

**REVIEWED**

By Chris at 10:08 am, May 05, 2020

ADVERTISEMENT

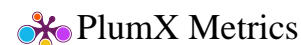
# THE LANCET

Log in



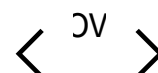
CORRESPONDENCE | VOLUME 395, ISSUE 10228, E52, MARCH 21, 2020

## Comorbidities and multi-organ injuries in the treatment of COVID-19

Tianbing Wang • Zhe Du • Fengxue Zhu • Zhaolong Cao • Youzhong An • Yan Gao • et al. [Show all authors](#)Published: March 11, 2020 • DOI: [https://doi.org/10.1016/S0140-6736\(20\)30558-4](https://doi.org/10.1016/S0140-6736(20)30558-4)

“We now have a name for the disease caused by coronavirus and it's COVID-19”, said Dr Tedros Adhanom Ghebreyesus, Director-General of WHO on Feb 11, 2020.<sup>1</sup> WHO recently updated the name novel coronavirus pneumonia, previously named by Chinese scientists,<sup>2</sup> to coronavirus disease 2019 (COVID-19).

More attention should be paid to comorbidities in the treatment of COVID-19. In the literature, COVID-19 is characterised by the symptoms of viral pneumonia such as fever, fatigue, dry cough, and lymphopenia. Many of the older patients who become severely ill have evidence of underlying illness such as cardiovascular disease, liver disease, kidney disease, or malignant tumours.<sup>3, 4, 5</sup> These patients often die of their original comorbidities; we therefore need to accurately evaluate all original comorbidities of individuals with COVID-19. In addition to the risk of group transmission of an infectious disease, we should pay full attention to the treatment of the original comorbidities of the individual while treating pneumonia, especially in older patients with serious comorbid conditions. Not only capable of causing pneumonia, COVID-19 may also cause damage to other organs such as the heart, the liver, and the kidneys, as well as to organ systems such as the blood and the immune system.<sup>3, 4, 5</sup> Patients eventually die of multiple organ failure, shock, acute respiratory distress syndrome, heart failure, arrhythmias, and renal failure.<sup>5, 6</sup> We should therefore pay attention to potential multi-organ injuries and the protection and prevention thereof in the treatment





patients were type B, with disease that manifested with different degrees of pneumonia, accompanied by serious comorbidities. For patients classified as type B, we continued to monitor the changes of comorbidities while managing the pneumonia, carrying out individual evaluations and developing specific treatment plans, including antihypertensives, hypoglycaemic therapy, and continuous renal replacement therapy. 14 (23%) of 60 patients were critically ill and were classified as type C. Patients classified as type C had disease that was considered to have developed from the aggravation of disease seen either in type A or type B, when early therapeutic effects for type A disease were unsatisfactory (resulting in multiple organ injuries), or when disease associated with type B became aggravated and the patient's condition deteriorated from their original comorbidities (leading to multiple organ failure). Attention should be paid to organ function in these critically ill patients and necessary protective measures, including mechanical ventilation, glucocorticoids, antivirals, symptomatic treatments, and anti-shock therapy.

We believe that the classification of COVID-19 in severe patients could help in individual evaluation of the disease and would provide effective triage for the treatment and management of individual patients.

We declare no competing interests.

## Supplementary Material



[Download .pdf \(.33 MB\)](#)

[Help with pdf files](#)

Chinese translation of full text



[View in Article](#) ^[Google Scholar](#)

2. Jiang S • Xia S • Ying T • Lu L

**A novel coronavirus (2019-nCoV) causing pneumonia-associated respiratory syndrome.***Cell Mol Immunol.* 2020; (published online Feb 5.)[DOI:10.1038/s41423-020-0372-4](https://doi.org/10.1038/s41423-020-0372-4)[View in Article](#) ^[Scopus \(5\)](#) • [Crossref](#) • [Google Scholar](#)

3. Wang D • Hu B • Hu C • et al.

**Clinical characteristics of 138 hospitalized patients with 2019 novel coronavirus-infected pneumonia in Wuhan, China.***JAMA.* 2020; (published online Feb 7.)[DOI:10.1001/jama.2020.1585](https://doi.org/10.1001/jama.2020.1585)[View in Article](#) ^[Scopus \(494\)](#) • [Crossref](#) • [Google Scholar](#)

4. Huang C • Wang Y • Li X • et al.

**Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China.***Lancet.* 2020; **395**: 497-506[View in Article](#) ^[Scopus \(869\)](#) • [PubMed](#) • [Summary](#) • [Full Text](#) • [Full Text PDF](#) • [Google Scholar](#)



6. Novel Coronavirus Pneumonia Emergency Response Epidemiology Team  
**The epidemiological characteristics of an outbreak of 2019 novel coronavirus diseases (COVID-19) in China.**

*Chin J Epidemiol.* 2020; 4: 145-151

[View in Article](#)

[Google Scholar](#)

## Article Info

### Publication History

Published: March 11, 2020

### Identification

DOI: [https://doi.org/10.1016/S0140-6736\(20\)30558-4](https://doi.org/10.1016/S0140-6736(20)30558-4)

### Copyright

© 2020 Elsevier Ltd. All rights reserved.

### ScienceDirect

[Access this article on ScienceDirect](#)

## Related Hub



ADVERTISEMENT

# THE LANCET

Log in



## COVID-19 Resource Centre

Access the latest 2019 novel coronavirus disease (COVID-19) content from across *The Lancet* journals as it is published.

# THE LANCET



ADVERTISEMENT

# THE LANCET

Log in



Endocrinology

The Lancet Digital Health

The Lancet Gastroenterology & Hepatology

The Lancet Global Health

The Lancet Haematology

The Lancet HIV

The Lancet Infectious Diseases

The Lancet Microbe

The Lancet Neurology

The Lancet Oncology

The Lancet Planetary Health

The Lancet Psychiatry

The Lancet Public Health

The Lancet Regional Health

The Lancet Respiratory Medicine

The Lancet Rheumatology

EBioMedicine

EClinicalMedicine

Picture Quiz

## GLOBAL HEALTH

Hub

Commissions

Series

Global Burden of Disease

## ACCESS

Information for Readers

Register

Subscription Options

My Account

Existing Print Subscribers

The Lancet *Updates*

Recommend Lancet journals to your librarian

The Lancet App

The Lancet Choice

## INFORMATION

Authors

Press

Advertisers

Careers

Privacy Policy

Terms and Conditions

Cookies



ADVERTISEMENT

# THE LANCET

Log in

