

MODERN VIEWS ON IMMUNOPROPHYLAXIS (LITERATURE REVIEW)

¹Adilova Zilolaxon Ulmasovna, ²Urazalieva Ilmira Ravkatovna, ³Usnaddinov Amirbek
Gayratdin Ugli

¹Senior lecturer at the School of Public health, Tashkent Medical Academy, Tashkent,
Uzbekistan

²Associate Professor, PhD of the School of Public Health, Tashkent Medical Academy,
Tashkent, Uzbekistan

²1st year Master of the School of Public Health, Tashkent Medical Academy, Tashkent,
Uzbekistan

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Abstract. *A number of scientifically-based studies are being conducted in the world in order to achieve the effectiveness of immunoprophylaxis in the clinical course and treatment, prevention of infectious diseases. Immunoprophylaxis has a great importance in the prevention of infectious diseases. The article provides an analysis of data on immunoprophylaxis and studies the factors influencing the formation of attitudes to vaccination among the child population, as well as data on problems with vaccination among the population.*

Keywords: *immunoprophylaxis, vaccination, risk factors of immunoprophylaxis, children.*

Modern healthcare practice shows the need to improve state policy in the field of child health protection. [8] Children are our investments in the society of the future. The level of well-being and stability in the coming decades will depend on their health and how we ensure their growth and development, including the period of adolescence and until they reach adulthood [5].

Studies conducted in the USA in 2007 by the National Center for Immunization and Respiratory Diseases showed that active immunization performed with "old" vaccines (introduced before 1980), including against polio, diphtheria, whooping cough, tetanus, measles, mumps and rubella, is associated with a decrease in morbidity (by 92%) and mortality (by 99%) from these infectious diseases. Active immunization against hepatitis A, hepatitis B, chickenpox and Haemophilus influenzae, introduced after 1980, contributed to a reduction in morbidity and mortality from these diseases in the United States by more than 80 % [24].

In order to realize the effectiveness of immunoprophylaxis in the clinical course, treatment and prevention of infectious diseases, many scientifically based studies are being conducted around the world. Very important in this regard are the determination of the duration of immunity after vaccination, the determination of the epidemiological and immunological efficacy of vaccines used for prophylactic and epidemiological recommendations, the study of population immunity, the identification of epidemic causes of diseases controlled by vaccines, the identification of uncomfortable cases that occur after vaccination, the safety of the population from infectious diseases The development of a comprehensive strategic policy for vaccination, scientific justification of the strategy, etc. [2, 4, 11, 17,18,19].

The twentieth century has made a significant contribution to the research and development of a new ethics in relation to the child, recognizing them as an independent subject of rights and highlighting their special social status. The problem and the need to protect the life and health of children in Russia has been the most urgent since the 90s of the XX century. The child is

considered as a person with his legitimate interests and rights, which the state and society, the adult world should support and implement as a priority [12].

Vaccination is a mandatory state event for the prevention of infectious diseases. Structural changes in the current economic and demographic situation in the country, growing international consolidation in the implementation of programs for the elimination and liquidation of infection lead to increased requirements for immunoprophylaxis

Infectious diseases remain one of the main causes of high morbidity, despite the various methods currently used to treat and prevent them. The most effective preventive measure is vaccination, which is recognized as one of humanity's greatest medical achievements [4, 6, 10, 15, 17]. According to WHO, vaccination programs worldwide save the lives of 6 million children and prevent the disability of 750,000 children each year. Each year, vaccination provides humanity with an extra 400 million years of life [4, 7, 13].

In the past two centuries, billions of lives have been saved through immunization against many infectious diseases. Immunizations administered on every continent have led to the global eradication of smallpox, limited the incidence of polio, and greatly reduced the prevalence of other vaccine-preventable diseases. It is important to recognize that the many benefits of vaccination outweigh the risk of developing the disease, but the possibility of developing the disease is still present. This has been irrefutably proven by human history during the vaccination era. As is clear from the examples of developed countries, effective vaccination has reduced the risk of natural infectious diseases such as polio, diphtheria [19, 20].

Most unvaccinated children live in the poorest countries, disproportionately in unstable and conflict-affected countries. Almost half of the children live in just 16 countries-Afghanistan, the Central African Republic, Chad, the Democratic Republic of the Congo (DRC), Ethiopia, Haiti, Iraq, Mali, Niger, Nigeria, Pakistan, Somalia, South Sudan, Sudan, Syria and Yemen [25].

There are cultural and national inconsistencies and barriers to vaccination. For example, Catholic schools in Calgary, Canada, were banned from accessing the human papillomavirus vaccine in 2008. However, at the request of citizens, the ban was lifted in 2013, and HPV vaccine is now available in schools that previously did not have access [23].

A study conducted by South Korean scientists examined immunization coverage among urban and rural children aged 24-35 months and found that only slightly more than 50% of children received the fourth dose of the DPT vaccine. The authors believe that the introduction of immunization reminder services and the use of computer databases that collect and consolidate information on residents' immunizations can improve timely immunization coverage [26].

A study conducted in Brazil examined the risk factors on refusing to vaccinate children against measles for a certain period of time. The results showed that the decision on vaccination is influenced by age, region of residence, marital status and level of education. It was found that children often delay vaccination against measles because their parents forgot about the timing of vaccination or voluntarily decided to postpone vaccination. This problem can be solved by using several sources of information when reminding parents about the planned date of vaccination [28].

In 2018, 41,043 measles cases were registered in the European region, and in the first 8 months of 2019 - 90,012 [9, 22]. Among European countries, Ukraine (1899.11 per 100,000 population) and Georgia (1261.02 per 100,000 population) are the leaders in incidence rates. The most critical situation for measles is in African countries, where 177,539 cases were registered in the first 8 months of 2019, of which 150,000 are in Madagascar (incidence rate is 6064.6 per

100,000 population, corresponding to the order of pre-vaccination values). The development of unfavorable epidemic conditions in continental countries is facilitated not only by insufficient vaccination coverage and interruptions in the supply of immunobiological drugs, but also by a high risk of non-compliance with the storage conditions of vaccine preparations.

The most important feature of measles and rubella viruses is the lack of influence of their genetic diversity on the effectiveness of the corresponding vaccines [13, 14]. In Moscow, timely vaccination (including measles) in 2012 accounted for 21% of the number of vaccinated children, and in 2017 - only 1.7%. In the Ural Federal District, only 42.5±3.4% of children were vaccinated against measles, rubella and mumps within the deadlines set for 2019 [10]. The main reasons for non-compliance with the vaccination schedule were temporary medical withdrawal and refusal of parents (legal representatives).

Despite the availability of visual information in medical institutions and explanatory conversations of doctors, parents' awareness of the main issues of immunoprophylaxis remains extremely low: 65% of parents do not know about the vaccination calendar, 40% do not know about the need for revaccination to create and maintain a sufficient level of protective antibodies[1].

Thus, there are groups of factors that influence child vaccination, including historical, sociocultural, environmental, institutional, economic, and political factors.

In primary health care institutions and educational institutions (preschool organizations and schools), health care providers need to implement preventive work to form positive attitudes toward immunoprophylaxis, focusing on groups of parents with high diagnostic coefficients that negatively affect the formation of immunization attitudes.

It is necessary to strengthen cooperation between the medical community and the media in popularizing active immunization as an alternative method of preventing major infectious diseases.

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