

# The Challenges and Rehabilitation Avenues in the Context of Covid-19 - Health & Hygiene.

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## Abstract

The Coronavirus (COVID-19) is a contagious disease, which was first discovered in Wuhan, China in December 2019. COVID-19 has affected millions and millions of people worldwide and brought an indefinite stop to the world. It's going to be more than 2 years since the World Health Organization (WHO) declared COVID-19 as a pandemic. The COVID-19 has affected 431 million people and killed 5.9 million people worldwide. In India, the COVID-19 has affected 42.9 million people and killed 0.5 million people as per the WHO official Website page updated on 27th Feb 2022.

While most countries were successful in flattening the curve, many countries with their large population found it very difficult to contain the virus. Some of the common challenges are as follows: Limiting direct contact with people, Restriction on travel and movement, forcing changes in lifestyle, Conducting online/offline classes for students, Psychosocial difficulties for the vulnerable population

**Keywords:** COVID-19, World Health Organization (WHO), health and hygiene.

## INTRODUCTION

The best practices to prevent and cure COVID-19 infection are by taking vaccination and following up with the booster doses will considerably help in making COVID-19 less severe. Strict implementation of social distancing, making masks mandatory in public areas, washing hands frequently, and isolation measures are some of the norms taken to mitigate the spread of this virus and through it all, the importance of basic hygiene

With the decrease in the number of cases reported, the Government has relaxed the restrictions imposed, and sooner rather than later, it will be business as usual. The lesson we should learn from this pandemic is that basic hygiene should always be followed regardless of whether the virus has gone or not. Good hygiene habits have no alternatives or shortcuts but to be followed with caution to prevent harmful disease-causing viruses infecting the human body and its proven fact that proper and regular hand wash kills them effectively

Time to be reminded of the proverbs “Health is wealth” and “Prevention is better than Cure “

Health and Hygiene are two different terms which goes hand by hand for leading healthy lifestyle of an individual both physically and mentally. The topic we are addressing here are the Challenges and Rehabilitation Avenues in the Context of Covid-19. For which we need to have the basic awareness on what is COVID-19 and best practices to overcome the pandemic situation.

What is COVID -19 and its Origin:

Coronavirus disease 2019 (COVID-19) is a contagious disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). SARS-CoV-2 is a strain that causes mild and in some cases severe respiratory illness and also described as successor to SARS-CoV-1, the virus which caused the SARS outbreak in the year 2002–2004. The Virus was first identified in Wuhan, Hubei province, China. On 30 January 2020, W.H.O declared the outbreak a Public Health Emergency of International Concern, and a pandemic on 11 March 2020. The virus was called by different names in different place like “Wuhan

Coronavirus “but In January 2020, W.H.O recommended “2019 novel coronavirus” in accordance with WHO's 2015 guidance against using animal species, groups of people or geographical locations in disease and virus names. On January 27, 2020 the first case of COVID-19 was reported in Kerala, India. The patient had returned from Wuhan, China to India due to COVID outbreak in Wuhan, China.

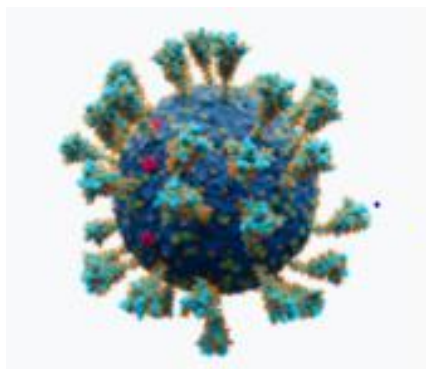


Fig: Atomic model of Coronavirus (COVID-19)

### How COVID-19 Spreads

The virus originated from bat's to mammal and then to Human and suspected outbreak from a laboratory in Wuhan, China. Coronavirus is transmitted from human to human, when people breathe in air contaminated by droplets and small airborne particles containing the virus. The particles spread to other person when exhaled by the infected person while talking, coughing, sneezing, or breathing. A person can also get infected to COVID-19 virus by touching a contaminated surface or object before touching their own mouth, nose, or eyes. Possibility of transmission is very likely when people are physically close with each other. Human-to-human transmission of COVID-19 was confirmed on 20 January 2020 and transmission was primarily via respiratory droplets from coughs and sneezes within a range of about 1.8 meters (6 ft) After people are infected with COVID-19, they are able to transmit the disease to other people within 24 hours to 72 hours before developing symptom also known as presymptomatic transmission. In asymptomatic patients the Contact tracing is used to find the person whom have been in contact with an infected individual in past 48 to 72 hours before they develop symptoms, or before their test date. Asymptomatic is a condition where the patient tests as carrier for a disease or infection but experiences no symptoms.

Adult patients with mild to moderate COVID-19 remain infectious for up to 10 days after symptoms begin while with severe to critical COVID-19 may remain infectious up to 20 days after symptoms begin.

### Symptoms of COVID-19

COVID-19 have wide range of symptoms from mild symptoms to severe illness. Symptoms which may appear 2-14 days after exposure to the virus. Below are the Serious, Most common and Less common Symptoms.

#### SERIOUS COVID-19 SYMPTOMS REQUIRING IMMEDIATE MEDICAL CARE

- If you develop any of these symptoms, call your healthcare provider or health facility and seek medical care immediately.
- This is not an exhaustive list. These are the most common symptoms of serious illness, but you could get very sick with other symptoms – if you have any questions, call for help immediately.



Shortness of breath/ Difficulty breathing



Loss of speech or mobility or confusion



Chest pain

#### MOST COMMON SYMPTOMS



Fever



Cough



Tiredness



Loss of taste or smell

#### LESS COMMON SYMPTOMS



Sore throat



Headache



Aches and pains



Diarrhea



A rash on the skin or discolouration of fingers or toes



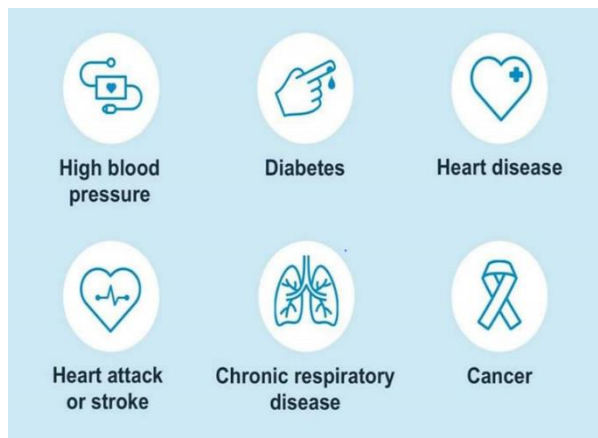
Red or irritated eyes

Older people are at higher risk of getting COVID-19 infections, and the risk increases with age. People with pre- medical conditions are at higher risk of serious illness. Which include:

- Type 1 or type 2 diabetes.
- Overweight, obesity or severe obesity.
- Smoking.

- Chronic kidney disease.
- Sickle cell disease or thalassemia.
- Weakened immune system from solid organ transplants.
- Pregnancy.
- Asthma.
- Chronic lung diseases.
- Liver disease.
- Down syndrome.
- Substance use disorders.

#### Corona Virus Diagnosis:



The Virus infection is diagnosed by different testing methods,

1. Nucleic acid amplification testing: which detects the genetic material of the virus and uses upper respiratory specimens (Nasal AND Oropharyngeal Swabs (Collect 2 swabs))

to diagnose the infection through real-time reverse transcription polymerase chain reaction (rRT-PCR). The results usually available within 24 hours.

2. Antigen testing: Detection rapid diagnostic testing detects viral proteins and best when performed within 5-7 days of symptoms and the results are available within 15-30 minutes and not requiring laboratory infrastructure.

3. Antibody testing: Detects antibodies against the virus and uses serum/plasma or whole blood specimens to detect antibodies generated by COVID infection. The results are available within 24 hours.

#### Different Variants of COVID-19:

Alpha (B.1.1.7): Detected in United Kingdom in December 2020	Beta (B.1.351): detected in Brazil passengers in Japan Airport in January 2021	Delta (B.1.617.2): Initially identified in India in December 2020	Omicron (B.1.1.529): initially identified in South Africa in November 2021
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The Virus has impacted many people irrespective of sex, religion, caste, creed, individual financial status, developed countries, developing countries and underdeveloped countries. The Virus kept on spreading in a tremendous pace affecting the life of every individual it infected causing economic and social disruptions worldwide. We had Country level lockdown for 8-9 months imposed by India Government as a necessary step to ensure further spread of virus as a containment strategy during Wave 1.

#### Cure and Medication for COVID-19:

No cure is available currently for COVID-19 and the antibiotics aren't effective against viral infections such as COVID-19. Mild/Moderate COVID-19 symptoms patients are recommended for home isolation for 7-14 days and severely infected people are directed to seek medical care in hospitals and need supplemental oxygen. The FDA has approved the antiviral drug remdesivir to treat COVID and prescribed for people who have a higher risk of serious illness.

### Vaccination -The Life Saver:

Scientists around the world have developed various vaccines on a war foot basis to protect people's lives against COVID-19, and to reduce the virus spread worldwide and eliminate social disruption. Getting vaccinated lowers the risk of serious disease and helps prevent new COVID-19 variants infections. Vaccines also reduce the chances of getting infected and spreading the virus to others. Fully vaccinated people can still become infected and potentially transmit the virus to others but at a lower rate than unvaccinated people.

### COVID-19 Vaccines:

W.H.O approved 9 vaccines for emergency list are like Oxford -AstraZeneca(Covishield), Janssen, Corona Vac ,Pfizer-BioNTech, Sinopharm Covaxin, BIBP, Moderna, , Covaxin, Novavax, and Medicago.

5 vaccines are under validation by the WHO: Sinopharm WIBP, Convidecia, Sanofi-GSK , SCB-2019 and Sputnik V,

### India Vaccines for COVID-19:

India started administering COVID-19 vaccines on 16 January 2021. Indian government approved the Oxford-AstraZeneca (Covishield) and Covaxin and other vaccine candidates are undergoing local clinical trials.

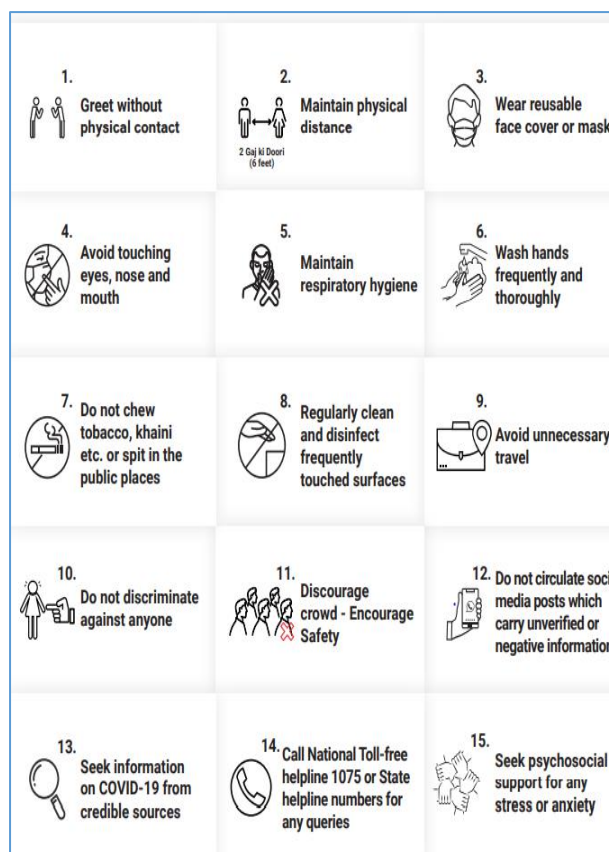
As on March 5th, the total number of vaccinations administered for 1st dose is 967 million (72%) and 2nd dose of vaccination for 800 million people (60%) of the total population of 1.3 billion people.

### Brief on Indian Vaccines:

COVAXIN	COVISHIELD
Bharat Biotech	AstraZeneca, Serum Institute of India
Inactivated virus	Non-Replicating Viral Vector uses Chimpanzee adeno virus
The interval between the 2 doses is 4-6 weeks	The interval between 1st and 2nd doses is 12-16 weeks
This vaccine can be 78-95% effective after the second dose	Efficacy after the second dose can vary from 70-90%
Pain at injection site, fever, headache, generalized lethargy. Generally, disappear in 2-3 days.	Pain at injection site, fever, headache, generalized lethargy. Generally, disappear in 2-3 days.
Approved by WHO on 3 <sup>rd</sup> November 2021. Can use vaccination status for travel to some countries	Approved by WHO on 15 <sup>th</sup> Feb 2020. Can use vaccination status for travel to some countries

Central Government and State Government are taking necessary steps to effectively fight the spread of COVID-19 but it's very important that People as individual follow the appropriate COVID behaviors to overcome the situation on long run.

### COVID Appropriate Behaviors:



It is challenging time for children and aged person. Doing a few simple activities can provide them with vital comfort and love during these uncertain times.

Be Cautious even after getting vaccinated: It takes several weeks to develop maximum protection and immunity against the coronavirus, No Vaccine is 100% effective and there is still chance of getting COVID-19 again. Please keep safe distance and practice social distancing, wear a mask and regularly wash your hands with soap and water or an alcohol-based hand sanitizer. Eat healthy and regularly exercise and prioritize healthy lifestyle. Stay indoors unless necessary.

Groceries and other essential shopping: Please select online shopping as the best option. And if that's not an option please Identify one household member who is low risk to the infection, preferably vaccinated adult to buy essentials and groceries. Avoid peak hours and always wear a mask and keep 1metre distance and try to keep your shopping time short.

Proper Ventilation: COVID-19 virus spreads most easily in indoor spaces, especially with

poor ventilation. Please open Windows to improve ventilation and increase the circulation of fresh air.

Care for Loved Ones: Quarantine can lead to loneliness, especially for older people and children below age 12. Loneliness can affect to poor physical and mental wellbeing. Connecting with other people through social media, telephone and online communities and maintain mental health.

Women with COVID-19 can breastfeed but they should Wash hands with soap and water or use alcohol-based hand rub frequently. Wear mask while contacting with the baby. Sneeze or cough into a tissue. Routinely clean and disinfect surfaces touched.

COVID-19 testing has created medical waste and its very important that we use and dispose the mask and other medical waste in proper way as directed by Health advisory,

**COVID IS NOT OVER. PREVENT SPREAD OF COVID 19.**

Together, we will fight COVID-19

## Reference

- [1] COVID-19 - Wikipedia
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