



## World's Outbreak Caused by COVID-19

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### Background

Coronavirus disease 2019 (COVID-19) caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is an ongoing global health emergency [1].

### Epidemiology

1. Incubation period: The median incubation period was estimated to be 5.1 days (95% CI, 4.5 to 5.8 days) and 97.5% of those who develop symptoms will do so within 11.5 days (8.2 to 15.6 days) of infection [2].
2. Morbidity rate: Till now not confirmed due to continuous increasing in number of infected peoples.
3. Case Fatality rate: Also, it wasn't constant but till 15th March the case fatality rate in the world was about 3.5% according to report of Roser, *et al.* [3].
4. Transmission: According to report of CDC in March 2020 [4] the most mode of transmission that reported were:
  - Between people who are in close contact with one another (within about 6 feet).
  - Through respiratory droplets produced when an infected person coughs or sneezes.
  - It may be possible that a person can get COVID-19 by touching a surface or object that has the virus on it and then touching their own mouth, nose, or possibly their eyes, but this is not thought to be the main way the virus spreads.

### Symptoms

- Fever
- Cough
- Fatigue
- Sputum production
- Headache
- Haemoptysis
- Diarrhea

- Dyspnea
- Lymphopenia
- Pneumonia
- RNAemia
- Acute respiratory distress syndrome
- Acute cardiac injury
- Incidence of grand-glass opacities that led to death [5-8].

### Prognosis

Preliminary data suggests the reported death rate ranges from 1% to 2% depending on the study and country. The majority of the fatalities have occurred in patients over 50 years of age. Young children appear to be mildly infected but may serve as a vector for additional transmission [9].

### Diagnosis

Upper respiratory tract (naso- and oropharyngeal samples) and lower respiratory tract such as expectorated sputum, endotracheal aspirate, or bronchoalveolar lavage. These samples were conducted to RT-PCR for confirmation [10].

### Treatment

- Remdesivir has been reported to treat the first US case of COVID-19 successfully [11].
- Chloroquine is a repurposed drug with great potential to treat COVID-19. Chloroquine can inhibit pH-dependent steps of the replication of several viruses, with a potent effect on SARS-CoV infection and spread [6,7,12].
- Also, combination of these two drugs showed a good results in treatment of COVID-19 [6,7].

### Control and prevention

- Quarantine of patients with COVID-19 and suspected cases.
- Avoid close contact with subjects suffering from acute respiratory infections.

- Wash your hands frequently, especially after contact with infected people or their environment.
  - Avoid unprotected contact with farm or wild animals.
  - People with symptoms of acute airway infection should keep their distance, cover coughs or sneezes with disposable tissues or clothes and wash their hands.
  - Strengthen, in particular, in emergency medicine departments, the application of strict hygiene measures for the prevention and control of infections [8,10].
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