

STATE REGULATION OF VACCINE PROPHYLAXIS IN UKRAINE

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Of the annual burden of 10 million deaths among children under 5 years, a large proportion is associated with infectious diseases [1]. Thanks to vaccination, about 3 million children can be saved, and 750,000 children can be prevented from serious complications of infectious diseases. The results of recent scientific studies indicate that vaccines make it possible to control the development of about 60 infectious diseases.

Vaccination, as a method of immunoprophylaxis, consists in introducing a given antigen into the human body in a non-aggressive form, but in immune doses for the induction of a protective immune response and the formation of immune memory.

In Ukraine, vaccination is carried out in accordance with current laws and relevant orders of the Ministry of Health of the republic.

The main legislative act in Ukraine is the Constitution. According to Article 3 of the Constitution of Ukraine, "a person, his life and health, honor, dignity, inviolability and security are recognized as the highest social value in Ukraine." Article 49 stipulates that every citizen has the right to health care, medical assistance and medical insurance. Health care is provided by state funding of relevant socio-economic, medical and sanitary and health and preventive programs. In addition, the Constitution of Ukraine declares that the state ensures sanitary and epidemic welfare [2].

The Law of Ukraine "On the Public Health System" defines the legal, organizational, economic and social principles of the functioning of the public health system in Ukraine with the aim of strengthening the health of the population, preventing diseases, improving the quality and increasing the length of life, regulates public relations in the sphere public health and sanitary-epidemic well-being of the population, determines the relevant rights and obligations of state bodies and local self-

government bodies, legal entities and individuals in this area, establishes legal and organizational principles for the implementation of state supervision (control) in the spheres of economic activity, which may pose a risk to the sanitary-epidemic well-being of the population.

Article 5 of the Law of Ukraine "On the Public Health System", which was adopted on September 6, 2022, defines measures to protect health and ensure the sanitary and epidemiological well-being of the population in the public health system.

Health protection and provision of sanitary-epidemic well-being of the population in the public health system are ensured by:

1) recognizing the protection of the population from infectious and non-infectious diseases as one of the priority activities of state authorities and local self-government bodies;

2) prevention of infectious and non-infectious diseases in accordance with the epidemic situation and the forecast of its changes based on a comprehensive approach - unified health;

3) approval and implementation of medical and sanitary measures and compliance with the requirements of sanitary legislation;

4) approval of state medical and sanitary standards and state medical and sanitary rules;

5) medical and sanitary regulations and state registration of dangerous factors;

Article 41 of the Law of Ukraine "On the Public Health System" declares the basic principles of disease prevention.

The state ensures regulation and implementation, in particular, of the following measures of primary disease prevention:

1) immunoprophylaxis measures, including preventive vaccinations in accordance with the vaccination calendar, and assessment of the intensity of immunity to vaccine-controlled infections;

Article 42 of the aforementioned Law specifies that preventive vaccinations for the purpose of preventing infectious diseases are carried out in accordance with the calendar of preventive vaccinations, which is approved by the central executive body, which ensures the formation of state policy in the field of health care. [3].

All countries have national vaccination schedules (calendars), which are being developed: taking into account the urgency of the infection, dangers to public health, • an epidemic situation, WHO recommendations, existing health care system, the appearance on the market of new modern vaccines with minimal reactogenicity.

National vaccination calendars are reviewed every 2-3 years or (if necessary) every year. The country's government must develop effective mechanisms that enable informed decisions to be made regarding immunization priorities and the implementation of new program strategies, vaccines, and technologies. These are the so-called national technical advisory groups on immunization (NTCGI). In Ukraine, such a group was created in 2014, and in 2017, the Ministry of Health approved a new composition of the NTKGI.

Most often, the changes concern: vaccine administration schemes; number of vaccine doses; introduction of new vaccines; reduction or increase in the list of infections against which vaccination is carried out according to the calendar.

The Order of the Ministry of Health of Ukraine dated May 18, 2018 No. 947 made changes to the Calendar of preventive vaccinations in Ukraine.

Mandatory vaccinations against hepatitis B, tuberculosis, poliomyelitis, diphtheria, whooping cough, tetanus, measles, epidemic parotitis, rubella, hemophilus infection remain in the Calendar. The changes concern the vaccination against tuberculosis, the revaccination at the age of 7 has been canceled, children will be vaccinated once every 3-5 days of life.

The second dose of hepatitis B vaccine has been moved from the first month of a child's life to the second, which will allow the use of a multi-component vaccine that will provide protection against several diseases at once and reduce the number of visits to a health care facility [4].

Vaccination of persons with a violation of scheduled vaccination due to age is one of the problems that arises in the practical activity of doctors.

Order of the Ministry of Health of Ukraine No. 595 dated 16.09.2011 contains a section on vaccination of such persons.

Reasons for violation of the calendar of preventive vaccinations:

- contraindications to vaccination - acute diseases or exacerbation of chronic diseases;
- parental refusal of vaccination due to age;
- vaccination of persons arriving from countries where there are differences regarding the vaccination calendar;
- irregular deliveries of vaccines, which leads to the temporary impossibility of carrying out age-related vaccinations [5].

The main principles of immunization of persons with a violation of the calendar of preventive vaccinations:

1. Provide the child with protection against infectious diseases in the shortest possible time.
2. Plan vaccination with minimum intervals.
3. Enter doses that are not enough according to the schedule, observing the minimum intervals.
4. It is necessary to administer vaccines against several infectious diseases at the same time, if their simultaneous administration does not contradict the instructions for the use of the vaccine.
5. Give preference to combined vaccines to reduce the injection burden and increase adherence to receiving vaccinations.
6. Provide the opportunity to choose - vaccination with vaccines provided by the state for free, or with vaccines purchased from off-budget funding sources.
7. When choosing a vaccination scheme, it is necessary to follow the manufacturer's instructions for using the vaccine.

One of the basic principles of vaccination of persons with a violation of the calendar of preventive vaccinations is compliance with the minimum intervals (order of the Ministry of Health of Ukraine No. 595 dated 16.09.2011).

The minimum interval is the interval that is allowed before the introduction of a vaccine against one infection to persons with a violation of the calendar of preventive vaccinations. The next dose of vaccine administered with an interval less than the minimum is not counted.

A single administration is not always enough to achieve an optimal immune response to some antigens. Sometimes the primary vaccine complex consists of 2–4 vaccinations, and to maintain the protective level of specific antibodies, periodic administration of booster doses of the vaccine is necessary, i.e. revaccination.

When the intervals between vaccinations increase, the humoral immune response does not decrease significantly. In this regard, when interrupting the immunization schedule, in most cases, the entire vaccination series should not be renewed or additional doses of the vaccine should be administered. However, reducing the recommended intervals between vaccinations is unacceptable [5].

Vaccination with live vaccines can affect the results of the tuberculin test, so the test is carried out no earlier than 2 months after immunization with live vaccines.

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