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## RESEARCH ARTICLE

### COVID-19: CONTRACTION AND PREVENTION

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#### ABSTRACT

COVID-19 is a disease that originates in emerging countries. Developing countries are not well prepared to eradicate this disease. It makes victims every day. This special issue dedicated to the coronavirus (COVID-19) will allow developing countries to quickly know the elements necessary to avoid COVID-19. In Cameroon, in two weeks we went from 25 to 70 infected patients. The release of these preliminary data will help infected and uninfected patients and decision-makers in the international fight against this new virus. It is the current pandemic that threatens the whole world. It was detected in China a few months ago and it has become the subject of numerous public and private debates. We investigate the contraction and prevention of the COVID-19 and we found that this virus is spreading rapidly. It is also found that COVID-19 is the most easily infecting virus up to now: from human to human at room temperature just by sharing the same space and material (glass, metal plastic etc...) because the agent of COVID-19 can remain active on such material up to 9 days. We also present some precaution methods as disinfection of material and our life space. In addition, we offer strategies and tips to avoid contracting COVID-19.

#### INTRODUCTION

At the end of the previous year 2019 precisely in December the world has come to know a powerful virus known as the corona virus (COVID-19), it originated in China. Months later, precisely in February 2020, more than 13,550 cases were tested positive in the laboratory of China. Later, as humans kept on migrating from town to town, countries to countries before researchers and health personnel discovered that COVID-19 is easily contracted just by sharing the same space with the infected person it was late. That is why many persons have been tested positive in China. The WHO described some cases (WHO, 2019). Many persons think that coronavirus started in China which is not true because some cases were tested positive and they had no travel history to China. For example a taxi driver in Thailand and other cases found in Germany (Wit, 2016). But let's recall that all the cases found in Africa were brought by those having a travel history with infected countries. In France, a healthcare worker was diagnosed with SARS-COV-2 a acute respiratory disease and two patients were positively detected (Chan, 2019). Jianjun et al investigated on chloroquine phosphate, an old drug use for the treatment of malaria and showed that it had apparent efficacy and acceptable safety against COVID-19 associated pneumonia in multicenter clinical trials conducted in China (Lu, 2019).

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All Chinese are still working on how to do away with this virus completely (Wang et al., 2019; Yan, 2013). G. Kampf et al studied persistence of coronaviruses on inanimate surfaces and their inactivation with biocidal agents and found that human coronavirus can remain infectious on inanimate surfaces for 9 days and that disinfection of surfaces with 0.1% sodium hypochlorites or 62-71% ethanol reduces considerably coronaviruses infectivity on surfaces. Some works have been done on the COVID-19 but to the best of our knowledge, little work has been done specially on the contraction and prevention of COVID-19. In this paper, we will be making an attempt in that direction. This presentation will be structured as follows: we will present after introduction, how COVID-19 can be contracted, and the precautions to be taken in order to avoid COVID-19 because prevention is better than cure.

**Transmission or contraction of COVID-19:** Many researches have been done on this aim on how to predict or reduce the COVID-19 transmission. It was concluded from these works that the transmission of COVID-19 is accelerated through human to human just by sharing the same space, using the same materials (glass, metal, plastic etc.). This is because the agent of COVID-19 can remain active for 8 or 9 days on different types of materials. It can equally be transmitted by air (air borne). This is because air is made up of molecule of water (oxygen and hydrogen). This is the reason why the propagation of COVID-19 at room temperature (30-37°C) is too high. For this reason, in some countries like China and Italia, the number of people infected are more than those found in Africa.

During the outbreak of covid-19 in December 2019, most African countries were experiencing the dry season which could be the reason why the number of people infected are less considerably compared to those found in Europe and Asia. This suggestion is still a probability because people have to be patient and confirm it after the raining season must have come and pass. As we said previously, at room temperature, covid-19 persist at 50% and more. Some healthcare are easily infected because a contamination of frequent touch of surfaces in the healthcare settings are potential source of viral transmission of covid-19. A real rate of transmissibility from the hands has not really been found. However, it could be shown that, this virus can remain active on infected materials up to 9 days. So less than 10 seconds is sufficient enough to transfer 31% of the viral load to the hands (Bean, 1982).

**Preventions:** As humans can not totally avoid meeting others, taking preventive precautions is what we can do now. Desinfection of material (metal, plastic, glass etc...) using 0.1% sodium hypochlorites or 62-71% ethanol can be regarded as an effective measure against corona viruses within 1 min. Avoid the infected places by staying at home. That is why in many countries nowadays, many activities have been suspended. For example in Cameroon, on the 17<sup>th</sup> of March 2020, the Prime Minister after an inter-ministerial meeting instructed by the head of state gave the order to close all schools and any other activities which can contain more than 50 persons. This measure is one of the powerful strategies to prevent the covid-19 pandemic because one locality is safe and remain as long as it does not harbor an infected individual. And this strategy was not only developed in Cameroon but almost in the whole world. The world has known many viruses but the coronavirus has so far proven to be the most dangerous not only because it has been difficult getting a reliable treatment up to date but also because it is easily contracted and therefore spreads at a tremendous rate.

#### **Strategies and tips to avoid the distribution of COVID-19:**

As it is the most contagious disease in the world today, The medical personnel and researchers who are at the frontline working in order to limit the spread of this virus and working with infected individuals advice all workers in other sectors to stay home or limit their movements while they stay at work. It is important for us to know that the coronavirus cannot be transmitted through mosquito bites, masks do not guarantee protection against coronavirus, heat does not kill coronavirus. Also, drinking alcohol does not protect you from coronavirus infections. Moreover, you cannot prevent coronavirus by boosting your immunity, home medications cannot protect you from corona virus and coronavirus can affect people of all ages.

#### **Conclusion**

Contraction and prevention of covid-19 investigated in this work has shown that this virus is easily transmitted from human to human at room temperature, the rate of this transmission can be up to 50% and even more. As long as population will not respect the precautions given by WHO, we will not be safe. Respecting those precautions is not sufficient to be safe, if we cannot share it with our environment. Sharing the same space with an infected person puts our lives at risk, so the rule now is safe our lives by protecting our nearest neighbors. That is why taking different precaution methods, disinfection of our living environment and staying away from infected persons are the most recommended precautions. Don't take a risk to be infected before running for treatment because the probability to survive was neglected.

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