



## Corona Virus Disease (COVID-19)

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### Abstract

Severe acute respiratory syndrome (SARS) corona virus (SARS-CoV) is a novel virus that caused the first major pandemic of the new millennium. The disease it causes has been named coronavirus disease 2019 (COVID-19). A flare-up of coronavirus disease-19 (COVID-19) contamination started in Wuhan, the capital of focal China's Hubei area. As of 13 May 2020, a total of 4,170,424 confirmed cases of COVID-19 (with 287,399 deaths) have been reported in more than 210 affected countries worldwide. Till date, no confirmed or approved treatment and vaccination is available and hence the treatment is essentially supportive and symptomatic. Some previous viral drugs are in clinical trial for treatment of COVID-19. Until proper treatment and vaccine develops, we must rely exclusively on various control and prevention measures to prevent this new disease from becoming a pandemic.

**Key words:** COVID-19, Respiratory syndrome, SARS-CoV-2.

### Introduction

Over the last few decades, the world has seen the existence of new viruses that posed serious threats to global health. Viral contaminations of the respiratory tract speak to a significant issue of human and creature wellbeing around the globe. Severe acute respiratory syndrome (SARS) corona virus (SARS-CoV) is a novel virus that caused the first major pandemic of the new millennium<sup>[1-3]</sup>. The disease it causes has been named coronavirus disease 2019 (COVID-19). The SARS CoV originates from the Corona viridae family. Other viruses from the same family include the severe acute respiratory syndrome corona virus (SARS CoV), which appeared in 2002, and Middle East respiratory syndrome corona virus (MERS-CoV), which was reported in 2012<sup>[4]</sup>. It likely originated from bat-derived coronaviruses with spread via an unknown

intermediate mammal host to humans<sup>[5]</sup>. Understanding of COVID-19 is ongoing. COVID-19 is the seventh discovered corona virus that also infects human<sup>[6]</sup>. The two other cases that affect the human population are SARS and MERS. SARS donated to Serious Acute Respiratory Syndrome that began in the south region of China and leads to 774 deaths and more than 8098 people were infected, and MERS mean Middle East Respiratory Syndrome that was originated in Saudi Arabia and lead to the cause of 848 deaths around the world and more than 2458 peoples were infected around 27 nations of the world<sup>[7-8]</sup>.

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## History

This virus, designated as SARS-CoV, affected 8422 people mostly in China and Hong Kong and caused 916 deaths (mortality rate 11%) before being contained<sup>[9]</sup>. The first case of corona virus was indicated as cold in 1960. COVID-19 was first identified and isolated from pneumonia patient belongs to Wuhan, china<sup>[10-11]</sup>. In December 2019, adults in Wuhan, capital city of Hubei province and a major transportation hub of China started presenting to local hospitals with severe pneumonia of unknown cause. Many of the initial cases had a common exposure to the Huanan wholesale seafood market that also traded live animals. The first fatal case was reported on 11th Jan 2020. Cases of COVID-19 in countries outside China were reported in those with no history of travel to China suggesting that local human-to-human transmission was occurring.

## Symptoms

- Fever
- Cough
- Dyspnoea
- Headache
- Sore throat
- Rhinorrhea

## Prevention

1. To use face masks
2. To cover coughs and sneezes
3. To wash hands regularly
4. To avoid contact with infected people
5. To maintain an appropriate distance from people
6. To refrain from touching eyes, nose, and mouth
7. In case of symptoms, seek medical care early
8. To follow advice given by your healthcare provider

## Treatment

Till date, no confirmed or approved treatment and vaccination is available and hence the treatment is essentially supportive and symptomatic. The first step is to ensure adequate isolation to prevent transmission to other contacts, patients, and health-care workers. Mild illness should be managed at home with counselling about danger signs. The usual principles are maintaining hydration and nutrition and controlling fever and cough. Multiple trials are on-going on the use of

various drugs. Due to the very short time course of this epidemic and the initial lack of suitable animal models, randomized control treatment trials are difficult to be organized and executed despite the finding of some commercially available candidate agents that appeared to be active in vitro.

## The wider consequences of COVID-19

The recent outbreak of the COVID-19 has already challenged an economy strained by trade wars with the US; national growth hit a 30- year low in 2019<sup>[12]</sup>.

## Conclusions

The COVID-19 pandemic represents the greatest global public health crisis of this generation. Though the researchers are in progress to enhance prevention, treatment strategies, and control of transmission of COVID-19, Additional research should be focused on the study of SARS-CoV-2 in proper animal models for investigating the viral replication, transmission, and pathogenesis by understanding the mechanistic cause of COVID-19 by SARS-CoV-2 and immune pathological response in the host. Until then, we must rely exclusively on various control and prevention measures to prevent this new disease from becoming a pandemic.

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