

COVID- 19 VACCINATION IN BULGARIAN GENERAL PRACTICE

Syeda Zara*, Sayed Gillani*, Sayed Haider*, Sevdalina Alekova **

** Student from Trakia University, Faculty of Medicine - Stara Zagora, Bulgaria*

*** Department of Internal diseases and General medicine, Trakia University, Faculty of Medicine - Stara Zagora, Bulgaria*

Contact: +447868277178, syedazara54@outlook.com ,

sevdalina.alekova@abv.bg

Abstract:

The General Practitioners in Bulgaria were keen to formulate research upon the conduction of the COVID19 vaccinations on their patients' and the difficulties they encountered. A significant number of them shared the various difficulties they had come across. The perspective of many family physicians included the intensity and scope; it was highlighted that the current task is obviously much more complex and it requires specific training and organization. There is no detailed description of the procedures, nor a clear protocol to protect both patients and doctors. At the present time, there is a lack of adequate, verified and scientifically confirmed information regarding the contraindications of vaccines in different groups of people. Many other issues arise regarding the timely supply and provision of vaccines to all patients enrolled for the day. The conditions in which most general practitioners work are also a serious problem, especially the limited space used as a waiting room for patients, creating unprecedented risk of spread of infections in gathering of people.

Key words: COVID – 19 vaccination, General practice, difficulties

INTRODUCTION:

The Bulgarian authorities transfer the responsibility for the mass vaccination of general practitioners in the country, relying on their years of experience in vaccinating against other diseases. Despite the opening of vaccination centers and separate ones in hospitals across the country, in small towns, where such an opportunity does not exist, the burden falls on family doctors. The implementation of COVID -19 vaccination in General Practice is associated with a number of difficulties and challenges that need to be overcome.

MATERIALS AND METHODS:

Study design

The method used in the study was descriptive cross sectional analysis among a small sample of respondents. The main criterion for inclusion of individuals in the study was that they are part of the medical community of general practitioners practicing their profession in Bulgaria. All other medical professionals who are not providers of health services in the primary outpatient care were excluded from the study.

Study setting

The survey was conducted for the period from January to February 2021.

Sample size and subjects of the study

The sample includes 32 Bulgarian general practitioners who voluntarily agreed to present their views on their aptness for starting and conducting COVID- 19 vaccination on their patients.

Sampling methods

A standard questionnaire was used, which was aimed at the social-demographic profile of the family doctors, including a specification of their practices, as well as questions related to current difficulties and problems in providing COVID - 19 vaccination.

Data analysis technique

The collected information was processed using the statistical software -IBM SPSS Statistics 19.0. Descriptive statistical analyses, for example, Mean, Standard deviation, Mode, Variance, S.E. mean, Maximum, Minimum, Range, Skewness were performed to explore the study population and the data.

RESULTS:

The number of female medics who participated in the study was 22 (68.75 %) and the number of male general practitioners – 10 (31.25%). A significant percentage of them are in the 46-55 age range- (62. 50 %). The practices of most of the respondents are located in towns (75.00 %). None of the surveyed medics performs their activities in group practice. (Table. 1) In Bulgaria, a large number of general practitioners provide health care for their patients in individual practices. Some of the respondents also shared the lack of additional medical staff - a nurse or a doctor assistant in the general practice, which is a prerequisite for a higher workload. The activities related to providing voluntary COVID -19 vaccination to their patients led initially to a wave of discontent among general practitioners. Table 2 presents the most important challenges created by this additional imputed function that physicians need to perform.

Table 1
Demographic characteristics of General practice

Gender	
Male	10 (31.25%)
Female	22 (68.75 %)
Age	
< 45 years	2 (6. 25 %)
46- 55 years	20 (62. 50 %)
56- 65 years	10 (31. 25 %)
Practice location	
Practice located in a town	24 (75.00 %)
Practice located in a village	4 (12. 50 %)
Practice located both in a town and in a village	4 (12. 50 %)
Type of practice	
Single-handed practice	32 (100. 00 %)
Group practice	0 (0. 00 %)

Table 2
The commonest COVID-19 vaccination problems in the General practice

1.	Vaccine supply issues	28 (87. 50 %)
2.	Providing of vaccines to all patients enrolled for the day	29 (90. 62 %)
3.	Need of specific organization	18 (56. 25 %)
4.	Need of adequate, verified and scientifically	

validated information on vaccine contraindications	24 (75.00 %)
5. Providing of appropriate condition for COVID 19- vaccination in the General practice	17 (53.12 %)

STUDY LIMITATIONS

Limitations of the research that should be mentioned are mainly related to the risk of potential sources of bias, especially in the application of an individual survey form as a research method. The small size of the sample also creates limitations related to its representativeness, which determines the need to study a sample with a larger number of participants in the future.

DISCUSSION:

According to World Health Organization the impact of COVID-19 vaccines on the pandemic depend on several factors. These include the effectiveness of the vaccines, how quickly they are approved, manufactured, and delivered, how many people get vaccinated and the possible development of other coronavirus variants. As of December 2020, there are over 200 vaccine candidates for COVID-19 being developed. Of these, at least 52 candidate vaccines are in human trials. Candidate vaccines include nucleic acid vaccines, inactivated virus vaccines, live attenuated vaccines, protein or peptide subunit vaccines, and viral-vectored vaccines. To date, at least nine different vaccines have been administered- BNT162b2/COMIRNATY Tozinameran (INN) (Pfizer-BioNTech), AZD1222 (AstraZeneca), Covishield (ChAdOx1_nCoV19) (Serum Institute of India), SARS-CoV-2 Vaccine (VeroCell), Inactivated (InCoV) (Sinopharm / BIBP1), SARS-CoV-2 Vaccine (Vero Cell), Inactivated (Sinovac Biotech), mRNA-1273 (Moderna), Ad26.COV2.S (Johnson & Johnson/Janssen), Sputnik V- Gam-COVID-Vac (the Gamaleya Research Institute of Epidemiology and Microbiology), Convidicea - Ad5-nCoV (CanSino Biologics). The COVID-19 vaccines, which have been authorized and granted across the European Union, are the Pfizer-BioNTech vaccine, the Moderna vaccine, the Oxford Uni- AstraZeneca vaccine and Johnson & Johnson/ Janssen Pharmaceuticals vaccine. The Valneva, Sanofi-GSK and Novavax vaccines are expected to be granted by the European Union in the coming months of 2021 after positive assessment of their safety and efficacy by the European Medicines Agency. By the middle of March 2021, 368,905 citizens in Bulgaria have been vaccinated with vaccines of Pfizer BioNTech, Moderna and AstraZeneca. The number of individuals who have received second coronavirus vaccine dose was 71224. In different countries, the vaccine is being offered in hospitals or pharmacies, at local or larger vaccination centres or directly from General practitioners. The practice of vaccination against COVID 19 in Bulgaria is similar. This task is performed by family physicians, regional health inspectorates, hospitals with revealed immunization and re-immunization centers, mobile vaccination centers in small areas where residents do not have daily access to a general practitioner. Bulgarian General Practitioners are actively involved in the vaccination process against COVID 19 infection. A significant percentage of them reported problems with the supply of vaccines. Most of them shared the inability to provide a vaccine for all patients enrolled for the day and especially for at-risk individuals who need of a quick and convenient vaccine. According to them, most of their patients express preferences for application of other vaccines. Until the time of the study, respondents have reported the application of the Astra Zeneca vaccine. Before the launch of mass vaccination in the General practice, most of the surveyed family physicians commented on the lack of adequate, verified and scientifically validated information on vaccine

contraindications in different groups of people. During this initial preparation period, some of them explained the impossibility of finding a detailed description of the procedures and a clear protocol to protect both patients and doctors. A serious problem for half of the respondents is the conditions of their practice, especially the limited space used as a waiting room for patients, creating unprecedented risk of spread of infections in gathering of people. This is the place where different flows of patients come into direct contact - vaccinated and unvaccinated persons, chronically ill, patients with a pronounced clinical manifestation. At the beginning of the COVID 19 vaccination campaign in Bulgaria, the mentioned challenges that general practitioners had to deal with were a significant prerequisite for demotivation both among physicians and their patients. This has provoked many citizens to choose regional health inspectorates and vaccination centers because of the possibility of being immunized with a vaccine of their choice at the moment. However, fluctuations related to the vaccination process are observed among a large part of Bulgarian society. Unfortunately, at the beginning of the summer Bulgaria was one of the European Union's worst countries when it comes to vaccination rates, with just 13.5 % of the population immunized. Much of the reason for that are skepticism about vaccines, active anti-vaccination propaganda, more conservative Bulgarians, the absence of a unified position of the Bulgarian medical society in favor of vaccination, the lack of conviction of some medical staff in the effectiveness of the vaccine, as well as their safety in the process of application among the elderly with many accompanying chronic diseases. At the same time, Bulgaria has suffered one of Europe's highest death rates during the third wave and this tendency of low COVID vaccination coverage among the Bulgarian population indicates that the end of the pandemic will remain out of reach for a long time according to experts and media officials.

CONCLUSION:

The initiation of the COVID- 19 vaccination in the General practice was associated with a number of difficulties and ambiguities. A significant part of the surveyed family physicians reported logistical challenges and the inability to provide vaccines for all their patients who requested voluntary immunization, as well as difficulties in creating acceptable conditions for mass vaccination in their practices. Issues related to the provision of a variety of COVID -19 vaccines, as well as sufficiently verified data on their use, side effects and contraindications, also remain unclear. The family doctor is always closest to his patients, trying to understand their needs and providing quality and reliable health care, as well as adequate health information. In this context, the family doctor is in the most comfortable position to motivate his patients for voluntary vaccination, referring to accurate sources of knowledge.

ETHICAL CONSIDERATIONS:

Ethical issues (including plagiarism, informed consent, misconduct, data fabrication and/or falsification, double publication and/or submission, redundancy, etc.) have been completely observed by the authors.

REFERENCES:

1. https://ec.europa.eu/info/live-work-travel-eu/coronavirus-response/safe-covid-19-vaccines-europeans/questions-and-answers-covid-19-vaccination-eu_en#01
2. [https://www.who.int/news-room/q-a-detail/coronavirus-disease-\(covid-19\)-vaccines](https://www.who.int/news-room/q-a-detail/coronavirus-disease-(covid-19)-vaccines)
3. <https://www.doh.wa.gov/Portals/1/Documents/1600/coronavirus/SARS-CoV-2-NovelVariants-20210205.pdf>