

## **OUTBREAK OF COVID-19: AN OVERVIEW**

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**Abstract:** A novel general wellbeing emergency undermining the globe with the development and spread of 2019 novel coronavirus (2019-nCoV) or the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The infection was transmitted to people through an unidentified intermediary creature in Wuhan, Hubei territory, China in December 2019 which has a specific beginning in bats. Person to person transmission of virus is thought to be occurred by contact with diseased individual and inhalation of respiratory droplets produced by an infected person. Manifestations like fever, cough, breathlessness, tiredness, sore throat and malaise were appeared during its incubation period of 2 to 14 days.

**Keywords:** Syndrome, morality, Incubation, transmission, manifestation

**Introduction:** The major effect of the virus is more among advance aged ones and people with chronic diseases, whereas it affects less the people with age group 18-40 or we can say adults. Luckily until this point, infants and child are much rarely infected without any deaths but the future knowledge of this virus is obscure. Most of the infected individuals are asymptomatic means they have no symptoms initially but it might advances to pneumonia, acute respiratory distress syndrome and multi organ dysfunction and its mortality rate is evaluated to go from 2 to 3%.

### **COVID-19 symptoms include:**

- Cough
- Fever or chills
- Shortness of breath or difficulty breathing
- Muscle or body aches
- Sore throat
- New loss of taste or smell
- Diarrhea

- Headache
- New fatigue
- Nausea or vomiting
- Congestion or runny nose

In rare cases, COVID-19 can lead to severe respiratory problems, kidney failure or death.

**Transmission:**

Maintaining close contact and droplets of infected persons are the major causes of transmission in case of SARS CoV whereas minute chances of transmission can also occur through sweat, stool, urine, and respiratory secretions. Upon entering the virus in the human body its primary targets are enterocytes and pneumocytes, where thereby establishes a cycle of infection and replication. CoV has other target sites which include epithelial renal tubules, tubular epithelial cells of kidney, immune cells, and cerebral neuronal cells.

**Diagnosis:**

The WHO has published several testing protocols for the disease. The standard method of testing is real-time reverse transcription polymerase chain reaction. The test is typically done on respiratory samples obtained by a nasopharyngeal swab; however, a nasal swab or sputum sample may also be used. Results are generally available within a few hours to two days. Blood tests can be used, but these require two blood samples taken two weeks apart, and the results have little immediate value. Chinese scientists were able to isolate a strain of the coronavirus and publish the genetic sequence so laboratories across the world could independently develop polymerase chain reaction (PCR) tests to detect infection by the virus. As of 4 April 2020, antibody tests (which may detect active infections and whether a person had been infected in the past) were in development, but not yet widely used. Antibody tests may be most accurate 2–3 weeks after a person's symptoms start. The Chinese experience with testing has shown the accuracy is only 60 to 70%. The US Food and Drug Administration (FDA) approved the first point-of-care test on 21 March 2020 for use at the end of that month. The absence or presence of COVID-19 signs and symptoms alone is not reliable enough for an accurate diagnosis.

Diagnostic guidelines released by Zhongnan Hospital of Wuhan University suggested methods for detecting infections based upon clinical features and epidemiological risk. These involved identifying people who had at least two of the following symptoms in addition to a history of travel to Wuhan or contact with other infected people: fever, imaging features of pneumonia, normal or reduced white blood cell count, or reduced lymphocyte count.

A study asked hospitalised COVID-19 patients to cough into a sterile container, thus producing a saliva sample, and detected the virus in eleven of twelve patients using RT-PCR. This technique has the potential of being quicker than a swab and involving less risk to health care workers (collection at home or in the car).

Along with laboratory testing, chest CT scans may be helpful to diagnose COVID-19 in individuals with a high clinical suspicion of infection but are not recommended for routine screening. Bilateral multilobar ground-glass opacities with a peripheral, asymmetric, and posterior distribution are common in early infection. Subpleural dominance, crazy paving (lobular septal thickening with variable alveolar filling), and consolidation may appear as the disease progresses.

In late 2019, the WHO assigned emergency ICD-10 disease codes U07.1 for deaths from lab-confirmed SARS-CoV-2 infection and U07.2 for deaths from clinically or epidemiologically diagnosed COVID-19 without lab-confirmed SARS-CoV-2 infection.

### **Conclusion:**

The virus can easily spread from one person to another person it is strictly prohibited to visit populated areas. According to WHO, the only possible way to escape the virus is to avoid contact with infected person. It also known that Vaccines are not available in market, it is individual responsibility to take care a prevention is better than cure.

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