



## **COVID-19: Perspectives from a Clinical Doctor and Health Authority Officer**

*Yu-Ling YU<sup>1</sup>, \*Wei-Li FENG<sup>2,3</sup>*

- 1. Department of Cardiology, Guangdong Provincial Cardiovascular Institute, Guangdong Provincial People's Hospital, Guangzhou, China*
- 2. Health Bureau of Zhongshan City, Zhongshan, China*
- 3. Orthopaedics Department, Affiliated Xiaolan Hospital, Southern Medical University, Zhongshan, China*

**\*Corresponding Author:** Email: fungwailik@hotmail.com

**(Received 16 Mar 2020; accepted 26 Mar 2020)**

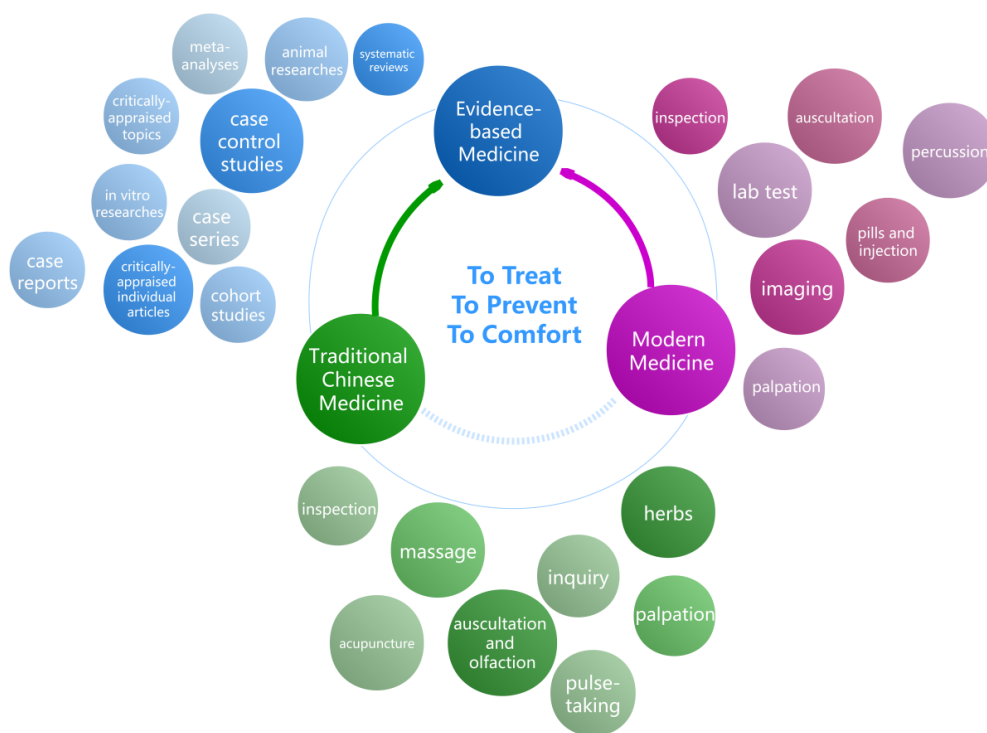
### **Dear Editor-in-Chief**

Since the first report of coronavirus disease (COVID-19) in Wuhan, China, in Dec 2019, the outbreak of this new virus has raised widespread concern in China and across the international community. The Chinese government has initiated strategies ranging from medical support, quarantine and pathogen detection, all of which controlled the transmission to a great extent. However, the outbreak of COVID-19 has brought a tough challenge to Chinese clinical doctors as well as public health administrations, alerting Chinese medical system to improve and update public health response strategies to epidemics. Scientists are searching for an effective medicine to cope with COVID-19, but the panacea is void. According to the latest diagnosis and treatment protocol of China (the seventh edition), Qing-fei-pai-du-tang (QFPDT), a traditional Chinese medical prescription consisting of 21 ingredients, has been recommended for the treatment of COVID-19 in combination with modern medicine (1). Recent data from the National Administration of Traditional Chinese Medicine (TCM) have shown that the effective rate of QFPDT was nearly 90% among 241 confirmed cases, including mild to severe patients observed in four provinces (2). Moreover, during the outbreak of severe acute respiratory syndrome (SARS), TCM

combined with modern medicine has been proved to be efficient in prevention and treatment (3). A report from the WHO, based on two case-control studies and seven prospective cohort studies involving 777 SARS cases, demonstrated that patients who received an integrated treatment showed significantly lower severity of symptoms, increased blood saturation and greater immunological functions compared to those treated with modern medicine alone (3). Besides, TCM was found to potentially control type A H1N1 influenza in 2009, providing favourable fever resolution and symptomatic relief (4). TCM is based on diagnosis and differential diagnosis of pathogenesis, symptoms and characteristics of patients thereby selecting and adjusting the prescription in line with dialectical treatment. It is not targeted merely at a specific etiology or a certain pathological link, but emphasizes comprehensively and precisely on the particular pathological status of a specific individual, proved to be practically effective over thousands of years. Qinghaosu (Artemisinin) used for treating malaria, arsenic trioxide for acute promyelocytic leukemia and Huperzia A for Alzheimer's disease are derived from traditional Chinese herbs or ingredients, and are scientifically proven. From the view of modern clinical medicine and evidence-

based medicine, indeed, more objective investigations, instead of blindfolded disavowal, are re-

quired to improve and validate the theories as well as uncover the mechanism of TCM (Fig. 1).



**Fig. 1:** Relationship between traditional Chinese medicine, modern medicine and evidence-based medicine

Medical decision-making plays an important role in containing and responding to an outbreak of public infectious disease, especially for a new pathogen that is highly transmissible. Implementation of optimal decisions on treatment and prevention can help to cut off transmission routes and protect susceptible populations. Following SARS outbreak, some survivals suffered from osteonecrosis of the femoral head or other side effects because of the high dose of corticosteroid (5). However, during treatment, doctors were in a state of dilemma on decision given that they had to decisively apply the therapy to suppress cytokines release and rescue lives. No matter SARS or COVID-19, epidemic of unknown pathogen provides limited information and time for clinical doctors to follow the evidence-based route. Optimal measures, based on clinical evidence and precise judgments of doctors, are a prerequisite to improving the prognosis of patients.

To formulate and implement effective public health strategies, a qualified and professional team is required. For Chinese public health administrations, a greater proportion of officers with professional medical education background are demanded, as they can make precise and efficient decisions on public health matters. As an excellent example, health authority officers in Hong Kong and Macau, China, with clinical medicine or public health qualifications, are playing critical roles in health strategy planning. As pointed out by Prof. Nanshan Zhong, Chinese center of disease control and prevention (CCDC) do have deficient power of direct disclosure and decision-making even during epidemics,(6) just as the constructive but weak voice from public health specialists at the beginning of this outbreak. Herein, we appeal for reforms in the human resource and structure of public health authorities, including the criteria of admission and

advanced professional cultivation. It might be beneficial to recruit professional medical doctors into public health administrations and conduct corresponding training for both medical and political decision-making. When such a qualified and professional health authority system is established, Chinese public health sectors will perform better than ever before.

Chinese authorities have made great efforts to control the outbreak of COVID-19. Compared to the SARS epidemic in 2003, significant progress in coping with epidemics in such a short period has been witnessed in China. Concerning public health emergencies, in the capacity of clinical doctors (YY and WF) and a health authority officer (WF), we hold the opinion that efficient medical decision-making and capable medical team are crucial tactics against epidemics. Public health emergencies have been increasing globally over the past few decades. Thus better medical strategies are required to handle every public health challenge.

### **Acknowledgements**

We appreciate all the medical staff working at the frontline against COVID-19 and the citizens contributing to the society during this outbreak.

### **Conflict of interest**

The authors declare no conflict of interest.

### **References**

1. National Health Commission of the People's Republic of China, National Administration of Traditional Chinese Medicine (2020). The diagnosis and treatment protocol for coronavirus disease of China (the seventh edition).  
<http://www.nhc.gov.cn/yzygj/s7653p/202003/46c9294a7dfe4cef80dc7f5912eb1989.shtml>
2. National Administration of Traditional Chinese Medicine (2020). The treatment for COVID-19 with Qing-fei-pai-du-tang.  
<http://www.satcm.gov.cn/hudongjiaoliu/guanfangweixin/2020-02-23/13310.html>
3. World Health Organization (2004). Clinical trials on treatment using a combination of Traditional Chinese medicine and Western medicine World Health Organization.  
<http://apps.who.int/medicinedocs/es/d/Js6170e/>
4. Chen W, Lim CE, Kang HJ, Liu J (2011). Chinese herbal medicines for the treatment of type A H1N1 influenza: a systematic review of randomized controlled trials. *PLoS One*, 6:e28093.
5. Stockman LJ, Bellamy R, Garner P (2006). SARS: systematic review of treatment effects. *PLoS Med*. 3:e343.
6. CNR news (2020). Zhong Nanshan: to improve the status of CDC in China.  
[http://www.cnr.cn/gd/ygsy/20200227/t20200227\\_524994057.shtml](http://www.cnr.cn/gd/ygsy/20200227/t20200227_524994057.shtml)