

CORONA VIRUS DISEASE 2019- TRAINING MATERIAL

WHAT IS CORONA VIRUS?

There is a large family of corona viruses that have emerged and caused illness ranging from the common cold to more severe and infectious respiratory diseases. For instant in: -

- ❖ 2002- Severe acute respiratory syndrome corona virus (SARS CoV) –the first human infection was in Guangdong in China and 8000 cases were confirmed in 26 countries globally.
- ❖ 2012-Middle East Respiratory Syndrome (MERS)-The epidemic was in Saudi Arabia. The fatality rate was 30%-40%. Camels were natural reservoirs of MERS CoV.

FACTORS CONTRIBUTE TO EMERGING AND RE-EMERGING OF INFECTIOUS DISESES.

- 1) Ecological changes and agriculture development- Global warming is expected to increase up to 5.8°c by 2100
- 2) Change in human demographics and behavior – elderly, HIV/AIDS/, drug abuse
- 3) International movement of human beings and animals
- 4) Technology and industrialization- laboratory accidents
- 5) Bioterrorism

COVID -19.

Covid-19 is a respiratory disease caused by SARS-Cov-2 or COVID -19 Virus. It is an airborne disease. The first confirmed case of COVID -19 was reported in Wuhan City, Huabei Province in China in 2019. The incubation period for COVID-19 is between 2-14 days.

SIGNS AND SYMPTOMS

- ❖ Fever
- ❖ Cough
- ❖ Shortness of breath
- ❖ Headache

In Kenya out of the 17535 confirmed cases by July 27 2020, 1451 (8 percent) were symptomatic and 16084 case (92%) were asymptomatic.

Table 1 Distribution of presenting symptoms among symptomatic cases by 27 July 2020

<u>Symptoms</u>	<u>%</u>
Cough	54
Fever	40
Difficulty in breathing	29
Headache	14
Sore throat	10
Running nose	9
Chest pain	6
General malaise	3
Loss of smell	2
Pneumonia	2

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CLINICAL MANAGEMET

There is no specific treatment for COVID-19 therefore patients are given supportive care to relieve symptoms.

No vaccine approved so far.

Mode of transmission

The virus is transmitted through: -

- i. Respiratory droplet particles
- ii. Close physical contact with infected persons
- iii. Being in contact with contaminated surfaces- the virus can remain in surfaces between 3hours and 9 days

Prevention and control measures for COVID -19

1. Maintaining personal health hygiene practices

a) Regular Handwashing / sanitizing

The virus can be transmitted by touching contaminated surfaces and materials then touching our mouth, nose, and eyes. Therefore, by washing hands with running water and a soap help to destroy viral cell membrane and expose the constituents of the cell membrane to environment.

Alcohol based sanitizer (70% alcohol) also denature and inactivate viral replication, inhibit protein synthesis, and decrease production of adenosine triphosphate (ATP).

b) **Respiratory health hygiene practices**

Always cover your mouth or nose with reflexed elbow or disposable paper towel when coughing or sneezing to prevent spreading of droplets to surfaces.

2. **Maintaining social distance**

Social distance is keeping a space of 1.5m or 5ft between yourself and other people. It is now mandatory to: -

- i. Avoid handshakes
- ii. Avoid social gathering
- iii. Avoid any other activity that promotes close physical contact such as hugs, kissing etc

3. **Proper use of face mask**

COVID-19 is spread by inhaling respiratory droplet particles when talking, laughing, sneezing, singing or coughing. Proper wearing of face masks i.e. covering both mouth and nose help to stop droplets from leaving one's body and reaching the air or surfaces.

4. **Adequate ventilation**

Ventilation is circulation of air.

Adequate ventilation allows proper circulation of the air therefore all rooms should be well ventilated by opening windows and doors.

5. **Avoid sharing of materials such as pens**

COVID-19 virus can remain on surfaces between up to 9 days therefore avoid sharing of items.

6. **Regular cleaning and disinfection**

Regular cleaning of floor, tables and desks with a standard detergent should be done.

Areas without electronic can be disinfected with chlorine 0.05% concentration

Areas with electronic sensitive with water can be disinfected with alcohol based spirit or swabs

Utensils in the dining hall and kitchen should be cleaned with a running water and soap then disinfected with chlorine for 15minutes and rinsed with running

7. **Regular thermal screening**

One of the most common signs of COVID -19 is fever therefore regular screening of staff members, students, and visitors will help to monitor their body temperature. Any person with temperature above 37.5⁰c will be considered a suspect of COVID-19.

8. **PROTECTING THE VULNERABLE GROUP:** -

Might have compromised immune system like:-

Elderly

Pregnant and lactating mothers

Children under five years

People who have existing chronic medical conditions such as diabetes, cardiovascular diseases, asthma, cancer, kidney disease, severe obesity

The vulnerable group may develop serious complications such: -

- Pneumonia and trouble breathing
- Organ failure in several organs
- Heart problems
- acute respiratory distress syndrome
- Blood clots
- Acute kidney injury
- Additional viral and bacterial infections

9. **Registration**

Registration of staff members, students, and visitors will ease contact tracing.