

How Do Primary Community Hospitals Enact Early Response to COVID-19? The Experience From Chengdu, China

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The outbreak of novel coronavirus pneumonia was declared a public health emergency of international concern by the World Health Organization on January 30, 2020, and the new coronavirus pneumonia was named coronavirus disease 2019 (COVID-19) on February 11.^{1,2} Novel coronavirus has been effectively controlled in China, but it has spread worldwide and become epidemic in some countries. By March 30, more than 600,000 people were confirmed infected in areas other than China, and this number increased by more than 50,000 people per day.³ Most patients with COVID-19 are asymptomatic, and outbreak of mass infection will occur within 2 weeks without early intervention. At present in some countries, patients with severe infection and at high risk are directly admitted to the intensive care unit, whereas patients with early-stage disease or with suspected or mild illness choose the method of home isolation.⁴ Recently, medical staff have assessed how to deal with COVID-19 more effectively and interrupt its transmission. In this letter, we share our experience with COVID-19 with readers.

Chengdu, China, has set up designated primary hospitals for COVID-19 since late January, and undesignated ones are not allowed to accept patients with fever. Any patients with fever, with epidemiological history (mainly based on whether they come from Hubei province or other areas where COVID-19 is prevalent or have contact with individuals from those areas), and with respiratory symptoms are required to go directly to designated hospitals for medical treatment or transfer to a designated hospital for medical treatment after primary screening in the community health service center. When the diagnosis is confirmed after initial screening, patients are transferred to designated hospitals for treatment (the 3 main designated treatment hospitals in Chengdu are Sichuan People's Hospital, West China Hospital of Sichuan University, and Chengdu Public Health Center).⁵

Jinniu District is located in the northwest of Chengdu's downtown area, covering an area of 108 km² and containing a population of 1.2 million.⁶ Jinniu District houses the main railway station and commodity trading area of Chengdu. Usually there are more than 600,000 visitors from all over the country. It is a high-risk area for

TAKEAWAY POINTS

Our hospital is a primary hospital in Chengdu, China. Since February 5, our hospital has been listed as the primary designated medical unit for treating new patients with coronavirus disease 2019 (COVID-19) in Jinniu District. In this letter, we share our COVID-19 experience with readers.

- ▶ Considering the screening and treatment situation during the past few months, we suggest establishing a separate fever clinic and isolation ward, if possible. The place chosen should be far away from the main hospital area.
- ▶ One-way circulation of foot traffic and temperature detection in different places within the hospital should be strictly carried out.
- ▶ Medical staff in the general treatment area should have at least basic personal protection, and medical staff in the emergency and fever clinics should have an advanced level of protection.
- ▶ We suggest that the designated hospitals and primary screening hospitals be differentiated to avoid disorderly mixing of patients, which may result in a larger scale of cross-infection.

large-scale cross-infection and mass outbreaks. Our hospital is the Jinniu District People's Hospital of Chengdu, which is a district-level public hospital operated directly by the Jinniu District Government; it has more than 600 beds and 2 community health service centers. It usually undertakes basic medical care and primary medical diagnosis and treatment tasks in Jinniu District. Since February 5, our hospital has been listed by the Chengdu Municipal Government as the primary designated medical unit for treating new patients with COVID-19 in Jinniu District.

The following measures were taken immediately in our hospital after it was listed as the primary designated medical unit for COVID-19 in Jinniu District.

1. All staff are on 24-hour duty; they enhance the protective level and set up the preexamination and triage of patients. Staff members control the admission route within the hospital, separation of doctors and patients, and 1-way circulation of foot traffic. They set up temperature monitoring points at the entrance of the hospital ([eAppendix](#) [available at [ajmc.com](#)]), preexamination and triage stations, fever clinic, nurse station,

and elevator entrance of inpatient department, and they strictly implement the triage work.

2. In addition to the emergency clinic and negative-pressure isolation ward, an independent fever clinic is set up at the hospital exit especially for patients with fever, with epidemiological history of potential exposure, and with respiratory symptoms. All such patients must be accompanied by full-time staff to the fever clinic.
3. On receiving a patient, the doctor at the fever clinic needs to reconfirm whether the patient has an epidemiological history and collect the medical history, including the existence of fever, fatigue, dry cough, diarrhea, dyspnea, and other symptoms. Then, high-resolution thin-layer chest CT scans and routine blood tests of artery blood gas, liver function, renal function, myocardial enzymology, C-reactive protein, COVID-19 antibody, and coagulation function are carried out accordingly.
4. An expert group, which consists of trained experts with deputy senior titles or higher in internal medicine, is set up for the diagnosis and treatment of COVID-19. Each suspected patient must go through consultation with 2 experts for preliminary diagnosis.
5. Once COVID-19 infection is ruled out, patients will be admitted to the general ward for treatment. If a patient is suspected to have COVID-19, they should be admitted to the isolated area for further diagnosis and treatment. A novel coronavirus nucleic acid test is carried out on the throat swabs, nasal swabs, sputum, and blood after the patient enters the isolation ward. After diagnosis, patients will be sent to a designated hospital for further treatment.

All medical personnel in the general treatment area (including the inpatient department) take basic protective measures (ie, wearing medical surgical masks and disposable work caps and clothes). Personnel in the fever and observation area take enhanced protective measures (medical protective masks, gloves, goggles, protective screens, protective clothing, isolation clothing, shoe covers, and the like are added for basic protection). At the same time, all medical staff are required to report their health status (presence of symptoms of fever, cough, and diarrhea and whether risk factors such as damage to skin and mucous membranes exist). No staff were infected with this process in place. As of July 29, 2020, more than 2500 outpatients with fever have been treated in our hospital, and 76 patients have been admitted to the isolated area, including 27 suspected cases and 2 confirmed cases of COVID-19.

Considering the screening and treatment situation during the past few months, we suggest establishing a separate fever clinic and isolation ward, if possible (the place should be chosen far away from the main hospital area). One-way circulation of foot traffic and temperature detection in different places should be strictly carried out. Medical staff in the general treatment area should have at least basic personal protection, and medical staff in the emergency and fever clinics should have an advanced level of protection. It is suggested that the designated hospitals and primary screening hospitals be differentiated to avoid disorderly mixing of patients, which may result in a larger scale of cross-infection. ■

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