THE COVID 19 PANDEMIC ACTIONS, PREVENTIVE AND CONTROLLING MEASURES
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ABSTRACT

The outbreak of coronavirus disease (COVID-19) has been declared as a Public Health Emergency of International Concern (PHEIC) and the virus has now spread in many countries all over the world. While a lot of people is still unknown about the virus that causes COVID-19, it is necessary to know that it is transmitted through direct contact with respiratory droplets of an infected person that is generated through sneezing and coughing. Individuals can also be infected from touching surfaces contaminated with the virus and touching their face (Example. eyes, nose, and mouth). While COVID-19 still continues to spread it is important to take actions to prevent furthermore transmissions and to reduce the causes of the outbreak and support control measures. The protection of human beings especially children is particularly important. Precautions are much needed to prevent the potential spread of COVID-19. It is also necessary to remember that COVID-19 is not making differentiation between age or gender. Today’s children and young people are global citizens and the next generation of Engineers, Doctors, Scientists and Caregivers. This paper provides key messages and considerations for the people in the world keep themselves safe from COVID-19. The purpose of this work is to provide suggestions for prevention, early detection and control of COVID-19 pandemic.

Keywords: Coronavirus, Pandemic, Covid-19, WHO, social distancing, frequent-touch.

I. INTRODUCTION

Coronavirus disease (COVID-19) is a newly discovered coronavirus which is an infectious disease. An outbreak of the coronavirus which is called COVID-19 in China is causing global concern. It caused from a seafood and meat market in Wuhan, China, in December 2019. It has since spread to other countries all over the world. Despite Wuhan and other Chinese cities being quarantined in starting, the COVID-19 has spread to almost 70 locations internationally. In the United States., COVID-19 cases have been confirmed and deaths have been reported in large numbers. A coronavirus is a virus found in animals and, rarely, can be transmitted from animals to humans and then spread person to person. Former to COVID-19, human beings affected by some other viruses such as the MERS virus (Middle East Respiratory Syndrome) and the SARS virus (Severe Acute Respiratory Syndrome), which was first happened in the Guangdong province in southern China. The COVID-19 virus is still affecting different people in different ways all over the world. COVID-19 is a respiratory disease and most infected people can develop mild to moderate symptoms and recover without requiring special treatment. People who are underlying medical conditions and those over 60 years old have a higher risk of developing severe disease and even death.

II. NAMING COVID-19

Official names have been announced for the virus responsible for COVID-19 (latter known as “2019 novel coronavirus”) and the disease it causes. The official names are:
Disease
Coronavirus disease (COVID-19)

Virus
Severe Acute Respiratory Syndrome CoronaVirus-2 (SARS-CoV-2)

Why do the virus and the diseases are having different names? The answer is Viruses and the diseases they spread will have different names. For example, AIDS is the disease that is caused by the virus HIV. People in general know only the name of a disease, such as measles, but not the name of the virus that causes it (rubeola).

There are different procedures and purposes, for naming viruses and diseases.

Viruses are named depending on their genetic structure to help the development of diagnostic tests, vaccines and medicines. Virologists and the wider scientific community are doing this work, so viruses are usually named by the International Committee on Taxonomy of Viruses (ICTV). Diseases are named as to enable discussion on disease prevention, spread, transmissibility, severity and treatment. Human disease preparedness and response is WHO’s part, so diseases are usually and officially named by WHO in the International Classification of Diseases (ICD).

A. Coronavirus 2

ICTV was announced “severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)” as the name of the new virus on 11 February 2020. This name was chosen as the virus is genetically related to the coronavirus responsible for the SARS outbreak of 2003. While related, both of the two viruses are different.

B. COVID-19

WHO declared this new virus as “COVID-19” on 11 February 2020, following guidelines previously developed with the World Organisation for Animal Health (OIE) and the Food and Agriculture Organization of the United Nations (FAO).

From a risk communications point of view, using the name SARS can have unintended consequences in terms of creating unnecessary fear for some populations, particularly in Asia which was worst affected by the SARS outbreak in 2003. For such reason and others, WHO has begun referring to the virus as “the virus responsible for COVID-19” or “the COVID-19 virus” while communicating with the public.

C. Symptoms of COVID-19

COVID-19 symptoms range from mild to severe. Before developing symptoms people may be sick with the virus for 1 to 14 days. Fever, tiredness, and dry cough are the most common symptoms of coronavirus disease (COVID-19). Most people of about 80% may recover from the disease without taking special treatment.

The disease more rarely can be serious and even fatal. Older people and people with other medical conditions such as diabetes, asthma or heart disease may be more vulnerable to becoming severely ill. People those with weakened immune systems may get more serious
symptoms, like pneumonia or bronchitis. People may never develop symptoms after being exposed to COVID-19. So far, adults and children are the most confirmed cases but there is no evidence for proving children are at greater risk for getting the virus.

D. Causes COVID-19
From contact with animals humans first get the coronavirus. Then, it is spread from human to human. Health officials cannot able to find what animal caused the COVID-19. The COVID-19 virus can be spread via contact with certain bodily fluids, such as droplets in a cough. It might also be caused by touching something an infected person has used or touched and then touching your hand to your nose, mouth or eyes.

Pre-existing illnesses

Pre-existing illnesses that brought patients at higher risk:

1. diabetes
2. cardiovascular disease
3. hypertension
4. chronic respiratory disease

E. Coronavirus treatment
No vaccine or treatment for COVID-19 is discovered till now. But scientists are continuously making effort for finding the right medicine for curing corona affected persons. If symptoms feel worse than a common cold, then people is advised to contact doctors. He or she may prescribe pain or fever medication after proper check-up. As can as possible, avoid contact with others when you are sick. If you have COVID-19, wearing a facemask is much better to prevent spreading the virus to others.

Many people are being infected with the COVID-19 virus experiencing mild to moderate respiratory illness and recover without requiring special treatment. The people above 60 years and those with undergoing medical problems like cancer, diabetes, cardiovascular disease and chronic respiratory disease are more having chances to develop serious illness.

III. PREVENTION OF COVID-19

The right way to prevent and slow down the transmission of corona virus is that be well informed about the COVID-19 virus, the disease it causes and how it spreads. Protect yourself and others from infection by washing the hands or using an alcohol based rub frequently and not touching your face.

The COVID-19 virus spreads primarily through droplets of saliva of infected person or discharge from the nose when an infected person coughs or sneezes, so it is essential that it is important to practice respiratory etiquette, by coughing into a flexed elbow.

No specific vaccines or treatment for COVID-19 has been discovered till now. However, there are many on-going clinical trials evaluating potential treatments. World Health Organization (WHO) continues to give updated information when clinical findings become available.
Basic protective measures against the new coronavirus

Stay aware of the latest information on the COVID-19 outbreak through media and national and local public health authority. People who become infected experience mild illness and recover, but it could be more severe for others. Basic protective measures against the new coronavirus are the following:

- Washing hands regularly with soap and water, or clean hands with alcohol-based hand sanitizer.
- Social Distance
- Avoid touching your face, nose and mouth.
- Cover your mouth and nose whenever coughing or sneezing.
- Practice respiratory hygiene
- Seek medical care.
- Stay informed and follow advice given by your healthcare provider.
- Avoid sharing personal household things.
- Clean all “frequent-touch” surfaces everyday
- Stay home if you are feeling unwell.
- Refraining from smoking and other activities that weaken the lungs.
- Practicing physical distancing by avoiding travel and staying away from large groups of people.

1. Wash your hands frequently

   A. Wash hands: Washing your hands thoroughly and frequently with soap and water for a minimum of 20 seconds. This is especially important after blowing your nose, coughing, or sneezing; going to the bathroom; and before eating or preparing food and before touching things in home.
   B. Hand sanitizer: For washing hands soap and water are enough. If suppose soap and water are not available, it is best to use an alcohol-based hand sanitizer with at least 60% alcohol, which should cover all surfaces of your hands.
   C. Soap and water: Soap and water are the very good option, particularly if hands are visibly dirty.

2. Social Distance

   It is necessary to maintain minimum 1 metre or 3 feet distance between yourself and someone who is coughing or sneezing. Because of while someone coughs or sneezes they could spray small liquid droplets from their nose or mouth which may contain virus. If you are too close with the infected person, you can breathe in the droplets, including the COVID-19 virus.

3. Avoid touching eyes, nose and mouth

   Avoid touching your nose, eyes and mouth before washing the hands. People will touch all the surfaces those are touched by infected person and can pick up viruses. Once contaminated, hands will transfer the virus to your eyes, nose or mouth. From there, the virus will enter your whole body and can make you sick.
4. Covering your mouth and nose whenever coughing or sneezing.

It is best practice in this current serious scenario that whenever people coughing or sneezing it is must to cover mouth and nose using hand kerchief or wearing face mask.

5. Practice respiratory hygiene

It is necessary to make sure you, and the people around you, follow good respiratory hygiene. That means closing or covering your mouth and nose with your bent elbow or tissue when you cough or sneeze. Then dispose of the used tissues immediately which must not be used again and again. Because of droplets spread virus. By following good respiratory hygiene you can protect the people around you from viruses such as cold, flu and COVID-19.

6. If you have high fever, severe cough and difficulty in breathing, seek medical care early

Stay home if you feel unwell. If you have a high or moderate fever, cough and feel difficulty in breathing, seek medical attention and call in advance. Follow the directions of your local health authority. Because of National and local authorities are having the most up to date data on the situation in your area. Calling them in advance will allow your health care provider to quickly contact you to the right health facility. This will also protect you and help prevention of spread of viruses and other infections.

7. Stay informed and follows advices given by your healthcare provider

Stay informed on the current developments about COVID-19. Follow the advices given by Doctors, your national and local public health authorities or your employer on how to protect yourself and others from COVID-19. Because of National and local authorities is having the most up to date data on whether COVID-19 is spreading in your area. They are best placed to advice on what people in your area should be doing to protect them and to prevent spreading to others.

8. Avoid sharing personal household things.

- Do not share: Do not share food, cups, drinking glasses, eating vessels, towels, hand kerchief or bedding with other people in your home.
- Wash thoroughly after use: After using these things, wash them thoroughly with soap and water or using dishwasher.

9. Clean all “frequent-touch” surfaces everyday

Clean frequent-touch surfaces in your isolation area (“sick room” and bathroom) every day; let a caregiver to clean and disinfect frequent-touch surfaces in other areas of the home.

- Clean and disinfect: Routinely clean frequent-touch surfaces in your “sick room” and bathroom. Let someone else to clean and disinfect surfaces in common areas, but not your bedroom and bathroom.
- If a caregiver or other person wants to clean and disinfect a sick person’s bedroom or bathroom, they should do so on an on-demand basis. It is necessary for the caregiver or other person to wear a mask and wait as long as possible after the sick person has used the bathroom.
- Frequent-touch surfaces include tabletops, keyboards, phones, doorknobs, remote controls, toilets, counters, bathroom fixtures, tablets, and bedside tables.
Clean and disinfect areas that can have blood, stool, or body fluids on them.

Household cleaners and disinfectants: Clean the area or item with soap and water or some other detergent if it is dirty and then use a household disinfectant.

10. Stay home if you are feeling unwell.
Stay home if you feel unwell. If you have a high or moderate fever, cough and feel difficulty in breathing, seek medical attention and call in advance.

11. Refraining from smoking and other activities that weaken the lungs.
It is necessary to refrain from smoking and other activities that weaken the lungs especially at the time of infected by Corona virus.

IV. RECENT SURVEYS

Figure 1 depicts the information according to the recent surveys in which the cumulative number of confirmed infected persons from coronavirus disease 2019 (COVID-19) cases by date of detection is depicted in the below in charted representation. The data is taken into account for analysing confirmed infected cases from the month of February 2020 to 16th March 2020.

Figure 1: Cumulative number of confirmed coronavirus disease 2019 (COVID-19) cases by date of detection

Figure 2 shows the cumulative number of restrictions in relation to the time of the declaration of COVID-19 as a public health emergency of international concern (30 January 2020), and the characterization of the situation as a pandemic (11 March 2020).
Even though the situation is fluid, the countries worst hit by the COVID-19 pandemic are by now well known by all. In Asia, China and Iran have so far registered the most cases. In Europe, Italy is at the middle of the outbreak, and of course the United States in North America. In Table 1 according to the recent update on 29th March 2020, some top 10 country wise infected cases and death cases are tabulated below.

<table>
<thead>
<tr>
<th>Country</th>
<th>Total Cases</th>
<th>Total deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>1,23,776</td>
<td>2,229</td>
</tr>
<tr>
<td>Italy</td>
<td>92,472</td>
<td>10,023</td>
</tr>
<tr>
<td>China</td>
<td>81,439</td>
<td>3,300</td>
</tr>
<tr>
<td>Spain</td>
<td>73,235</td>
<td>5,982</td>
</tr>
<tr>
<td>Germany</td>
<td>57,695</td>
<td>433</td>
</tr>
<tr>
<td>France</td>
<td>37,575</td>
<td>2,314</td>
</tr>
<tr>
<td>Iran</td>
<td>35,408</td>
<td>2,517</td>
</tr>
<tr>
<td>UK</td>
<td>17,089</td>
<td>1,019</td>
</tr>
<tr>
<td>Switzerland</td>
<td>14,076</td>
<td>264</td>
</tr>
<tr>
<td>India</td>
<td>987</td>
<td>25</td>
</tr>
</tbody>
</table>

Table 1: Top 10 country wise infected cases and death cases
The figure 2 depicts the graph structure information regarding top 10 country wise infected cases and death cases. In which USA is the top most country in the world which affected worse than other countries. Next to USA, Italy comes under the second top most worse affected countries in the world. The chart depicts both the infected and death cases of the countries in the world.

V. CONCLUSION:
From the above said actions, prevention and control key points, it is concluded that people should be aware and they should realize the seriousness about COVID-19 epidemic. COVID-19 is continuously spreading worldwide in rocket speed. People should keep social distance and stay home till COVID-19 is completely vanished from this world. In this situation of there is no proper medicine is discovered and not submitted with proper research work, there only certain ways to protect ourselves from COVID-19 are staying home, keeping social distancing, washing hands in every 20 minutes with soap and water and following government instructions and the implementations to fight against COVID-19.

VI. REFERENCES
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