



## **Experience in Prevention and Control Work of Anti- COVID-19 in People's Hospital of Tongchuan City in China**

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### **Authors' contributions**

*This work was carried out in collaboration among all authors. Authors HG, LW and JF designed the study, performed the statistical analysis, wrote the protocol and wrote the first draft of the manuscript.*

*Authors WJ, GC and Xiaoli managed the analyses of the study. Authors LX and YY managed the literature searches. All authors read and approved the final manuscript.*

### **Article Information**

DOI: 10.9734/IJTDH/2020/v41i1030325

#### Editor(s):

(1) Dr. Lim Boon Huat, Universiti Sains Malaysia(USM), Malaysia.

(2) Dr. Jorge Paredes Vieyra, Autonomous University of Baja California (UABC), Mexico.

#### Reviewers:

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(2) Pooja Saini, IFTM University, India.

Complete Peer review History: <http://www.sdiarticle4.com/review-history/58755>

**Short Communication**

**Received 20 June 2020**  
**Accepted 15 July 2020**  
**Published 01 August 2020**

### **ABSTRACT**

**Objective:** To explore the prevention and control strategies and effects of COVID-19 in People's Hospital of Tongchuan so as to provide evidence for prevention and control of COVID-19 in Tongchuan.

**Methods:** The measures taken by People's Hospital of Tongchuan from the aspects of sound organization, new coronavirus knowledge training, prevention of nosocomial infection, establishment of elite medical team, scientific and precise treatment and internet application as well as medical treatment were reviewed.

**Results:** Between 23 January 2020 and 15 April 2020, the hospital had received a total of 6 patients with confirmed COVID-19, among which 3 patients have been discharged. More than 31,000 persons were given pre-examination triage, 2,605 persons were treated for fever at clinics, 596 persons were under isolation and observation, and 184 persons had nucleic acid test, so as to

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achieve the requirements of no missed diagnosis, no death and no infection goal, which were prioritized by the national, provincial and municipal health inspection teams.

**Conclusion:** The effective prevention and control strategies against COVID-19 in People's Hospital of Tongchuan have significantly achieved the "three zeros" goal namely zero infection, zero transmission and zero death.

People's Hospital of Tongchuan, founded in 1949, is a comprehensive level-III first-class hospital. It has two hospitals located in the north and the south, with 1,700 beds and 2,044 employees. It is the first designated hospital for treatment of COVID-19 [1] in the province.

*Keywords:* COVID - 19; Tongchuan People's Hospital; ( People's Hospital of Tongchuan ) Preventive and control measures.

## 1. INTRODUCTION

### 1.1 Improve Organization and Strengthen Leadership

On January 22, People's Hospital of Tongchuan, held a meeting to convey the spirit of the municipal conference on epidemic prevention and control. The hospital's prevention and control work leading group was established in a timely manner, headed by President Hu Guizhong. Four functional groups were set up with their respective responsibilities, and 9 full-time staff were allocated to set up the prevention and control office to take charge of the daily work of epidemic prevention and control. On January 23, the hospital received a patient from a family of five in Wuhan (confirmed on January 24). In order to better carry out treatment work, the hospital canceled the Spring Festival holiday on the first day of the New Year and all staff returned to work, so as to make adequate preparations for epidemic prevention and control. The equipment department and the Pharmacy Department timely counted and controlled the protective materials, issued regulations on the hierarchical use of protective products, and clarified the protection levels of each post, so that the limited protective materials could be used efficiently. Coordination meetings on COVID-19 will be held at 4 p.m. and 6 p.m. each day to summarize and analyze the prevention and control work of the day, make continuous corrections, and improve the prevention and treatment of the epidemic. The hospital has issued more than 180 notices including the Medical Treatment Plan for COVID-19 in Tongchuan People's Hospital, Prevention and Control Technology for COVID-19, protection plan for medical personnel during COVID-19 epidemic, Procedures for patients with fever, Outpatient Service System for COVID-19, emergency Plan, etc., which have ensured the effective and orderly progress of prevention and

control work. During the epidemic, the hospital also put forward the general requirements of "zero infection of medical staff and zero death of patients".

### 2. PAY ATTENTION TO TRAINING AND STRENGTHENING PROTECTION

People's Hospital of Tongchuan pays close attention to the epidemic situation in real time, January 21, by actively organizing fever clinics, infectious department, infection control, emergency prevention and control of COVID-19 key sectors such as training on performing the actual combat drill in the north and south campuses; the importance of correct procedure in wearing protective clothing; awareness in hand hygiene, wearing masks and goggles, as well as project training, such as building a basis of epidemic prevention and control work. On the afternoon of January 23, patients from Wuhan were treated during the epidemic drill, which turned the drill into a real battle and kicked off the epidemic prevention and control work in the hospital. At the same time, the prevention and control office of the hospital do timely organizational overall study of the national COVID-19 diagnosis and treatment plan 1-7 edition "(National COVID - 19 control scheme 1, 6), and strengthen the daily supervision, which everyone is aware of; set up various forms of training with more than 6,000 games, and online participations of more than 30,000 people in COVID-19 awareness with coverage of 100% . The awareness is important to reinforce the knowledge on the prevention and control of COVID-19 among each and every patient in the hospital [2]. On a daily basis, each department has to ensure its patient safety by performing timing quantitative environmental sanitization on public area floors and other key parts of the department. The hospital has also timely set up the medical waste management section, improve on the specifications of the disposal of medical

waste, especially from COVID-19 patients with require strict disposal waste; The Hospital Awareness Department is equipped with 8 full-time staff, and a hospital awareness inspection team has been set up, and 10 of its part-time staff have been transferred to continue for the triage of pre-examination, at fever clinic and medical staff in isolation ward. Among their duties were one-to-one guided inspection of wearing and taking off protective clothing; and also ensuring that awareness in each clinic is adhered to on a daily basis. On-site supervisions of infection, prevention and control work of all departments were carried out, and whenever problems were identified, timely rectifications were made. [3] To further improve on the pre-examination triage process, the hospital set up 4 emergency tents, temperature detection points, general fever clinics, a new lung fever clinic and separate waiting areas for CT examination, inspection and sampling which required special passes to avoid cross infection. At the same time, measures were also taken to achieve the goal of zero infection among medical personnel. On a daily basis, personnel from each department of prevention and control work carried out on-site supervision; if problems were identified, then immediate rectification activities will be implemented by the floor staff who worked as a team.

### **3. REFORMING THE WARD AND PURCHASING EQUIPMENT**

In accordance with national standards, the ward should be reformed to a reasonably set up pre-examination triage and fever clinic, equipped with capable human resources to give full attention to the functions of pre-examination triage, and strictly implement the pre-examination to inquire the history of fever, contact history, travel history and respiratory disease symptom history and other key information [3].

The hospital invested 8.5 million yuan in the emergency renovation of two negative pressure wards, and purchased 8 ventilators, 2 negative pressure ambulances, 10 electrocardiogram (ECG) monitors and other medical equipment. It invested 1.1 million yuan to purchase masks, goggles, protective clothing, disinfectant and other prevention and control materials. The infectious disease building was rebuilt and the Polymerase Chain Reaction (PCR) laboratory was built to strictly prevent any misdiagnosis of infected patients [4].

### **4. TO DRAW ON THE BEST AND FORM A TEAM**

People's Hospital of Tongchuan has recruited experienced medical personnel, set up four professional treatment teams, and continuously strengthening the learning and relearning of the novel coronavirus, as well as the training of personal protection skills to cope with the new changes of the epidemic at any time.

### **5. DETAILED MANAGEMENT TO ENSURE SAFETY**

In carrying out the health code system in the hospital at all entrances, outpatient service hall and the inpatient measurement units, the temperatures for everyone were set, body temperatures were taken, registrations were made, patients with fever were guided to different areas based on their COVID-19 status whether it was suspected or confirmed, report was timely prepared, patients were isolated accordingly by the isolation ward management in close coordination with the public security departments, and they were not isolated out of the hospital. Meanwhile, the escort system for inpatients during the epidemic period was standardized, and the disorderly flow of people in the hospital was strictly controlled. During the epidemic, a separate site was set up for follow-up visits to patients with chronic diseases, and medicines were delivered to patients' homes.

In order to alleviate the psychological distress of confirmed patients during their hospitalization, the hospital arranged professionals for psychological counseling and provided patients with nutritious and delicious meals every day.

### **6. APPLY SCIENTIFIC AND PRECISE TREATMENT WITH FORCE**

In the process of medical treatment, it is an advantage to utilize a multiple disciplinary approach including Traditional Chinese Medicine (TCM) syndrome differentiation, implements a personalized treatment policy, and achieves remarkable curative effect through TCM sachet, TCM decoction, and moxibustion [5].

A total of 6 patients were diagnosed with COVID-19 in our hospital, achieving the requirements of no missed diagnosis, zero death and zero infection, which was highly recognized by the national, provincial and municipal inspection teams.

## 7. THE INTERNET PLUS MEDICAL TREATMENT WILL PROMOTE THE CONSTRUCTION OF SMART HOSPITALS

In order to effectively respond to the medical needs of people with fever during the epidemic,[6,7,8] our hospital has opened a special online consultation channel, in which fever outpatient doctors conduct online one-on-one consultation, realizing the guidance of classified treatment in advance and effectively alleviating the panic emotions of the people. Online booking registration, payment, inquiry report and other services have been opened to reduce nosocomial infections caused by frequent contact.

## 8. CONCLUSION

People's Hospital of Tongchuan city follows the principle of concentrating patients, experts and resources under the leadership of the Provincial and Municipal Joint Prevention and Control Office, which attach great importance to the principle of "medium treatment". Well-organized, solid and effective prevention and control work has been carried out, and phased results have been achieved. Tongchuan is the first city in the province to realize "three cleanouts" (zero infection, zero transmission and zero death). Effective prevention and control strategies are of great significance, which is worth learning and promoting.

## CONSENT AND ETHICAL APPROVAL

As per university standard guideline, participant consent and ethical approval have been collected and preserved by the authors

## COMPETING INTERESTS

Authors have declared that no competing interests exist.

## REFERENCES

1. World Health Organization . Novel Coronavirus-China; 2020;01:30/2020;02:12. Available:https://www.who.int/csr/don/12-january-2020-novel-coronavirus-china/en/, .
2. The CoVID-19 Diagnosis and Treatment Protocol, edition 1, National Health Commission. 2020;3.
3. Covid-19 Prevention and Control Plan (Third edition), National Health Commission. 2020;1(28).
4. Novel Coronavirus Infection Laboratory Testing Technical Guide (second edition), National Health Commission. 2020;1(23).
5. The CoVID-19 Diagnosis and Treatment Protocol, edition 6, National Health Commission. 2020;3(7).
6. Analyzes the developmentt rend of medical industry in the future DaiTao, Boao Forumfor Asia. 2019;6(10).
7. Zhao Z, Sokhansanj BA, Rosen GL. Characterizing geographical and temporal dynamics of novel coronavirus SARS-CoV-2 using informative subtype markers. BioRxiv. 2020:1–32.
8. SUL, MAX, YUH, et al. The different clinical characteristics of Coronavirus disease cases between childrenand their families in China the character of children with COVID – 19 [J]. Emerg Microbes Infect. 2020;9(1):707-713

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Peer-review history:  
The peer review history for this paper can be accessed here:  
<http://www.sdiarticle4.com/review-history/58755>