

## Covid-19

Sr. Antony Lourdu Mary Pudota JMJ

Lecturer, Medical and surgical Nursing, St. Joseph's College of Nursing Nallapadu, Guntur, Andhra Pradesh.  
522005

**Abstract:** Covid-19 is a pandemic disease which makes the complete world to be in tension. But the people are more over been aware about Covid-19 and how to prevent and how to take care to be free from Covid-19. And also many institutions have shown their attitude towards the living capacities and helping with charity. Appreciation towards missionaries and cini industries are most gracious.

**Key words:**

- Covid-19
- History
- Prevention
- Management

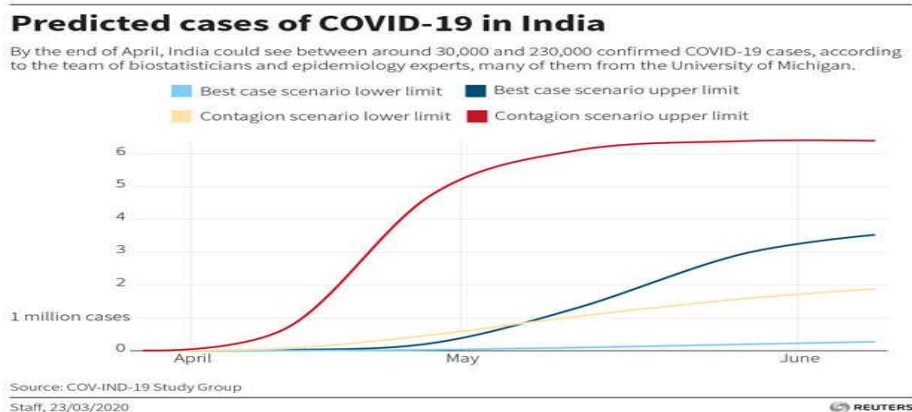
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**History:**

A novel corona virus outbreak was first documented in Wuhan, Hubei Province, China in December 2019. As of this writing, it has now been confirmed on six continents and in more than 100 countries. As the world's health systems funnel resources into learning about, treating, and preventing infections in humans, new information is released daily. In this two-part article series, we will first provide some history on coronaviruses to put this disease outbreak in perspective, and discuss global health security and planning for pandemic response. Secondly, we will offer guidance from the best trusted sources for prevention and planning in the workplace and at home.

Incidence:



**Definition:**

Corona viruses are a large family of zoonotic viruses that cause illness ranging from the common cold to severe respiratory diseases. Zoonotic means these viruses are able to be transmitted from animals to humans. There are several corona viruses known to be circulating in different animal populations that have not yet infected humans. COVID-19 is the most recent to make the jump to human infection.

**Suspect case :** A patient with acute respiratory illness (fever and at least one sign/symptom of respiratory disease (e.g., cough, shortness of breath), AND with no other etiology that fully explains the clinical presentation AND a history of travel to or residence in a country/area or territory reporting local transmission (See situation report) of COVID-19 disease during the 14 days prior to symptom onset.

**Probable case:** A patient with any acute respiratory illness AND having been in contact with a confirmed or probable COVID19 case (see definition of contact) in the last 14 days prior to onset of symptoms; OR C. A patient with severe acute respiratory infection (fever and at least one sign/symptom of respiratory disease (e.g.,

cough, shortness breath) AND requiring hospitalization AND with no other etiology that fully explains the clinical presentation. Probable case

**suspect case** for whom testing for COVID-19 is inconclusive. • Inconclusive being the result of the test reported by the laboratory Confirmed case A person with laboratory confirmation of COVID-19 infection, irrespective of clinical signs and symptoms.

#### Modes of transmission of the COVID-19 virus

**Respiratory infections** can be transmitted through droplets of different sizes: when the droplet particles are  $>5$ - $10\ \mu\text{m}$  in diameter they are referred to as respiratory droplets, and when they are  $<5\ \mu\text{m}$  in diameter, they are referred to as droplet nuclei.<sup>1</sup> According to current evidence, COVID-19 virus is primarily transmitted between people through respiratory droplets and contact routes.<sup>2-7</sup> In an analysis of 75,465 COVID-19 cases in China, airborne transmission was not reported.

**Droplet transmission** occurs when a person is in close contact (within 1 m) with someone who has respiratory symptoms (e.g., coughing or sneezing) and is therefore at risk of having his/her mucosae (mouth and nose) or conjunctiva (eyes) exposed to potentially infective respiratory droplets. Transmission may also occur through fomites in the immediate environment around the infected person.<sup>8</sup> Therefore, transmission of the COVID-19 virus can occur by direct contact with infected people and indirect contact with surfaces in the immediate environment or with objects used on the infected person (e.g., stethoscope or thermometer).

**Airborne transmission** is different from droplet transmission as it refers to the presence of microbes within droplet nuclei, which are generally considered to be particles  $<5\ \mu\text{m}$  in diameter, can remain in the air for long periods of time and be transmitted to others over distances greater than 1 m. In the context of COVID-19, airborne transmission may be possible in specific circumstances and settings in which procedures or support treatments that generate aerosols are performed; i.e., endotracheal intubation, bronchoscopy, open suctioning, administration of nebulized treatment, manual ventilation before intubation, turning the patient to the prone position, disconnecting the patient from the ventilator, non-invasive positive-pressure ventilation, tracheostomy, and cardiopulmonary resuscitation.

There is some evidence that COVID-19 infection may lead to intestinal infection and be present in faeces. However, to date only one study has cultured the COVID-19 virus from a single stool specimen.<sup>9</sup> There have been no reports of faecal–oral transmission of the COVID-19 virus to date.

#### Incubation period:

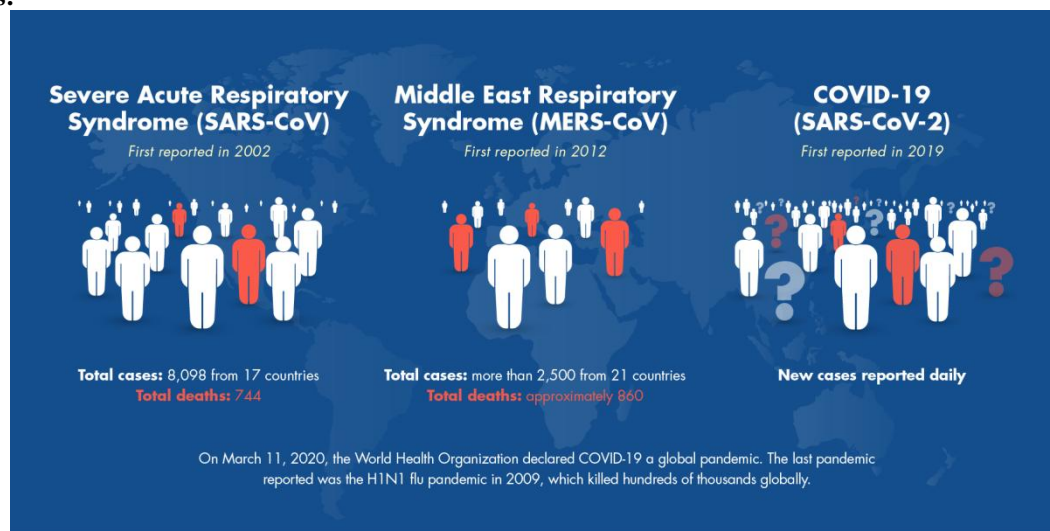
According to current data, time from exposure to onset of symptoms is usually between two and 14 days, with an average of five days

#### Risk factors

Risk factors for COVID-19 appear to include:

- Recent travel from or residence in an area with ongoing community spread of COVID-19 as determined by CDC or WHO
- Close contact with someone who has COVID-19 — such as when a family member or health care worker takes care of an infected person

#### Stages:



Two other recent coronavirus outbreaks have been experienced. Middle East Respiratory Syndrome (MERS-CoV) of 2012 was found to transmit from dromedary camels to humans. In 2002, Severe Acute Respiratory Syndrome (SARS-CoV) was found to transmit from civet cats to humans.

Although COVID-19 has already shown some similarities to recent coronavirus outbreaks, there are differences and we will learn much more as we deal with this one. SARS cases totaled 8,098 with a fatality rate of 11 percent as reported in 17 countries, with the majority of cases occurring in southern mainland China and Hong Kong. The fatality rate was highly dependent on the age of the patient with those under 24 least likely to die (one percent) and those over 65 most likely to die (55 percent). No cases have been reported worldwide since 2004.<sup>2</sup>

According to the World Health Organization (WHO), as of 2020, MERS cases total more than 2,500, have been reported in 21 countries, and resulted in about 860 deaths.<sup>3</sup> The fatality rate may be much lower as those with mild symptoms are most likely undiagnosed. Only two cases have been confirmed in the United States, both in May of 2014 and both patients had recently traveled to Saudi Arabia. Most cases have occurred in the Arabian Peninsula. It is still unclear how the virus is transmitted from camels to humans. Its spread is uncommon outside of hospitals. Thus, its risk to the global population is currently deemed to be fairly low.<sup>4</sup>

### **Clinical features:**

Common symptoms include:

- fever
- tiredness
- dry cough.

Other symptoms include:

- shortness of breath
- aches and pains
- sore throat
- and very few people will report diarrhoea, nausea or a runny nose

People with mild symptoms who are otherwise healthy should self-isolate and contact their medical provider or a COVID-19 information line for advice on testing and referral.

People with fever, cough or difficulty breathing should call their doctor and seek medical attention.

### **Diagnosis:**

History collection

Physical examination

To test for COVID-19, a health care provider uses a long swab to take a nasal sample.

### **Treatment:**

Currently, no antiviral medication is recommended to treat COVID-19. Treatment is directed at relieving symptoms and may include:

- Pain relievers (ibuprofen or acetaminophen)
- Cough syrup or medication
- Rest
- Fluid intake

### **Preventive measures according to WHO:**

Take steps to reduce your risk of infection. WHO and CDC recommend following these precautions for avoiding COVID-19:

- Avoid large events and mass gatherings.
- Avoid close contact (within about 6 feet, or 2 meters) with anyone who is sick or has symptoms.
- Keep distance between yourself and others if COVID-19 is spreading in your community, especially if you have a higher risk of serious illness.
- Wash your hands often with soap and water for at least 20 seconds, or use an alcohol-based hand sanitizer that contains at least 60% alcohol.
- Cover your mouth and nose with your elbow or a tissue when you cough or sneeze. Throw away the used tissue.
- Avoid touching your eyes, nose and mouth.
- Avoid sharing dishes, glasses, bedding and other household items if you're sick.
- Clean and disinfect high-touch surfaces daily.

- Stay home from work, school and public areas if you're sick, unless you're going to get medical care. Avoid taking public transportation if you're sick.

The CDC recommends wearing cloth face coverings in public places, such as the grocery store, where it's difficult to avoid close contact with others. It's especially suggested in areas with ongoing community spread. This updated advice is based on data showing that people with COVID-19 can transmit the virus before they realize they have it. Using masks in public may help reduce the spread from people who don't have symptoms. Non-medical cloth masks are recommended for the public. Surgical masks and N-95 respirators are in short supply and should be reserved for health care providers.

If you have a chronic medical condition and may have a higher risk of serious illness, check with your doctor about other ways to protect yourself.

### How to stay safe at work and school

Work and school environments may seem particularly daunting in the context of an outbreak, but some simple measures can help prevent infection in the office or classroom.

They are largely the same as those outlined above. According to WHO recommendations, the following are the most important preventive steps:

1. Regularly clean work surfaces and objects in continual use, such as phones and computer keyboards.
2. Regularly wash the hands with soap and water or use sanitizer.

In recent telebriefings, CDC officials advised anyone who is concerned about the potential impact of COVID-19 to get in touch with employers and schools to find out exactly what response measures they have in place.

### How to stay safe while traveling

For people who are planning to travel, all of the same basic hygiene recommendations apply. The WHO advise:

- cleaning hands on a regular basis
- keeping at least 1 meter's distance from people who are coughing or sneezing.

### Travel

If you're planning to travel, first check the CDC and WHO websites for updates and advice. Also look for any health advisories that may be in place where you plan to travel. You may also want to talk with your doctor if you have health conditions that make you more susceptible to respiratory infections and complications.

To prevent infection and to slow transmission of COVID-19, do the following:

- Wash your hands regularly with soap and water, or clean them with alcohol-based hand rub.
- Maintain at least 1 metre distance between you and people coughing or sneezing.
- Avoid touching your face.
- Cover your mouth and nose when coughing or sneezing.
- Stay home if you feel unwell.
- Refrain from smoking and other activities that weaken the lungs.
- Practice physical distancing by avoiding unnecessary travel and staying away from large groups of people.

### What if you have flu-like symptoms?

What happens if you start experiencing flu-like symptoms despite your best attempts to stay healthy?

The WHO spokesperson who responded to *MNT* queries offered the following advice:

1. Cough or sneeze into your elbow or use a tissue, then dispose of the tissue immediately and clean your hands.
2. If you feel unwell, stay home and call your doctor or a local health professional.
3. If you develop shortness of breath, call your doctor and seek care immediately.
4. If you are sick: Stay home, eat and sleep separately from others in the house, and use different utensils and cutlery.

The WHO spokesperson also gave us some travel-related advice for people who have flu-like symptoms and are either contemplating travel or have just returned from a trip.

They explained that:

- Anyone with a fever or cough should avoid traveling.
- Anyone who develops symptoms on a flight should inform the crew immediately and, once home, contact a health professional and tell them about the locations visited.

**Be prepared, but do not panic buy**

What if you develop COVID-19, or a healthcare professional suspects that you have it, and you need to stay home for a prolonged period? How should you prepare? Some public health experts have offered advice.

**“If you or a friend or family member takes any prescription medication, make sure you have a good supply, e.g., at least 4 weeks’ worth,” says Prof. Peter Openshaw, from Imperial College London, in the United Kingdom.**

As for food and other necessities, “Don’t panic buy,” he advises, “but do buy a few extra provisions when you normally go shopping. Don’t forget about pets.”

**Parents should Maintain strategies with children:**

- Be calm and proactive
- Stick to a routine
- Let your child feel their emotions
- Check in with them about what they’re hearing
- Create welcome distractions
- Monitor your own behavior

**Complications** Although most people with COVID-19 have mild to moderate symptoms, the disease can cause severe medical complications and lead to death in some people. Older adults or people with existing chronic medical conditions are at greater risk of becoming seriously ill with COVID-19.

Complications can include:

- Pneumonia in both lungs
- Organ failure in several organs

Although there is no vaccine available to prevent infection with the new coronavirus, you can

**II. Conclusion**

Based on the available evidence, including the recent publications mentioned above, WHO continues to recommend droplet and contact precautions for those people caring for COVID-19 patients. WHO continues to recommend airborne precautions for circumstances and settings in which aerosol generating procedures and support treatment are performed, according to risk assessment.<sup>13</sup> These recommendations are consistent with other national and international guidelines, including those developed by the European Society of Intensive Care Medicine and Society of Critical Care Medicine<sup>14</sup> and those currently used in Australia, Canada, and United Kingdom.<sup>15-17</sup>

At the same time, other countries and organizations, including the US Centers for Disease Control and Prevention and the European Centre for Disease Prevention and Control, recommend airborne precautions for any situation involving the care of COVID-19 patients, and consider the use of medical masks as an acceptable option in case of shortages of respirators (N95, FFP2 or FFP3).<sup>18-19</sup>

Current WHO recommendations emphasize the importance of rational and appropriate use of all PPE,<sup>20</sup> not only masks, which requires correct and rigorous behavior from health care workers, particularly in doffing procedures and hand hygiene practices.<sup>21</sup> WHO also recommends staff training on these recommendations,<sup>22</sup> as well as the adequate procurement and availability of the necessary PPE and other supplies and facilities. Finally, WHO continues to emphasize the utmost importance of frequent hand hygiene, respiratory etiquette, and environmental cleaning and disinfection, as well as the importance of maintaining physical distances and avoidance of close, unprotected contact with people with fever or respiratory symptoms.

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