



## THE MAIN ASPECTS OF RESPIRATORY REHABILITATION OF THE CONSEQUENCES OF THE NEW CORONAVIRUS INFECTION IN CHILDREN WITH BRONCHOPULMONARY DISEASES

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Article history:	Abstract:
<p><b>Received:</b> 10<sup>th</sup> November 2022 <b>Accepted:</b> 11<sup>th</sup> December 2022 <b>Published:</b> 11<sup>th</sup> January 2023</p>	<p>The new coronavirus infection (COVID-19) provoked a severe epidemic situation around the world, which is associated not only with the course of the acute phase of the disease, but also with its consequences. In order to correct the symptoms that have developed or intensified as a result of a viral infection, in July 2020. A respiratory rehabilitation center for patients with COVID-19 was established on the basis of the pulmonology department of the Medical Association "New Hospital" LLC (CRR "NB"). A comprehensive rehabilitation program has been developed at the NB CRD using the technology of the multidisciplinary team and the basic principles of pulmonary rehabilitation. The effectiveness of the methods of the CRR "NB" was evaluated according to the scale of rehabilitation routing when comparing its initial values with the indicators at the time of completion of the recovery program.</p>
<p><b>Keywords:</b> Novel coronavirus infection, COVID-19, consequences, respiratory rehabilitation</p>	

The new coronavirus infection (COVID-19) has provoked a severe epidemic situation around the world, which is associated not only with the course of the acute phase of the disease, but also with its long-term consequences. Doctors in different specialties see patients with persistent severe symptoms due to COVID-19. A lot of it is clinical.

The course of this disease remains uncertain, in particular the possible long-term after health effects. COVID-19 convalescents, especially severe ones, face serious psychological and physical challenges: post-traumatic stress disorder, cognitive dysfunction, nutritional. Some patients, regardless of the severity of COVID-19, have a long course of the disease ("chronic COVID", "long COVID", "post-COVID-19 syndrome"). It was established that in patients 6 months after suffering a heavy COVID-19, respiratory disorders are determined, some of which, according to high computed tomography data, resolutions are represented by fibrosis-like changes. Thus, patients with COVID-19 need rehabilitation measures. However, the tense situation with the conduct of rehabilitation treatment remains due to uncertainty in the routing of COVID-19 convalescents.

In order to control and correct the consequences of COVID-19 on the basis of the pulmonology department of LLC "Medical Association "New Hospital" ("MO "NB") in July 2020. a respiratory rehabilitation and post-

visible surveillance center for COVID-19 patients (CRD "NB") was established.

It is known that the main methods of respiratory rehabilitation of patients include education, lifestyle changes, improvement of the physical and mental condition of patients with chronic respiratory diseases, which contributes to long-term improvements in health. The key principles of medical rehabilitation of patients with COVID-19 are phasing (routing of patients within the framework of a 3-stage rehabilitation system), individuality (focus on needs, goals and desires of a particular patient), multiplicity (involvement of CBM), validity, continuity and accessibility.

The most common clinical problem after suffering from COVID-19 in patients who went to the NB CRD was the development of bronchoobstructive syndrome (BTF). The incidence of biofeedback was higher in the group of patients who underwent moderate or severe forms of the disease (72%). Persistence of asthenic syndrome was observed in 67% of patients who had a viral infection in a mild form, and in 54% of patients hospitalized for COVID-19. The development of neurological symptoms (dizziness, impaired pamyati, depressive states) was recorded in the group of mild course of COVID-19 in 33% of patients and in the group of severe / moderate 56% of COVID-19 cases. The forms of rehabilitation and rehabilitation treatment programs, taking into account the current



epidemiological situation and the need to separate the flows of patients, were chosen in the CRR "NB":

- remote - using telemedicine technologies, personal devices and media formats;

- outpatient - not providing for round-the-clock medical supervision and treatment;

Biofeedback - bronchoobstructive syndrome, LDC - heart rhythm disturbance, NTG - impaired glucose tolerance, PE - pulmonary embolism. Mild COVID-19 - patients who have had mild COVID-19 and received ambulatory treatment; severe to moderate COVID-19 - patients who have had moderate or severe COVID-19 and received inpatient treatment.

- Day hospital - providing for medical supervision and treatment in the daytime, but not requiring round-the-clock medical supervision and treatment;

- round-the-clock hospital - providing round-the-clock medical supervision and treatment.

Each of the forms of rehabilitation treatment required the formation of MDL and was associated with its work, which is the basic principle of comprehensive rehabilitation of patients with chronic bronchopulmonary diseases. diseases and conditions caused by previous inflammatory lung diseases (including COVID-19). A multi-disciplinary team is an association of specialists in the medical and non-medical professions on a functional basis in the course of providing assistance in the field of "medical rehabilitation" for maximum realization of the individual rehabilitation potential of the patient through the comprehensive application of various methods of diagnosis, secondary and tertiary prophylaxis and treatment according to the profile of each a member of CSBM.

Most patients who have had COVID-19 have also shown symptoms of varying degrees of psychological instability. The prevailing feelings were uncertainty, anxiety, fear (concerning uncertainty regarding the upcoming prognosis), a feeling of powerlessness and helplessness [8]. In this regard, additional diagnostics of anxiety-depressive symptoms and suicidal risk assessment were carried out at the request of specialists. Subsequently, a psychologist / occupational therapist worked with patients individually or in a group.

One of the determining factors for restoring health after COVID-19 is a balanced diet. Assessment of nutritional status and adequate correction of its disorders serve as effective tools to reduce the incidence of complications and improve clinical outcomes under various conditions, including polymorbidity and old age. Taking into account the information provided above, the following were chosen as the main methods of rehabilitation in the CRR "NB":

- respiratory gymnastics (restoration of the physiological pattern of breathing, strengthening the respiratory muscles, prevention of hypoventilation);
- physiotherapyI (indications for its implementation were determined by MDB specialists, since the method is not shown to everyone);

- psychological support;

- nutritional support;

- vibration-percussion therapy (the use of high-frequency chest oscillation in conjunction with a compress to restore the ventilation capacity of the lungs, improve the drainage function of the bronchi, reduce fibrous changes);

- neuromuscular electrical stimulation of skeletal muscles for a certain category of patients: with atrophy of the muscles of the lower / upper extremities due to forced hypodynamia or adynamia;

The educational aspect of medical rehabilitation has become an important and relevant issue for us. In a pandemic and isolation, the availability of reliable information, certain knowledge and information is necessary. and an important factor in the treatment and recovery of patients. The effectiveness of various Internet technologies is recognized by most doctors. In modern conditions, one of the best solutions is to organize online schools for patients, which allow simultaneously train and convey the necessary information to a large number of people. The education of the patient (and his relatives) plays a key role in any rehabilitation program and the formation of positive motivation. An important task of education is to teach the patient self-control of the condition, performed physical training and self-help.

Determining the individual rehabilitation program, rehabilitation potential and prognosis of the patient, it is important to assess the effectiveness of the prescribed measures, the achievement of quality assurance of medical care. The qualitative criterion of the rehabilitation program is the assessment on the scale of rehabilitation routing (SHRM) - a comparison of baseline indicators with indicators at the time of completion of the rehabilitation program.

#### **REFERENCES TO THE LITERATURE:**

1. Ministry of Health of the Russian Federation. Temporary guidelines. Medical rehabilitation for novel coronavirus infection (COVID-19). Version 2 (31.07.2020). M., 151 p. Available on: [https://static-0.minzdrav.gov.ru/system/attachments/attaches/000/051/187/original/31072020\\_Reab\\_COVID-19\\_v1.pdf](https://static-0.minzdrav.gov.ru/system/attachments/attaches/000/051/187/original/31072020_Reab_COVID-19_v1.pdf) Link is active on 07/25/2022.



**World Bulletin of Social Sciences (WBSS)**

**Available Online at:** <https://www.scholarexpress.net>

Vol. 18, January, 2023

**ISSN:** 2749-361X

2. Masiero S, Maccarone MC, Agostini F. Health resort medicine can be a suitable setting to recover disabilities in patients tested negative for COVID-19 discharged from hospital? A challenge for the future. *International Journal of Biometeorology* 2020 Oct;64(10):1807-9.
3. Teplyakova O.V., Leshchenko I.V., Esaulova N.A., Sarapulova A.V. Key aspects of the organization of telemedicine schools for patients as technologies with temporary health care. *Healthcare of the Russian Federation* 2022;66(2):101-7.