

ORGANIZATION OF MEDICAL SUPPORT FOR THE MILITARY SERVICE CALL-UP OF CITIZENS DURING NEW CORONAVIRUS INFECTION COVID-19 PANDEMIC

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Abstract. *The aim of the study* was to evaluate the organization of screening of conscripts for COVID-19 infection in one of the subjects of the Russian Federation — Orenburg region.

Materials and methods of the study. The study of organization of examination of conscripts for COVID-19 infection included study of the experience of the Center of Military Medical Examination of the Military Commissariat of Orenburg Region in carrying out military conscription under conditions of the COVID-19 pandemic; methodological recommendations approved by the Head of the Main Military Medical Department of the Defense Ministry of Russia as well as the analysis of the activities carried out at different stages of medical sorting.

Results of the study and their analysis. The results of the study of the organization of COVID-19 screening of conscripts in Orenburg Region showed that sufficient and effective barrier medical screening was organized at all stages. Conscripts in good health condition were sent to the Armed Forces for military service under conscription. No claims were received from military units about poor quality selection of conscripts. In 2020, during the COVID-19 pandemic, recruitment commissions of Orenburg Region coped successfully with the task of drafting citizens for military service.

Key words: barrier function, conscripts, medical sorting, medical support, military service, Orenburg Oblast, COVID-19 pandemic, signs of disease

Conflict of interest. The authors declare no conflict of interest

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ОРГАНИЗАЦИЯ МЕДИЦИНСКОГО ОБЕСПЕЧЕНИЯ ПРИЗЫВА ГРАЖДАН НА ВОЕННУЮ СЛУЖБУ В УСЛОВИЯХ ПАНДЕМИИ НОВОЙ КОРОНАВИРУСНОЙ ИНФЕКЦИИ COVID-19

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Резюме. *Цель исследования* – дать оценку организации обследования призывников на предмет инфицирования COVID-19 в субъекте Российской Федерации – Оренбургской области.

Материалы и методы исследования. Исследование организации обследования призывников на предмет инфицирования COVID-19 включало в себя изучение: опыта работы центра военно-врачебной экспертизы Военного комиссариата Оренбургской области при проведении призыва граждан на военную службу в условиях пандемии COVID-19; методических рекомендаций, утвержденных начальником Главного военно-медицинского управления (ГВМУ) Минобороны России, а также анализ мероприятий, проведенных на различных этапах медицинской сортировки.

Результаты исследования и их анализ. Результаты исследования организации проведения обследования призывников в Оренбургской области на предмет инфицирования COVID-19 показали, что на всех этапах обследования был организован достаточный и эффективный барьерный медицинский осмотр. В Вооруженные Силы для прохождения военной службы по призыву были направлены годные по состоянию здоровья призывники. В адрес призывных комиссий претензий из воинских частей о некачественном отборе призывников – не поступало. В 2020 г. в период пандемии COVID-19 призывные комиссии Оренбургской области с задачей по призыву граждан на военную службу успешно справились.

Ключевые слова: барьерная функция, военная служба, медицинская сортировка, медицинское обеспечение, Оренбургская область, пандемия COVID-19, признаки заболевания, призывники

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Introduction

The World Health Organization (WHO) has officially declared a pandemic of a new coronavirus infection, COVID-19, and predicts various options for the development of the epidemic situation and its socio-economic consequences [1].

The main components of the fight against epidemics are anti-epidemic, restrictive and disinfection measures, as well as informing the population about ways to protect themselves from infection [2, 3].

The new coronavirus infection COVID-19 is included in the list of dangerous diseases [4, 5].

The main source of the new coronavirus infection is a sick person, also during the incubation period. The infection is transmitted by airborne, air-dust and contact routes by coughing, sneezing, talking at a distance of less than 2 m, shaking hands, through surfaces and environmental objects, on which the infection persists for up to 3 days.

As the infection spreads throughout the Russian Federation, the legislative and executive authorities at the federal level and at the level of the subjects of the Russian Federation issue regulations describing regime-restrictive measures as well as determining the procedure for the functioning of medical treatment organizations.

In the current situation it was necessary to organize the conscription of citizens for military service and to prevent the appearance of a new coronavirus infection COVID-19 in the Armed Forces of the Russian Federation.

The aim of the study was to evaluate the organization of screening of conscripts for COVID-19 infection in the subject of the Russian Federation, the Orenburg region.

Materials and methods of research. The study of organization of examination of conscripts for COVID-19 infection included study of the experience of the Center of Military Medical Examination of the Military Commissariat of the Orenburg region in carrying out conscription of citizens for military service under conditions of the COVID-19 pandemic; methodological recommendations approved by the Head of the Main Military Medical Directorate of the Ministry of Defense of Russia [6] as well as analysis of the activities carried out at different stages of medical triage¹.

Results of the study and their analysis. In 2020 during the period of conscription for military service (spring call-up from April 1 to July 15; autumn call-up from October 1 to December 31) the priority in the work of conscription commissions of municipal entities and regional call-up commissions was given to organization and implementation of a complex of preventive measures aimed at preventing the spread of COVID-19 in the Armed Forces of the Russian Federation.

The implementation of the barrier function began in the region's municipalities. There, the polymerase chain reaction for coronavirus were taken from conscripts through a swab from the mucosa of the mouth and nasopharynx. This

allowed even asymptomatic patients to be diagnosed. Those with negative results were sent to the regional assembly point.

On the day of departure, the team of recruits was examined at the assembly station by a general practitioner or a paramedic.

In order to prevent conscripts with signs of infectious diseases and with suspected or probable COVID-19 disease from being sent to the assembly station, health complaints were interrogated, epidemiological anamnesis was collected, conscripts were examined and their body temperature was measured.

From the municipalities, recruits were taken to the regional assembly point in groups of no more than 10 people. For this purpose, a motor transport was allocated and each conscript was provided with individual protection equipment: masks and rubber gloves.

The next barrier was set at the assembly point. Two medical and nursing teams worked there, including a therapist, a nurse and a medical registrar. No more than 50 recruits arrived to the assembly point daily.

The first stage of the barrier medical examination (medical triage) of conscripts at the assembly point was changing their personal protective equipment and performing thermometry tests. This was performed by a nurse in the vehicle that delivered the conscripts.

If at least one conscript had an elevated body temperature (above 37.0 C), the entire group delivered in one vehicle was not allowed to undergo further medical examination. They were sent back to their place of residence for examination and inpatient or outpatient treatment. After thermometry, the medical examination was performed by a general practitioner.

It should be noted that every two hours the recruits changed their personal protective equipment at the assembly point.

To ensure epidemiological safety, all the premises of the assembly point were equipped with special equipment for air disinfection. A sufficient air exchanges as provided through mechanical ventilation. In addition, the rooms were regularly moist cleaned with disinfectants.

Every case of acute respiratory viral infection with a body temperature above 37.0 C and one or more of the following symptoms was considered suspicious for COVID-19

- cry cough or cough with scanty sputum;
- dyspnea at rest;
- feeling of tightness in the chest;
- pain in the throat when swallowing;
- runny nose and other catarrhal symptoms;
- weakness;
- headache;
- anosmia;
- diarrhea.

A probable case of COVID-19 was considered to be every case of acute respiratory infections with the specified symptoms if at least one of the following epidemiological signs was present:

¹ SanPiN 2.1.3.2630-10. Sanitary and Epidemiological Requirements for Organizations Engaged in Medical Activities. (In Russ.).

- returning from a foreign trip 14 days prior to the onset of symptoms;
- presence in the last 14 days of a close contact with a person under COVID-19 observation who subsequently became ill;
- close contact in the last 14 days with a person who has been laboratory confirmed to have COVID-19;
- working with individuals who have had a suspected or confirmed diagnosis of COVID-19.

The therapist distinguished the following streams when making medical triage:

- The first stream — individuals who had symptoms of an infectious disease, a suspected or probable case of COVID-19, as well as individuals who had contact with them at the time of delivery to the collection point. All persons of this flow were returned for further observation and, if necessary, treatment at their place of permanent residence.
- The second flow was the rest of the conscripts, who were sent to the next stage: laboratory examination with the subsequent interpretation of the results. For this purpose we used an unscreened immunochromatographic test system designed to detect IgG/IgM SARS-CoV-2 antibodies. The study was conducted on the collection site in a temporarily deployed immunological laboratory. The laboratory was equipped at the expense of the Orenburg Regional Clinical Hospital. The laboratory equipment met all the necessary requirements for qualitative immunochromatographic studies. The laboratory was staffed with a doctor and a nurse.

Depending on the results of the study, the general practitioner distinguished the following groups of the second stream.

The first group consisted of individuals who had no suspected or probable case of COVID-19 but had positive immunochromatographic test results for IgM or — simultaneously — for IgG and IgM, as well as individuals who

came into contact with them when brought to the collection point.

The second group were persons who had no suspected or probable case of COVID-19, with positive IgG or negative immunochromatographic test results.

The routing of citizens of the first flow and the first group of the second flow was carried out according to a scheme that provided for their return to the municipalities of their place of residence.

Individuals of the second group of the second flow were sent for a control medical examination, which was conducted by medical specialists: a surgeon, a therapist, a neurologist, a psychiatrist, an ophthalmologist, an otorhinolaryngologist, a dermatologist, and a dentist.

After successful completion of the control medical examination, conscripts were enrolled in military teams with subsequent referrals to the place of military service.

A total of 5,789 citizens were called up for military service in 2020 by municipal conscription commissions, of whom 3,984 were sent to the troops. A total of 1,805 people were not sent to the troops as failing to pass the barrier barriers, including 117 people who were returned from the collection point.

Conclusion

1. The results of a study of the organization of COVID-19 examination of conscripts in the Orenburg region showed that sufficient and effective barrier medical examination was organized at all stages of the examination.

2. Conscripts in a good health condition were sent to the Armed Forces for military service.

3. No complaints were received from military units about poor quality screening of conscripts.

4. In 2020, during the COVID-19 pandemic, the Orenburg Region's conscription boards successfully accomplished their task of calling up citizens for military service.

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