

**Introduction.** Respiratory diseases are still the actual medical and social problem, which is associated to their high frequency, severity of diagnosis and the risk of developing chronic respiratory disease which leads to disability.

According to official data, in Ukraine for the past 10 years increasing in the proportion of children who often suffer from acute respiratory infections is observed to 50-90%. It is established the favorable prognosis of respiratory diseases in children depends on early adequate diagnosis and etiotropic therapy. However, their timely detection is based on detailed and sequential analysis of clinical and anamnestic and radiological data.

**Materials and methods.** The research was conducted in the pediatric ward City Community Children's Hospital №5 during the period 2011-2014. For four years 3139 of the children were treated in the pediatric ward. In the structure of morbidity of children who were treated in a pediatric ward, proportion of children with acute respiratory infections averaged 36.5%, with acute bronchitis - 33.4% , with acute obstructive bronchitis - 18.1%, with pneumonia - 2% of children.

124 of children aged from 1 to 7 years old were included to the main group, most of them (85%) came into the department first time, 15% of children came again, usually it is children aged from 2 to 3 years old. 30% of children were hospitalized to the hospital at 1-2 days of disease, 48% - on the third day, 22% - in the 1-2 week of illness.

**Results and discussion.** The disease of most of the children began with the fever of febrile digits, the appearance of cough, nasal congestion, and nasal discharge. The duration and character of fever depends on the disease nosology. Increasing of the body temperature to febrile digits was observed in 65.5% of the children with acute respiratory infections and pneumonia, febrile period is according to duration ranged from 3 to 4.5 days. Subfebrile fever was diagnosed in 27.5% of the children with the defeat of the upper respiratory tract and bronchitis and kept for 3 days. In 5.5% of the children with acute respiratory infections, pneumonia and bronchitis with obstructive syndrome, high fever was registered , which duration was less than 2 days. In 1.5% of the children with diseases of the organs of the respiratory system the increasing of the body temperature was not observed .

Analysis of the anamnesis of the children what were monitored showed that 71.5% of the observed pregnancy was complicated mainly due to gestosis, of threatened abortion and anemia. 3.5% of pregnant women suffered from acute respiratory infections, and 4.5% of women noted

exacerbation of chronic diseases. Character of feeding :in the first year of life, breast fed children constituted 57.5%, on partial breast average level - 17.5%, on the artificial feeding - 20.5%. 4.5% of the children did not receiving breast milk from birth, because of the heavy condition. At the initial examination in the hospital general condition of moderate severity was diagnosed in 102 of the children, in 22 of the children - a difficult condition due to respiratory disorders, intoxication, physical changes over the lungs. Coughing was observed in 100% of the children. It was frequent and unproductive at the beginning of the disease. At the 3 day of treatment cough became productive in 62.5% of the children by the end of the first week of illness it becomes rarer, and by the 10th day it was only in 22% of the children. Various respiratory disorders were diagnosed in 49.1% of the children. Of these, dyspnea of the expiratory character was observed in 39%, of the inspiratory character - 42%, of the mixed character – in 19% of the children. Physical changes of the lungs characterized by hard breathing, breathing was weak at a pneumonia. Small bubbling rales and crepitation were heard in the background of weak breathing at 3-5 day after beginning of disease. Dry rales that became as wet different bubbling rales in dynamics were heard on the background of hard breathing in acute bronchitis. The presence of small bubbling rales with prolonged expiratory in 42.5% of children and the presence of wet small bubbling rales from both sides of the lung in 57.5 % of children were typical for acute bronchitis and bronchial-obstructive syndrome.

X-ray showed increased vascular picture in 75.5% of examined children ,12.5% of children had signs of emphysema, infiltration of lung tissue in 12% of children.

In more than a half of the children suffering from acute respiratory infections leukocytosis was observed in one third of patients by increasing the number of neutrophils in blood, in others - by increasing of lymphocytes and in more than 30% of children blood counts were normal. Neutrophilia diagnosed in 42.5%, absolute lymphocytosis in 35.5%, accelerated ESR in 30.5% of children with acute bronchitis absolute. Absolute neutrophilia leukocyte with shift to the left in the general analysis of blood diagnosed in more than half of patients at pneumonia, one-third of patients had accelerated ESR.

A significant increase C-reactive protein, and level of Procalcitonin above 2 ng / ml observed in children with severe and medium degree of pneumonia, which is indicating bacterial etiology process.

### **Conclusions:**

1. An important measure for evaluating the severity of pneumonia is lack of breast feeding, such as partially breast feeding and artificial feeding.
2. Diagnosis of acute respiratory diseases in examined children is according to diagnostic measure in approved clinical protocols.
3. Diagnosis of acute viral infections should include clinical manifestations and paraclinical research: determination of antigen in washings from the nasopharynx by ELISA and the detection of antibodies to the virus by using the complement fixation reaction.
4. Differential diagnosis of viral and bacterial respiratory infections should be based on the determination of the level of Procalcitonin that considerably increases by the action of bacterial toxins.