**Introduction.** Diseases of respiratory tract and, especially, acute infectious pathology dominate in the structure of the morbidity in children and adults in Ukraine. The proportion of influenza and other acute respiratory viral infections is 95%. Children, who had undergone surgical correction of congenital heart disease (CHD) prone to recurrent respiratory infections in the following age periods, which explain the necessity of preventing of ARI. So, our attention was attracted by liposomal interferon alfa-2β recombinant (LIRα2β) for oral administration that has immunocorrective and antiviral properties.

**Aim.** The aim of our study was to investigate the efficacy and safety of the LIRα2β and to choose the optimal regimen for the prevention of recurrent ARI in children undergone surgical correction of the CHD.

**Materials and Methods.** 51 children aged from 3 to 12 years were observed. The study group included 31 children with recurrent respiratory infection rate from 6 to 12 times a year, which had a history of surgical correction of CHD, carried out from 2 to 10 years ago (16 – boys and 15 – girls), the control group included 20 healthy children (10 – boys and 10 – girls). We collected and analyzed complaints, anamnesis data, calculation the number of ARI, severity and complications; performed objective examination; measured the level of local immune factors – lysozyme, lactoferrin and secretory immunoglobulin A (sIgA) in the oropharyngeal secretions; monitored adverse events; evaluated children’s and patients’ satisfaction with the results of treatment. At the first stage LIRα2β was administered in a dose of 250,000 IU 30 minutes before a meal one time a day twice a week for a month – method I. In the second stage LIRα2β were used for emergency prevention of ARI at a dose of 250,000 IU 30 minutes before a meal twice a day for 3 days, then one time a day twice a week for a month – method II.

**Results.** Initially each child had 4.29 cases of ARI in the form rhinopharyngitis (Me = 4.0, 25% = 4.0, 75% = 5.0). 18.04% of ARI were complicated by bronchitis; 6.02% of cases – by pneumonia; 8.27% – by otitis. The duration of ARI was 9-21 (Me = 14.0, 25% = 11.0, 75% = 14.0) days.

As a result of preventive treatment according to method I the number of ARI in the next 6 months decreased in 1.3 times (Me = 3.0, 25% = 3.0, 75% = 4.0; p < 0.001); the duration of each case of ARI was reduced to 8-18 days (Me = 11.0, 25% = 10.0, 75% = 12.0; p < 0.001). Complications occurred less frequently: bronchitis – in 1.3 times, pneumonia – in 2.6 times, otitis – in 1.8 times. But, despite the positive results, 41.94% of parents of patients were dissatisfied with the results, so we changed the administration regimen to method II.

As a result of using method II, the frequency of the ARI decreased in 4 times (Me = 1.0, 25% = 1.0, 75% = 2.0, p < 0.001). Duration of ARI reduced to 5-14 days (Me = 8.0, 25% = 7.0, 75% = 9.0; p < 0.001). Bronchitis occurred in 4 times less frequently; otitis – in 5.5 times,
pneumonia wasn’t registered. The method II was more effective in comparison with the results of the prophylactic treatment by method I.

Children with recurrent ARI who had a history of surgical correction of CHD, initially had level of lysozyme in 3.5 times (8.05 ± 0.77 and 28.28 ± 0.87 respectively, p <0.001), level of lactoferrin in 1.7 times (4888.19 ± 354.72 and 8465.20 ± 327.61, respectively, p <0.001); sIgA – in 1.6 times (171.80 ± 0.53 and 275.00 ± 11.95, respectively, p <0.001) lower compared with healthy peers.

As a result of treatment according to method II the level of lysozyme increased in 2.6 times (8.05 ± 0.77 and 21.75 ± 0.77 g/l, respectively, p < 0.001 ), lactoferrin – in 1.5 times (4888.19 ± 354.72 and 7258.06 ± 362.75 ng/ml, respectively, p < 0.001), sIgA – in 1.3 times (171.80 ± 0.53 and 217.10 ± 5.48 mg/ml, respectively, p < 0.001). However none of the studied parameters hadn’t reached the level of those in healthy children.

**Conclusion.** In children with recurrent respiratory infections who had a history of surgical correction of CHD compared with healthy children, a reduction of levels of lysozyme, lactoferrin, and sIgA were revealed, which indicated a lack of local immunity and may predispose to re-ARI. Using of LIRα2β at 250,000 IU 30 minutes before a meal twice a day for 3 days and one time a day twice a week for a month was more efficiently than the recommended by instructions prevention scheme. High efficacy and safety LIRα2β is the basis for its use in children in order to prevent the recurrent ARI.