



EVALUATION OF THE EFFECTIVENESS OF AMOXICILLIN IN THE PHARMACOTHERAPY OF RECURRENT BRONCHITIS IN CHILDREN

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Article history:	Abstract:
Received: 20 th March 2026 Accepted: 14 th April 2026	Objective of the work: Evaluation of the effectiveness of amoxicillin depending on the severity of the disease, complications and concomitant pathology in children undergoing inpatient treatment at the TSMU clinic. Materials and methods. A retrospective analysis of 20 medical records of children receiving inpatient treatment at a clinic with a confirmed diagnosis of recurrent bronchitis was conducted. The patients were divided into two groups of 10 children each. The obtained data were statistically processed. To assess the effectiveness of drug therapy, general symptoms, signs, and clinical manifestations of recurrent bronchitis were recorded.

Keywords: Lower respiratory tract diseases, recurrent obstructive bronchitis, etiotropic treatment, amoxicillin.

INTRODUCTION: Today, medical statistics record an annual increase in the number of cases of acute respiratory infections, recurrent bronchitis, and bronchial asthma. One of the key components of adequate etiopathogenetic treatment of bacterial infections, regardless of the severity and location of the inflammatory process, is the rational choice of antibacterial agents.

RESULTS. The first group of patients received amoxicillin as antibacterial therapy, the second group received antibacterial therapy with cephalosporins and metronidazole, which were administered intravenously, antipyretics, antihistamines, bronchodilators and agents that act on sputum.

The effectiveness of antibacterial therapy was assessed promptly, on days 2–3 of treatment. Patients in both groups experienced an improvement in their general condition, a reduction in symptoms, productive coughs, and easier sputum production.

Recurrent obstructive bronchitis is a common disease, affecting 10-15% of the child population and characterized by an increasing incidence worldwide. A significant number of young children (more than 50%) may experience repeated episodes of obstructive bronchitis following acute respiratory infections (ARVI) [11].

In cases of repeated (2-3 or more times per year) cases of bronchitis with BOS, recurrent obstructive bronchitis (ROB) develops. In many cases, the cause of recurrent obstructive bronchitis is bronchial asthma [10].

Broncho-obstructive syndrome (BOS) in young children has attracted the attention of many researchers and

practicing physicians for half a century, due to the heterogeneity of its genesis, difficulties in differential diagnosis and high frequency of occurrence [1-6].

Currently, there is a steady increase in the incidence of RBD and an increasing severity of this disease. RBD often develops in children at an early age, indicating the particular relevance of this problem [7-9]. According to Yu. L. Mizernitsky, in 80% of cases, RBD develops in children at an early age, often as early as the first year of life [13,14].

All this leads to obstructive bronchitis not being diagnosed promptly, and patients, consequently, not receiving treatment. Only years later are some children suffering from obstructive bronchitis diagnosed with typical asthma.

Due to unjustified, irrational drug therapy, irreversible changes may occur in the respiratory tract, leading to chronic bronchitis and asthma, the symptoms of which tend to steadily progress, which in turn can lead to patient disability.

Therefore, the primary goal of treatment is to slow the progression of morphological changes in the airways and prevent and adequately treat exacerbations and complications of acute respiratory distress syndrome. Pharmacotherapy plays a key role in addressing these challenges [18-20].

Increasing the effectiveness of treatment, increasing the duration and improving the quality of life of the patient depend on the rationality of drug therapy based on modern principles of evidence-based medicine and pharmacoeconomics [15-17].

OBJECTIVE OF THE WORK: Evaluation of the effectiveness of amoxicillin depending on the severity of



the disease, complications and concomitant pathology in children undergoing inpatient treatment in a clinic

MATERIALS AND METHODS. A retrospective analysis of 20 medical records of children treated in hospital at the TSMU clinic with a confirmed diagnosis of recurrent bronchitis was conducted. The patients were divided into two groups of 10 children each.

The obtained data were statistically processed. To assess the effectiveness of drug therapy, general symptoms, signs, and clinical manifestations of recurrent bronchitis were recorded.

RESULTS AND THEIR DISCUSSION. Rationally selected pathogenetic and etiologic therapy for acute respiratory infections (ARI) can reduce the risk of developing severe forms of the disease and its chronicity. Currently, there is no doubt that treatment of BOS in children with ARI should be based on the

etiology of the disease and the pathogenesis of bronchial obstruction. As is known, inflammatory edema and hypersecretion of viscous mucus predominate in the genesis of bronchial obstruction in children.

Therefore, the pathogenetic and symptomatic treatment methods for BOS include anti-inflammatory, bronchodilator, and mucolytic medications. However, treatment should primarily be aimed at eliminating the underlying cause of the disease that led to the development of BOS, i.e., in the case of a respiratory infection, eradicating the infectious agent.

Antibiotic therapy plays a leading role in the treatment of acute obstructive pulmonary disease. Adequate antibiotic therapy not only alleviates the symptoms of acute inflammation but also leads to the eradication of the pathogen, a reduction in the frequency of relapses, and an increase in the interval between exacerbations, ultimately improving patients' quality of life.



Антибиотикотерапия при рецидивирующем бронхите у детей.

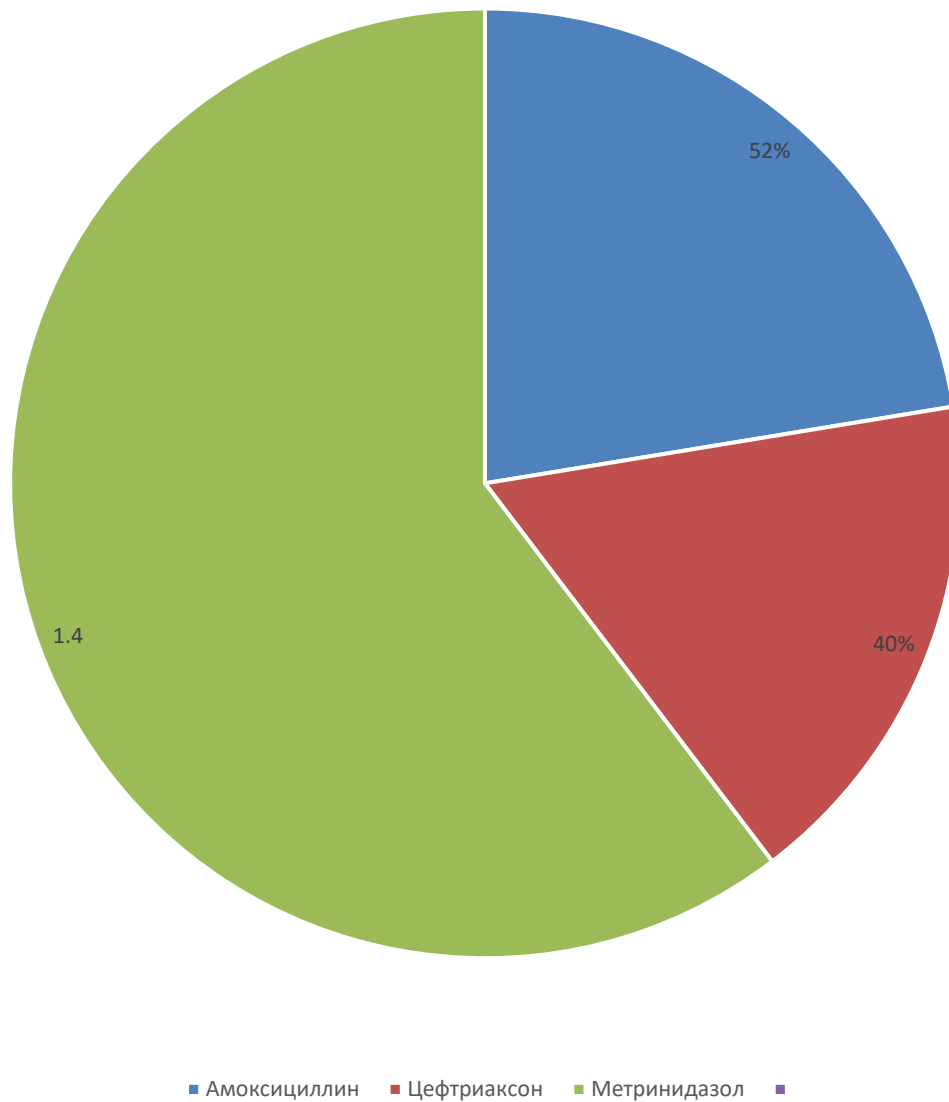


Diagram 1.

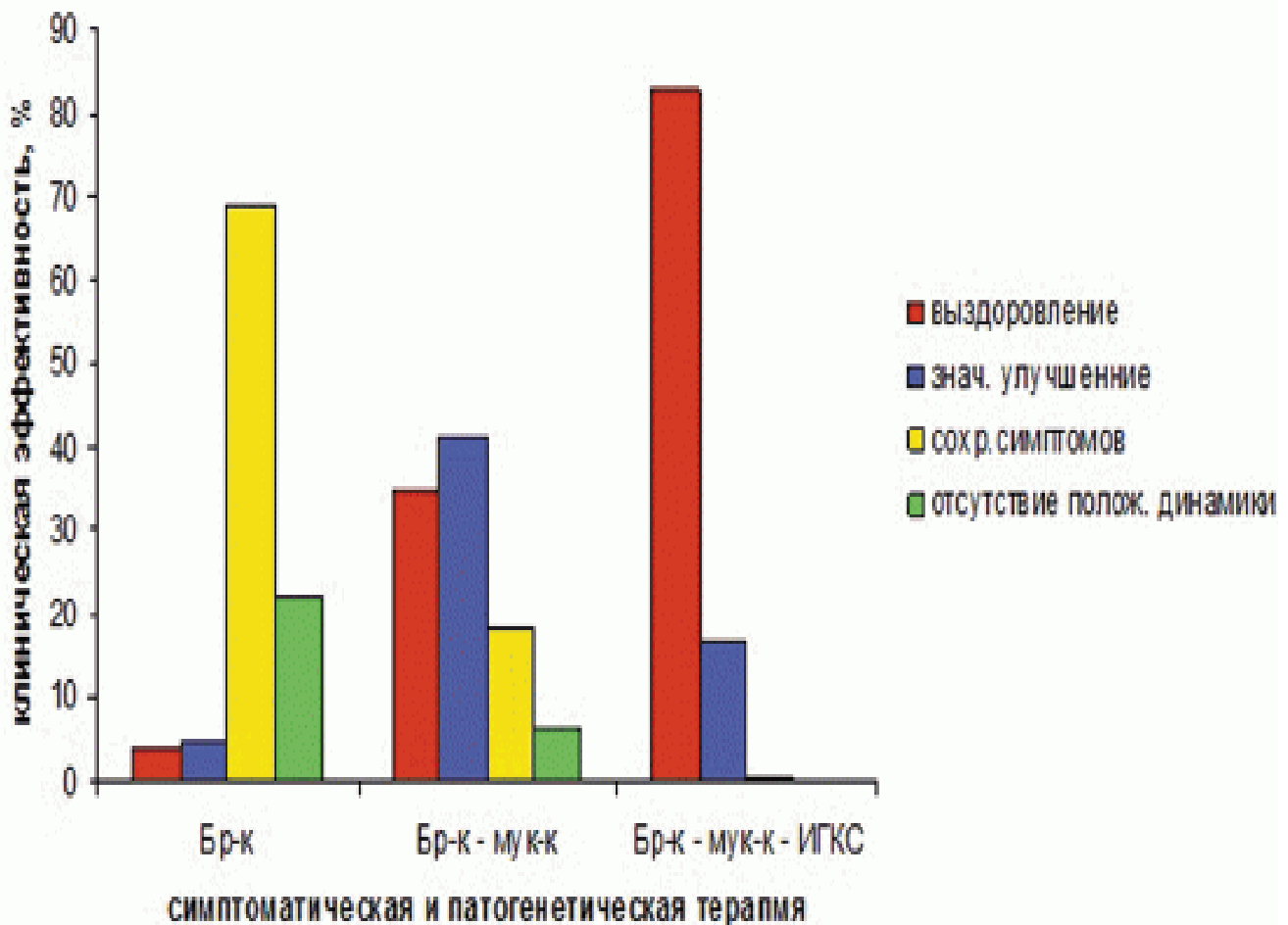


Diagram 2.

In the analyzed period, bronchodilators, mucolytics, and inhaled glucocorticosteroids (IGCS) were used in the symptomatic and pathogenetic treatment of acute obstructive pulmonary disease and recurrent obstructive pulmonary disease. The highest number of positive effects, such as "recovery" and "significant improvement," were observed with the "bronchodilator + mucolytic + IGCS" regimen, while the lowest number was observed with the use of a bronchodilator alone. Children were admitted to the hospital on days 4–6 of illness due to recurrent bronchitis. The first group of patients received amoxicillin as antibacterial therapy, while the second group received intravenous cephalosporins and metronidazole, along with antipyretics, antihistamines, bronchodilators, and expectorants. The effectiveness of antibacterial therapy was assessed promptly, on days 2–3 of treatment. Patients in both groups experienced an improvement in

their general condition, a reduction in symptoms, productive coughs, and easier expectoration.

CONCLUSIONS. In the etiotropic treatment of recurrent bronchitis, the effectiveness of antibacterial therapy with amoxicillin and a combination of cephalosporins and metronidazole are similar. Given the hepatotoxic, hematotoxic, and neurotoxic effects of cephalosporins and metronidazole, we consider the use of Flemoxin Solutab in such patients to be rational.

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