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EVALUATION OF THE EFFECTIVENESS OF IMMUNIZATION IN YOUNG CHILDREN

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Summary.

Relevance. *Immunoprophylaxis is one of the effective measures to combat infectious diseases. Significant progress in the fight against infectious diseases is associated with vaccination, on which the prospects for the complete elimination of some infectious diseases are based.*

Purpose of the study *– evaluate the effectiveness of prophylactic vaccinations, substantiate the medical, social and economic significance of immunoprophylaxis in the system of managing the health of the child population.*

Materials and methods. *For the study, we used the data of statistical registration forms No. 112 / y "Medical record of a patient receiving medical care on an outpatient basis" and "Medical record of an inpatient patient (medical history)" for 2021 - 2023. The design of the study was a multicenter observational analytical epidemiological study - "case-control". The target cohort of the study is children of the first two years of life living in Tashkent and the Tashkent region (Angren, Almalyk and Chirchik).*

Results and discussion. *According to research, in 2021-22. 82.5% of children of the first week were vaccinated. However, the analysis of the form data indicates that the coverage of vaccination against pneumococcal infection in children from 2 months. up to a year of the total number of persons subject to vaccination, amounted to 40%, respectively. At the same time, in 2021, only 65% of children are vaccinated in the first six months of life. Most of the vaccinated children are children aged 18 months. The main group ("case") - frequently ill children. The main group included: Tashkent - 112, Angren - 84, Almalyk - 77, Chirchik - 65.*

Conclusion. *Both a high percentage of parents' refusal to vaccinate their children (24.8%), and a large percentage of the lack of data on the causes of violations in routine immunization of children (6.1%) were established. training of medical workers on the issues of vaccination.*

Key words:

immunization, vaccinations, children, safety and efficacy.

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Relevance. Immunoprophylaxis is one of the effective measures to combat infectious diseases. Significant progress in the fight against infectious diseases is associated with vaccination, on which the prospects for the complete elimination of some infectious diseases are based. Uzbekistan has made some progress in the implementation of the Vaccination Program. Vaccination against infectious diseases is a frequent part of the complex of concerns about the health of citizens, primarily children [1, 3, 5].

The strategy of immunoprophylaxis in the Republic of Uzbekistan according to general laws, the WHO recommendation is convenient, persecuted and aimed at covering the population with vaccination [2, 4].

At the same time, the vast reason why many diseases manifested themselves in the world in a stable sporadic form, and some diseases that were eliminated earlier "do not return" by vaccination [3, 6, 7].

According to the Decree of the President of the Republic of Uzbekistan dated July 27, 2020 “On measures to organize the activities of the service of sanitary and epidemiological welfare and public health of the Republic of Uzbekistan” No. PF-4790, Sanitary and epidemiological world and society under the Ministry of Health of the Republic of Uzbekistan. In accordance with the REGULATIONS on the Health Committee, the Committee for Sanitary and Epidemiological Control of the World and Public Health made the following requirements:

- identification of promising areas in the field of prevention and diseases, sanitation, hygiene, epidemiology, parasitology, microbiology, virology and coordination of fundamental and applied scientific research on a healthy lifestyle, providing citizens with sanitary and hygienic education covering all scientific groups and raising the level of sanitary culture of wide distribution and implementation of practical measures aimed at organizing education;

- training of workers in various fields on a paid-contract basis in sanitary rules, norms and rules of hygiene;

- these include the quality and preventive effectiveness of vaccinations among the population, risk analysis with mandatory coverage, the implementation of measures in the field of immunological prevention of infectious diseases, taking into account evidence-based approaches [8, 10].

To date, immunoprophylaxis occupies one of the leading places in the implementation of anti-epidemic measures for infectious diseases. The World Health Organization program to combat infectious diseases to reduce the incidence and eliminate them is based on immunoprophylaxis [9, 10].

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In the Global Economic Direction Report, the World Bank recognizes that vaccination is the most effective and cost-effective preventive measure known to modern medicine. Mass vaccination of children significantly reduces morbidity and mortality from infectious diseases, increases life expectancy, promotes active aging, and makes it possible to completely eradicate some anthroponotic infectious diseases on a global scale.

Based on the analysis of epidemiological, immunological and economic efficiency, it has been established that the basis for the fight against infectious diseases with various transmission mechanisms is immunoprophylaxis.

Purpose of the study – evaluate the effectiveness of prophylactic vaccinations, substantiate the medical, social and economic significance of immunoprophylaxis in the system of managing the health of the child population.

Materials and methods. To study the reasons for the hereditary relationship between vaccination of children and the incidence of invasive and non-invasive forms of various infections, we used data from statistical registration forms No. 112 / y "Medical record of a patient receiving medical care on an outpatient basis" and "Medical record of an inpatient patient (case history)" for 2021 – 2023

The design of the study was a multicenter observational analytical epidemiological study - "case-control". The target cohort of the study is children of the first two years of life living in Tashkent and the Tashkent region (Angren, Almalyk and Chirchik). The study was carried out on the basis of children's polyclinic institutions of the listed cities. The "case" group included children aged from 2 months to 2 years (hereinafter - 2 years 11 months 29 days), who are often ill (from 4 or more cases of acute respiratory infections (ARI) per year), including community-acquired pneumonia - WHO criterion.). The "control" group included children from 2 months to 2 years old, rarely ill (0-3 ARIs per year).

Data from statistical forms were entered into specially designed questionnaires. The first stage of the study consisted in the analysis of questionnaires received from polyclinic institutions. 875 questionnaires were processed from the cities: Tashkent - 317, Angren - 263, Almalyk - 181, Chirchik - 114.

The second part of the study was conducted on the basis of children's hospitals. Case histories were selected by random selection. For the study, 354 case histories of children from hospitals of the cities were selected: Tashkent - 128, Angren - 86, Almalyk - 78, Chirchik - 62.

Lack of vaccination against pneumococcal infection was considered a risk factor. Vaccination was carried out within the framework of the National calendar

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of preventive vaccinations. Statistical processing of the obtained data was carried out using standard software packages Microsoft Excel 2007 for Windows (Microsoft), SPSS Statistics for Windows.

Results and discussion. According to research, in 2021-22. 82.5% of children of the first week were vaccinated with HBV, BCG and OPV. However, the analysis of the form data indicates that the coverage of vaccination against pneumococcal infection in children from 2 months. up to a year of the total number of persons subject to vaccination, amounted to 40%, respectively. At the same time, in 2021, only 65% of children are vaccinated in the first six months of life. Thus, we can talk about the untimely start of vaccination, its shift to older age groups than provided for in the National Immunization Schedule.

Most of the vaccinated children are children aged 18 months. The main group ("case") - frequently ill children. The main group included: Tashkent - 112, Angren - 84, Almalyk - 77, Chirchik - 65.

In total (in all cities), the total number of children in the main group was 338, of which 127 had a risk factor. The control group ("control") - rarely ill children.

As a result of the analysis of all completed questionnaires, the significance of differences ($p < 0.001$) between the number of vaccinated and unvaccinated among frequently and rarely ill children was established. When summarizing all the data obtained, the proportion of children vaccinated against PI was 41.5%.

Thus, it can be concluded that the best rates of vaccination against PI are children from 2 months to 2 months. The proportion of children who did not receive vaccination on the basis of an officially registered refusal of their parents was 24.8%, for medical reasons - 7.1%. At the same time, it was not indicated in official documents for what reason 6.1% of children were not vaccinated. The next task of the study was to determine the relationship between the risk factor (lack of vaccination against pneumococcal infection) and the incidence of PI.

Thus, in a multicenter epidemiological observational analytical study of the "case-control" type, conducted according to the data of polyclinics and children's hospitals in a number of cities, it was reliably established that there is a causal relationship between the lack of vaccination of children against PI and the incidence of pneumococcal diseases.

Conclusions. 1. The results of the study indicate the high preventive effectiveness of vaccinations of children under 2 years of age against PI.

2. The chance of finding an unvaccinated child against pneumococcal infection among frequently ill children compared to rarely ill children is 3:1.

3. Both a high percentage of parents' refusal to vaccinate their children (24.8%), and a large percentage of the lack of data on the causes of violations in routine immunization of children (6.1%) were established.

4. The results of the study prove the need for a wide awareness-raising work among the population and training of medical workers on the issues of vaccination.

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