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Department of rehabilitation medicine in Shanghai response for coronavirus disease 2019:
the impact and challenges

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TEXT

The outbreak of coronavirus disease 2019 (COVID-19) has caused the sixth public health emergency of international concern declared by the World Health Organization (WHO)¹. In global, as of March 26, 2020, a total of 491276 people have a confirmed infection, and 22165 people have died. Although Shanghai is far away from Wuhan city and Hubei province, where COVID-19 was first reported, it is at high risk of COVID-19. More than 9.76 million Shanghai citizens are migrants, among which many were from Hubei province. Moreover, most of them travelled between their hometowns and Shanghai for the Spring Festival. Hospitals in Shanghai have taken active measures to control the spread of COVID-19.

At the end of Chinese New Year holiday, Zhongshan Hospital of Fudan University required all employees who had left Shanghai during the holidays to be quarantined at home after returning to Shanghai for 14 days, and reported their physical condition daily via WeChat app. Our hospital placed infrared imaging thermometers at each admission entrance to screen the body temperature of each person entering the hospital. Persons whose temperature is higher than 37.3°C are not allowed to enter the hospital. People must wear masks before entering the outpatient and inpatient buildings and professionals wearing tight protective clothing will ask the necessary information. To shorten the waiting time, people could fill out the information questionnaire online (Table 1). Our hospital is one of the six designated hospitals providing fever clinics in Xuhui District of Shanghai. People with fever symptoms or those at risk of COVID-19 will be directed to fever clinics for examination. Patients with laboratory-confirmed COVID-19 will be transferred to the Shanghai Public Health Clinical Center for isolation and treatment.

From January 23, 2020, our rehabilitation ward did not accept new patients. However, we still provided the necessary services for patients who need to visit a

rehabilitation clinic after the COVID-19 outbreak. We offered rehabilitation counselling online to reduce the flow of patients in the rehabilitation department. All doctors and physiotherapists must wear surgical caps, goggles, masks and gloves when working. We all have to change new gloves and perform hand hygiene after touching the patients. If we detect unexplained fever and respiratory symptoms in hospitalized patients, we will start a COVID-19 diagnosis and treatment process, which involves multiple disciplines such as respiratory and infection departments.

The Shanghai Rehabilitation Medical Quality Control Center does not recommend rehabilitation personnel to enter the novel coronavirus pneumonia intensive care to carry out rehabilitation training directly. If there is a need for rehabilitation, bedside rehabilitation guidance may be provided by the first line clinician or rehabilitation specialist in the isolation ward. As far as possible, rehabilitation guidance is provided indirectly through telephone, WeChat, video or rehabilitation manual.

As of February 29, the number of discharged COVID-19 cases exceeded the number of COVID-19 cases treated in the hospital for the first time in China. Discharge is not equivalent to recovery and does not require treatment. Novel coronavirus pneumonia patients face many problems preventing them from returning to a healthy life after release. The autopsy revealed COVID-19 causing pathological changes in the lung, heart, kidney and other organs. Common symptoms of patients with COVID-19 were fever (98%), cough (76%), myalgia or fatigue (44%).² The organic injuries can have adverse effects on muscle strength, respiratory function, activities of daily living, etc. Unfortunately, there are few clinical studies and scientific guidelines for the rehabilitation of patients with COVID-19. Our department has organized many online meetings to discuss rehabilitation guidance programs for patients with novel coronavirus pneumonia. Based on the principle of individualization, the rehabilitation treatment plan should be different for patients with

varying stages of pneumonia. We should note that 40% of patients have other underlying diseases such as diabetes and high blood pressure³, which increases the difficulty and complexity of rehabilitation.

The outbreak of COVID-19 undoubtedly affected various industries, including rehabilitation. Although we are not sure when COVID-19 will end, the news that Wuhan is about to lift the blockade shows us the dawn of victory. I hope that with the joint efforts of rehabilitation doctors and therapists across the world, we can overcome the challenges and help patients with COVID-19 recover their quality of life.

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NOTES

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TABLES

Table 1.— Epidemiological questionnaire

Name :	Identification Number:	
Gender:	Mobile Phone Number:	
Please mark (√) below :	No	Yes
Fever (>37.3°C)		
Cough		
Fatigue		
Diarrhea		
Have been to Wuhan or surrounding areas or communities with case reports in the past two weeks		
Have contacted patients from Wuhan and surrounding areas or from communities with case reports in the past two weeks		
More than two people at home have symptoms such as fever and cough		
History of exposure to patients with laboratory-confirmed 2019-nCoV		
Whether it is in the period of observation of home isolation medicine		
The purpose of coming to the hospital is: A. Inquiry B. Check C. Visit D. Accompany E. Business		