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SOME QUESTIONS ABOUT COVID-19 VACCINATION (ON THE EXAMPLE OF THE KYRGYZ REPUBLIC)

Abstract: Coronavirus infection (COVID-19) is an infectious disease caused by the SARS-CoV-2 virus. Most people with COVID-19 have mild or moderate symptoms and recover without specific treatment. However, some people have a severe disease and require medical attention. A COVID-19 vaccine will be a critical tool that, combined with effective testing and existing preventive measures, will help bring the pandemic under control. Experts around the world are working hard to accelerate the development and production of a safe and effective vaccine. UNICEF has committed to deliver COVID-19 vaccines to 92 countries through the COVAX Facility, a unique COVID-19 vaccine manufacturing and centralized procurement initiative. The threat to children posed by COVID-19 is enormous and goes far beyond the immediate physical effects of the disease. Continued or reintroduced lockdown measures seriously affect children's access to basic health care. As a result, declining coverage of routine health services and a looming recession threaten the health and future of an entire generation of children.

Key words: vaccine, human, antigen, microorganism, protection, immunization.

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Introduction

Scientists are developing many potential COVID-19 vaccines, all designed to teach the body's immune system to safely recognize and block the virus that causes COVID-19.

Different types of vaccines include:

- Non-activated or attenuated viral vaccines, which use a type of virus that does not cause disease but still elicits an immune response
- Protein-based vaccines, which are a protein or protein fragment of COVID-19 that safely elicit an immune response
- Viral vector vaccines that use a virus designed so that it cannot cause disease but produces COVID-19 proteins for a safe viral response
- RNA and DNA vaccines, a novel approach that provides "instructions" to cells to make a protein that safely elicits an immune response

COVID-19 is easily transmitted and can lead to serious illness and death, even in young and healthy people.

On March 11, 2020, the World Health Organization announced the COVID-19 pandemic, on March 12, the Government of the Kyrgyz Republic announced a ban on public events. Since March 16, 2020, preschool institutions, schools and higher educational institutions in the country have been quarantined and transferred to online learning. Since March 22, a state of emergency has been introduced on the territory of the country, and since March 25, an emergency situation has been introduced in Bishkek, Osh and some areas of the south.

Scientists are studying whether people who receive the COVID-19 vaccine will be less likely to transmit the COVID-19 virus to other people. If so, then vaccination could be a powerful way to not only protect yourself, but society as a whole [1].

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There are many stringent safeguards in place to help ensure the safety of COVID-19 vaccines. Like all vaccines, COVID-19 vaccines must go through a rigorous, multi-stage testing process, including studies involving tens of thousands of people. These trials, which involve people at high risk of contracting COVID-19, are specifically designed to detect any common side effects or other safety concerns [6].

Once the results of clinical trials become available, a number of steps will need to be taken, including a review of efficacy and safety for regulatory approvals and public health policy, before a vaccine can be introduced. Once a COVID-19 vaccine is introduced, it will be continuously closely monitored for any unexpected side effects [7].

Research is ongoing to find out more about how long these vaccines will provide protection. However, it is reassuring that the available evidence suggests that most people who recover from COVID-19 develop an immune response that provides at least some protection against reinfection - although we are still learning how strong this protection is and for how long. she will last [2].

It is also not yet clear how many doses of the COVID-19 vaccine will be needed. Initial data from clinical trials indicate that some vaccines will require two doses. Vaccines save millions of lives every year. Immunization prevents 2 to 3 million deaths every year. Vaccines against COVID-19 are safe and effective and provide good protection against severe disease and death. All vaccines available in Kyrgyzstan are approved by the Scientific and Technical Expert Group on Immunization (STEI) and are a safe and effective method of combating COVID-19. Sign up for the COVID-19 vaccine and remember that you will need the first and second dose. You will be protected about two weeks after your second dose.

There are 3 types of COVID-19 vaccine available in the Kyrgyz Republic:

Vero _ Cell (Sinopharm)

Pfizer (BNT 162b2)

Moderna (mRNA -1273) [3].

Vero Cell (Sinopharm) is an inactivated vaccine against the disease caused by the 2019 version of the coronavirus (COVID -19) that stimulates the immune system without the risk of causing disease. Inactivated viruses are recognized by the immune system and stimulate the production of antibodies, preparing the body to respond to infection with live SARS - CoV -2 viruses [8]. In order to enhance the immune response, the vaccine is mixed with a small amount of an adjuvant (aluminum hydroxide). In Phase 3, large clinical trials conducted in several countries, two doses of the vaccine given 21 days apart showed a 79% efficacy against COVID -19.

Pfizer (BNT 162b2) Comirnaty is an RNA-based (mRNA) matrix vaccine against coronavirus (COVID-19). This mRNA vaccine instructs the cell to produce the S antigen proteins (part of SARS-CoV-2's

unique spike protein) to elicit an immune response. Efficacy shown in clinical studies in participants with or without evidence of previous SARS-CoV-2 infection and who received the full vaccine series (2 doses) was about 95%, based on a two-month median follow-up.

Moderna (mRNA -1273) - Moderna is an RNA-based (mRNA) matrix vaccine against coronavirus (COVID -19). This mRNA vaccine instructs host cells to produce proteins of the S antigen unique to SARS - CoV - 2, thereby triggering an immune response in the body that stores this information in immunological memory. Efficacy demonstrated in clinical studies among participants who received the full vaccine series (2 doses) and had not previously had SARS - CoV - 2 was about 94% based on a nine-week median follow-up [9].

Vaccines used in the Kyrgyz Republic comply with national requirements and recommendations of the World Health Organization, as well as international GMP standards (Good Manufacturing Practices) and have passed the WHO prequalification procedures.

The list of places where you can get vaccinated against COVID-19 has been updated in Kyrgyzstan [4].

Now you can get vaccinated in almost all family medicine centers. It is worth noting that they were equipped with specialized cold equipment for storing vaccines.

The work of temporary vaccination points in shopping centers was suspended in order to rationally use healthcare resources and due to the improvement of the epidemiological situation. The corresponding order was signed by the Minister of Health Aлымкдыр Beishenaliev on April 12 to ensure the timely provision of quality medical care to the population.

Currently, the population is being vaccinated with vaccines:

- Sinopharm - in all listed runways;

- Pfizer - in all FMCs of the city, the City Polyclinic of Students, the Polyclinic of the Railway Children's Hospital, special. polyclinic, private medical centers;

- vaccination of Pfizer-BioNTech for departing children from 12-15 years old and children from 16-18 years old is carried out in all FMCs of the city;

- Moderna - in all CSM of the city (except for the branch of the Tunguch microdistrict , " Bakai -Ata", " Uchkun "), special. polyclinic [5].

So based on statistical data on COVID-19 in Kyrgyzstan as of May 6, 2022. For those who have recovered Over the past 24 hours, no people who have recovered or have been discharged with a laboratory and clinical and epidemiologically confirmed diagnosis of COVID-19 have been registered in the republic.

For the entire period, the total recovered: 196,406 patients.

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New cases As of May 6, 2022, no laboratory and clinical and epidemiologically confirmed cases of COVID-19 were registered in the Kyrgyz Republic per day.

For the entire period, a total of 200,993 cases were registered, of which 139,913 cases were laboratory confirmed, 61,080 cases were clinically and epidemiologically confirmed.

Are on treatment and today there are no patients on inpatient treatment in the Kyrgyz Republic, 4 patients are on outpatient treatment.

Outpatient (at home) treatment is received with a laboratory and clinical and epidemiologically confirmed diagnosis of COVID-19 in Bishkek - 4.

Fatalities No deaths from COVID-19 have been reported in the last 24 hours. A total of 2,991 registered in the republic a case with a fatal outcome, of which 1256 were laboratory confirmed, 1735 were clinically and epidemiologically confirmed [5].

We don't know how fast we can deal with the pandemic deal with the pandemic. This will depend on many factors, such as the level of effectiveness of vaccines, how quickly they are approved and manufactured, how many people get vaccinated, and continued adherence to measures such as physical distancing, handwashing and the use of masks [10].

We thank our doctors who, with their selfless feat, are making great strides in the fight against the pandemic.

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