



## **CORONA -A Deadly Contagious Respiratory Illness Causing Virus**

**Aman Tanziya**

U11GT21C0626

I Year BCom, Second Semester

Government First Grade College, Tumkur, Karnataka, India -572104

[aman808835@gmail.com](mailto:aman808835@gmail.com)

Ph.no: 8088351903

### **INTRODUCTION**

Coronavirus disease 2019 (COVID-19) is a highly contagious illness caused by severe acute respiratory syndrome SARS-CoV-2. It has had a devastating effect on the world's demographics resulting in more than 5.3 million deaths worldwide. It has emerged as the most consequential global health crisis since the era of the pandemic of 1918. After the first cases of this predominantly respiratory viral illness were first reported in Wuhan, Hubei Province, China, in late December 2019, SARSCoV-2 rapidly disseminated across the world in a short span of time, compelling the World Health Organization (WHO) to declare it as a global on March 11, 2020.

The outbreak of COVID-19 has proven to be a worldwide unprecedented disaster.

- The virus has inflicted billion of lives across the globe in many ways eg physically, psychologically, socially.
- Compared to MERS and COVID-19 has had: significantly higher transmissibility; worst post-recovery implications; frequent mutations (from the initial SARS-CoV-2 strain) leading to higher mortalities and uncontrolled virulence.
- The clinical manifestations of this particular virus has exhibited deleterious impacts on systems other than t(primary target organ) eg hematological system, live system, etc. with no promising curatives to date.
- Lack of emergency treatments and shortage of life-saving drugs has promoted the repurposing of existing therapeutics along with the emergence of with the combined efforts of scientists and industrial experts in this short span.

As of 6 December 2021, there have been approximately 266000000 confirmed cases of COVID-19, including approx. 5 300 000 deaths, reported to WHO.

### **CAUSES**

Infection with severe acute respiratory syndrome coronavirus 2, or SARS-CoV-2, causes coronavirus disease 2019 (COVID-19). The virus that causes COVID-19 spreads easily among people. Data has shown that the COVID-19 virus spreads mainly from person to person among those in close contact. The virus spreads by respiratory droplets released when someone with the virus coughs,

sneezes, breathes, sings or talks. These droplets can be inhaled or land in the mouth, nose or eyes of a person nearby. Sometimes the COVID-19 virus can spread when a person is exposed to very small droplets or aerosols that stay in the air for several minutes or hours — called airborne transmission.

The virus can also spread if you touch a surface with the virus on it and then touch your mouth, nose or eyes. But the risk is low. The COVID-19 virus can spread from someone who is infected but has no symptoms. This is called asymptomatic transmission. The COVID-19 virus can also spread from someone who is infected but hasn't developed symptoms yet. This is called presymptomatic transmission.

It's possible to get COVID-19 more than once. When a virus has one or more new mutations it's called a variant of the original virus. The omicron (B.1.1.529) variant spreads more easily than the original virus that causes COVID-19 and the delta variant. However, omicron appears to cause less severe disease. People who are fully vaccinated can get breakthrough infections and spread the virus to others. But the COVID-19 vaccines are effective at preventing severe illness. This variant also reduces the effectiveness of some monoclonal antibody treatments. Omicron has a few major offshoots (sublineages), including BA.5 and BA.2.12.1. BA.5 made up about 88% of COVID-19 infections that had genetic sequencing in the U.S. in August, 2022, according to the CDC. In April, the CDC downgraded the delta variant from a variant of concern to a variant being monitored. This means that the delta variant isn't currently considered a major public health threat in the U.S.

## RISK FACTORS

Risk factors for COVID-19 appear to include:

- Close contact with someone who has COVID-19, especially someone with symptoms
- Being coughed or sneezed on by an infected person
- Being near an infected person when in an indoor space with poor air flow

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 medical conditions are at greater risk of becoming seriously ill with COVID-19.

## COMPLICATIONS

- Pneumonia and trouble breathing
- Organ failure in several organs
- Heart problems
- A severe lung condition that causes a low amount of oxygen to go through your bloodstream to your organs (acute respiratory distress syndrome)
- Blood clots
- Acute kidney injury

- Additional viral and bacterial infections Prevention The U.S. Food and Drug Administration (FDA) has given emergency use authorization to some COVID-19 vaccines in the United States.

The FDA has approved the Pfizer-BioNTech COVID-19 vaccine, now called Comirnaty, to prevent COVID-19 in people age 12 and older. The FDA has given emergency use authorization to Pfizer-BioNTech COVID-19 vaccines for ages 6 months through 11. The FDA has approved the Moderna vaccine, now called Spikevax, to prevent COVID-19 in people age 18 and older. The FDA has also authorized the Moderna COVID-19 vaccine in children ages 6 months through 17 years old. The FDA has also authorized the Novavax COVID-19, adjuvanted vaccine to prevent COVID-19 in people age 12 and older. Due to the risk of a potentially life-threatening blood-clotting problem, the FDA is restricting use of the Janssen/Johnson & Johnson vaccine to certain people age 18 and older. Examples include people who had a severe allergic reaction after getting an mRNA COVID-19 vaccine and people who can't get an mRNA COVID-19 vaccine due to limited access or personal or religious concerns. If you get this vaccine, be sure to understand the risks and symptoms of the blood-clotting problem.

A vaccine can prevent you from getting the COVID-19 virus or prevent you from becoming seriously ill if you get the COVID-19 virus. In addition, COVID-19 vaccination might offer better protection than getting sick with COVID-19. A recent study showed that unvaccinated people who already had COVID-19 are more than twice as likely as fully vaccinated people to get reinfected with COVID-19. After getting vaccinated, you can more safely return to many activities you may not have been able to do because of the pandemic. However, if you are in an area with a high number of people with COVID-19 in the hospital and new COVID-19 cases, the CDC recommends wearing a mask indoors in public. You're considered fully vaccinated two weeks after you get a second dose of an mRNA COVID-19 vaccine, after two doses of the Novavax vaccine, or two weeks after you get a single dose of the Janssen/Johnson & Johnson COVID-19 vaccine. You are considered up to date with your vaccines if you have gotten all recommended COVID-19 vaccines, including booster doses, when you become eligible. An additional primary dose of a COVID-19 vaccine is recommended for people who are vaccinated and might not have had a strong enough immune response. In contrast, a booster dose is recommended for people who are vaccinated and whose immune response weakened over time. Research suggests that getting a booster dose can decrease your risk of infection and severe illness with COVID-19. People who have a moderately or severely weakened immune system should get an additional primary shot and a booster shot.

The CDC recommends additional doses and booster doses of COVID-19 vaccines in specific instances:

- Additional primary shot. The CDC recommends an additional primary shot of an mRNA COVID-19 vaccine for some people with weakened immune systems, such as those who have had an organ transplant. People with weakened immune systems might not develop enough immunity after vaccination with two doses of an mRNA COVID-19 vaccine or one dose of the Janssen/Johnson & Johnson COVID-19 vaccine. An additional shot using an mRNA COVID-19 vaccine might improve their protection against COVID-19. This recommendation for an additional mRNA COVID-19 shot is for people ages 6 months and older. The additional primary shot should be given at least four weeks after a second dose of an mRNA COVID-19 vaccine or one dose of the Janssen/Johnson & Johnson

COVID-19 vaccine. The additional primary shot should be the same brand as the other two mRNA COVID-19 vaccine doses that were given. If the brand given isn't known, either brand of mRNA COVID-19 vaccine can be given as a third dose.

- **Booster dose.** These recommendations differ by age, what vaccines you have been given and the state of your immune system. Kids ages 5 through 11 can get a Pfizer-BioNTech COVID-19 booster based on the original viral strain, called a monovalent booster, if they have been given both doses of the Pfizer-BioNTech COVID-19 vaccine. They can get the booster if it's been at least five months since the last shot. People ages 12 to 17 who had all recommended doses of the Moderna, PfizerBioNTech, or Novavax COVID-19 vaccines can only get the PfizerBioNTech COVID-19 updated, or bivalent, booster. This booster is based on the original virus strain and two Omicron strains. People can get this shot at least two months after their last shot. People who are ages 18 and older who had one of these COVID-19 vaccines may get either the Moderna or Pfizer-BioNTech COVID-19 bivalent booster at least two months after their last shot.

## **ADVANTAGES AND**

The rapidly evolving Covid-19 situation has us all stressed to the max these days. It's affecting all of our lives both young and old and its going to take some ability to adapt to our lives being altered for the next few months. But if I know anything, it's that horse people are tough and adaptable and ready to handle anything that comes their way. This blog is a little bit of levity and a little bit important information about how Covid-19 is affecting all of us as horse owners and doctors right now. The Advantages:

1. Horses and other domestic animals CAN NOT be infected with or transmit Covid-19, so by all means spend all the time you want with your horse over the next month!
2. With all this new found horse time you can certainly make some great work on grooming out all that winter hair coat that your horse is working on shedding.
3. Start legging your horse up so that you are in tip top shape for the riding season. Good legging up means less injuries as the season rolls onward.
4. Use your time to take care of other often neglected barn chores like cleaning tack, de-cobwebbing the barn and doing that full strip down of the stall.

## **DISADVANTAGES**

1. Shows and events are being cancelled and postponed. This one really stinks....there is no way around that. But it is temporary. We will be back on track soon. We are resilient. And remember from the advantages list, you now have some extra time to get ready for the competition!
2. We don't get to see your smiling faces..... as much as possible we want to minimize groupings of people.

## CONCLUSION

Due to the time-sensitivity of the pandemic, current scholarship predominantly put the discussion of COVID-19 as a central subject in epidemiology. Much of the available research has focused on the development of vaccines, the availability of tests, as well as the technical guidelines for the public to take precautions like practicing social-distancing and wearing face. To enrich our current understanding of the pandemic, our project examines how the COVID-19 pandemic is affecting the entire globe, from the economic repercussions to adjustments in ways of living, working, and socializing. Through two case studies in Shanghai and New York State, in terms of their respective governmental and public responses to the pandemic, we hope our project can provide greater insight into how COVID-19 is impacting the world and our personal lives. To quote Anne Burdick, “The phrase Digital Humanities thus describes not just a collective singular but also the humanities in the plural, able to address and engage disparate subject matters across media, language, location, and history. But, however heterogeneous, the Digital Humanities is unified by its emphasis on making, connecting, interpreting, and collaborating.”

Through our comparative study, we hope to bring previously separated scholarships in China and the U.S. by including Mandarin-outlet popular and academic sources to study the effectiveness of the preventative measures. Both regions contracted a high number of cases, but had different results as Shanghai has few reported new cases from local transmission whereas New York is currently experiencing a second surge. By comparing Shanghai and New York, we revealed that the policies and practices behind Shanghai’s success in controlling COVID-19 depended on people’s compliance and collaboration. Based on the exploration of our data set, we conclude that the use of facemasks, the practice of traveler testing, as well as strict lockdown policies in severely affected areas (including delivery-only grocery options) are among the most effective measures in limiting the number of COVID-19 cases and deaths. With this project, we hope to educate people on how easily viruses can be transmitted and infect an entire population and how social distancing and home isolation are key strategies in halting the spread of the virus. This education is made even more vital due to the widespread increases in mental illness, substance abuse, and economic hardships. While the cultural and political differences between Shanghai and New York prevent the adoption of the same safety practices, we believe that looking into how Shanghai has handled the COVID-19 pandemic may shed light on the most effective procedures that other countries should implement