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*Review article*

**A SCOPING REVIEW ON COVID-19: THE GLOBAL HEALTH AND EMERGENCE**

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**Abstract**

The unknown outbreak of the diseases in Wuhan city which has been named COVID-19 as entirely changed the situation worldwide. It has shaken the nations all over the world and is not having any cure till the date. All the treatments and assistance are based on the symptoms identified similar to SARS and MERS. The COVID-19 virus is been caused because of the beta coronavirus which is directly affecting the respiratory system of the human and is causing pneumonia. The large number of population worldwide is fighting against the virus infection and many have died. Every hour new cases of COVID-19 is been reported all over the world. WHO has instructed and provided guidelines to prevent the cause.

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**Introduction**

In 2019 December, there have been many unusual and unexpected cases of pneumonia that have been recorded in a city of China called Wuhan. It was noted that most of the cases were seen to be of a particular place that is of the Wuhan's Huanan Seafood Wholesale Market. The market is very well known for live animal trading. A variety of fishes and animals are being traded at the place such as snakes, bats, poultry and marmots. Later the rate of the cases

simultaneously gets increased. The government of China started researching the issues which are spreading among the people at a very high pace. The government on the 12th of January 2020 named the diseases that are been infecting the people as 2019 novel coronavirus (Sohrabi et al., 2020). This was the first time when one of the species of coronavirus has attacked the humans, earlier it seemed to be infecting the animals like bats and camels. But for the first time, the virus has so strong infecting power

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that it is directly impacting the humans and whosoever is coming in contact with the person is also been infected. The people were not aware of the cause because the symptoms seem to be normal as a sore throat, viral fever, and dry cough. So no one took it seriously, but consequently, the people are dying in large numbers which led to China's government to announce an emergency on an international concern on the 30th of January 2020 (Sun, et al., 2020). The diseases have been named formally as COVID-19 (Coronavirus disease 2019) on the 11th of February 2020. Simultaneously, it has been seen that the rate of death due to COVID-19 was increasing day by day and thousands of people are dying in a day. The confirmed case that has been found in China till the 23rd of February 2020 was around 77041 people. The case found to be very similar to another virus outbreak happened in 2002 in China itself names as Severe Acute Respiratory Syndrome (SARS). That is the reason COVID-19 is also known as Severe Acute Respiratory Syndrome Coronavirus 2 (SARS- CoV-2). The rate of cases from COVID-19 is many times more than of SARS (Cortegiani et al., 2020). It has been noted that the majority of people who are getting infected was the male and who is of or above the age of 56 years. Thus, it has been understood that the people who are at their maturity level are at very high risk and proper care and precautions need to be taken by them specially. Though precaution is needed by all the age groups special attention was to be given to old age people. The virus has then later been seen to be spreading all over the world as people are not

aware of the cause and they have been traveling to different places. The people of china or the one working at china when travels to other nations are been doing to be infected and whosoever came into their contacts was also get impacted. This virus spreads in person to person within a few seconds. As the international emergency was reported the government of different countries of the world then took immediate responses to the cause and tried to isolate the people who were entering the nation's boundary from any country (Sohrabi et al., 2020). This is because there was no specific confirmation about the people who travelled from China to other nations and to whom those people came in contact. Thus, taking precautionary steps was a must immediately step that the nations have taken. Countries like China, America, Italy, India other European nation all are some of the other ways have been infected. On a daily basis, a large number of people are being reported positive. Many are dying, many are fighting against the virus, very few have got recovered and there is still to go.

### **WHO global health emergency**

There are many countries in the world whose health care services are at a vulnerable stage, thus on the 30th of January 2020, China has announced a Public Health emergency of International concern. This is because the countries at high-risk vulnerability could be able to take immediate action so as to respond to the spread of the virus that is occurring worldwide an emergency has been announced at an international level (Sohrabi et al., 2020). The country like China which is having very advanced technologies and has remedies for

many crucial situations has been failed to respond to such virus infections then the vulnerable situation of the health department in other countries will get vanished within few times if precautions are not be taken timely. The emergency committee has declared that the infection of virus can be able to get interrupted if detection of it could be done at a very early stage, isolating the people as they get confirmed with COVID-19, prompt/ immediate treatment and to create a robust through which the contact with the confirmed cases can be tracked (Sohrabi et al., 2020).

One of the major concerns that have been made by the emergency committee was to stop spreading out fake information related to the virus impact. So, to avoid such fake and wrong information about COVID-19, the committee assigned various authorities to create articles that could be easily accessible so that people from different places of the world can get the right and correct information (Velavan and Meyer, 2020). WHO on the other hand is constantly monitoring the conditions and situations around the world and gathering more related information through various tests and diagnoses so that real and actual facts could be obtained and delivered to the public. Unless the fake information is affecting people, some by fear and panic are getting ill.

It is understood that there is very less area of the world which is not been touched by the virus, rest the whole world is been facing the pandemic of COVID-19. The cases are continuously increasing and there is no such situation seems where the number of rates of death is been decreasing (World Health Organisation, 2020). Even doctors and health

care staffs are being infected while treating the **patients**.

### **Global response**

The immediate global response made is to limit or totally restrict the entrance of ex-pats and immigrants especially from the high-risk countries. Many countries have done the same and not allowed people to travel from one place to another so as to control the spreading of the disease. The local transportation has also been limited by the nations, also in many places section 144 was applied and anyone seems to be breaking the law will be panelized (Sohrabi et al., 2020). The World Health Organisation (WHO) has also planned several guidelines and courses of action that the countries had to execute. This will help in maintaining a balance for health care services as per the demands.

The international committee working on the cause has requested the help of nearly US\$675 million so that the countries and regions which are not having active and effective health care centers could be benefitted. This was one of the parts of the Strategic Preparedness and Response Plan (McKibbin and Fernando, 2020). The strategy is highly focusing on availing the equipment and tools that are needed for testing, making the health care services to the patients and all the other medical requirements. The sanitization is also an important aspect which is needed to be provided to the countries along with the water supplies.

### **UK confirmed cases and the British response**

The COVID-19 tests were done in the UK for around 16,659 people among whom 85 positive

cases were recorded in the country by 4th of March 2020. For a moment the government and people of the country got panic but the emergency team of the nation has made plans and remedial steps were been strategized (World Health Organisation, 2020). To prevent people from not being infected by the government of the United Kingdom has thoroughly followed the department of health's defined guidelines. The special focus on people especially having respiratory infection was to be taken more care. The travelers from Wuhan city of China was the target people as the cause of the virus has been formed from Wuhan city (Rimmer, 2020).

Responding to the situation government of the country has emphasized personal care and precautions. The NHS (National Health Service) has stated that PPE (personal protective equipment) are must be used. Also, the government of the country has put emphasis on tracking the records of travelers with their health conditions. If anyone suspicious is found are kept in isolation and the one found positive will be sent to HCID (Airborne High Consequence Infectious Diseases) centers. As per the instruction of health care central authorities, the people who have been travelling from china need to stay back home and should not meet or visit anywhere out at least for 14 days. Approximately 200 people of the nation were in quarantine as they have travelled to Wuhan and other parts of China (Sohrabi et al., 2020).

### **Viral Transmission and spread**

The transmission and spread of the virus are happening by the human to human, mainly it is

considered that the respiratory droplets are the prime cause. When it comes in contact with the uninfected body then the pathogens get transferred. This is as common as other diseases like, influenza or respiratory infections (Lai et al., 2020). It has also been assumed that the virus is very much similar to chickenpox, measles because it is expected and experienced that the transmission of the diseases is possible by mild diseases and during incubation time (Sohrabi et al., 2020). The people coming in contact with the infected person at a 6ft distance is during being getting infected as the virus is understood to be spread through the airborne pathway.

### **1.5 Prevention**

At the present time, the cause and actual solution for COVID-19 is not easy to be identified, the understanding of the diseases unclear. The large population worldwide has got influenced by the coronavirus but the real cause is still a mystery. For now, there is not a particulate set of remedies that could be implied on the cause but as per the instructions of the CDC as well as a world health organization, the health care centres are practicing (Sohrabi et al., 2020). Some measures have to be highly taken into consideration by the nation's government. The tracking if past travel history, making sure the people are properly taking care of their respiratory functioning and basic hygiene. Also, it is been announced by the government of the nation's worldwide to avoid traveling especially to the high-risk places.

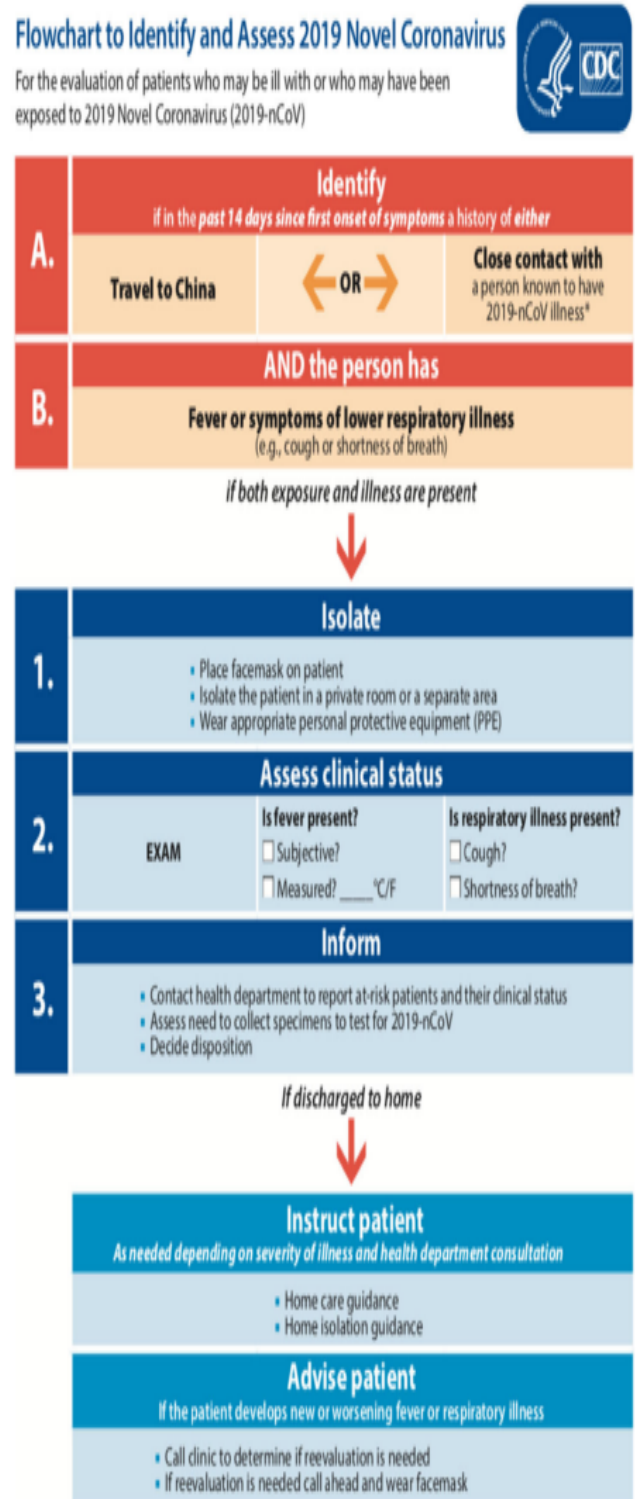
It has also been focused that one should not be in contact with the people having symptoms of COVID-19. High concern has been made on basic hygiene and cleanliness. The government

of many countries is been planning to make isolation centres for confirmed patients. Making sure all the possible requirements are been provided. It has been determined that the virus is getting spread through the airborne pathway, thus surgical face covering or mask is to be used by every individual (Wu and McGoogan, 2020).

### Diagnosis

The diagnosis is very important to be done and to do so certain key elements have to be taken into consideration. It has been stated by health care centres that to diagnosis the diseases, few of the symptoms must be faced by the person. The symptoms are fever, fatigue, respiratory symptoms, and gastrointestinal symptoms. It is important that any of the two from this has to be faced by the people so that the COVID-19 diseases can be able to get identified (Sohrabi et al., 2020). The suspected people are suggested to perform the COVID-19 test on an immediate basis. The test will usually be done with the sample of blood or through nasal swabs. Also, it is important to do related tests for those who are having a respiratory infection (Yee et al., 2020). This will help in knowing the health condition of the suspects of SARS-CoV2. The confirmed people if had contact with anyone in a 6ft distance is also been tested and will probably be found to be positive in coronavirus.

US CDC recommended flowchart to identify and assess potential COVID-19



Source: www.CDC.gov,2020

The figure mentions about the steps and methods that could be taken into consideration to diagnose the COVID-19 disease. On the 7th of February

2020, test kits were started to be distributed to the people but the availability was less and those who were not able to access the kit could go for CDC (Yee et al., 2020). Anyone who has been found to be infected with any viral respiratory problems must immediately do the COVID-19 tests.

### **Treatment**

The health administration worldwide has not come up with any drugs to fight against the coronavirus. But there are different therapies that have been adopted in many countries as per the convenience and effectiveness. The treatment is basically getting done as per the symptoms identified. For the treatment, antiviral therapies, corticosteroids, and empirical antibiotics are been used in an effective manner (Sohrabi et al., 2020). The mechanical ventilation is been availed as a process of treatment to the patients who are with intractable hypoxemia. It has been very clearly stated by the health administrations that in case the treatment is not able to get accessed by many people, one of the best ways to treat and be presented is to stop the actual cause of spreading the infection (Dong et al., 2020). It has also been seen in many patients that they come up with fungal as well as bacterial infections between the processes of treatment of later stages. Thus, they are highly recommended to consume antibiotics until health practitioners do not ask to stop consuming them (Ludvigsson, 2020).

### **Prognosis**

As per the record till the 1st of April 2020, the total death rate has been reached to the number of 40 598 globally. The numbers of death, as well as the confirmed rates, are also been seen to be increasing on a frequent basis. The mortality rates as per the record are understood to be at 3.4% as compared with SARS and MERS (Middle East Respiratory Syndrome). As per the cases as per dealt by the health care centres it has been understood that the patients lying  $\geq 70$  ages are having a very limited duration of survival, they may die within 11.5 days if proper medical aid is not availed to them. The vulnerability of the patient of this age is very high risk and the possibility to keep them safe for a longer time is next to impossible. Their immunity is very weak because of which many may get die immediately the ventilation process is stopped. Thus as per the concern, the possibility of deaths and positive cases is still to come (Sohrabi et al., 2020).

### **Containment methods**

Considering the case of China, from where all this has started, in Wuhan city, there are nearly 11 million residents of an area of 1528km<sup>2</sup>. Due to the cause, the place has been quarantined and the movement to the nearby places has been strictly restricted as more than 50 million people get impacted. The transportation through, local buses, metros, aviation, railways and all possible channel of traveling has been sealed by the government on an immediate basis (Sohrabi et al., 2020). Even the new year of the country was been subdued and it ultimately led to nation lockdown. This

was considered to be the best and the suitable way of dealing with the pandemic. World health organization has suggested the nation to restrict not only the traveling activity but also to restrict the trading of goods and services. As to control the situation a new hospital within 2 weeks has been built which was assisted finally by ¥1 billion from the Finance Ministry of China (Li, et al., 2020).

To manage and control the widespread of the virus, nations, like, Italy, Kuwait, Greece, and many more countries suspended ex-pats' visas. Later with the increasing cases, countries worldwide have started using protocols for screening through symptoms, especially the body temperature was the basis kick point of this test. Unfortunately, the actions do not seem to be effective as the confirmed cases are to be more as the infection is not get identified in many people at the initial stage (Li, 2020). Thus, severe illness occurs in people who reach the last stage and treatments are not get done which ultimately reaches death.

### **COVID-19 pathophysiology**

The cause of these diseases or infection is because of the beta coronavirus, which is having single-stranded RNA (Ribonucleic acid) and this is a species of Coronavirinae subfamily. The virus is very much similar to the SARS outbreak that has taken place years ago. The virus is containing residues of different 14 compositions which are impacting directly the human angiotensin (Sohrabi et al., 2020). It can be seen that until the detection of the virus happens, this causes infection in the respiratory system in the human body. As to the date, there are no drugs or medical assistance, thus the real

pathophysiology is not clear and on the basis of gathered data and information about the impact caused through COVID-19 seems similar to SARS. Experiments and trials for the control measures are still in process in the central health care laboratory. Though the tests and trials have been started in the labs until then hypothetical measures and treatments are been done so as to deal with the diseases (Steardo et al., 2020).

### **Consequences of COVID-19**

The impact of this deadly disease is very high concerning global economic factors. China is one of the dealings is different operations worldwide, thus there is a high chance the global economy will get fluctuated. The flow of money will be restricted; along with this, the demonetization will take place. Due to restrictions in trading activities, many worldwide organizations along with China will negatively impact economic wise. Moreover, the global growth prediction has also been nudged due to this pandemic. Thus the pace of growth of countries at the global level will slow down and after some time, the nations need to come up with strategies to meet up the variances that took place due to COVID-19 (Sohrabi et al., 2020).

Also, there is an ill-effect of this on children's health as well. People during this era are sitting back home in quarantine and students are not able to go to schools. This will have a negative impact on the growth process of the child both mentally and physically. The level of stress among the people will increase, many with fear will face depression and they will lose their mental stability. There is a very high chance

that people become stressed and their health condition will become severe not because of COVID-19 infection but more of tension and depression (Gostic et al., 2020). The fear of death will make them more reactive towards the situation and the mental state of people will be affected, without the infections also people will die.

### **Learning for the outbreak of COVID-19**

The COVID-19 breakout has been seen as more critical as compared to SARS and MERS and at the same time the emergency alert and transparency about all the activities that is been performed in different parts of the world. The fear of disease in China led to an imbalance in the economic condition due to which the currency market also becomes unstable (Sohrabi et al., 2020). The stability is important thus the Chinese central bank has invested ¥150 billion so that the currency could be balanced economically. As per the current information it is understood that China and other nations worldwide are using lopinavir/ritonavir doses to the patient suffering from the coronavirus. Also, random tests and trials in the laboratory are performed so as to obtain effective solutions for the disease (Yee et al., 2020).

### **Conclusion**

From the aforementioned reviews, it can be concluded that the COVID-19 outbreak is considered to be a worldwide health emergency. The number of deaths is consistently increasing concerning at the global level, it has been understood that the process of quarantine is not enough, because the results of

the viral infection are reaching its height. Further, it has also been understood that the surveillance and regular health monitoring is an essential aspect that must be taken into notice for improving the current situation. As the mortality rate is not limiting instead seems to be increasing, it is important for the people to listen and obey the entire minor too big instruction of the government. The decision of curfew, quarantine, and isolation is planned for the betterment and improvement in the health condition of the suspects as well as of the patients. Thus the guideline and instructions need to be followed thoroughly.

As being a responsible citizen it is the duty that all should respond favorably to the pandemic breakout and take possible precautions and most importantly one must escalate themselves from those who seem to be suspect. The WHO is still in seek of the most reliable and effective solution for the problem, until then the guidelines and instruction announced by it have to be followed by the patients, health care centers. The government of the country must make sure that the people should be adapting the instructions in a positive manner and make sure remedial steps are been taken by each and every individual.

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