

APPROVED

The First Pro-Rector for Scientific and Pedagogical Affairs
Danylo Halytsky Lviv National Medical University

Assoc. Prof. Iryna SOLONYNKO

APPROVED

by the joint meeting of the Academic Councils of the Medical Faculties No. 1 and No. 2 and the Faculty of Foreign Students of Danylo Halytsky Lviv National Medical University, Minutes No. 1/02-2023 of 28.02.2023

Dean of Medical Faculty No 1 _____ Prof. Victoria SERGIENKO

Dean of Medical Faculty No 2 _____ Prof. Alexander NADRAGA

Dean of Foreign Students _____ Assoc. Prof. Eugene VARYVODA

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At the meeting of the specialized methodical committee on pediatric disciplines Protocol No._1_ of "09" February 2023

The Chairman of the specialized
methodical commission _____ Prof. Lesya BESH

ALGORITHMS
of the examination station OSP(C)E
Solving a clinical situational task
Specialty 222 «Medicine»
discipline "Pediatric diseases with pediatric infectious diseases"

ALGORITHM AT CLINICAL STAGE PEDIATRIC DISEASE (CASE 1)

A boy 11 years old, complains of paroxysm of headache, diaphoresis, anxiety, and tremor after taking a drug containing pseudoephedrine as a cold formulation. However, he experienced similar attacks for the past 2 months without taking that drug. Time by time he also felt numbness and weakness. He did not visit a doctor and received no treatments.

On physical examination thinning of subcutaneous fats. Body temperature 36.7 C. His current height is 146 cm and body weight is 36 kg. Cardiac sounds are loud and rhythmic. Pulse rate 126/min, blood pressure 180/120 mmHg. Emergency abdominal ultrasound revealed an incidental mass of 30 x 50 mm on the right adrenal gland.

In the next 10 minutes you need to make preliminary diagnosis, order laboratory tests, and prescribe therapy.

№	Elements of performance
1.	Student: introduced him/herself
2.	Task performance #2 - Made diagnosis
3.	Task performance #3 - Complications, secondary illnesses
4.	Task performance #4 - Differential diagnosis
5.	Task performance #5 - Laboratory tests
6.	Task performance #6 - Instrumental tests
7.	Task performance #7 - Specialist consultation
8.	Task performance #8 - Treatment aims
9.	Task performance #9 - Prescription of drugs (a dose, daily dose), times a day, routes, duration of treatment
10.	Task performance #10 - Recommendations for prophylaxis

ALGORITHM AT CLINICAL STAGE PEDIATRIC DISEASE (CASE 2)

A boy 13 years old, complaints on spells of dyspnea with significant expiratory effort. Expiration is accompanied by wheezing, which is heard at a distance. Trying to relieve dyspnea, he assumes position with leaning forward, and trying to fix the shoulder girdle to exhale. Speech is difficult. The face is pale with cyanotic tilting. There is a dry spasmodic cough. Cough persists every day.

His disease lasts for 6 years. He was consulted by his family physician and successfully received albuterol on occasions of spells. In the past relapses occurred several times per year but for the past year they were getting more often, and cough persisted almost every day. His medical history is not remarkable on any other illnesses, except for frequent upper respiratory infections that eventually resulted in difficult breathing.

On physical examination there is significant expiratory effort. Expiration is accompanied by wheezing, which is heard at a distance.

In the next 10 minutes you need to make preliminary diagnosis, order necessary laboratory tests, and prescribe therapy.

№	Elements of performance
1.	Student: introduced him/herself
2.	Task performance #2 - Made diagnosis
3.	Task performance #3 - Complications, secondary illnesses
4.	Task performance #4 - Differential diagnosis
5.	Task performance #5 - Laboratory tests
6.	Task performance #6 - Instrumental tests
7.	Task performance #7 - Specialist consultation
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ALGORITHM AT CLINICAL STAGE PEDIATRIC DISEASE (CASE 3)

A girl 6 years old, complaints on the pain and swelling of the right knee joint for the past 7 weeks. It gets worse after waking up or staying in one position too long time. In the morning she notes that "the joint is like frozen one". Mother explains that her daughter gets tired very fast while playing with others, and has reduced appetite.

On physical examination, body temperature 37.3 C. Joint pain is moderate without motion, intensifies by palpation. The knee joint has a smoothed contour, increased in volume. Movement span is affected. The left knee joint is normal. Other physical findings are unremarkable.

In the next 10 minutes you need to make preliminary diagnosis, order necessary laboratory tests, and prescribe therapy.

№	Elements of performance
1.	Student: introduced him/herself
2.	Task performance #2 - Made diagnosis
3.	Task performance #3 - Complications, secondary illnesses
4.	Task performance #4 - Differential diagnosis
5.	Task performance #5 - Laboratory tests
6.	Task performance #6 - Instrumental tests
7.	Task performance #7 - Specialist consultation
8.	Task performance #8 - Treatment aims
9.	Task performance #9 - Prescription of drugs (a dose, daily dose), times a day, routes, duration of treatment
10.	Task performance #10 - Recommendations for prophylaxis

ALGORITHM AT CLINICAL STAGE PEDIATRIC DISEASE (CASE 4)

A girl 10 years old, present with her mother and complaints on variable fever during day time, dyspnea and joint pain for 3 days. Joint pain occurred in the right shoulder and on the 3rd day "travelled" to the left shoulder joint. The condition has developed 3 weeks after she had a sore throat that was treated with ibuprofen. She did not consult a doctor.

Her medical history is positive for recurrent pharyngitis and appendicitis. She received standard immunizations and had no other significant medical events.

On physical examination, she looks tired, skin is pale. Body temperature is 37.3 C. Cardiac sounds are muffled, with high-pitched, blowing, holosystolic apical murmur. Left cardiac border is 2 cm out of midclavicular line. No other remarkable findings were noted.

In the next 10 minutes you need to make preliminary diagnosis, order necessary laboratory tests, and prescribe therapy.

№	Elements of performance
1.	Student: introduced him/herself
2.	Task performance #2 - Made diagnosis
3.	Task performance #3 - Complications, secondary illnesses
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6.	Task performance #6 - Instrumental tests
7.	Task performance #7 - Specialist consultation
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ALGORITHM AT CLINICAL STAGE PEDIATRIC DISEASE (CASE 5)

A boy 14 years old, complaints on edema on the face and shins, pink to red color of urine, head pain and lower back pain, increase in body temperature up to 37.8 C. Two weeks ago, he had hypothermia during rain and cold wind exposure, with consequent sore throat, and fever up to 39 C for 5 days. He did not call a doctor and received paracetamol to control body temperature.

His medical history is not remarkable on any significant acute or chronic illnesses. He received all necessary immunizations.

On physical examination, body temperature 37.5 C, respiratory rate 20 /min, heart rate 100/min, blood pressure 145/90 mmHg. On gross inspection, there is edema on the face, shins, and back aspects of feet.

In the next 10 minutes you need to make preliminary diagnosis, order necessary laboratory tests, and prescribe therapy.

№	Elements of performance
1.	Student: introduced him/herself
2.	Task performance #2 - Made diagnosis
3.	Task performance #3 - Complications, secondary illnesses
4.	Task performance #4 - Differential diagnosis
5.	Task performance #5 - Laboratory tests
6.	Task performance #6 - Instrumental tests
7.	Task performance #7 - Specialist consultation
8.	Task performance #8 - Treatment aims
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ALGORITHM AT CLINICAL STAGE PEDIATRIC DISEASE (CASE 6)

A mother of a 5-year-old girl brought her to the pediatrician because daughter's body temperature 39° C, vomiting and back pain. The girl has been passing urine frequently for the last 2 days and complaining of pain during urination. Past medical history features with 2 episodes of fever with frequent urination.

On physical examination: body temperature is 39.1° C, respiratory rate 25 per minute, heart rate 130 per minute, blood pressure 90/60 mmHg. Skin is pale. Her heart sounds are normal, and chest is clear. Her abdomen is soft during palpation, but there is a significant discomfort when palpating the right loin. Her external genitalia appear normal.

In the next 10 minutes you need to make preliminary diagnosis, order necessary laboratory tests, and prescribe therapy.

№	Elements of performance
1.	Student: introduced him/herself
2.	Task performance #2 - Made diagnosis
3.	Task performance #3 - Complications, secondary illnesses
4.	Task performance #4 - Differential diagnosis
5.	Task performance #5 - Laboratory tests
6.	Task performance #6 - Instrumental tests
7.	Task performance #7 - Specialist consultation
8.	Task performance #8 - Treatment aims
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10.	Task performance #10 - Recommendations for prophylaxis

ALGORITHM AT CLINICAL STAGE PEDIATRIC DISEASE (CASE 7)

Alexander aged 12 complains of runny nose, congestion, itching, and sneezing. These symptoms bother him during the last two years. They exacerbate in dusty apartments and especially when staying in the grandfather's old house in the village. Symptoms present almost every day and do not depend on the season. Symptoms temporarily decrease only taking loratadine and nasal drops of oxymetazoline.

He had manifest STAGES of dry skin and itchy rashes in early childhood. He has all immunizations performed in due time and has no other remarkable illnesses.

On physical examination, he has black shadows round eyes, nasal crease, open mouth, and mucous discharge from nostrils, marked pale swelling of the nasal mucosa. Body temperature is 36.7 C, respiratory rate 20 per minute, heart rate 80 per minute, blood pressure 110/80 mmHg. His heart sounds are normal, and chest is clear.

In the next 10 minutes you need to make preliminary diagnosis, order necessary laboratory tests, and prescribe therapy.

No	Elements of performance
1.	Student: introduced him/herself
2.	Task performance #2 - Made diagnosis
3.	Task performance #3 - Complications, secondary illnesses
4.	Task performance #4 - Differential diagnosis
5.	Task performance #5 - Laboratory tests
6.	Task performance #6 - Instrumental tests
7.	Task performance #7 - Specialist consultation
8.	Task performance #8 - Treatment aims
9.	Task performance #9 - Prescription of drugs (a dose, daily dose), times a day, routes, duration of treatment
10.	Task performance #10 - Recommendations for prophylaxis

ALGORITHM AT CLINICAL STAGE PEDIATRIC DISEASE (CASE 8)

A 5-year-old boy presents with drowsiness and vomiting. His mother reports that he has had a 2 kg of weight loss over the last few weeks, has been increasingly tired, had severe thirst, frequent daytime urination and new onset of nocturnal enuresis.

On physical examination: body temperature is 36,1°C, heart rate -140 per min, BP – 80/50mmHg, deep respiration with acetone odor, respiratory rate -16 per min, capillary refill is 5 seconds. His skin is dry, and his abdomen is tender on palpation.

In the next 10 minutes you need to make preliminary diagnosis, order necessary laboratory tests, and prescribe therapy.

№	Elements of performance
1.	Student: introduced him/herself
2.	Task performance #2 - Made diagnosis
3.	Task performance #3 - Complications, secondary illnesses
4.	Task performance #4 - Differential diagnosis
5.	Task performance #5 - Laboratory tests
6.	Task performance #6 - Instrumental tests
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ALGORITHM AT CLINICAL STAGE PEDIATRIC DISEASE (CASE 9)

A 14-year-old boy presents with a 3-week history of diarrhea and cramp-like abdominal pain. He has no blood in his stool and has had no vomiting. His appetite is poor, and he has lost 4 kg in the past 3 weeks. He has intermittent fevers.

On physical examination: patient's weight is on the second centile and height is on the ninth centile. The skin is pale, with perianal fissures. His heart sounds are normal, and chest is clear. There is generalized abdominal tenderness but no guarding or organomegaly.

In the next 10 minutes you need to make preliminary diagnosis, order necessary laboratory tests, and prescribe therapy.

№	Elements of performance
1.	Student: introduced him/herself
2.	Task performance #2 - Made diagnosis
3.	Task performance #3 - Complications, secondary illnesses
4.	Task performance #4 - Differential diagnosis
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6.	Task performance #6 - Instrumental tests
7.	Task performance #7 - Specialist consultation
8.	Task performance #8 - Treatment aims
9.	Task performance #9 - Prescription of drugs (a dose, daily dose), times a day, routes, duration of treatment
10.	Task performance #10 - Recommendations for prophylaxis

ALGORITHM AT CLINICAL STAGE PEDIATRIC DISEASE (CASE 10)

Boy 14 years complaining on dyspnea, dry cough, increased body temperature to 39,2 °C, pain in the right side of the chest, weakness, drowsiness.

The disease developed suddenly next day after getting back home from football game. It is a 3rd day of the febrile illness with temperature spikes up to 40.5 C. He received acetaminophen as needed and rimantadine, prescribed by the family doctor after on-line consultation.

His medical history includes tonsillectomy at age of 7 years, bee bite allergy, trauma of the left knee 3 years ago.

Vital signs: body temperature 39.8 C, respiratory rate 28 /min, heart rate 130 per minute. On percussion over the chest there is dullness below the corner of the right shoulder blade. On auscultation there is a decrease in breathing sound with subtle fine crackles on inspiration. Other findings are normal.

In the next 10 minutes you need to make preliminary diagnosis, order necessary laboratory tests, and prescribe therapy.

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1.	Student: introduced him/herself
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10.	Task performance #10 - Recommendations for prophylaxis