child (SQ) in weeks: 7x4=28 weeks
3. Total age of child mental development (CVD) in weeks:
(6x4 + 5x4 + 6x4 + 5x4 +6x4 + 6x4 + 6x4) : 7 = 23 weeks
4. The definition of QD = 23 : 28 x 100 = 82
5. Conclusion: According to the scale of assessment of mental development neuropsychiatric development of the child meets the weak normal development and it can be attributed to the second group of atypical inharmonic development, III degree of developmental delay. It is recommended to consult neuropsychiatrist.

Task 3

1. Calendar age of the child (SQ) per month: 12 + 6 = 18 months.
2. The total age of mental development of the child (CPD) in months.:
(12 + 12 +11 + 12 + 11 + 11) : 6 = 69 : 6 = 11,5 months.
3. The definition of QD = 11.5 to 18 x 100 = 64
4. Conclusion: According to the scale of assessment of mental development, the child lags behind in neuropsychiatric development and it can be attributed to the fourth group, with atypical development, there is a delay in neuropsychiatric development of the III degree. Prognosis: the child may need training in special schools, does not need care, able to master the habits of self-service. It is recommended to consult and “D” the supervision of a neuropsychiatrist.