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Disinfection Measures for COVID-19 Choice is Your's – Be the Life Saver or the Killer

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ABSTRACT

The novel SARS-CoV-2 Coronavirus that emerged in the city of Wuhan, China, last year and has since caused a large scale COVID-19 epidemic and spread all over the world countries is the product of natural evolution. On 30th January 2020, World Health Organization (WHO) declared a public health disaster of international alarm over this global pneumonia epidemic. All the people are trying to prevent from coming in contact with coronavirus. Govt of India, and it's all allied organizations working together and trying hard to control it and avoid the situation of community transmission. Nationwide lockdown helped to control the transmission but after unlock it transmitted speedily in the community which is the alarming sign for everyone. In this review mode of transmission and disinfection measures are described thoroughly so that common people can understand its gravity and follow the measures stringently.

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INTRODUCTION

During the mid December 2019, an emergent pneumonia epidemic originated in Wuhan City of China and later it is rapidly spreaded from Wuhan to other states and countries of the world (Rathi *et al.*, 2020). People of all ages are contaminated by the Corona virus. Aged persons and people suffering with asthma, diabetes and heart disease emerged

to be more susceptible to become severely ill with the virus. Fever, cough, and fatigue with abnormal chest are the common characteristic clinical symptoms seen in the patients suffering from the novel viral pneumonia (Rathi and Rathi, 2020a). Another major concern is that COVID-19 virus is transmitted through person-to-person transmission causing severe outbreak. World Health Organization (WHO) named this viral pneumonia as Corona Virus Disease (COVID-19) and on 30th January 2020 WHO declared a public health disaster of international distress over this COVID -19 Pandemic (Sohrabi *et al.*, 2020). Number of members of the corona virus are responsible for mild respiratory disease in humans; however, SARS CoV and the Middle East respiratory syndrome corona virus (MERS CoV), cause severe respiratory diseases (Kothai and Arul, 2019). One thing is exceedingly clear that COVID-19 is both deadly and highly contagious. Due its fetal signs, it's become need to adopt disinfection measures to avoid further transmission of the disease and save lives. Hence in this article attempt is made

to know and aware about the disinfection measures to be adopted by the common people.

MATERIALS AND METHODS

In the present review relevant references and published scientific research papers related to COVID-19 were searched on Pubmed, Scopus, Web of science, Medknow, Ayushdhara and Google scholar by using relevant key words. All the references were reviewed, compiled, analyzed and discussed thoroughly for the in-depth understanding of the concept of disinfection measures for COVID-19 pandemic.

OBSERVATION AND RESULTS

Disinfection measures

The purpose of the measures is to prevent the spreading of infection from person to person in community. In this regard, WHO and Department of AYUSH, Govt. of India; have already circulated an advisory to create awareness about Corona virus and aware the people how to adopt the method of prevention from the pandemic corona virus disease ([World Health Organization, 2020b](#)).

Mode of transmission

Before knowing about the disinfection measures for COVID-19, it is wise to know the knowledge of route of transmission so that appropriate measures can be adopted.

Transmission of respiratory infections can occur through droplets of dissimilar sizes. If the droplet particles are greater than 5-10 μm in diameter, they are called as respiratory droplets and when the particles size is less than 5 μm in diameter, they are termed as droplet nuclei. As far as COVID-19 virus is concerned, it is primarily transmitted among people in the course of respiratory droplets ([World Health Organization, 2020a](#)).

Droplet transmission takes place when an individual is in close contact may be within 1 meter distance with the individual who is suffering with coughing or sneezing. Transmission is also possible through fomites present in the surroundings of the infected person. Thus COVID-19 virus transmission can occur directly or indirectly also ([Peng et al., 2020](#)).

Droplet nuclei live in the air for long duration and are able to transmit to others who are at a distance greater than one meter thus can cause air-borne transmission ([Asadi et al., 2020](#)).

Disinfection Measures

India is a populous country and the population density in India is more hence to avoid the transmission among the people, following disinfection measures are suggested to be adopted.

If the risk of infection is to be reduced, several hygiene and personal practices are recommended to adopt. Regular and frequent handwashing with soap and water helps to remove the pathogens from the skin. Washing hands at least for 20 seconds reduce the risk of infection by roughly 90%, while washing hands for 30 seconds reduces the risk up to 99.9% ([Harvard Health Publishing, 2007](#)). It also helps to reduce the risk of respiratory illnesses in elderly people by 16–21% ([Adhikari et al., 2020](#); [Mash, 2020](#)).

Maintain the distance with the people who are sick and suffering with coughing or sneezing. This will help to minimize the probability of spreading COVID-19. Work from home culture can be followed to maintain social and physical distancing. Encourage kids to learn through online classes, avoid visits to relatives and participating in mega events where large gathering is expected such as marriage, sports, conferences, funerals etc. ([Omer et al., 2020](#)).

Avoid touching the objects, nose, mouth and eyes frequently - The corona virus responsible for spread for COVID-19 is believed to be spread due to inhaling droplets discharged when an infected person coughs or sneezes. The surfaces of objects are more prone to cause an infection because some pathogens can last on surfaces for longer duration ([Yang et al., 2020](#)).

Seek medical attention without delay if individual is suffering with fever, cough or any respiratory illness such as difficulty in breathing. Keep him in isolation (Social distancing) or under the quarantine. It helps to prevent the advance spread of illness and speedy recovery. It also prevents others from becoming sick ([Perveen et al., 2020](#)).

Practice to cover mouth while cough or sneeze with a tissue and then dispose of the tissue safely. – recently concluded few studies revealed that, germs from sneeze could travel up to 200 times farther than the water particles released due to sneeze. These germs are capable to form an invisible cloud that can float across a large area and beyond. The germs from sneeze survive for weeks on surfaces, thus the consequences of a sneeze are long-lasting. Merely by covering nose or mouth the right way, one can considerably reduce the spread of germs. Dispose of the tissue and thoroughly wash your hands with soap and water. If someone is unable to find a tissue to sneeze or cough into, then it is advisable to sneeze into the crook of elbow ([Pooja and Veer,](#)

2020; Abdalqadir, 2020).

Clean and disinfect commonly touched objects and surfaces using a normal household cleaning spray. The corona virus can stay on the objects or the clothes or anything which is used by the patient. As we don't have any idea that surround person or any relatives who visited to you is not infected by corona virus. So precaution must be taken to stay safe and healthy (Cobrado *et al.*, 2017).

Fumigation- Ayurveda recommends fumigation as a method of sterilization with economic, readily available, safe and eco-friendly aromatic substances which not only provide physical and mental health but also purify and sanitize environment to kill non-visible microbes (Rathi and Rathi, 2020b).

DISCUSSION

Due to this kind of spread of Corona virus, the world is facing lots of problems. Financial markets have crashed; Malls, restaurants and markets are deserted; Many countries have closed their borders and banned air travelling; millions of people are restrained to their homes under shelter-in-place orders and enforced them to do work from home. As it is pandemic, it is spreading vigorously in environment. After spreading the COVID-19 in several countries, the Govt. of many countries had taken many measures to prevent the cause of spread of virus. Such as lockdown, imposing order 144 which ban the gathering of 5 or more people, banned to all local transporting vehicles such as train, buses and airplanes etc. also advertising about the awareness of corona spreading and precaution to prevention. Till date no medicine proved effective to control the COVID-19. Vaccine is only last hope of every people for getting out from COVID - 19 pandemic. But as per experts, it has said that if any vaccine is invented now then it nearly took 1-2 years to hit it to the market. Without approval it cannot be launched in the market. Before getting the approval number of tests has to be done which took nearly that much time. So the only option remains in hand to follow the disinfection measures stringently by each and every person for the prevention of COVID -19. By following this in proper manner, we can win to bring normal life as before. So stay home stay safe and save the world and become a lifesaver and not the killer.

CONCLUSION

If people follow the disinfection measures properly then it helps to avoid the spread of corona virus infection. It helps the breaking down the chain of corona virus. So that corona virus will be removed

from the environment. Due to which people don't have to wait for the vaccine and later the peoples will regain their freedom. They will be able to resume their duties and start their work.

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Conflict of Interest

The authors declare that there is no conflict of interest for this study.

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