Important role of emergency department doctors after the outbreak of COVID-19 in China

Dear Editor,

Up to 20:40 14 April 2020, there have been 50,008 diagnosed COVID-19 cases in Wuhan. Among them, 2,579 patients died. The number of COVID-19 cases in Wuhan increased from 4,100 to 49,122 during February and became stable in March, and about 20% of them required intensive care unit (ICU) admission. More than 10 hospitals were newly built after February 2020 for admission of all the patients. Unfortunately, there was a shortage of ICU beds and medical staff in Wuhan, due to the large number of patients to be covered for ICU care. Accordingly, many of the general wards were quickly transformed to ICUs. Over 30,000 medical staff including about 3,000 physicians and nurses of ED from different cities in China have come to Wuhan to take care of the patients infected by COVID-19.

The medical team from Second Affiliated Hospital, Zhejiang University School of Medicine (Zhejiang province, 600 miles away from Wuhan), consisting of 120 nurses and 42 doctors, took over one makeshift ICU in Wuhan on 14 February 2020. Among them were four physicians and five nurses from the ED who performed the day-to-day management of patients with COVID-19, including managing ventilators. The ED of teaching hospital in China usually contains an emergency ICU and thus ED physicians have the core skills of emergency and critical care medicine as managing ventilator, continuous renal replacement therapy (CRRT), ECMO (extracorporeal membrane oxygenation), ultrasound assessment and tracheotomy, which are important for critical patients with COVID-19. This allowed the ED physicians to fill the role as intensivists without the need for additional training. As of 15 March 2020, 72 patients had been treated in this makeshift ICU, and 15 patients of them had mechanical ventilation.

Thus, ED personnel in our hospital had four different roles after the outbreak of COVID-19: (1) Identifying patients with COVID-19 in fever clinics by screening and administering the test for suspected patients with COVID-19; (2) Assigning patients with COVID-19 to inpatient wards and providing care for mild and severe patients with COVID-19 in hospital; (3) Joining the medical team to support Wuhan, and acting as the leaders in this team to care for the critically ill patients with COVID-19 and (4) Continue standard emergency work like trauma, acute poisoning and so forth. It has been a big challenge for ED physicians and nurses to handle so many jobs in such an environment. Unfortunately, there have been over 1,000 doctors infected in hospital since the epidemic in China.

In the pandemic of COVID-19, a large number of patients will need critical care, but patients without COVID-19 will require the treatment in ED at the same time. ED physicians will play different roles to complete different tasks. The experience in China shows that ED physicians are the most appropriate doctors in any medical team caring for the severe patients with COVID-19 as they are able to deliver critical care in a high-pressure environment.

Xiao Lu, Shanxiang Xu
Department of Emergency Medicine, Second Affiliated Hospital, Zhejiang University School of Medicine, Hangzhou, China

Correspondence to Dr Xiao Lu, Department of Emergency Medicine, Second Affiliated Hospital, Zhejiang University School of Medicine, Hangzhou 310011, China; jili44840@zju.edu.cn

Contributors All authors were major contributors in writing the manuscript and approved the final manuscript.

Funding The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

Competing interests None declared.

Patient consent for publication Not required.

Provenance and peer review Not commissioned; internally peer reviewed.

This article is made freely available for use in accordance with BMJ's website terms and conditions for the duration of the covid-19 pandemic or until otherwise determined by BMJ. You may use, download and print the article for any lawful, non-commercial purpose (including text and data mining) provided that all copyright notices and trade marks are retained.

© Author(s) (or their employer(s)) 2020. No commercial reuse. See rights and permissions. Published by BMJ.


ORCID iD
Xiao Lu http://orcid.org/0000-0002-6231-5855