

## Modern Approaches to Prevention of the Occurrence and Development of Pneumonia in Young Children

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**Abstract:** Interstitial form, in addition to typical manifestations, a depressed general condition, weakness, shallow rapid breathing and signs of heart failure (shortness of breath, cough, difficult sputum discharge, a lot of cold sweat, forced positioning, pale skin, heavy). shortness of breath).

**Key points:** Complications, Pulmonary complications, Prophylaxis, Prevention.

Complications of pneumonia develop due to lack of treatment or incorrect therapy designed for a specific form of the disease. There are respiratory (pulmonary) and extrapulmonary complications.

Pulmonary complications

Extrapulmonary complications

Respiratory failure (acute form).

Chronic obstructive pulmonary disease (difficulty in the passage of air through the airways due to the narrowing of their lumen).

Metapneumatic or synpneumatic pleurisy (inflammation of the visceral and parietal pleura against the background of acute pneumonia).

Abscess of lung tissue (formation of limited purulent cavities in lung tissue).

Pyopneumothorax (pus entering the pleural space).

Pulmonary edema (accumulation of fluid in the lung tissue).

Pulmonary gangrene (progressive deterioration of lung tissue due to necrosis).

Bronchopulmonary hemorrhage.

Cardiopulmonary failure, characterized by compression of lung tissue, increased heart volume, stagnation of blood in the systemic and pulmonary circulation.

Acute ulcerative endocarditis (infectious and ulcerative damage to the inner lining of the heart, as well as the mitral or aortic valve).

Pericarditis (infection of the outer lining of the heart, often purulent in nature).

Myocarditis (inflammatory process that develops in the muscular layer of the heart).

DIC syndrome (intravascular coagulation syndrome).

Sepsis (the entry of toxins and bacterial waste into the blood).

Purulent meningitis (purulent inflammation of the membranes of the brain and spinal cord).

Purulent arthritis (joint inflammation with accumulation of pus in the joint cavity).

Hepatitis (inflammation of liver tissue due to massive intoxication of the body).

Glomerulonephritis (inflammation of kidney tissue with primary damage to the glomerular apparatus).

Nephritis (inflammation of the kidney nephron, accompanied by damage to the pyelolytic system, glomeruli and nephron tubules).

Anemia (decrease in the level of red blood cells and hemoglobin in the blood).

Purulent mediastinitis (purulent inflammation of the mediastinal tissue that occurs in an acute or chronic form).

## Diagnosics

Diagnosis of pneumonia in a child occurs in several stages:

Examination by a pediatrician and children's pulmonologist (assessment of the general condition, auscultation and percussion of the lungs, measurement of heart and respiratory rate, blood pressure).

X-ray of the chest. The procedure makes it possible to see changes in the lung tissue and its surrounding structures (locality and size), the presence of cavities, accumulation of fluid in the tissues, as well as to quickly identify complications in the early stages. In severe cases, computed tomography, MRI and bronchoscopy are prescribed.

Sputum examination to determine the type of pneumonia and the type of pathogen.

A blood test to determine the stage of inflammation and the sensitivity of microorganisms to antibacterial drugs.

Urine test for early detection of complications.

Electrocardiogram.

Assessment of external respiratory function (indicated for children over 5 years old).

The final stage is differential diagnosis with other pathologies with similar symptoms: ARVI, bronchitis, bronchiolitis, tuberculosis, cardiac pathologies.

When making a diagnosis, it is necessary to determine the type of pneumonia, the localization of the pathological process (which lung, how many affected segments or lobes) and the presence (and degree) of respiratory failure.

## Treatment

Depending on the type of pathogen, antibacterial, antiviral and antifungal drugs are prescribed to treat pneumonia in a child. Often, if there are no complications, the course of treatment lasts 10-14 days. The choice of a specific drug is made only after determining the type of pathogen and its sensitivity to antibiotics.

When pneumonia is first diagnosed, the doctor prescribes broad-spectrum antibiotics that affect most pathogenic microorganisms.

If pneumonia is detected in a child 3 years old and younger, urgent hospitalization is indicated. Bronchial asthma, immunodeficiency, dysplasia of lung and bronchial tree tissue, severe pathologies of the central nervous system, convulsive syndrome and premature babies are also at risk.

Along with the main drug, symptomatic therapy is prescribed:

expectorant (improves sputum production);

mucolytics (thin sputum);

bronchodilators (elimination of bronchospasm);

antihistamines (relieves swelling of the bronchial mucosa);

probiotics (normalization of intestinal microflora).

If there is a significant increase in temperature (38 ° C and above) at the beginning of the disease or during treatment, children are prescribed antipyretic drugs in tablets or injections (depending on age). In severe cases, corticosteroids are added to the regimen. Treatment of concomitant or causative diseases is carried out in parallel with the treatment of the main disease.

In addition, the child is prescribed plenty of warm drinks (if there is no peripheral edema), a balanced full meal, vitamin and mineral complexes. Mode - bed or half bed.

After treatment in the recovery period, children are prescribed exercise therapy, physiotherapeutic treatment (electrophoresis, microwave oven), inhalations and breast massage. At the end of the physiotherapy course, control laboratory and instrumental studies are conducted.

#### Prevention

Effective, comprehensive and regular prevention is the first step to reduce the risk of pneumonia. General preventive measures include:

- hardening of the body from early childhood (only after consulting a pediatrician);
- intake of enriched diet, vitamin and mineral complexes (as indicated by the doctor);
- regular stay in fresh air away from roads and polluted places;
- elimination of passive smoking;
- avoiding general and local hypothermia;
- minimize stress factors;
- maintaining the optimal level of humidity in the room where the child is;
- timely treatment of infectious diseases.

During pregnancy, a woman should be regularly examined for infectious diseases of the genitourinary system, pathological changes in the fetus, blood circulation disorders in the body, and the development of hypo- and avitaminosis.

Specific prevention of pneumonia includes vaccination against influenza before the onset of seasonal exacerbations of acute respiratory viral diseases.

#### List of used literature:

1. Закирова Б. И. и др. Пищевая аллергия у детей //Достижения науки и образования. – 2021. – №. 4 (76). – С. 65-66.
2. Abilkasimovna K. G., Shavkatovich G. J., Shokirovna D. L. СОВРЕМЕННЫЕ КЛИНИКО–ЭТИОЛОГИЧЕСКИЕ ОСОБЕННОСТИ ВНЕБОЛЬНИЧНОЙ ПНЕВМОНИИ У ДЕТЕЙ С МИОКАРДИТАМИ //JOURNAL OF BIOMEDICINE AND PRACTICE. – 2022. – Т. 7. – №. 3.
3. кизи Давурова, Л. Ш. (2024). ВЗАИМОСВЯЗЬ РАЗВИТИЯ ОКСАЛАТНОЙ НЕФРОПАТИИ У ДЕТЕЙ С ПАТОЛОГИЕЙ ПИЩЕВАРИТЕЛЬНОЙ СИСТЕМЫ. GOLDEN BRAIN, 2(4), 111-116.
4. Карджавова, Г. А., кизи Давурова, Л. Ш., & Рахмонов, Р. Н. (2024). ОСТРЫЙ МИОКАРДИТ У ДЕТЕЙ НА ФОНЕ НА ФОНЕ ВНЕБОЛЬНИЧНОЙ ПНЕВМОНИИ: ОСОБЕННОСТИ КЛИНИЧЕСКОЙ КАРТИНЫ. Educational Research in Universal Sciences, 3(3), 395-400.
5. Лим М. В., Давурова Л. Ш. УСОВЕРШЕНСТВОВАНИЕ ИНСТРУМЕНТАЛЬНЫХ МЕТОДОВ ДИАГНОСТИКИ ПРИ ВНЕБОЛЬНИЧНОЙ ПНЕВМОНИИ У ДЕТЕЙ С МИОКАРДИТАМИ //Вопросы науки и образования. – 2022. – №. 3 (159). – С. 35-39.

6. Farrukh S. ORGANIZATION OF DIGITALIZED MEDICINE AND HEALTH ACADEMY AND ITS SIGNIFICANCE IN MEDICINE //Science and innovation. – 2023. – Т. 2. – №. Special Issue 8. – С. 493-499.
7. Prostyakova, N., Solovyova, Y., Sharapova, D., & Shernazarov, F. (2023). Issues of professional ethics in the treatment and management of patients with late dementia. Science and innovation, 2(D12), 158-165.
8. Jalalova D., Raxmonov X., Shernazarov F. РОЛЬ С-РЕАКТИВНОГО БЕЛКА В ПАТОГЕНЕЗЕ СОСУДИСТЫХ ЗАБОЛЕВАНИЙ ОРГАНА ЗРЕНИЯ У БОЛЬНЫХ АРТЕРИАЛЬНОЙ ГИПЕРТЕНЗИЕЙ //Science and innovation. – 2022. – Т. 1. – №. D8. – С. 114-121.
9. Pogosov S. et al. Psychogenetic properties of drug patients as risk factors for the formation of addiction //Science and innovation. – 2023. – Т. 2. – №. D12. – С. 186-191.
10. Sedenkova M. et al. The possibility of predicting the time of formation and development of alcohol dependence: the role of genetic risk, family weight and its level //Science and innovation. – 2023. – Т. 2. – №. D12. – С. 173-178.
11. Shamilov V. et al. Disorders of decision-making in the case of depression: clinical evaluation and correlation with eeg indicators //Science and innovation. – 2023. – Т. 2. – №. D12. – С. 198-204.
12. Uskov A. et al. Modern methods of therapeutic fasting as a way to overcome the pharmacoresistance of mental pathology //Science and innovation. – 2023. – Т. 2. – №. D12. – С. 179-185.
13. Prostyakova N. et al. Strategy for early diagnosis with cardiovascular diseaseisomatized mental disorders //Science and innovation. – 2023. – Т. 2. – №. D12. – С. 166-172.
14. Закирова Б. И. и др. Пищевая аллергия у детей //Достижения науки и образования. – 2021. – №. 4 (76). – С. 65-66.
15. Abilkasimovna K. G., Shavkatovich G. J., Shokirovna D. L. СОВРЕМЕННЫЕ КЛИНИКО-ЭТИОЛОГИЧЕСКИЕ ОСОБЕННОСТИ ВНЕБОЛЬНИЧНОЙ ПНЕВМОНИИ У ДЕТЕЙ С МИОКАРДИТАМИ //JOURNAL OF BIOMEDICINE AND PRACTICE. – 2022. – Т. 7. – №. 3.
16. кизи Давурова, Л. Ш. (2024). ВЗАИМОСВЯЗЬ РАЗВИТИЯ ОКСАЛАТНОЙ НЕФРОПАТИИ У ДЕТЕЙ С ПАТОЛОГИЕЙ ПИЩЕВАРИТЕЛЬНОЙ СИСТЕМЫ. GOLDEN BRAIN, 2(4), 111-116.
17. Карджавова, Г. А., кизи Давурова, Л. Ш., & Рахмонов, Р. Н. (2024). ОСТРЫЙ МИОКАРДИТ У ДЕТЕЙ НА ФОНЕ НА ФОНЕ ВНЕБОЛЬНИЧНОЙ ПНЕВМОНИ: ОСОБЕННОСТИ КЛИНИЧЕСКОЙ КАРТИНЫ. Educational Research in Universal Sciences, 3(3), 395-400.
18. Лим М. В., Давурова Л. Ш. УСОВЕРШЕНСТВОВАНИЕ ИНСТРУМЕНТАЛЬНЫХ МЕТОДОВ ДИАГНОСТИКИ ПРИ ВНЕБОЛЬНИЧНОЙ ПНЕВМОНИИ У ДЕТЕЙ С МИОКАРДИТАМИ //Вопросы науки и образования. – 2022. – №. 3 (159). – С. 35-39.
19. Farrukh S. ORGANIZATION OF DIGITALIZED MEDICINE AND HEALTH ACADEMY AND ITS SIGNIFICANCE IN MEDICINE //Science and innovation. – 2023. – Т. 2. – №. Special Issue 8. – С. 493-499.