

Coinfection of Influenza Virus and Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-COV-2)

To the Editors:

Coronavirus disease 2019 (CoVID-19) is a new infectious disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), which originated from Wuhan in China and has now spread globally. However, despite the concern focused on SARS-CoV-2, influenza virus continues to circulate and cause disease. Here we report a mixed infection. Physicians should be alert that a positive test for influenza does not rule out the possibility of COVID-19 disease.

The SARS-COV-2 outbreak in late December of 2019 in Wuhan, China, has caused many infections and deaths globally. SRAS-COV-2 is a new respiratory tract transmitted disease mainly through respiratory droplet and close contact, aerosol but fecal-oral route is also suspected. As of March 19, 2020, a total of 23,473 cases, and 9840 deaths were reported.¹

In China, several respiratory viruses are also now active including influenza, parainfluenza virus, respiratory syncytial virus, adenovirus, and now SARS-COV-2. Unfortunately, according to the World Health Organization influenza website,² the respiratory illness indicators and influenza activity remained elevated overall in the northern hemisphere which are in a “flu” season. The weekly report of the influenza surveillance reported that the United States now has its highest pneumonia and influenza mortality since 2004, except for the 2009 pandemic.³ During the SARS pandemic in 2003, Yang et al⁴ found that the patients with fever, cough or sore throat had a 5% of influenza virus positive rate, and with SARS infection reportedly increasing at the meantime. This raises the concerns that there might be mixed infections of seasonal influenza and the novel coronavirus. Thus, we do think there might be a

change of mixed infection of the influenza virus and SARS-COV-2. The Chinese experts from China-Japan Friendship Hospital have reported a case coinfection with influenza A virus and SARS-CoV-2.⁵ So, in an era when testing for COVID-19 is in short supply in many areas of the world, when patients have a positive test for influenza, one cannot assume that they do not also have SARS-CoV-2 infection. Measures should be taken to enhance the respiratory infectious diseases surveillance systems and screen the people with fever, cough or sore throat for both viruses with oral, nasopharyngeal and anal swabs.

**Di Wu, MMed
Jianyun Lu, MMed
Xiaowei Ma, MMed
Qun Liu, MMed
Dedong Wang, MMed
Yuzhou Gu, MMed
Yongguang Li, BSc
Weiyun He, BSc**

COVID-19 Emergency Response Unit
Guangzhou Center for Disease Control
and Prevention
Guangzhou, People's Republic of China

REFERENCES

1. World Health Organization. Coronavirus disease 2019 (COVID-19) Situation Report – 60, March 19, 2020. Available at: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports/>. Accessed March 21, 2020.
2. World Health Organization. Influenza update - 362, based on data up to 16 February, 2020. Available at: https://www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/. Accessed March 17, 2020.
3. Centers for Disease Control and Prevention. Weekly U.S. Influenza Surveillance Report, Key Updates for Week 8, ending February 22, 2020. Available at: <https://www.cdc.gov/flu/weekly/index.htm>. Accessed March 19, 2020.
4. Yang W, Lu E, Zhou X, et al. Influenza virologic and epidemiologic surveillance in Guangzhou, 2003. *South China J Prev Med*. 2005;31:10–13.
5. Wu X, Cai Y, Huang X, et al. Co-infection with SARS-CoV-2 and influenza A virus in patient with pneumonia, China. *Emerg Infect Dis*. 2020;26. [Epub ahead of print].

SARS-CoV-2 Infection in a Pediatric Department in Milan

A Logistic Rather Than a Clinical Emergency

The authors have no funding or conflicts of interest to disclose.

Address for correspondence: Giovanna Chidini, MD;
E-mail: giovanna.chidini@policlinico.mi.it
ISSN: 0891-3668/20/3906-0e79
DOI: 10.1097/INF.0000000000002687

To the Editors:

The number of subjects infected with SARS-Cov-2 is dramatically increasing in Lombardy, Northern Italy, since February 21, 2020, leading to an infection chain that represents the largest coronavirus disease 2019 (CoVID-19) outbreak in Europe to date. Nowadays, few SARS-Cov-2-positive children have been admitted to pediatric departments. In winter season, a huge number of children with acute respiratory failure needs to be hospitalized in pediatric ward/pediatric intensive care units if ventilated. This setting could be very difficult to have clinical criteria aiming to isolate suspected SARS-CoVID-2 children to avoid spreading of infection among health care professionals, other patients and visitors. The aim of this report is to document our experience in facing pediatric CoVID-19 emergency in Milan.

The major issues we are encountering could be summarized as follows:

- To define a univocal definition of pediatric suspected case.
- To avoid a waste of resources.
- To define pediatric isolation areas able to include 1 parent.
- To plan a correct patients' flow, from hospital admission to isolation in proper ward or pediatric intensive care units, limiting the healthcare professionals and other patients' exposure.
- To adapt family-centered care approach allowing a good balance between the presence of one of the child parents during hospital stay and the best intrahospital infection control.
- To develop a procedure to guide decision in removing “low-risk patients” from isolation room in case of imbalance between sources and needs.

The current World Health Organization (WHO)/ECDC definition of suspected case is not focused on pediatric population. According to WHO/ECDC criteria, suspected cases should be isolated in negative pressure rooms. Deisolation could be considered only after 2 negative respiratory samples. However, the time to laboratory test response lasts more than 48 hours thus leading to a difficult management of patients' flow. The logistic is complicated by the fact that according to national law, 1 parent should stay with the child. Considering the large number of patients referring to pediatric hospital because of acute respiratory infections in winter season, the strict adoption of WHO/ECDC criteria can lead to a congestion of our hospitals. CoVID-19 can

This work was supported by the National Natural Science Foundation of China Grants (81803325), Medical Science and Technology Project of Guangzhou (2019A011064), Guangdong Medical Science and Technology Research Project (A2019379).

The authors have no conflicts of interest to disclose. Di Wu and Jianyun Lu contributed equally to this letter.

Address for correspondence: Weiyun He, BSc;
E-mail: cloudhe@21cn.com.

Copyright © 2020 Wolters Kluwer Health, Inc. All rights reserved.
ISSN: 0891-3668/20/3906-0e79
DOI: 10.1097/INF.0000000000002688