PROSPECTIVE SOURCES OF ASSISTANCE TO PROVIDE MEDICAL PERSONNEL WITH INDIVIDUAL PROTECTION MEASURES AND COVID-19 VACCINATION

Abstract. The world is in the midst of a COVID-19 pandemic. As WHO and partners work together on the response tracking the pandemic, advising on critical interventions, distributing vital medical supplies to those in need they are racing to develop and deploy safe and effective vaccines. Vaccines save millions of lives each year. Vaccines work by training and preparing the body’s natural defences – the immune system – to recognize and fight off the viruses and bacteria they target. After vaccination, if the body is later exposed to those disease-causing germs, the body is immediately ready to destroy them, preventing illness.

Keywords: COVID-19 pandemic, SARS-Cov-2, vaccines in Ukraine

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As of 18 February 2021, at least seven different vaccines across three platforms have been rolled out in countries. Vulnerable populations in all countries are the highest priority for vaccination.

The COVID-19 pandemic dictates new rules of life. Economic and human losses from the virus are the most significant problem today. The most commonly virus-affected groups are doctors and medical staff. The following work helps to consider possible sources of assistance in providing doctors and medical staff with personal protective equipment and the COVID-19 vaccination in Ukraine. An analysis of the prospects of aid sources was conducted.

According to Ukrainian laws, personal protective equipment (PPE) includes: masks, gloves, gowns and respirators. Today, the vaccine against COVID-19, is humanity's greatest hope to end the pandemic and its devastating impact on the world's population. Vaccination of doctors and medical staff is the first and most important part of the vaccination path in Ukraine. The protection of our doctors is the most necessary, because they are the first to stand in the way of the disease and have the highest risk of coronavirus infection.

Materials and methods. We have analyzed statistics on the number of medical staff caring for patients infected with COVID-19. The calculations of the Ministry of Health on the need for personal protective equipment per team member, as well as the distribution of the vaccine against COVID-19 (“Road map for the introduction of vaccine against acute respiratory disease COVID-19 caused by the coronavirus SARS-CoV-2, and mass vaccination in response to the COVID-19 pandemic in Ukraine in 2021-2022”).

The statistics of medical records of vaccination was assessed. The analysis of the activities of charitable foundations, communities and businesses that provide assistance to doctors and medical staff with personal protective equipment was done.
**Results.** Calculations of the Ministry of Health of Ukraine indicate that the need for personal protective equipment per team member is: medical masks - 2, respirators class FFP2 / FFP3 - 27, gloves - about 50. These figures are conditional and may vary individually to the extent of the outbreak.

As of March 23, 2021 statistics indicates that the number of institutions for hospitalization of patients with COVID-19 is 520, which are:

1) infectious disease, physicians and pediatricians – 7726
2) anesthetist – 5563
3) junior staff – 86200
4) total number of doctors – 58700

All the medical staff is necessary to be provided by the above number of PPE daily and needed to be vaccinated first. The assessment of the of the activities of charitable foundations, communities and businesses showed their high interest in participating in anti-covid path.

One of the first to take action was the Patients of Ukraine Charitable Foundation and the community of active patients. They created a website (covid19.patients.org.ua) where they identified the first need to provide medical staff for PPE.

On this site, hospitals that need help can fill out a special form to receive it. A form is also available for businesses and individuals who can purchase equipment or provide financial assistance.

“Razom for Ukraine”, the Canadian organization “Kahorta”, diaspora of Ukrainians in the United States “NOVA”, and many others, in addition to contributions through the website of the Patients of Ukraine Charitable Foundation, also helped overcome the epidemic. Further organizations are also to help in overcoming the disease, such as NGO "EdCamp Ukraine" has created a campaign called "Ped+Med" that called for community of the teachers’ s to help in providing medical masks and gloves. The funds were also transferred to the Patients of Ukraine Charitable Foundation, as this organization is engaged in the purchase and transfer of necessary materials.
Ukrainian communities also make a great contribution. Every three days since March, the Association of Ukrainian Cities (AUC) updates information on the activities of local communities and their associations aimed at combating the coronavirus epidemic. Support is provided mainly through the redistribution of the local budget and the opening of reserve funds. Provision of PPE for doctors and medical staff is provided by both the local community and neighbors, depending on needs.

Of course, business is also not indifferent. Most companies provide not only financial help, but also their services for free or at a discount. For example, Nova Poshta express delivery service, and other product delivery services. Some are developing new options for their services. A large number of banks, grocery chains, insurance services, communications, IT companies, gas stations and enterprises in various industries have joined in combating the spread of the virus, including through the provision of PPE.

Contributions to various platforms also come from Ukrainian opinion leaders, officials and all responsible citizens. Online charity concerts, conferences, broadcasts are created.

As of March 23, 2021, 180,693 records on vaccination were entered into the electronic health care system in the statistics of medical records on vaccination of the population. Of these: 174912 vaccinations were conducted, 2269 vaccinations were not conducted, 3512 erroneous records.

The registered Astra Zeneca vaccine (CoviShield) costs £ 3 (approximately $ 4), as each person needs 2 doses, each costing about $ 8. To date, according to the Ministry of Health of Ukraine plan, there are following COVID-19 vaccination funding programs:

1) mechanisms for providing COVAX AMC which supplies free vaccine injecting equipment and safe disposal boxes - per 20 % of the population of Ukraine;
2) the state budget of Ukraine - 3.9 billion UAH (purchases);
3) medical guarantees program - 1.9 billion UAH (state budget of Ukraine)
4) credit program provided by the World Bank - 2.9 billion hryvnas (90 million USD);
5) credit program of the European Investment Bank - approximately 1.5 billion UAH (50 million USD)

However, according to the Ministry of Health's Roadmap, other sources of funding are not prohibited, so assistance from the above organizations and other charitable foundations, communities and businesses can be expected.

Conclusions. Thus, there are promising sources of assistance are providing medical personnel with personal protective equipment and doses of vaccine. In terms of the epidemic and quarantine in Ukraine and can provide funds and services from businesses, foundations, community organizations, local communities and individuals without counting credit programs of the World Bank and the European Investment Bank. Other states also provide significant assistance. In modern conditions, there are large number of promotions and online events aimed at supporting doctors and medical staff.

Список источников:
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10. Access mode to the resource: https://nszu.gov.ua /e-data/dashboard/immunization-stats